

STATE SUBSIDIES AND THE SOURCES OF COMPANY FINANCE IN
ITALIAN INDUSTRIAL DISTRICTS, 1951-1991.

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A thesis submitted for the degree of
Doctor of Philosophy

The London School of Economics and Political Science
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Abstract

The dominant view about Italian Industrial Districts (IDs) suggests that firms within IDs finance themselves through internal sources alone. This view, based on North-eastern IDs - on which the mainstream literature concentrates - implicitly denies any potential role played by state subsidies available to small firms within the framework of national and regional industrial policies from the 1950s onwards. This thesis, focusing on a Southern ID, tests whether IDs can also emerge within the context of state intervention, and whether Southern IDs relied heavily on state funding in contrast with North-eastern IDs, which drew on public funds to a much smaller extent.

The thesis employs a two-pronged approach, analysing the issue from the perspective of both the lending institutions and the recipient firms. It discusses the development of the 'Extraordinary intervention for the South' - designed to overcome Southern backwardness - and compares it with the national industrial policies. It moves on to provide a detailed breakdown of the extent to which firms in Southern Italy benefited from subsidised loans and grants more than firms in the North-east, where far fewer firms sought subsidies.

The importance of subsidies for the recipient companies is studied using two samples of small manufacturing firms, within the Southern ID of Barletta and the North-eastern ID of San Mauro Pascoli. The analysis of the capital structure of the two samples confirms the greater reliance of Southern companies on subsidies, whereas private finance was more important for the North-eastern counterparts. However, subsidies to companies in the North-eastern ID appear to be more effective.

The thesis concludes that the received interpretative framework regarding the types of finance used by companies within IDs is severely limited, in that the role of state subsidies cannot be neglected, particularly for Southern IDs, but also for the more prosperous North-eastern IDs.

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List of abbreviations

BoI: Bank of Italy (Banca d'Italia)

CIPE: Interministerial Committee for Economic Policy (Comitato interministeriale per la politica economica)

CIPi: Interministerial Committee for Industrial Policy (Comitato interministeriale per la politica industriale)

CIS: Institution for industrial credit in Sardinia (Credito Industriale Sardo)

DICs: Departments of Industrial Credit (Sezioni di credito industriale)

IASM: Institute for the Promotion of the Development of the South

IBRD: International Bank for Reconstruction and Development

ICCS: Interministerial Committee for Credit and Savings (Comitato Interministeriale per il Credito ed il Risparmio)

IDs : Industrial districts

IMI: Istituto Mobiliare Italiano

IRI: Istituto per la Ricostruzione Industriale

Irfis: Regional institution for the financing of small and medium-sized firms in Sicily (Istituto regionale per il finanziamento alle medie e piccole imprese in Sicilia)

Isveimer: Institution for the economic development of Southern Italy (Istituto per lo sviluppo economico dell'Italia meridionale)

MCC: Central Medium-Term Credit Institution (Mediocredito Centrale)

MI: Ministry of Industry

MTC: Medium-Term Credit (Credito a medio termine)

MTCIs: Medium-Term Credit Institutions (Istituti di credito a medio termine, in other publications also called Istituti di credito speciale and abbreviated as ICS)

RMTCIs: Regional Medium-Term Credit Institutions (Mediocrediti Regionali)

INTRODUCTION

Industrial Districts

Industrial districts (henceforth IDs) are geographical concentrations of small and medium-sized firms producing similar goods, with each firm specialising in one or more stages of production (as in the textile ID of Prato in Tuscany, where a single batch of raw material often passes through five, six or more firms before emerging as a finished product).¹ This definition, among various discussed in the first chapter, has been adopted as it encapsulates two key elements of the Marshallian discussion of IDs, namely the concentration of firms in the same locality and the fragmentation of the production process among various firms. These two elements are sources of economies, such as external economies of scale and economies of specialization, enjoyed by concentrations of small firms that offset their disadvantages as compared to large firms.²

IDs have attracted the interest of academics who have seen them as a pattern of industrialization or as a model of business organization. IDs, not only in Italy but also in other Western European countries, in Japan, the US and recently in Latin America,³ have been studied from several perspectives, with the focus ranging from their production system and strategy (the flexible specialisation approach)⁴ to their economic and socio-political characteristics.⁵ One of the reasons for this interest in

¹ M.J. Enright, 'Organization and Coordination in Geographically Concentrated Industries', in: N.R. Lamoreaux and D.M.G. Raff (eds), *Coordination and Information. Historical Perspectives on the Organization of Enterprise* (Chicago, 1995), pp. 123-124.

² For Marshall's writings on economies arising from the concentration of small firms see his *Principles of Economics* (1890, Ninth Variorum ed. 1961), vol. 1, p. 271; and also *The Early Writings of Alfred Marshall, 1867-1890*, edited by J.K. Whitaker (1975), vol. 2, pp. 197-198; for the fragmentation of the production process among small firms see *Early Writings*, vol. 2, p. 196.

³ Among recent works concerning IDs in various countries see K. Odaka and M. Sawai (eds), *Small Firms, Large Concerns: the Development of Small Business in Comparative Perspective* (New York, 1999); A. Giunta, A. Lagendijk and A. Pike (eds), *Restructuring Industry and Territory: the Experience of Europe's Regions* (2000); R. Rabellotti and H. Schmitz, 'The Internal Heterogeneity of Industrial Districts in Italy, Brazil and Mexico', *Regional Studies*, 33/2 (1999), pp. 97-108.

⁴ The milestones of this approach are M.J. Piore and C.F. Sabel, *The Second Industrial Divide: Possibilities for Prosperity* (New York, 1984), passim and especially pp. 213-216, 226-229; P.Q. Hirst and J. Zeitlin, *Reversing Industrial Decline: Industrial Structure and Policy in Britain and Her Competitors* (Oxford, 1989), pp. 22-28, 205-211.

⁵ F. Pyke, G. Becattini and W. Sengerberger (eds), *Industrial Districts and Inter-firm Co-operation in Italy* (Geneva, 1990); W. Sengerberger, G. W. Loveman and M. J. Piore (eds), *The Re-emergence of*

IDs is the observed striking contrast between the declining manufacturing sector, in the 1970s and 1980s, in countries like the United Kingdom and the United States and the success in manufacturing of countries such as former West Germany, Italy and Japan.⁶ This contrast focused international attention on the economic performance of regions such as Emilia Romagna in North-Eastern Italy, Baden-Wuttemberg in Germany, West Jutland in Denmark, characterized by the presence of IDs.⁷

Italian interest in IDs and the economy of the regions where these are located became particularly widespread in the 1980s. By this time, the economic importance of IDs for the Italian economy was clear, especially in contrast with the crisis of large firms, both privately and state-owned, and the limited achievements of the regional policy for Southern Italy.⁸ Attention was drawn to the importance of IDs in the post-war Italian economy, as these areas provide a major source of Italian export revenues in the textile, clothing, footwear and leather goods industries.⁹ Notable IDs are Sassuolo, a small town between Bologna and Reggio Emilia (Emilia Romagna), where roughly 35% of the world's ceramic tiles is produced; Montebelluna in the Dolomites, which supplies approximately 50% of the world's ski boots; Prato and Biella, where production accounts for approximately 80% of Italy's woollen textiles output,¹⁰ and Como, which contains virtually the whole of Italy's silk industry, and accounts for one tenth of Italy's clothing sector.¹¹

Another source of interest in this pattern of business organization concerns the rapid growth of regions like Emilia Romagna and Veneto, at the core of the so-called Third Italy or NEC (North-East and Centre). This area is said to have industrialized through the emergence and development of IDs. Although less developed than the so-called

Small Enterprises (Geneva, 1990); M. Granovetter, 'Economic Action and Social Structure: the Problem of Embeddedness', *American Journal of Sociology*, 91 (1985), pp. 481-510.

⁶ Hirst and Zeitlin, *Reversing*, pp. 1-16.

⁷ F. Pyke and W. Sengenberger (eds), *Industrial Districts and Local Economic Regeneration* (Geneva, 1992).

⁸ M. Bellandi and G. Dei Ottati, 'Per una <<rilettura territoriale delle trasformazioni dell'economia italiana>>: cronaca di un progetto', in: G. Becattini, M. Bellandi, G. Dei Ottati and F. Sforzi (eds), *Il caleidoscopio dello sviluppo locale. Trasformazioni economiche nell'Italia contemporanea* (Turin, 2001), p. 29.

⁹ P. Guerrieri and C. Milana, *L'Italia e il commercio mondiale* (Bologna, 1990), pp. 102-110.

¹⁰ Enright, 'Organization', p. 104.

‘Industrial Triangle’ in the immediate post-war period, Emilia Romagna and Veneto have now reached the degree of development of Piedmont and Lombardy, the regions at the core of the Triangle.¹²

The working hypothesis – the sources of finance of IDs

The literature dealing with the emergence of IDs since the post-war period concentrates on the Third Italy - the classical area of IDs. It stresses the private origin of the initial capital invested in entrepreneurial activity there.¹³ It considers self-financing to be crucial not only in the initial stage but also in later stages of the trading life of small and medium-sized companies.¹⁴ However, the sources of finance utilised by firms within IDs have never been investigated and this neglect has allowed the long-held assumption that such firms relied entirely on self-financing to pass unchallenged.

