INTRODUCTION

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The Bank of Italy is grateful to the Faculty and Department of Statistics of the University of Bologna for helping to organize this conference and generously hosting it. Special thanks are due to the Dean of the Faculty, the Head of the Department and the staff for their interest and their efforts on behalf of the event. The papers presented here mark the completion of a research project launched two years ago. The project follows a similar endeavour culminating in a conference organized by the Bank of Italy in co-operation with the University of Ancona. In recent years the Bank has devoted increasing attention to territorial economics. It is not the aim of this conference to express institutional positions or to offer economic policy prescriptions, but rather to contribute to research and inquiry and to stimulate debate. Nevertheless, setting this research in the context of a more general reflection on the Italian economy is unavoidable and indeed essential. Given the importance of local business systems in the Italian economy, discussing local models of development inevitably means pondering the economy's ability to meet the competitive challenges posed by a fast-changing technological and market environment. Accordingly, perhaps with an even greater intensity than in the past, old issues of the debate on the strengths and weaknesses of Italy's industrial structure based on local systems of small firms are again coming to the fore. Nowadays the economy's performance prompts us to stress its weaknesses rather than its strengths. There are questions about the growth potential, or even about the very endurance, of the model based on small firms and local economic forces that for years and indeed decades has been the main engine of Italy's economic growth. In the first part of my introduction I set the project against this background, proceeding more impressionistically than systematically. I then briefly characterize the project's specific subject of research. I conclude with an overview of the results.

Italy in decline?

The idea that Italy is in economic decline has now become something of a commonplace. Here, for reasons I shall soon make clear, I accompany the words with a question mark. Yet there is no escaping the fact of the Italian economy's disappointing performance over the past decade, especially in manufacturing. A voluminous debate cannot be reviewed here, nor do I intend to retell a story already told hundreds of times. Let me just cite the three most glaring facts:

- In the last ten years Italian GDP growth has been low not only by historical standards but also in comparison with the other advanced countries, whereas in the preceding decades Italy had regularly outstripped these countries (thanks in part to a catching-up effect).
- Both labour productivity and total factor productivity have slowed down.
- Italy's share of world exports has contracted, after peaking in the late eighties or early nineties (the exact point depends on how the share is calculated).

Arguments can be put forward to qualify, but not to negate, each of these three facts. Italy's modest GDP growth, particularly relative to other countries, is partly due to the low population growth rate. Using per capita GDP, a more significant yardstick in many respects, the comparison is less unfavourable (but still not favourable). The slowdown in labour productivity, which in itself is obviously anything but positive, is partly the outcome of developments that can be seen in a positive light. Repeated changes have been made to labour market rules in the past few years, with the avowed aim of promoting higher employment, presumably by modifying the optimal proportion of factors used in production or making it more advantageous to employ even unskilled labour. The Italian economy's recent difficulties do not include an accentuation of the employment problem, which on the contrary

has eased overall notwithstanding protracted phases of weak economic activity. However, in the absence of satisfactory total factor productivity growth, this positive development can mean a slowdown in labour productivity. The point therefore remains the disappointing progress of total factor productivity, which is qualitatively indisputable despite the difficulties involved in calculating this variable. The question is important especially in the light of the technological leap that has permitted the United States and other economies to achieve rapid productivity gains. As to Italy's share of world exports, the decrease is partly the consequence of the rapid – and, in itself, beneficial – growth of some emerging economies, especially China, which is only now beginning to realize its extraordinary potential. From this standpoint, it is natural for the advanced countries to lose market shares. But the decrease has also been accompanied by a decline, albeit less pronounced, in Italy's share of the total exports of the OECD countries, to all of which the same argument applies. For a certain number of years Italy paid the price for past excesses. The need to restore the foundations of macroeconomic stability (with disinflation and the still to be completed adjustment of the public finances) dictated economic policy measures whose impact on economic activity was restrictive over a considerable span of time. But this period of underperformance has now lasted too long for it to be ascribed entirely to the cyclical effects of macroeconomic policies.

A perennial question

So the spotlight is trained again on a question that has threaded its way through the debate on the Italian economy ever since it was framed in modern terms: namely, its very particular structure. In its distribution of firms by size, its sectoral specialisation and its technological level, the structure of the Italian economy contrasts sharply with that of the economies with which it is ordinarily compared. On this score very little has changed over the years; indeed, from a relative point of view Italian industry's distinctive sectoral and size characteristics have grown even more pronounced. Investigators of local systems of small enterprises have shown that these are not necessarily technologically backward, but it remains true that the sectoral specialisation of the Italian economy, and more specifically of Italian industry, is such that the more advanced sectors are significantly under-represented. The question, then, is whether this structure causes sub-optimal resource allocation or imposes constraints on growth. Sub-optimality and constraints could be due to two main causes: the prevalence of small firms could limit the exploitation of static and dynamic technical economies of scale, while the low incidence of sectors with higher growth potential, together with the high incidence of 'traditional' sectors that are labourintensive (and thus potentially exposed to competition from the emerging countries) could limit the growth potential of the system as a whole owing to a composition effect.