There are historical and methodological reasons to question this assumption. It denies *a priori* any potential role played by state subsidies to small and medium-sized firms and the financial institutions entrusted to manage them. As will be shown in this thesis, state subsidies had been available within the framework of the regional and national industrial policy since the early 1950s. In addition, the established approach does not take into account the role of financial institutions in stimulating the industrialization of countries and regions, the importance of which features prominently in economic history.¹⁵

¹¹ A. Bull and P. Corner, *From Peasant to Entrepreneur* (Oxford, 1993), p. 135.

¹² A. Rinaldi, *Distretti ma non solo. L'industrializzazione della provincia di Modena (1945-1995)* (Milan, 2000), p. 32.

¹³ The possession of land is considered of particular importance in the transformation of the agricultural family into an entrepreneurial unit as the sale of the land provides the initial capital to invest in the family business. See for instance M. Paci, *La Struttura Sociale Italiana* (Bologna, 1982), p. 118; Bull and Corner, *From Peasant*, pp. 144-145.

¹⁴ A. Saba, *Il Modello Italiano* (Milan, 1995), p.132; in other studies the argument of the importance of self financing is implicit, see for instance G. Fuà and C. Zacchia (eds), *Industrializzazione senza fratture* (Bologna, 1983); A. Bagnasco, *Tre Italie. La problematica territoriale dello sviluppo italiano* (Bologna, 1977).

¹⁵ B. Greenwald and J.E. Stiglitz, ‘Information, Finance and Markets: The Architecture of Allocative Mechanisms’, in: V. Zamagni (ed.), *Finance and the Enterprise* (1992), p. 11; A. Gerschenkron, *Economic Backwardness in Historical Perspective* (Cambridge, Mass., 1962); R.W. Goldsmith,

This thesis sets forth to challenge the assumption concerning the use of self-financing alone, by evaluating the significance of the various sources of finance for the growth of small and medium-sized firms within IDs. In particular, it tests the hypothesis that IDs can develop against the background of state subsidies as well as private finance, and self-financing in particular, and that IDs developed in the South mainly through state subsidies and in the North-East through private finance.

Testing this hypothesis is important for various reasons. Despite the considerable attention given to the development and features of IDs, only one study so far has touched upon the issue of the sources of company finance.¹⁶ However, while this thesis and the Conti and Ferri study both start by questioning the implicit assumption of the 'exhaustive role of self-financing',¹⁷ Conti and Ferri are concerned solely with the role of local banks within IDs. Therefore, by investigating the importance of state subsidies as a source of company finance, this thesis helps fill a large void in the understanding of IDs.

The analysis and its potential contributions

This thesis employs a two-pronged approach, analysing the availability of state subsidies and market medium-term credit from the institutional perspective and from the perspective of recipient firms. The first perspective includes the study of the financial system specifically designed for small and medium-sized firms. This includes the so-called 'Extraordinary Intervention for the South', managed by the Cassa per il Mezzogiorno (hereafter Cassa), and the various schemes forming part of the national industrial policies. The study analyses the regional distribution of grants and subsidised and market medium-term credit. It also attempts to clarify whether the geographical distribution of subsidies was due to applications for subsidies from

Financial Structure and Development (New Haven, 1969); T.M. Rybczynski, 'Business Finance in the EEC, USA and Japan', *Three Banks Review*, 103 (1974), pp. 58-72.

¹⁶ G. Conti and G. Ferri, 'Banche locali e sviluppo economico decentrato' in F. Barca (ed.), *Storia del capitalismo italiano dal dopoguerra ad oggi* (Rome, 1997), pp. 429-465.

¹⁷ *Ibid.*, p. 429.

firms or to the availability of subsidies from the state, an issue that does not seem to have been explored.

This part of the analysis relies on published and unpublished sources. The regional distribution of subsidised and market credit is based on statistics published by the Bank of Italy (hereafter BoI). Information on Cassa subsidies, including their geographical distribution, and amounts requested and awarded has been provided by a Ministry of Industry (hereafter MI) dataset. A second MI dataset offers the same information for selected national subsidised credit schemes. These sources have their limits for the purposes of this thesis, in that they allow the focusing on small and medium-sized firms only to a very small extent. Generally, they offer little detail on the size of companies applying for or receiving subsidies. Nevertheless, an analysis of the BoI dataset helps clarify whether and when a diversion of subsidies from the South to the North-West took place, which is a much debated point in the specialist literature.¹⁸ The MI datasets allowed an assessment of whether the distribution of soft loans and grants was dictated by the availability of or requests for such subsidies. The MI dataset for the Cassa allowed a similar analysis for the South, together with information on the distribution of subsidies among regions within the South.

The second part of the thesis focuses primarily on a Southern ID, Barletta (in Bari province), which is then compared to the North-Eastern ID of San Mauro Pascoli (henceforth SMP, in Forlì province). For each ID, a sample of public companies (limited liability and public share companies – the only ones legally obliged to deposit their balance sheets at the local Chamber of Commerce) has been collected. These two IDs represent the case studies on which the analysis of the recipient perspective is based. Company balance sheets, collected at the Chambers of Commerce in Bari and Forlì, allowed the study of their capital structure, to assess the relative importance of state subsidies - grants, soft loans and fiscal subsidies - as compared to market and internally generated finance.

¹⁸ A. Del Monte and A. Giannola, *Istituzioni economiche e Mezzogiorno. Analisi delle politiche di sviluppo* (Rome, 1997), pp. 271-275; S. Pergolesi, *Il credito agevolato alle imprese industriali. Le incentivazioni gestite dal Ministero dell'Industria, 1962-1984* (Milan, 1988), p. 116.

Using the same samples, the effectiveness of subsidies has also been examined by applying a method recently developed by Bagella and Caggese. This analyzes the performance of recipient companies in the pre-subsidy stage, when they are subsidised and in the post-subsidy stage.¹⁹ Moreover, for those companies in the sample offering continuous records, it has been possible to perform a panel data analysis, testing the effectiveness of state subsidies and other sources of company finance in stimulating investment. The thesis also addresses the question whether subsidies have been 'crucial' for recipient companies or whether their invested capital would have been profitable even in the absence of subsidies. This point is investigated from an *ex-post* perspective, by comparing the return on invested capital with subsidised and ordinary interest rates.

The samples consist of 33 companies for the Southern ID and 21 for the North-Eastern ID. The coverage is not equal for the whole period analysed in this thesis, as not all companies were trading as public companies throughout the period. The Southern sample is well covered for the 1970s, and both samples are well covered for the 1980s, but there are fewer records for the 1950s and 1960s. The problem of data limitation is unavoidable. As Padoa Schioppa Kostoris noted, 'no Italian economic-policy document fails to assert the public sector's involvement in efforts to overcome the country's so-called economic dualism, and yet the first thing to strike the researcher is the lack of sufficient empirical evidence to judge the extent to which this concern is translated into observable facts'.²⁰

Whatever the limitations of the balance sheet dataset, the analysis is highly worthwhile. It throws new light on the effectiveness and failures of state subsidies to recipient companies, by applying the methodology formulated by Bagella and Caggese. This methodology could not have been applied before as it requires a time series of company data, something which the two samples collected for this thesis provide. Moreover, the company dataset makes it possible to focus on small and

¹⁹ M. Bagella and A. Caggese, 'Struttura del capitale, finanziamenti agevolati e redditività delle imprese manifatturiere italiane', *Rassegna Economica*, 59 (1995), pp. 813-837.

medium-sized firms from the recipient perspective, something which the datasets provided by the institutions (BoI, Cassa and the MI) allow only to a partial extent.

The case studies used in the thesis contribute to a wider understanding of the general pattern of IDs, based not only on the well-studied North-Eastern IDs, but also on the much less known IDs in the South. The comparison points out not only differences in the importance of the various sources of finance for firms within the two IDs, but also differences and similarities in such issues as profitability and capital intensity.

This thesis contributes also to the historiography of the national and regional policies in Italy. The comparative analysis of a Southern and a North-Eastern example places the development of IDs within the wider context of the North-South economic divide. In particular, by comparing the role of state subsidies for small and medium-sized firms in the Barletta and SMP IDs, this thesis addresses controversial issues in regional policy, such as its effectiveness in promoting small-scale industrialization in the South, a problem regarded as requiring further research.²¹ This specific issue is not addressed in isolation, but within the comparison of the effectiveness of subsidies in the North-East. Although this comparison has been the subject of some recent studies,²² it has not been approached from an historical perspective. This thesis offers some historical perspective by pointing out the effects of subsidies on recipient companies at different stages of their trading lives.

A further contribution of the thesis to this historiography stems from its long-term approach and the detailed investigation it required. This meant expanding the analysis of issues covered in other works either for shorter periods of time or at a more aggregate level. Such issues include the regional distribution of soft loans and

²⁰ F. Padoa Schioppa Kostoris, *Italy, the Sheltered Economy: Structural Problems in the Italian Economy* (Oxford, 1993), p. 75.

²¹ J. Cohen and G. Federico, *The Growth of the Italian Economy 1820-1960* (Cambridge, 2001), p. 103.

²² Bagella and Caggese, 'Struttura'; M. Bagella, L. Becchetti and A. Caggese, 'Financial constraints on investments: evidence from direct revelation of Italian firms', *Rivista di Politica Economica*, 86/11-12 (1996), pp. 35-62.

grants;²³ the overview of the main policies and areas of Cassa intervention;²⁴ and the breakdown of the Cassa expenditure into grants and contributions on subsidised interest loans.²⁵

Structure of the thesis

This thesis is divided into seven chapters. The first discusses the literature on IDs and puts forward the hypothesis of the thesis. The second reviews the historical debate on the effectiveness of regional policies. It examines the arguments in favour and against, and reviews the literature dealing with the effectiveness of regional policy in Britain and in Italy. While the studies on the British regional policy have been reviewed with particular attention to their methodology, the literature on the Italian regional policy has been reviewed paying attention both to methodology and to the debate on its effectiveness. Chapter III examines the system of subsidies to small and medium-sized firms within the framework of the regional policy and compares it to soft loan schemes available through the national industrial policy. Moreover, using Cassa balance sheets, the relative weight of financial subsidies to industrial firms has been assessed. Chapter IV compares subsidised interest rates under the various national and regional schemes with market credit. In this context, it also analyses regional differentials in market interest rates. The geographical distribution of subsidised and market medium-term credit and grants is then analysed. As stated above, these records do not allow the separation of subsidies to small and medium-sized firms from those to large firms, apart from a few years when the statistics of the BoI provide detail on each of the major schemes, one of which was a soft loan scheme for small and medium-sized firms. The chapter includes also an analysis of the extent to which institutions were able to respond to the applications for subsidised loans coming from the various regions.

²³ For the regional distribution of soft loans from 1964 to 1984 see Pergolesi, *Credito*, pp. 144-148. For data on government contributions on soft loans and grants to the South as compared to the Centre-North from 1974 to 1990, see Del Monte and Giannola, *Istituzioni*, pp. 304-305.

²⁴ Several works covering these issues for specific periods will be reviewed in Chapter III.

²⁵ This issue has been covered from 1950 to 1993 in R. Vaccaro, *Unità Politica e Dualismo Economico in Italia (1861-1993)* (Padova, 1995), p. 283; however, her data are expressed as percentages only, so they do not give an idea of the magnitude of the Cassa policy, do not specify the

Chapter V opens the section of the thesis devoted to the analysis of the recipient perspective. It introduces the two case studies of this thesis, the Barletta and the SMP IDs. It identifies their geographical extent and analyses their evolution using labour force data, available in the decennial censuses from 1951 to 1991. Chapters VI and VII are the core chapters of the micro-analysis. In Chapter VI, the two company samples are introduced and the chapter focuses on the analysis of the firms' capital structure. This aims to assess the relative importance of state subsidies as compared to market finance and internally generated funds, thus testing the assumption of the exhaustive role of self-financing within IDs. Chapter VII addresses the issue of the effectiveness of subsidies for the development of firms in the two samples, and analyses the effect of subsidies on firms' investment activity and their overall performance. The thesis ends with the conclusion, which returns to the main hypothesis of the thesis - the undeniable importance of state subsidies for IDs in the South and the use of such subsidies even in the prosperous North-East.

The focus on the key issue identified above inevitably means that no attempt has been made to address all others surrounding regional and national industrial policies such as the costs of the policies and the sectoral distribution of subsidies.²⁶ The analysis of the company samples has not been expanded to include factors other than subsidies that might have influenced their performance, such as different abilities of the management and the company's ability to export and innovate its products.²⁷ These issues have not been developed either because they would fall beyond the scope of the thesis or because they could not have been done justice within the thesis.

Cassa expenditure for contributions on soft loans, and the periodization does not suit the purposes of this thesis.

²⁶ The sectoral distribution of subsidies in the regions of the Cassa interventions has been examined by other works. For the 1959 to 1990 period, see Del Monte and Giannola, *Istituzioni*, pp. 277- 283, for the years between 1959 and 1987 see F. Moro, 'Gli investimenti industriali agevolati dalle leggi di intervento straordinario', *Rivista Economica del Mezzogiorno*, 3/1 (1989), pp. 164-165; as for the distribution of grants by regions and industrial sectors from 1959 to 1979, see E. Malfatti, 'La distribuzione territoriale delle iniziative industriali beneficiarie di contributi in conto capitale, nel ventennio d'applicazione dell'incentivo (1959-1979)', *Informazioni Svimez*, Nuova Serie, 34/1-2 (1981), pp. 18-21.

²⁷ The importance placed by the flexible specialization approach on the process of innovation within IDs will be shown in chapter I. As for the importance of exports see F. Pyke and W. Sengenberger, 'Introduction', in: F. Cossentino, F. Pyke and W. Sengenberger (eds), *Local and Regional Response to Global Pressure: the Case of Italy and Its Industrial Districts* (Geneva, 1996), p. 5.

CHAPTER I

Italian IDs and their sources of finance - a review of the literature

Introduction

This chapter introduces the hypothesis tested in the thesis, namely that IDs can develop against the background of state intervention as well as through private sources of finance. The literature on Italian IDs places heavy emphasis on private sources of finance in explaining the development of small and medium-sized firms within IDs, although no specific analysis or evidence is provided. This assumption about the sources of company finance within IDs contrasts sharply with the broader understanding of the importance of the financial structure in the industrial development of regions and countries.

The first section presents the concept of industrial districts and gives an overview of the distinctive features of this model of business organization. The second section deals with the historical development of IDs in the North, North-east and South of Italy, from the 1950s. The third section contrasts the received understanding of the sources of company finance within Italian IDs with key works in economic history concerning the role of financial structure in the industrialization of various European countries.

1.1 IDs: concept and main features.

1.1.1 The economics and economic history legacy in the literature on IDs.

The term 'industrial district' was coined by Alfred Marshall in his *Principles of Economics* in 1890, to indicate a 'concentration of specific industries in particular localities'.¹ Marshall observed the development of industrial districts in Sheffield and Lancashire in northern England. He explained their localisation in terms of either

¹ Marshall, *Principles*, vol. 1, p. 266.

historical or physical factors, such as the presence of foreign craftsmen invited by rulers in the 11th century in Lancashire, or the availability of raw materials and cheap fuel, as for instance in the case of metal industry in England and Scotland.²

The concept of the ID is expounded in the broader context of the factors of production: 'land, labour, capital and organization'. Organization is studied in two forms: the division of labour and business management. The chapter dealing with IDs falls under the heading of 'division of labour' and aims to examine those external economies arising from the 'concentration of many small businesses of a similar character in particular localities'.³ In fact, Marshall previously distinguished between external and internal economies of scale. External economies were those derived from the general development of the industry, while internal were those dependent on the resources of the individual firms engaged in it.⁴

Two other concepts introduced by Marshall are worthy of mention: 'differentiation' and 'integration'.⁵ Differentiation is 'the increased subdivision of functions and it manifests itself in forms as the division of labour, and the development of specialised skill, knowledge and machinery'. Integration is a 'growing intimacy and firmness of the connections between the separate parts of the industrial organism (which) shows itself in such forms as the increase of security of commercial credit, and of the means and habits of communication by sea and by road, by railway and telegraph, by post and printing press'.

Marshall focuses on those external economies arising from the 'localisation of industries',⁶ enjoyed by firms due to the development of subsidiary industries in the neighbourhood and the concentration of a specialized labour force. Subsidiary industries are likely to thrive in the neighbourhood of the district, supplying firms with raw materials, equipment and services. Although individual capital employed in the

² *Ibid.*, vol. 1, pp. 268-269, and p. 269, fn. 1.

³ *Ibid.*, vol. 1, p. 266. It seems worthwhile to mention the location of the chapter on IDs because it is a clear symptom of his approach to the topic.

⁴ *Ibid.*, vol. 1, p. 266.

⁵ *Ibid.*, vol. 1, p. 241.

district may be small, subsidiary industries can enjoy a large market for their products/services, which enables subsidiary industries to use profitably highly specialized and expensive machinery. The concentration of workers involved in the same activity allows them to develop each other's skills and transmit these to the younger generations, thus creating 'hereditary skills'. Moreover, the concentration of skills creates 'a constant market for special skills' as either employers will resort to those areas where they are likely to find the skills they require, or else workers will move to those areas where they will find demand for their skills. The concentration of employers and employees involved in the same industry brings about a rapid diffusion of innovations in any field, from machinery to business organization, as ideas are readily discussed and developed.⁷

The external economies pointed out by Marshall or 'economies of localization' are generated by the proximity of various firms in the same industry. A different type of external economies - 'economies of urbanization', pointed out by Jacobs - arise from the build-up of knowledge through communications among local firms in various industries.⁸ Firms within IDs can reap benefits from both types of external economies as shown by the study of the cotton industry in Lancashire in the first half of the XXth century. Firms specialized in spinning and weaving enjoyed Marshallian external economies, whereas external economies of urbanization were generated through the presence in Lancashire of numerous small textile engineering firms and linkages with the West Yorkshire woollen industry.⁹

Although Marshall introduces IDs that expound the external economies enjoyed by small firms located in the same area, these economies outlined in *The Principles of Economics* are beneficial to both small and large firms. In fact, here the broader context is economies of localisation, which are achievable both where labour division takes place in one large factory, or when it is divided among several small firms.