Vexata quaestio if ever there was one: posed in almost the same terms for decades and with a plausible ring to it, but (at least until very recently) demonstrated to be without foundation. For decades the Italian economy grew at a higher rate than the average for the industrial countries, despite having to contend with myriad difficulties and sources of instability. To be sure, a secular process of catching up was a factor. But in the end it came to be seen that new development mechanisms were at work without which catching-up would have taken a different form, one that would have presumably involved an upward convergence of the average size of Italian firms with other countries. In these mechanisms, firms' competitiveness is largely unrelated to economies of scale and, to an extent, to pure cost and price competition. Instead, it depends essentially on external economies of specialization: technological spillovers, the rapid and informal dissemination of knowledge about products, processes and markets, the depth and qualitative characteristics of the labour market, constructive interaction with local governmental authorities; more generally, a dynamic and flexible socio-economic environment that compensates at the level of the local cluster of enterprises for the lack of economies of scale at individual firm level. The terminology and conceptualisation of these clusters have fluctuated in the

past, but by now they generally go under the Marshallian name of ‘industrial districts’. District external economies consist in a series of more or less accurately defined factors: sometimes objectively measurable, more often qualitative, multidimensional and elusive, though described and discussed with diligence, skill and passion in a rich literature. This is not the place to list these contributions or to assess their merits. I shall only point out that the prevalently qualitative and descriptive ‘district literature’ of the origins has progressively been flanked by quantitative studies aimed at subjecting the theories to the most rigorous possible empirical tests. This is not easy: econometrics cannot be applied to the intrinsically idiosyncratic factors that are almost by definition an essential component of districts (at least the oldest, most important and best-known of them). But econometric methods do work to the extent that some elements of generalization can be isolated in theory and measured in practice. The intrinsic limits of the quantitative approach to studying districts thus have not impeded the development of what is now an abundant quantitative literature on local development models and, in particular, on industrial districts (to which research conducted by the Bank of Italy has contributed). The existence of objective, empirically measurable competitive advantages arising from certain forms of clustering of small enterprises has been proved in various ways. It is corroborated by the positive long-term growth differential recorded for the most advanced of these local systems. And there is the key fact that in spite of its very unusual structure, over the long run and at aggregate level the Italian economy has produced more than satisfactory results in terms of growth and international competitiveness. But the slowdown in growth in the past decade poses a problem even for those who have helped to formulate or test these interpretations and describe or measure these mechanisms. Many years ago the unexplained dynamism of local small enterprise systems required an interpretation which economics, wedded to rigid and reductive schemata, was late to provide. In order to comprehend today’s reality we must not be over-reliant on abstract ideas and must interrogate the facts with an open mind. It is not a question of abandoning valid and fruitful insights, but of identifying the new challenges that a given model faces in a ceaselessly evolving technological and market environment. Could it be that what was not true thirty years ago is true today: that the structure of Italian industry is a constraint that must be removed? What has changed with respect to the past?

The Italian model and the technological leap

The focus of discussion remains the technological leap that has come about in the last ten or fifteen years, particularly in the field of information and communication technology. We are going through one of those moments when the frontier of technology shifts suddenly and the process of catching up by laggard countries slows down or temporarily goes into reverse. The frontier is shifting; we may reach it later, but for now we are losing ground. This is not disastrous per se; on the contrary, it is fairly normal for most countries (and enterprises) to find themselves in a situation of this kind from time to time. For that matter, the dynamic principle of the market economy, the prime mover that has made it the most potent instrument of material progress mankind has found until now, consists in an interminable chain of breakaways and catch-ups. As with a firm subjected to new competitive stimuli, what counts is that the conditions in a given economy enable it to exploit the new opportunities for growth swiftly and successfully, even if these have first arisen elsewhere. In theory, the technological revolution of the past several years, which consists essentially in drastically reducing the cost of information processing and transfer, is inherently amenable to rapid dissemination. In practice, however, in Italy’s case the advantages are accompanied by significant risks. Some of these risks may stem from the structural question, others, perhaps the most serious ones, from the institutional context. The advantages consist in the flexibility that has always distinguished the innovative firms of the most dynamic clusters, in their proven ability to quickly adopt and adapt innovations, and in the negligible importance of economies of scale for physical access to the new technologies. You don’t have to invest billions in order to be on the Internet: this fact is so familiar, so much taken for granted, that we

sometimes tend to overlook its radical economic implications. The point, however, is not what is necessary in order to access the technologies, but what is necessary in order to make profitable use of them in production and on the market. Certain characteristics of information and communication technology could create a relative disadvantage for an economy like Italy's. As far as we know, the productivity increments deriving from new technologies: (i) are not immediate; (ii) are the greater, the more the information transmitted or processed lends itself to formal codification; and (iii) exhibit marked organizational complementarities, i.e. are significant only if they are accompanied by sometimes radical changes in the formal organization of firms (generally in the direction of a reduction in decision-making layers). The facts I have enumerated can render potentially greater the productivity gains achievable by large firms, where strategic planning has greater prominence, information is more frequently codified in a formal fashion (plans, procedures, technical specifications etc.), and the organization's formal structure (hierarchical levels, reporting lines, etc.) count much more than in small firms. In this sense information and communication technologies may be seen as factors whose thrust is not so much to bestow a specific advantage on large companies as it is to enable them to attenuate some organizational diseconomies of scale they used to suffer from by comparison with small companies. In any event, in this respect the scope for productivity gains may be intrinsically more limited for small firms, despite the modest costs of accessing the new technologies. For firms in industrial districts, moreover, informal decision-making and 'tacit' (uncodified) knowledge are usually thought to be decisive elements in the organization of production; this could further limit the potential productivity gains from the adoption of the new technologies. In effect, the use of the new technologies appears to be positively correlated with size. The fact that a small firm belongs to an industrial district does not significantly alter the picture. This does not necessarily mean that the decisions of small firms are inefficient. Possibly, they invest less in this field because they do not see a sufficient advantage in investing. If this were true, however, the technological revolution would run to the relative advantage of the medium-sized and large firms that make the most use of it, notwithstanding the absence of significant economic barriers. Furthermore, microeconomic studies have found that in Italy there tend to be extra-returns connected with the capital invested in information and communication technologies. This finding is consistent with the idea that there is *also* a problem of inefficient decisions. In that case the question would be that of the existence of constraints – cultural? institutional? – that delay the adoption of profitable technologies. I shall return to this point in a moment. I want to remark in passing that the phenomenon of the adoption of innovative technologies is so dynamic right now that empirical studies are quickly outdated. It is my impression that some of these delays are destined to be recouped in a rather short time. As far as the more general context is concerned (i.e. the questions not directly connected with the sectoral and size structure of industry), it is important to note that at a time when rapid technological change requires equally rapid resource reallocation and greater incentives for the start-up of intrinsically risky innovative activities, the terms of the perennial trade-off between static guarantees and dynamic incentives, between safety and growth, may be changing. This line of reasoning applies to many old questions, such as labour market flexibility, deregulation and the privatization of services. In effect, there have been major changes in these fields in Italy in recent years and we are beginning to see results (for example, the expansion of the telecommunications sector and the employment growth I mentioned earlier). But much remains to be done. Another question may be of relevance for our topic. One of the differences between Italy and the other major advanced economies concerns human capital accumulated as formal education. The average level of schooling is lower in Italy than in the other major countries, and so are the returns to education. What is more, in the industrial districts both the level of formal education and the returns to education are below that already low average. Further, it has been demonstrated that schooling is negatively correlated with the decision to become an entrepreneur. In Italy's local enterprise systems, therefore, formal education plays at best a modest role. Up to now this educational deficit appears to have counted very little for the dynamics of

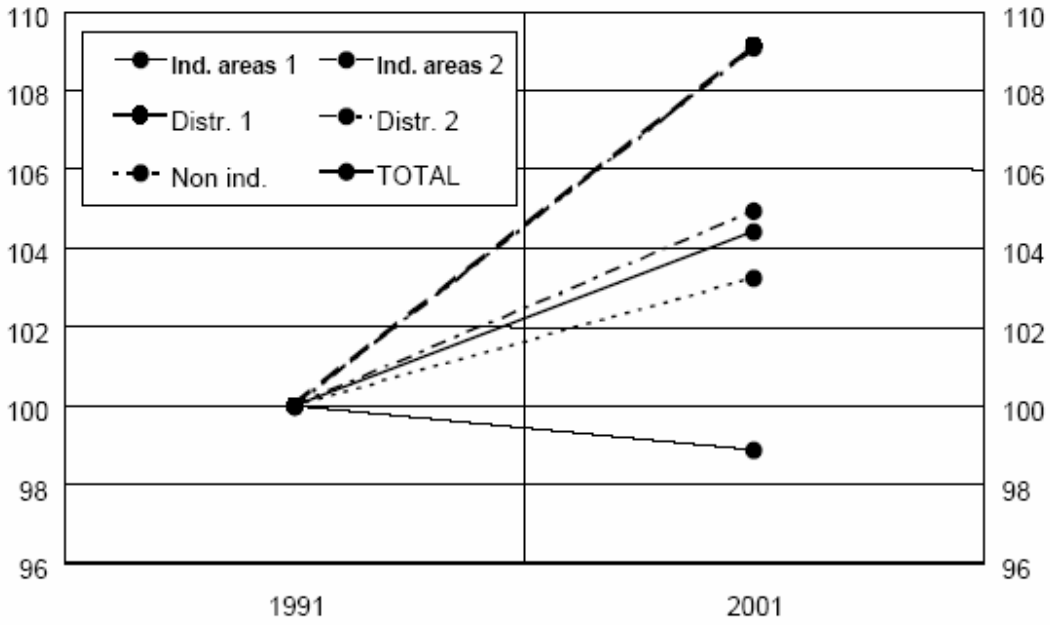
the districts, where human capital depends on tacit knowledge and the diffusion of production and marketing know-how that have little in common with the notions learnt in school. The question is whether this will continue to be equally true in the presence of a technological leap requiring skills and aptitudes closely associated with formal education. It could be that investments will not be made in information and communication technology, or will less effective, if the cultural and technical ability to use them is lacking. Can this educational deficit now have grown more important?