⁶ *Ibid.*, vol. 1, p. 266.

⁷ *Ibid.*, vol. 1, p. 271.

⁸ J. Jacobs, *The Economy of Cities* (1970), pp. 49-84.

⁹ S. Broadberry and A. Marrison, 'External Economies of Scale in the Lancashire cotton industry, 1900-1950', *Economic History Review*, 55 (2002), pp. 51-77.

Elsewhere in his writing, Marshall focuses upon the gains for large firms. Thus, in *Early Writings* and *Industry and Trade*, Marshall focused on the comparison of economies enjoyed by large firms, and by a concentration of small firms involved in the same production process. From the comparison, it emerges that larger firms have superior advantages regarding the sale of their product, but the concentration of small specialized businesses will attract investment in subsidiary industry, providing special tools and machinery, and distributing materials and finished products.¹⁰

If subsidiary industries eliminate diseconomies, economies are linked to the particular market for the products that these small firms produce. There are some goods (specialities) for which marketing is difficult and ‘although the production itself might be economically increased very fast, sale could not’.¹¹ Various items appeal to specific tastes, which may limit sales even if production of the items could be increased. The reason behind the limited sales could be directly related to individual requirements and idiosyncrasies. Goods may have merits that are not easily appreciated, and must be slowly introduced to the market in order to increase the sales potential. In addition, there are markets where the quality of the product is more important to the consumer than the price.

Another factor conferring advantage to the ‘aggregation into one district of many establishments of a moderate size as by the erection of a few huge factories’,¹² is the possibility of dividing the production process among small firms. As Marshall states, with ‘many classes of commodities it is possible to divide the process of production into several stages, each of which can be performed with the maximum of economy in a small establishment’.¹³ Here Marshall is clearly pointing out the ‘economies of specialization’ enjoyed by the aggregation of small firms, a concept to which the author returned in his *Industry and Trade*, saying that the parcelling of the production process among firms enables them to specialize in a small range of work and perform it with

¹⁰ Marshall, *Early Writings*, vol. 2, p. 197.

¹¹ Marshall, *Principles*, vol. 1, p. 287.

¹² Marshall, *Early Writings*, vol. 2, p. 196.

¹³ *Ibid.*, vol. 2, p. 196.

little interruption.¹⁴ Therefore, Marshall is not talking about a generic cluster of small firms but a cluster of small firms, each of which carries on a particular stage of the production process. Moreover, such firms can enjoy the economies of the division of labour if the market for their products and the technology used in the process have a low minimum efficient scale.¹⁵

Marshall's analysis of the ID interprets the division of labour essentially as a matter of production costs, an interpretation fully consonant with the Smithian tradition from which Stigler derived his hypothesis that 'vertical disintegration is the typical development in growing industries, vertical integration in declining industries'.¹⁶

However, in 1937 Coase offered a new interpretation of the division of labour across various firms, according to which the firm is an entity which has its *raison d'être* in the ability to minimise production costs and transaction costs.¹⁷ In 1960, the same author concluded that the neo-classical paradigm according to which the division of labour becomes more specific as the size of the market expands lies in the unrealistic assumption that market transactions are costless. In the presence of positive transaction costs, the allocation of resources is affected by the structures of property rights.¹⁸ Organization is justified by the costliness of using the price mechanism for transactions. Thus an organization and an entrepreneur directing the resources economise market costs – 'a firm will tend to expand until the costs of organising an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organising in another firm'.¹⁹

¹⁴ A. Marshall, *Industry and Trade. A Study of Industrial Technique and Business Organization; and Their Influences on the Conditions of Various Classes and Nations* (4th ed., 1923), p. 601; see also Broadberry and Marrison, 'External Economies', p. 53.

¹⁵ C.F. Pratten, *The Competitiveness of Small Firms* (Cambridge, 1991), pp. 27-34.

¹⁶ G. Stigler, 'The Division of Labour Is Limited by the Extent of the Market', *The Journal of Political Economy*, 59/3 (1951), p. 189.

¹⁷ R.H. Coase, 'The Nature of the Firm', *Economica*, New Series, 4 (1937), pp. 386-405.

¹⁸ R. H. Coase, 'The Problem of Social Cost', *The Journal of Law and Economics*, 3/2 (1960), pp. 15-16; D.C. North, *Institutions, Institutional Change and Economic Performance* (Cambridge, 1990), pp. 27-28.

The transaction costs approach is normally applied to explain the emergence of the large business organization.²⁰ Langlois and Robertson, however, apply transaction costs in order to explain different kinds of organization, since ‘changes in division of labour [between firms, or differentiation] are rooted in changes in transaction costs’.²¹ Referring to the Marshallian concept of integration, Langlois and Robertson distinguish between ‘ownership integration’ and ‘co-ordination integration’.²² They regard Marshallian IDs as possessing the lowest level of ownership integration and the lowest level of co-ordination integration, because of the small size of the firms they contain, with each firm focusing on a single function in the production chain, and because of their heavy reliance on market mechanisms for exchange, due to minimal transaction costs.²³

The viability of the market interface is due to the widespread capabilities that allow ‘rapid exchanges of commercial and technical information through informal channels’.²⁴ Since in Marshall's analysis the widespread knowledge is a consequence of the concentration of specialised firms in the same locality, it seems correct to conclude that ‘the major advantages of the Marshallian ID arise from simple propinquity of firms’.²⁵ These Marshallian firms, it must be remembered, are firms involved in the same production process or the same industry.

The consequence of low transaction costs is the prevalence of the decision to buy rather than produce. Since the aim is ‘to economize on the sum of production and transaction costs’, ‘to the degree that transaction costs are negligible, buying rather than making will normally be the most cost-effective means of procurement’; in

¹⁹ Coase, ‘Nature’, p. 395.

²⁰ O.E. Williamson, *Market and Hierarchies. Analysis and Antitrust Implications* (New York, 1975), p. 253.

²¹ R.N. Langlois and P.L. Robertson, *Firms, Markets and Economic Change. A Dynamic Theory of Business Institutions* (1995), p. 19.

²² *Ibid.*, p. 125.

²³ *Ibid.*, p. 124.

²⁴ *Ibid.*, p. 125.

²⁵ *Ibid.*, p. 125.

other words when production costs are great and transaction costs are small, supply arrangements clearly have more attraction.²⁶

The concept of the ID has been made familiar in the Italian literature by Becattini.²⁷ In the Becattini definition of IDs, much emphasis is placed on cultural and social features. Thus, IDs are defined as socio-territorial entities in which the community of people and firms tend to merge in a historically delimited area. The local community is characterized by an homogeneous system of values, constituting a condition for the development and reproduction of IDs.²⁸ Becattini claims that what holds firms together in a Marshallian ID and diminishes the production costs of the products is a 'complex and tangled web of external economies and diseconomies, of joint and associated costs, of historical and cultural vestiges, which envelops both inter-firm and interpersonal relationships'.²⁹

In Harrison's view, the historical and cultural vestiges invite us to refer to a body of theory different from the neo-classical and the new-institutionalist, for industrial districts are not explicable through agglomeration economies and internalization of transaction costs within the region.³⁰ From the Marshallian common services to the Italian co-operative association, Harrison sees the unfolding of social cohesion and mutual trust. Associational activities, including financing, technical assistance, training, and marketing are seen as sources of external economies but ones originated by a co-operative movement. The appropriate approach to interpret this industrial pattern is thus Granovetter's concept of 'embeddedness'.³¹ Harrison identifies in this last approach the intellectual stream that has fed the writing on industrial districts. The

²⁶ O. E. Williamson, 'Transaction-Cost Economics: the Governance of Contractual Relations', *The Journal of Law and Economics*, 22 (1979), p. 245.

²⁷ G. Becattini, 'Sectors and/or Districts: Some Remarks on the Conceptual Foundations of Industrial Economics', in: E. Goodman, J. Bamford and P. Saynor (eds), *Small Firms and Industrial Districts in Italy* (London and New York, 1989), pp. 123-152.

²⁸ G. Becattini, 'The Marshallian industrial district as a socio-economic notion', in: F. Pyke, G. Becattini and W. Sengenberger (eds), *Industrial Districts and Inter-firm Co-operation in Italy* (Geneva, 1990), pp. 38-39.

²⁹ Becattini, 'Sectors', p. 132.

³⁰ B. Harrison, 'Industrial Districts: Old Wine in New Bottles?', *Regional Studies*, 26 (1992), pp. 469-483.

³¹ Granovetter, 'Economic Action', pp. 481-510.

embeddedness approach claims that ‘the behaviour and institutions are so constrained by ongoing social relations that to construe them as independent is a grievous misunderstanding’.³² Order and disorder, honesty and malfeasance have more to do with structures such as personal relations and the network of relations between and within firms, than with organizational form.

Thus, we know from the transaction costs theory that ‘transactions that are uncertain in outcome, recur frequently, and require substantial transaction-specific investment are more likely to take place within hierarchically organized firms, and those that are straightforward, non-repetitive and require no transaction specific investment will more likely take place between firms, that is, across the market interface’.³³ In contrast to this, according to the embeddedness approach, we should expect pressures toward vertical integration in a market where transacting firms lack a network of personal relations that connects them or where such a network eventuates in conflict, disorder, opportunism, or malfeasance. On the other hand, where a stable network of relations mediates complex transactions and generates standards of behaviour between firms, such pressures should be absent.