The disappearance of the districts?

We could easily continue to list and review the open problems of Italy's economic structure, but let us leave it at that and come back to the industrial districts. In the context described earlier, it is reasonable to ponder the competitive prospects of local systems of small enterprise. Some expect to see a substantial retrenchment of the districts if not their disappearance. Are these fears justified? Since the theoretical arguments do not point in one direction, the question is empirical and naturally does not admit simple, definite answers. The discussion must start from the most basic evidence (and will not proceed beyond it here). I will therefore present some examples of simple calculations that can help to place the discussion in the proper perspective.

Figure 1

The districts in the 1990s: total employment



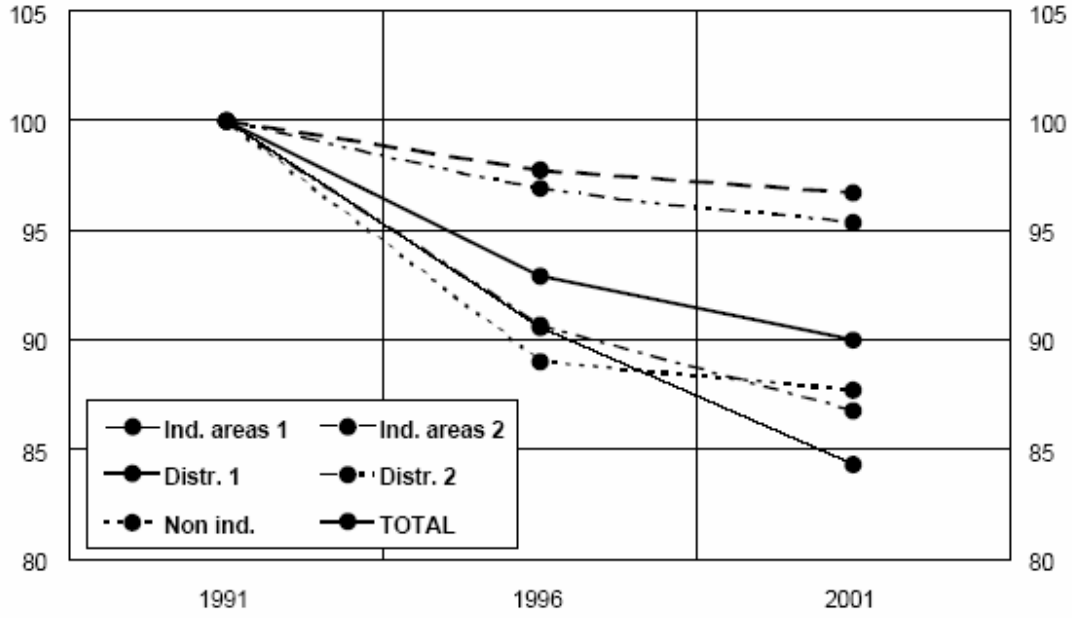
Source: Based on Istat (census) data. Indices, 1991=100.

Figure 1 shows total employment according to the 1991 and 2001 censuses, distinguishing between areas characterized by different production structures. We take a classification that builds on the Sforzi*16 Luigi Federico Signorini* Istat dichotomy (district areas/non-district areas),1 further distinguishing areas most heavily endowed with district traits (type 1 districts, or 'superdistricts'), other

districts (type 2 districts), other industrial areas and other areas. Both types of districts enjoyed appreciably higher total employment growth than the remaining areas. Figure 2 shows that they also recorded a much less acute contraction in industrial employment. Figure 3 shows a similar territorial breakdown2 of changes in value added per worker from 1995 to 2000. Again, there is no evidence that the districts performed worse than the rest of the Italian economy. The relative variation in value added per worker at current prices is determined by the Figure 2.

Figure 2

The districts in the 1990s: employment in industry

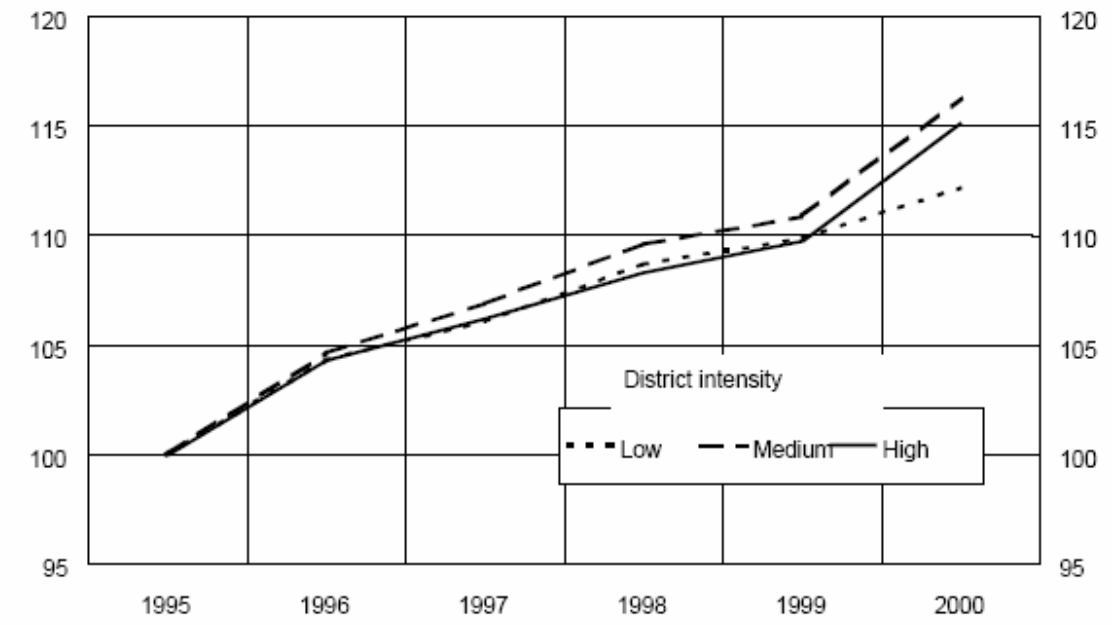


Source: Based on Istat (census) data. Indices, 1991=100.

In this case, because the breakdown of value added data is only to the province level, we have used the usual device of proxying the distinction between districts and non-districts by ranking provinces according to their 'district intensity'. This approach is taken in the papers of Beretta *et al.*, Bronzini, De Arcangelis and Ferri, Di Giacinto and Nuzzo, Farabullini and Ferri, and Federico. *Introduction 17* combined effect of labour productivity and the terms of trade. Both these effects are linked with the overall competitiveness of the clusters examined. The difficulty of constructing sound local deflators makes it impossible to examine these factors separately here.

Figure 3

The districts in the 1990s: value added per worker at current prices

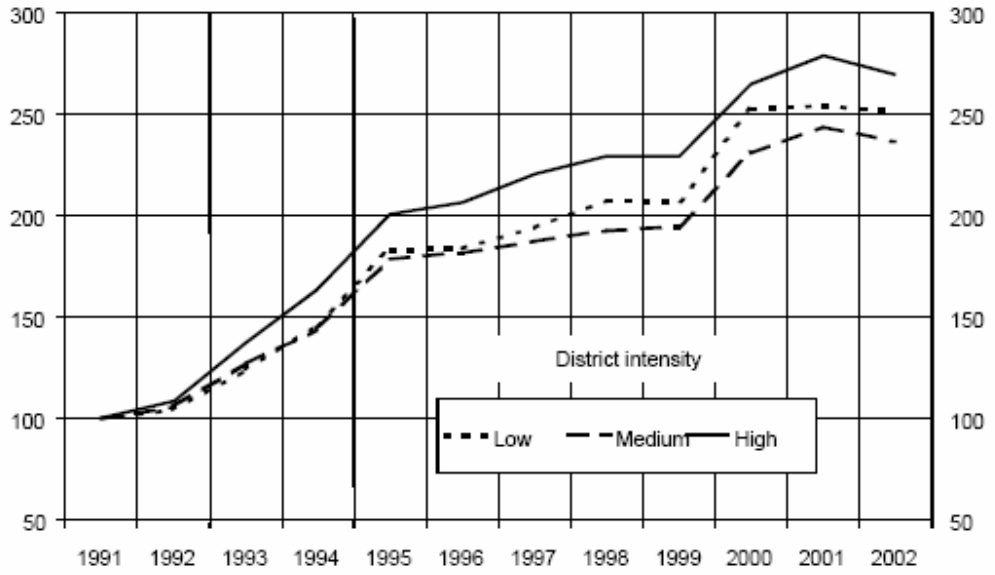


Source: Based on Istat data. Indices, 1995=100.

Figure 4 traces export growth from 1991 to 2002 according to province of origin, as in Figure 3. The results are qualitatively in line with those set out above. The performance of the 'superdistricts' is far above the average. Even narrowing the focus to medium-to-high and high-tech products (Figure 5), the results do not basically change. Recall that these are indices, and that in absolute terms the districts' exports are less technologically intensive than the Italian average. Over the years, however, their technology exports have been more dynamic, so there is some tendency to equalization. Again, these observations are particularly valid for the 'superdistricts'.