1.1.2 The main features of Italian IDs

This section presents a general overview of the features of Italian IDs, in order to give a broader picture of the topic and the academic interest surrounding it. IDs have been approached from several perspectives, from geographical to sociological and historical and from political to economic.³⁴ The following section addresses IDs as a model of business organization.

In the Piore and Sabel interpretation IDs are characterized by the ability to alter goods not simply in response to changing tastes but ‘partly to change tastes, in order

³² *Ibid.*, pp. 481-482.

³³ *Ibid.*, p. 493.

³⁴ For an updated bibliography on the topic see N. Tessieri, ‘Rassegna bibliografica sullo sviluppo locale e sui sistemi locali di piccola e media impresa in Italia’ in: G. Becattini, M. Bellandi, G. Dei Ottati and F. Sforzi (eds), *Il caleidoscopio dello sviluppo locale. Trasformazioni economiche nell’Italia contemporanea* (Turin, 2001), pp. 419-477.

to open new markets', which has been defined as 'flexible specialization'.³⁵ This strategy is based on skilled workers and highly specialised multi-purpose machinery as opposed to mass production based on unskilled or semi-skilled workers and special purpose machinery.

It should be added that Piore and Sabel interpret IDs only as one possible form of flexible specialization. Others include federated enterprises, typified by the looser post-war federation of Japanese enterprises; a solar system of firms such as the Boeing Company, and workshop factories, to be found in the American and West German economies.³⁶

According to Piore and Sabel, IDs are characterized by three mutually dependent characteristics. These are: a wide and constantly up-dated range of products for a highly differentiated regional market at home and abroad; the flexible use of increasingly productive, widely applicable technology; and the creation of regional institutions which balance co-operation and competition among firms, so as to encourage permanent innovation. Technology had to be flexible in both the narrow and broad senses, meaning that it had to permit quick inexpensive shifts from one product to another within a family of goods. Moreover, it had to permit a constant expansion in the range of materials worked and operation performed, in order to facilitate the transition from one whole family of products to another. Regional institutions helped create the pre-conditions for fostering permanent innovation, by discouraging firms from competing through wage and price reduction, as opposed to competition through the innovation of products and processes. Therefore, the role of micro-regulation is to create and preserve the favourable conditions to encourage a competition based on more productive technology rather than cutting wages and violating health and safety standards. Furthermore, local government provided services beneficial to the whole community of firms, such as improving roads, constructing industrial parks, opening vocational schools where these were not established by associations of artisans or

³⁵ Piore and Sabel, *Second Industrial*, p. 29.

³⁶ *Ibid.*, pp. 265-268.

industrialists, and in some cases, as in Carpi, a knitwear ID in Emilia Romagna, operated regional research centres.³⁷

In the Piore and Sabel analysis, IDs represent the re-emergence of craft production, the growth of which was limited by the first industrial divide in the early nineteenth century, where divide means the 'brief moments when the path of technological development itself is at issue'.³⁸ In these moments social conflicts and political circumstances determine the direction of technological development for the following decades.³⁹

The breakthrough to mass production technology was determined by social conflict or political choices, but this form of mechanization was not the only viable one. Zeitlin and Sabel argue that 'high skill, universal-machine economies, which in many ways anticipate current developments, emerged in Western Europe and North America towards the end of the XVIII century. Areas using flexible specialization continued to be, in many cases, vital into the XX century. When they stagnated, the reasons had to do with social stalemates and unfavourable background conditions, not with the exhaustion of technological possibilities'.⁴⁰

A critical view of small firms and flexible specialization is taken by Landes and Williams et al.⁴¹ They consider IDs as an unstable pattern of business organization, as they cannot compete with the resources available to large firms and there are historical examples of IDs transformed at the hand of large firms. Furthermore, flexible specialization cannot be considered 'a realistic historical alternative' to mass

³⁷ *Ibid.*, pp. 29-30 and 228-229; a detailed and critical discussion of local government intervention in British areas specialized in the production of clothing is provided by J. Zeitlin and P. Totterdill, 'Markets, Technology and Local Intervention: The case of Clothing', in: P. Hirst and J. Zeitlin (eds), *Reversing Industrial Decline? Industrial Structure and Policy in Britain and her Competitors* (Oxford, 1989), pp. 176-184.

³⁸ Piore and Sabel, *Second Industrial*, p. 5.

³⁹ *Ibid.*, pp. 5, 38-39.

⁴⁰ C. Sabel and J. Zeitlin, 'Historical Alternative to Mass Production: Politics, Markets and technology in Nineteenth Century Industrialization', *Past and Present*, 108 (1985), p. 134.

⁴¹ D.S. Landes, 'Small is Beautiful. Small is Beautiful?' in: S. Tolliday (ed.), *The Rise and Fall of Mass Production*, vol. II (Cheltenham, 1998), pp. 285-298; K. Williams, T. Cutler, J. Williams and C. Haslam, 'The End of Mass Production?' in Tolliday, *The Rise and Fall*, vol. II, pp. 299-332.

production. Decreasing the production cost per unit remains the type of production best suited to meet the limited purchasing power of the great majority of consumers. In turn, this was the type of market catered for by the Industrial Revolution, and therefore the emergence of mass production was not due to social and political circumstances but was a consequence of the logic of industrialization itself.⁴² Moreover, other scholars pointed out various shortcomings that make small firms and flexible specialization a non-viable alternative to centralized and vertically integrated firms.⁴³ Lazonick holds the view that economies of scale are overwhelmingly important and that the growth of national economies crucially depends on the ability to take advantage of economies of scale in major industrial sectors. Clearly, in these sectors small firms could not compete successfully.⁴⁴ Therefore, it seems that small, competitive firms are able to retain strong positions in those industries such as engineering, clothing, and retailing. However, they have been historically wiped out in sectors, such as iron, steel and branches of the chemical industry where economies of scales are very important.⁴⁵

The Piore and Sabel notion of flexible specialization as a strategy of ‘permanent innovation’⁴⁶ is important in the context of this thesis because it helps to explain the competitiveness of IDs. Moreover, considering that this thesis focuses on the importance of state subsidies for firms within IDs, it is important to note Piore and Sabel recognise only local institutions as playing a significant role in the development of IDs, failing even to mention national institutions.

If Piore and Sabel focus on the production process within IDs, Best raises the issue of the managerial structure superintending a strategy characterized ‘by continuous improvement in process and product’. Continuous improvement requires production flexibility, which in turn demands a peculiar organizational form, as flexible as the production process. In Best’s analysis, the managerial structures which superintend the ‘new competition’ (which ‘is manifest in a variety of inter-firm complexes which range

⁴² Landes, ‘Small Is Beautiful’, pp. 26-27.

⁴³ For a review of arguments in favour and against the ‘flexible specialization’ approach see Langlois and Robertson, *Firms*, pp. 120-123.

⁴⁴ W. Lazonick, *Business Organization and the Myth of the Market Economy* (Cambridge, 1991).

⁴⁵ Langlois and Robertson, *Firms*, p. 123.

from group of small Italian firms linked by co-operative associations.... to giant Japanese organizational structures') are the co-operative institutions.⁴⁷

Similarly to Best, Langlois and Robertson stress the role of co-operative institutions in Italian IDs. A number of activities are entrusted to co-operatives, such as business services, including bookkeeping; R&D consortia; sponsorship of trade fairs, and other marketing ventures - domestic, and in particular international; and the provision of utilities and other infrastructure. Co-operation also extends to the provision of capital, which the banks lend through the intermediation of official co-operatives.⁴⁸

In the Langlois and Robertson interpretation, co-operative institutions perform the function of co-ordinating the number of firms within the Italian ID. This co-ordination within Italian IDs distinguishes them from Marshallian IDs, as shown by the figure below. In the Marshallian IDs, there was little product differentiation and the competition among firms was much higher. On the contrary, firms within Italian IDs compete by differentiating their products, rather than through prices. They tend to favour co-operative agreements in those functions characterized by a high degree of standardization, such as bookkeeping, sponsorship of trade fairs and domestic and international marketing.⁴⁹

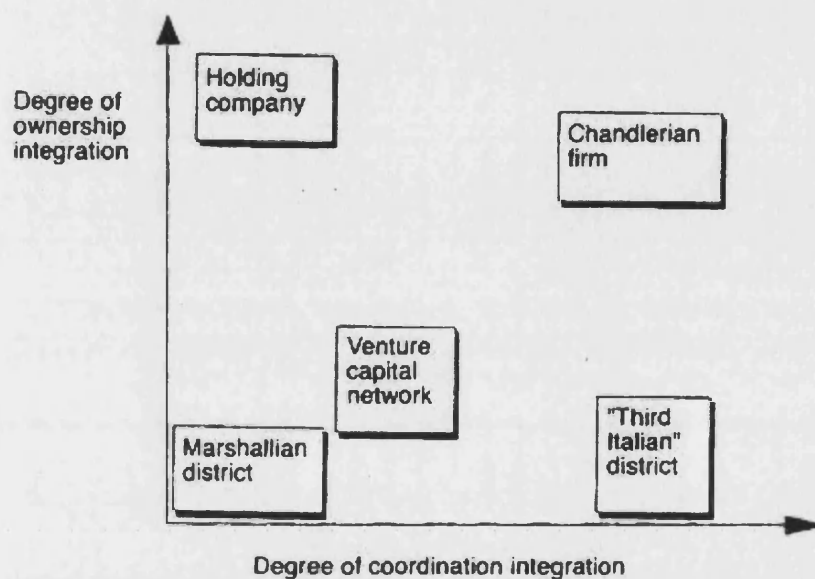
⁴⁶ Piore and Sabel, *Second Industrial*, p. 17.