Figure 4

The districts in the 1990s: exports

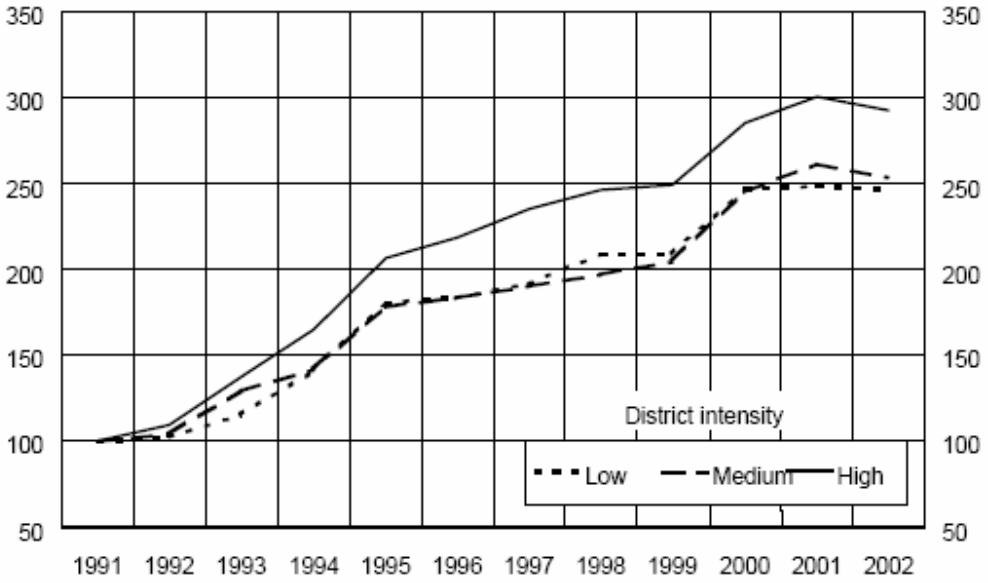


Exports of manufactures.

Source: Based on Istat data. Indices, 1991=100.

Figure 5

The districts in the 1990s: technology exports



Exports of medium-high and high-tech manufactures.

Source: Based on Istat data. Indices, 1991=100.

This descriptive information set serves simply to show that it is a hasty over-generalization to blame the Italian economic slowdown entirely on the development model of diffused, local entrepreneurship. There are a number of other well-known structural problems, some especially relevant to small businesses, but there is no evidence that the industrial districts are 'leading' Italy's industrial 'decline'. Whatever the causes, this decline is more evident outside than inside the districts. Thus it would appear to be bound up not so much with the weakness of the districts as with the more pronounced weakness of alternative modes of organizing production.

Lines of study and results

Let us return to the research project with a concise summary of the main directions our studies have taken and some of the principal findings. First, though, I would like to spend a few words on the purpose and the specific object of the project. In the course of this introduction I have repeatedly referred to Italy's industrial districts. Yet the term 'industrial district' does not actually appear in the name of the project. This is no accident. The idea is that we must observe the models of business clusters, their growth and spread, and their transformation over time, with an open mind. In terms of observation methodology, we want to use all the instruments that are potentially capable of capturing interesting features and developments. In terms of observed reality, it is evident that models change. Some of their strong points remain, others change or vanish. Local economies may expand or contract. They open up, both through territorial expansion and intensifying links with the rest of Italy and the world. Their operating mechanisms evolve. As a consequence, in our studies we retain the 'canonical' reference to the industrial district *à la* Marshall-Becattini but in part we also seek new paths.

Models of clustering

One of the main strands in the project is the methodological and empirical definition of clusters and the study of how they grow and spread. Giovanni Iuzzolino's paper offers a mapping of Italian industrial clusters according to criteria totally different from the standard Sforzi-Istat identification of industrial districts. Using Ellison-Glaeser concentration models, a special algorithm generates clusters based on the smallest possible number of arbitrary choices in the definition of territorial and product areas and reference thresholds; it then allows these minimum territorial and product units to cluster, so to speak, on their own, according to mechanisms that are not banal. The method is more flexible than the established one followed by Istat; it brings out clusters that do not emerge when the territorial grid is exogenous of the data on firms. The overall incidence of Iuzzolino's clusters is also greater than that of the Sforzi-Istat districts. This gain comes at the price, in substance, of severing the link – which traditional work on industrial districts deems essential – between businesses and the local community, whereas Istat's algorithm, albeit in highly indirect and partial fashion, seeks to capture this linkage by factoring in commuting patterns. Comparison of the two maps brings out a number of highly interesting and instructive points. Federico Cingano and Fabiano Schivardi suggest the solution to a well-known empirical paradox. The works that had sought to demonstrate the existence of a dynamic surplus of productivity in specialized systems, based on district theory or some other analytical foundation, had all failed. Typically, they attempted indirect proofs. Lacking reliable data on productivity at local level, they substituted hypotheses on employment for those on productivity trends, and the data regularly rejected them. Such substitution is possible only on certain postulates concerning local labour demand and supply. Cingano and Schivardi argue that these postulates are not realistic and demonstrate their own thesis with actual data on productivity trends. The results overturn the usual conclusions of empirical work in this field and confirm the theoretical expectations. In their papers, Marcello Pagnini and Guido Pellegrini study the mechanisms of geographical diffusion of development over the long term. Pagnini finds significant contiguity effects in the geographical distribution of growth. That is, he

brings out a strong spatial correlation in the employment trends in Italian provinces. This approach makes explicit the working of mechanisms of geographical diffusion; in this sense, the study represents a way of integrating and enriching the standard neo-classical convergence models, which propose in theory to explain geographical differences in growth but in practice abstract entirely from the actual location of regional economies in the territory. Pellegrini's study is an explicit attempt to combine a theory of geographical diffusion with the canonical models of regional convergence and divergence. He considers the dynamics of spatial autocorrelation and that of concentration together, and along both dimensions compares stylized versions of the empirical predictions of the main theoretical hypotheses: 'core-periphery' models of economic geography, neo-classical convergence, and spatial contagion. He offers an original rereading of the first two models, directly introducing a geographical dimension and treating them with the instruments of spatial econometrics. The results offer some support to the hypothesis of convergence and to that of contagion.

'Social capital'

Rivers of ink, as the saying goes, have been consumed in debating the relationship between development models based on mechanisms of cooperation between economic agents on the one hand and anthropological and social forms of interaction on the other. More precisely, this strand of analysis turns on the relationship between 'social capital' – understood as a set of institutions and codes of conduct that favour constructive social interaction – and models of diffuse entrepreneurship. Yet, strangely, the object of this enormous intellectual elaboration is at best ill-defined. Indeed it is evident that different authors use the term 'social capital' to mean different things in crucial respects. This confuses the theoretical discussion and precludes empirical testing. True, since the work of Putnam there has been an effort to use a series of partial, specific measurements of social capital under various meanings. To date, however, there has been no systematic, rigorous attempt at a satisfactorily exhaustive empirical definition. A contribution to the empirical rooting of the theory of economic effects of social capital is the second line of study undertaken with our project. Giacinto Micucci and Giorgio Nuzzo suggest a way of filling this gap while reconciling two principles: not annulling the multidimensionality implicit in the concept of social capital, its intrinsic informational wealth; but imposing upon the data a structure that enables analysis to go beyond pure narration. Micucci and Nuzzo start with an extensive body of quantitative data on behaviour and institutions presumably linked to the concepts of social capital that are used in the literature. They deploy the appropriate statistical techniques to reduce the number of dimensions of the information to a manageable level. Their statistical analysis highlights two distinct aspects of social capital, which the authors label "macro" (institutions/collective actions) and 'micro' (individual relations). These two elements, which are differently distributed over the territory, can be seen as the empirical counterpart to well-known theoretical distinctions. The paper by Nuzzo and Valter Di Giacinto is an econometric test of the linkage between various aspects of social capital and economic development, in particular district development. With all the caveats required by the idiosyncratic element inherent in the connection between a local 'culture' and the operation of the economy, they conclude that there is clear evidence for the hypothesis that extended family institutions and social norms that discourage opportunism favour district-style development. Their results provide less support for the hypothesis of a significant role for business associations and local government.

Local labour markets

The third line of inquiry turns on the existence of special characteristics of local labour markets in the districts. As we know, the operation of the labour market is described as one of the constituent elements of the peculiar 'industrial climate' of the districts. A pool of skilled workers, the rapid circulation of technical skills, horizontal mobility (between firms) and vertical mobility (from worker

to independent contractor to employer) are some of the elements said to contribute to the competitiveness of the districts. However, though amply described in the qualitative literature and case studies, to date these elements have not emerged forcefully in econometric studies of the entire economy or even of the manufacturing sector. The Bank of Italy's first research project on local economies, for example, sought to use data from the social security administration (INPS) to study the 'district effect' on payroll employment, including the impact on wages. Some significant effects largely consistent with the theory were found, but their value was modest. However, while the INPS data are universal and thus an invaluable resource, they also have some limits. For instance, they are not well suited to studying vertical mobility, and they are subject to distortion owing to irregular or semi-regular employment positions. In the present volume, Guido de Blasio and Sabrina Di Addario use the Bank of Italy's Survey of Household Income and Wealth (SHIW) to analyze some aspects of the labour market, and produce findings that are hard to reconcile with theory. Their conclusions on vertical mobility, for instance, are quite unexpected. They find no evidence of a greater probability of moving from employee to self-employed status in industrial districts. As the information comes from interviews with the persons involved or family members and is not official or administrative, the data suffer less than those of INPS from the shortcomings cited above. However, the sample is much smaller. Further, while the SHIW sample is accurately stratified, its design does not aim directly at a representative cross-section of industrial districts. The ongoing debate will have to determine how severely these limitations circumscribe the validity of the findings or, alternatively, how far the results imply the need to reconsider the general validity of some traditional hypotheses. Another paper deals with human capital accumulated by means of formal education. It is well known that formal education plays a relative small role in the district model. An established empirical result (found again in de Blasio and Di Addario) is the negative 'district effect' on the individual return to schooling. Alberto Dalmazzo and de Blasio take the question up again, but from the standpoint of collective rather than individual returns to investment. That is, they examine the externalities that the educational attainment of the population generates for average productivity. They find that this effect, which in general is not negligible, is annulled in the industrial districts. Unlike the finding on vertical mobility, this result is anything but unexpected. It shows that like individual skills, the 'diffuse skills' of the industrial districts have little to do with formal schooling. However, it may also suggest that the training requirements of the technological revolution, where they are substantial, could pose a major problem for the districts.