⁴⁷ M. Best, *The New Competition. Institutions of Industrial Restructuring* (Cambridge, 1990), pp. 3 and 208.

⁴⁸ Langlois and Robertson, *Firms*, p. 125.

⁴⁹ *Ibid.*, pp. 124-125.

Figure I.1 Integration networks.



Source: Langlois and Robertson, *Firms*, p. 124

However, both the Best and the Langlois and Robertson emphasis on co-operative institutions take into account only the most advanced stage in the development of IDs. For in Marche, which has been the last region to experience this pattern of industrialization on a large scale, functions such as bookkeeping, international marketing, consultancy and transportation services are often offered by other firms rather than co-operative institutions. In Emilia Romagna, the core of the Third Italy, co-operative services, provided either by the local government or by the handicraft and associations of small entrepreneurs are more usual.⁵⁰ Therefore, following the historical approach to the topic, it would be possible to argue that Third Italian IDs describe a curve that goes from ownership integration (handicraft shops),⁵¹ to co-ordination integration. These pass through a stage in which ownership of the production process is already fragmented and the only kind of co-ordination displayed is given by the subcontracting system from one firm to another.

⁵⁰ G. Fuà, 'L'industrializzazione nel Nord Est e nel Centro', in: G. Fuà and C. Zacchia (eds), *Industrializzazione senza Fratture* (Bologna, 1983), p. 25.

Co-ordination by market mechanisms is demonstrated by the engineering ID in Emilia Romagna, located in an area between Parma, Modena, Bologna and the Reggio Emilia. There some of the small and medium-sized firms were founded in the nineteenth century. More firms were established in the years after World War II and particularly following the 'Hot Autumn' of 1969, when thousands of skilled craftsmen were made redundant by Fiat and the other large companies. In the early 1970s, these firms began to split work among themselves, share information and skilled workers as well as apprentices and craftsmen rotated among various businesses. Individual firms would choose their subcontractors according to the specialization required for the particular job. Thus the same firm could be a leading firm on one occasion and a supplier on the following, depending on its specialization and the production capacity available at that moment. As Harrison pointed out: the 'fluidity of the local labour market' and the 'practice of changing partners' when meeting new orders allowed the metal-working firms of Emilia Romagna to build a 'non-hierarchical spatial production system that worked marvellously well'.⁵²

Therefore, within IDs we can distinguish two tendencies - one towards the division of the production process among small firms and the other towards a horizontal integration of functions and services. The previous section has already provided the theoretical explanation for the horizontal integration of functions and services, in terms of economies of scale. Stigler pointed out that when an industry has reached a 'certain size and prospects it becomes profitable for other firms to supply equipment and raw materials, to undertake the marketing of the product and the utilization of by-products, and even to train skilled labour'.⁵³ However, Marshall makes the case more suitable to our purpose, claiming that 'if there exist a large number of such small establishments specialised for the performance of a particular stage of the

⁵¹ Fuà mentions several industrial districts that present handicraft traditions in the same sector: footwear around Fermo-Marche, furniture in the Natisone valley and Friuli, ceramics around Sassuolo-Emilia; *Ibid.*, p. 22.

⁵² B. Harrison, *Lean and Mean. The Changing Landscape of corporate power in the age of flexibility* (New York, 1994), pp. 81-82; the issues of subcontracting and flexibility have been studied on the basis of other case studies, see for instance E.H. Lorenz, 'The Search for Flexibility: Subcontracting Networks in French and British Engineering' in Hirst and Zeitlin, *Reversing Industrial Decline?*, pp. 122-132.

⁵³ Stigler, 'Division of Labour', p.190.

process of production, there will be room for the profitable investment of capital in the organizing of subsidiary industries adapted for meeting their special wants'.⁵⁴ Therefore, those activities whose economies of scale extend beyond the capacity of a small firm and present a certain degree of standardization are horizontally integrated.⁵⁵

The horizontal integration of stages of the production process at ID level in turn implies the disintegration of the production process at firm level. Companies might be willing to shed to specializing firms those stages of the production process where internal economies of scale were lowered at the level of the firm. Dealing with the problem of the 'spin off' of stages, Leijonhufvud also distinguishes 'parallel-series scale economies'. His explanation is focused on the differences in efficiency of the single production stage.⁵⁶ A multi-stage production process requires each stage of production to be closely co-ordinated in time, but production stages are unlikely to be uniformly efficient, therefore some stages will be bottlenecks and some others have excess capacity. If the demand for the latter increases, the stage may be organised within a firm. Here Leijonhufvud's model can readily be translated to an understanding of the development of production disintegration in an industrial district.

Looking back to Stigler's approach, another factor emerges – 'localization is one of the methods of increasing the economic size of an industry and achieving the gains of specialisation'.⁵⁷ Related to this is the fact that localisation of industry affects the size of plants. Geographically concentrated industries usually have fairly small plants, where individual firms can specialize in smaller ranges of products and functions.⁵⁸ Therefore, localization enhances the tendency towards horizontal integration for those functions that present large economies of scale. Similarly, it strengthens the tendency towards vertical disintegration for those functions in which economies of specialization are more relevant than economies of large scale, because the market is not sufficiently

⁵⁴ Marshall, *Early Writings*, vol. 2, p. 197.

⁵⁵ Langlois and Robertson, *Firms*, p. 125.

⁵⁶ A. Leijonhufvud, 'Capitalism and the Factory System', in: R.N. Langlois (ed.), *Economics as a process. Essay in the New Institutional Economics* (Cambridge, 1986), pp. 203-223.

⁵⁷ Stigler, 'Division of Labour', p. 192.

large and homogeneous to exploit potential economies of large scale. Thus 'the net result is that geographic concentration allows for the development of vertically disintegrated structures by allowing each activity to be performed at its optimal scale, reducing the transaction costs involved in market transactions, and by supplying additional mechanisms that foster firm interdependence'.⁵⁹

Technological change should also be taken into account when trying to explain the vertical disintegration of the production process, or how technological change affects the boundaries of the firm. The impact of technological change on the division of the production process is exemplified by a case study of the ceramic tiles industry located in the area between Modena and Reggio Emilia.⁶⁰ This was insignificant until the Second World War, but expanded in the 1960s and early 1970s due to the entry of many new firms. Many factors made entry far easier. The initial investment required - at that time - for a factory of minimum efficient size⁶¹ was almost insignificant, the know-how was not difficult to acquire, and domestic demand had increased sharply, partly because of changes in housing legislation (in the early 1960s) and partly because of changes in the technical and aesthetic characteristics of the product.

The sector was badly hit by the oil shock. Demand fell as prices rose because energy and fuel constituted a considerable part of total costs. The crisis particularly affected the worst equipped and worst organized factories with a poor quality product. The industry's reaction was to attempt to open new markets by adopting a new production technique (with a consequent reorganization of the production process at the inter-firm and intra-firm level) and new marketing agreements between firms. This led the ceramic tile industry to take on a structure more suited to dealing with changing market conditions. In 1974, the invention of the double-firing process allowed manufacturers to choose between the integrated production of majolica ceramic tiles and a vertically disintegrated process, which allowed them to split the production process at the biscuit

⁵⁸ *Ibid.*, p. 192.

⁵⁹ Enright, 'Organization', p. 108.

⁶⁰ M. Russo, 'Technical Change and Innovation in Italian Industrial Districts', in: Goodman, Bamford and Saynor (eds), *Small Firms*, pp. 205-222.

(pre-glazing) stage. Examining the variation in economies of scale that this technological change introduced, Russo concluded that the decrease of per unit costs was more consistent in the integrated process. However, the vertical disintegration reduced the minimum efficient size and enabled firms to enjoy more significant economies. Thus, 'the stimulus to partial disintegration came from cost advantages in terms of product and process specialization'.⁶² Taking Pratten's approach, specialization is an advantage of scale, and means 'making distinct products for a niche market, making short runs and making a broader range of products'.⁶³ The vertical disintegration of the double-firing process gave rise to the creation of new products that have served to widen the range of existing ones rather than to replace them. Since there are markets in which the image of a firm and a trade mark are stronger due to the wider range of product it is able to offer, the manufacturers will consequently adopt the technology that will allow for a greater product mix. Thus disintegration finds its justification in the creation of new opportunities for diversification of output and new types of product and process specialisation and in the lower level of investment required to create a firm of a minimum efficient size.

The example of the Sassuolo ceramic tile ID highlights the role of technology as a basic element in the disintegration of the production process. However, the market for the product also emerges as an important factor in the adoption of the new disintegrated production process. Langlois and Robertson describe these markets as characterised by 'parametric changes'.⁶⁴ This means changes of certain known variables within a known framework. Thus, a firm does not know what kind of tiles will be fashionable the following year, but does know how to combine elements to produce a particular style of tile. In this example, the instability of the product market determined the boundaries of the firms involved in its process, and technology made it possible.