Internationalization

Our fourth and final area of inquiry is the internationalisation of local economies. Here again, analysis focuses on the industrial districts, which are distinguished for their dynamism in this field. It is an established fact that regardless of the limitations of small firms, industrial districts are especially efficient in export activities. More detailed inquiry into the underlying mechanisms of this export efficiency is the objective. Matteo Bugamelli and Luigi Infante consider in particular the sunk costs sustained to enter export markets. The question is crucial for small businesses, because insofar as sunk costs contain a fixed-cost component, they are a competitive disadvantage for small firms singly considered. Bugamelli and Infante find that the fixed component of sunk costs is important in general and thus works against small firms; but that within the districts the importance of this factor diminishes to the point of vanishing. This can be seen as the product of the formal and informal mechanisms whereby the costs of maintaining a presence in foreign markets are shared among all the firms in the district, thanks to shared knowledge, say, or joint action. In any event, this appears to be one of the ways in which district firms overcome the handicaps of small size. However, exports are but one element in the international openness of a local economy. Alongside the internationalization of trade, the debate today centres on the international relocation of production. The transfer of phases of production abroad may be effected either through agreements with independent manufacturers or

through direct investment. Two parallel works in this volume deal with the latter question, one on outward and one on inward direct investment, in the effort to discover any distinctive features of industrial districts. What findings we should expect from such an inquiry was not clear, a priori. In the case of inward investment, the greater efficiency of production in the districts might, theoretically, attract capital from abroad. But insofar as district economies are bound up with the local community, local identity and sense of belonging, a productive factor that cannot be exchanged on the market, it might be hard for the foreign investor to reap the benefits. As for outward investment, presumably intended mainly to cut labour costs, the question is to what extent the mechanisms of district competitiveness, essentially rooted in the local territory, can survive any very substantial outsourcing. Anecdotal evidence in this case is just as inconclusive as theory. We have some accounts of rapid opening of districts to the outside, in both directions, and others of districts whose entrepreneurial and productive fabric has remained essentially local. Econometrics confirms that industrial districts do not clearly stand out in this regard. The papers by Stefano Federico and Raffaello Bronzini on inward and outward investment respectively find no special capacity on the part of industrial districts to attract or generate international investment. In both directions, the flows are concentrated in central, non-district localities. In short, the districts have trouble opening up to this kind of internationalization. Large firms continue to play the leading role, especially in outward direct investment. To continue on the issue of the international division of labour, the question is how the districts' industrial specialisation is evolving with the changing competitive context. One of the districts' strengths has always been the capacity for efficient response to changes in demand and technology, quickly modifying their product specialization. However, this almost always took place within a given macro-specialization. The question is whether in some cases today's new competitive conditions may not require more radical changes. One mechanism posited (sometimes described in reference to specific local contexts) is a conversion from consumer goods – the districts' original specialty – to machine tools for the production of those goods. Giuseppe De Arcangelis and Giovanni Ferri systematically survey the evidence from the literature on the linkages between foreign trade and production specialisation under imperfect competition. Their preliminary findings suggest that such a reorientation is taking place but that it is still quite slow and circumscribed. The last pair of studies – the papers by Giovanni Ferri and Fabio Farabullini and by Enrico Beretta, Silvia Del Prete and Stefano Federico, and– treat the relationship between internationalization and the districts' local financial structure. The focus is on banks, especially their services in support of international business. Presumably, this role is more important in systems depending on small firms, as the individual companies are not in a position to maintain certain highly specialized and costly skills inhouse. Ferri and Farabullini seek to demonstrate a connection between the presence within a district of banks with branches in Eastern Europe and the emergence of subcontractors in those countries. Beretta, Del Prete and Federico offer a more general consideration of the international openness of the local banking system and districts' export business. Despite the unavoidable limitations of the evidence, both studies find significant indications that productive and financial internationalization are at least complementary. Implicitly, this raises the question of how the role of local banks evolves in relation to structural developments in local economies and their reference markets.

REFERENCES

Ellison, G. and Glaeser, E.L. (1997), "Geographic Concentration in U.S. Manufacturing Industries: A Dartboard Approach", *Journal of Political Economy*, Vol. 105, No. 5, pp. 889-927.

Istat (1997), *I sistemi locali del lavoro 1991*, Rome.

Putnam, R. (1993), *Making Democracy Work: Civic Tradition in Modern Italy*, Princeton, Princeton University Press.