⁶¹ The point at which average costs cease to fall. See C.F. Pratten, *Economies of Scale in Manufacturing Industry* (1971), p. 7.

⁶² Russo, 'Technical change', p. 209.

⁶³ Pratten, *Competitiveness*, p. 70.

⁶⁴ Langlois and Robertson, *Firms*, p. 136.

1.2 The emergence of Italian IDs

This section outlines the stylised development of Italian IDs since the post-war period.⁶⁵ The first sub-section focuses on the emergence of IDs mainly in the so-called 'Third Italy' (the North-East and Centre of Italy). The second sub-section focuses on Southern IDs.

1.2.1 North and North-East

In the Italian literature, three main approaches can be distinguished: political, sociological and economic. The interdisciplinary approach to the topic led to an interpretation of IDs as 'a thickening of industrial and social interdependencies in a certain place. This thickening appears in at least three ways: as a relatively self-contained labour market; as a matrix of localised technical inter-relationships; as a web of socio-cultural connections'.⁶⁶ Moreover, IDs are seen as a stage in one of the possible paths towards the industrialization of a country or of a region; more precisely the path of the NEC (North-East and Centre), which leads from an artisan-agricultural stage to an industrial one.⁶⁷

Although long-established areas of specialization such as Prato, Como and Biella, had previously attracted the interest of researchers,⁶⁸ it was only in the second half of the 1970s that the extent of the diffusion of IDs was noticed. The sociologist Bagnasco pointed out that in North-Eastern and Central regions industry was characterized almost entirely by small firms (with less than 250 employees) in traditional sectors and woodworking and metalworking.⁶⁹ He noted that small firms in those regions tended

⁶⁵ A collection of studies on long-established IDs, in Italy and other European countries, from their proto-industrial origin is available in G.L. Fontana (ed.), *Le vie dell'industrializzazione europea* (Bologna, 1997).

⁶⁶ G. Becattini, 'Italy', in: W. Sengenberger, G. Loveman and M.J. Piore (eds), *The Re-emergence of Small Enterprises: Industrial Restructuring in Industrialised Countries* (Geneva, 1990), p. 161.

⁶⁷ *Ibid.*, p. 163.

⁶⁸ E. Avigdor, *L'industria tessile a Prato* (Milan, 1961); R. Marchi, *Storia economica di Prato* (Milan, 1962); P. Pinchetti, *L'Industria della seta sul finire del sec. XIX* (Como, 1894); G. Quazza, *L'Industria laniera e cotoniera in Piemonte dal 1831 al 1861* (Turin, 1961).

⁶⁹ Bagnasco, *Tre Italie*, pp. 153-162; traditional sectors include food processing, tobacco, textile and clothing, leather and footwear and non-metallic minerals.

to concentrate in limited geographical areas and to develop marked specialization. Various examples of such concentration showed that the production of each firm was connected to other firms in the area, leading to the fragmentation of the production process among the various firms.⁷⁰ The industrial pattern displayed by those regions made them stand apart from the industrial triangle (North-West) and from the under-industrialized South, hence the name of 'Third Italy' (or NEC).

Brusco and Paba took a long-term approach to the development of IDs.⁷¹ They set out to analyze the growth in the number of IDs in the whole country, variations in their geographical location and their importance in terms of labour force, from the early 1950s to 1991. This study, together with the Conti and Ferri contribution⁷² mentioned below, has the merit of pioneering a macro approach to the topic of IDs aimed at complementing the case-study approach. However, the Brusco and Paba study admittedly suffers from some limitations. In order to identify IDs the authors use the methodology elaborated by Brusco and the Istat (Italian Official Bureau of Statistics).⁷³

This methodology identifies IDs on the basis of certain criteria. The ratio of workers in manufacturing to the total number of workers (excluding workers in agriculture) should be higher than the national average, as should the percentage of workers in firms with less than 250 workers. Clearly, such criteria cannot capture the phenomenon precisely enough. The ID of Canneto sull'Oglio, in Lombardy, where toys have been produced since the XIX century, qualifies as an ID according to data from the censuses from 1951 to 1971. It does not qualify according to the 1981 census but is recognised again using the 1991 data. The reason for its disappearance in 1981 is that in that year the proportion of workers in firms with less than 100 employees was 54%, whereas the national average was 58%. Therefore, Canneto would be counted as a 'new' ID in 1991, despite its long traditions.⁷⁴

⁷⁰ *Ibid.*, pp. 168-184.

⁷¹ S. Brusco and S. Paba, 'Per una storia dei distretti industriali italiani dal secondo dopoguerra agli anni novanta' in F. Barca, *Storia del capitalismo italiano dal dopoguerra ad oggi* (Rome, 1997), pp. 265-333.

⁷² Conti and Ferri, 'Banche locali', pp. 429-465.

⁷³ Istat, *Rapporto annuale. La situazione del Paese nel 1995* (Rome, 1996). The methodology is explained and partly adopted for the two case studies used in this thesis (see section 5.2.1).

The study identifies the 1960s as the period of maximum expansion in the number of IDs and the 1950s and 1960s as the period of maximum expansion of their labour force. The growth of the labour force within IDs decreased considerably in the 1980s. This reflects a general trend, for workers in manufacturing in Italy decreased by 10.4 per cent in the same decade. Therefore the very fact IDs increased their manufacturing workforce in the same decade is interpreted by the authors as an indicator of their competitiveness.⁷⁵

Table I.1 The development of Italian IDs

	Survival rate	Birth rate	Labour force variation
1951-1961	40.9	26.9	70.4
1961-1971	65.4	99	67.3
1971-1981	83.7	41.6	47.2
1981-1991	83.7	30.8	9.9

Keys: survival rate = IDs surviving throughout the decade as a percentage of IDs existing at the beginning of the decade; birth rate = new IDs established within the decade as a percentage of all IDs at the end of the decade; labour force variation = workers within the ID in the final year of each period as a percentage of workers in the initial year.

Source: Brusco and Paba, 'Per una storia', pp. 288-289; data source Istat, *Censimento dell'Industria*, 1951, 1961, 1971, 1981, 1991.

In the development of IDs (and the success of small business in general), an important role is attributed to changes in economic and technological conditions. The economic conditions favouring IDs were dictated by new forms of market demand. Rising incomes resulted in an increase in demand for customised products (and a decrease in demand for standardized products) - a demand that could be satisfied through the use of flexible multi-purpose machinery and skilled workers. Given the product, the quality of the market for the product (shifting and volatile) and the availability of technology, small size became an advantage for companies. The new economic conditions were met on the supply side by the large number of small and medium-sized firms in the Italian industrial base, concentrated in the NEC area.⁷⁶ These conditions are mainly identifiable by the presence in the area of small firms and handicraft

⁷⁴ Brusco and Paba, 'Per una storia', p. 279.

⁷⁵ *Ibid.*, pp. 288-290.

⁷⁶ V. Zamagni, *The Economic History of Italy, 1860-1990* (Oxford, 1993), pp. 350-352.

workshops earlier than the 1950s and their subsequent proliferation due to the dismissal of workers from war-related industries and agriculture.⁷⁷ The emergence of IDs received further stimuli from the decentralisation and restructuring of large firms, mainly concentrated in the industrial triangle, and from the adversarial character of industrial relations in large-scale industry, which was to emerge from the so called "hot autumn" of 1969 onwards.⁷⁸

Several technological conditions favoured the development of IDs. These include the reduction in diseconomies connected with distance, due to improvements in the transport and communication systems. In addition, the new electronic and information technologies reduced the importance of the integrated production cycle, changing the ratio between size and profit. This opened another way of achieving economies of scale, as can be inferred from the case study of the Sassuolo ceramic tile ID mentioned above. Another factor was the increased diffusion of multi-purpose machinery that could be programmed to carry out different tasks.⁷⁹

Therefore, the Third Italy held the best position to fully exploit the change in economic and technological conditions. The fact that a particular area took fuller advantage of these external inputs is explained as due to the presence of a social structure congruent to those inputs.⁸⁰ In Emilia Romagna, the actors of this process were people leaving agriculture and reluctant to abandon the environment in which they were integrated.⁸¹ Fuà and Becattini maintain that the absence or low rates of out-migration is an enhancing factor in the development of IDs in the Third Italy, particularly in Tuscany and Emilia Romagna, which industrialized in the 1950s without losing population.⁸² The rationale might lie in the fact that low rates of out-migration contributed to the survival of local skills and the availability of labour force for flexible specialized production, more labour-intensive than mass production.

⁷⁷ Fuà, 'L' industrializzazione', p. 12.

⁷⁸ Piore and Sabel, *Second Industrial*, pp. 155-156.

⁷⁹ Zamagni, *Economic History*, pp. 151-152.

⁸⁰ A. Bagnasco, *La Costruzione Sociale del Mercato*, (Bologna, 1988).

⁸¹ Fuà, 'L' industrializzazione', p. 14.

The analysis of the transition from agriculture to small-scale entrepreneurship received particular attention from the sociological approach toward IDs. In this strand of study, the analysis of Bagnasco, which demonstrated the existence of a correlation between share-cropping, tenants and small-scale landed property, and the 'pattern of diffused industrialization' as far as provinces of the NEC area are concerned, has been a milestone.⁸³

The steps leading from the agricultural production to industrial production were as follows. For the largest part of the NEC area, the process started in the 1950s with the breakdown of the share-cropping and tenants system. Two aspects require clarification: being a share-cropper or a tenant meant possessing capital frozen in agricultural tools and domestic animals; the dominant family structure was the extended family, which allowed a concentration of household savings. In the 1950s, there were families expelled from agriculture with a modest financial capacity. The reaction to the loss of the previous agricultural work was a splitting of the economic activities among family members. Some were sent to earn a wage in industry, while the rest of the family acquired a plot of land. Once the previous share-cropping family acquired a plot of land, it discovered it could not make a living out of it through capitalist farming: the whole family was thus expelled from the primary sector. The presence of members of the same family in industry, their acquired expertise, and the sharing of it with the other members determined the transformation of the family into an entrepreneurial unit.⁸⁴ In this process, the possession of land plays an extremely important role as it allowed the lowering of reproduction costs of the labour force (the self-sufficient family economy) and it constituted the initial private capital to commence the entrepreneurial activity.⁸⁵ The choice of the product was determined by

⁸² *Ibid.*, p. 14; Becattini, 'Italy', p. 156

⁸³ Bagnasco, *Costruzione Sociale*, pp. 75-88.

⁸⁴ M. Paci, *La Struttura Sociale Italiana* (Bologna, 1982), pp. 114-119; the stages singled out by Paci have been recognized also in the evolution of IDs in the North-West of Italy. In cases like Como and Cantù (an area located North of Milan and specialized in the production of wooden furniture), the same stages can be recognized but with a different timing. The stages had started much earlier - in the case of Cantù as early as the late XVIII century - and the transition from one stage to the following extended over a longer period of time. See Bull and Corner, *From Peasant*, pp. 144-151. The development of Como since the 1960s presents similarities with IDs in the NEC; see A. Bull, M. Pitt and J. Szarka, *Entrepreneurial Textile Communities* (London, 1993).

⁸⁵ Paci, *Struttura Sociale*, p. 118.

the limited amount of financial capital available (household savings) and those products and technology for which the small size was not a handicap (products with low entry barriers). Where a handicraft tradition already existed, this dictated the choice of the product.⁸⁶ In this process, orders from outside acted as a catalyst, as did returning migrants, who brought experience in industry, savings and precise contacts with foreign markets. These migrants became a 'demonstration effect' for the whole area.⁸⁷

1.2.2 The South

The analysis of the emergence of IDs focuses mainly on the North and Centre of Italy, as only recent works acknowledge their existence in the South.⁸⁸ This pattern of industrialisation is believed to hinge upon rural independence absent in the South, where agriculture was characterised by landed gentry and a disinherited landed proletariat. The Southern industry was also regarded as a hindrance to the development of IDs. In the 1970s, Southern industry consisted of enterprises concentrated at the opposite ends of the size spectrum, with very small labour-intensive firms in traditional sectors (such as food processing, textile and clothing, leather and footwear) and large capital-intensive plants in modern sectors such as metal processing, engineering and the chemical industry. The latter have a considerable relative weight in the Southern industry, but are disconnected from the regional economy in terms of sectors and capital. The lack of homogeneity of Southern industry and the high failure rate of Southern companies are seen as obstacles to the growth of small firms in traditional sectors, meaning those sectors where IDs are particularly frequent. The emphasis on the great relative weight of modern large plants in the Southern industry, in this

⁸⁶ Fuà, 'L' industrializzazione', p. 15.

⁸⁷ *Ibid.*, p. 13.

⁸⁸ G. Viesti, 'Lo Sviluppo Possibile. Casi di Successo Internazionale dei Distretti Industriali nel Sud d'Italia', *Rassegna Economica*, 59/1 (1995), pp. 119-140; Brusco and Paba, 'Per una storia'; G. Molinari, 'Signs of vocation for light industry', in: L. Meldolesi and V. Aniello (eds), *Invisible Italy: flashes on the missing Italian Mezzogiorno*, special issue of *Rivista di Politica Economica*, 88/10-11 (1998), pp. 363-387; L. Meldolesi and G. Molinari, 'The first map of the Mezzogiorno's vocation for light industry', in: Meldolesi and Aniello (eds), *Invisible Italy*, pp. 389-394; G. Viesti, *Come nascono i distretti industriali* (Rome-Bari, 2000). Previous studies do not identify any ID further South than the Marche region, see F. Sforzi, 'The Quantitative Importance of Marshallian industrial districts in

context, implies a criticism of the regional policy which favoured the establishment of capital-intensive plants in modern sectors in the South with very limited potential to generate related industrial activities in the area. Only to a more limited extent did subsidies play a role in supporting local traditional industries.⁸⁹

However, Brusco and Saba threw new light on the issue of Southern IDs and identified examples in Puglia, Campania and Sardinia, using data from the 1991 Census of Industry. More interestingly, comparing the number of Southern IDs identified in 1951 with those identified in 1991, it clearly emerges that there were many more IDs in the South in 1951 than in 1991. The IDs identified in 1951 specialized in food processing, clothing, footwear and wooden furniture, and it was mainly in the decade up to 1961 that a large number of IDs disappeared. The authors explain this as due to the fierce competition from the Centre and North and to the outward migratory flows that destroyed the network of local skills existing before the Second World War.⁹⁰

As mentioned above, Bagnasco considered the polarization of the Southern industry as a factor preventing the formation of IDs. This opinion, however, is not uncontroversial. Recent research has pointed out a variety of development paths of 'specialized areas'⁹¹ in the South, in which the establishment of large firms from outside the South has also played an important role.⁹² An example is Pomigliano d'Arco in Naples province; an area specialized in the production of civil aircraft. In 1938, IRI (Institute for the Reconstruction of Industry) relocated part of its production capacity there. From an investigation undertaken in 1994, it emerged that 75% of the suppliers of the IRI plant in Pomigliano d'Arco are located in the same area. Out of these 20 companies, 11 are run by local entrepreneurs. The authors see Pomigliano d'Arco as evidence that the establishment of a non-local (in this case

the Italian economy', in: Pyke, Becattini and Sengenberger (eds), *Industrial Districts and Inter-firm Co-operation in Italy*, p. 83.

⁸⁹ Bagnasco, *Tre Italie*, pp. 67-86.

⁹⁰ Brusco and Paba, 'Per una storia', pp. 281-283.

⁹¹ The works referred to in the remainder of this section do not investigate whether these areas can be considered IDs according to a codified definition of ID, therefore henceforth the expression 'areas of specialization' will be adopted.

⁹² L. Bàculo, 'Modelli di relazioni imprenditoriali in alcune realtà locali meridionali', in: Becattini, Bellandi, Dei Ottati and Sforzi (eds), *Il caleidoscopio dello sviluppo locale*, p. 171.

state-owned) capital-intensive plant can generate features typical of an ID, through the spin-off of stages of the production process, the diffusion of technical knowledge and the creation of a specialized labour market. However, it needs to be added that the aircraft industry might represent a special case as it is characterized by a high fragmentation of the production process.⁹³

Other Southern specialized areas developed through handicraft traditions, as in the case of the production of clothing in the Bari province or in areas of the Abruzzi regions, where specialized production has been noted since the inter-war period. In other cases like Solofra, near Naples, the tanning of leather is an activity dating back to the XVI century and it is in turn related to the availability of tannin in the surrounding woods.⁹⁴

Similarly to what has been said about the development of North-eastern IDs, also in the South returning migrants played an important role. The largest company producing clothing in the Abruzzi region, Brioni, was established by a local entrepreneur following his previous entrepreneurial experience in Rome. Other entrepreneurs in the clothing sector in the Abruzzi region and in the footwear sector in Barletta and Casarano started their own companies after working as employees in the same sectors in Lombardy in the inter-war period and in the 1950s.⁹⁵

The decentralization of production by Northern and North-Eastern firms is considered a further important factor in the development of specialized areas in the South. In the area of Lavello in Basilicata, the production of lingerie was started by an entrepreneur from Carpi, in Emilia Romagna. He brought the equipment to Lavello, trained the local workforce and subcontracted part of his production there. The case of Lavello is unique as there the production is said to have been started by an external firm, but in several other Southern IDs, firms work as subcontractors for

⁹³ A. Del Monte and A. Giunta, 'Competitività e rapporti tra imprese: esperienze meridionali a confronto', in: Becattini, Bellandi, Dei Ottati and Sforzi (eds), *Il caleidoscopio dello sviluppo locale*, pp. 298-305.

⁹⁴ Viesti, *Come nascono*, pp. 125-129; R. Garavini, F. Calistri and O. Cilona, *La Quarta Italia* (Rome, 1988), pp. 343-348.

⁹⁵ Viesti, *Come nascono*, p. 130.

Northern companies. The importance of sub-contracting is shown by some figures.

An investigation undertaken in 1991 showed that out of 300 Northern companies in the clothing sector, 75 sub-contract part of their production to the South. In 1993, the production of clothing in Puglia and Campania was worth 1,465bn lire in Puglia region and 747bn in Campania, of which respectively 351bn and 121bn was due to sub-contracting from Northern firms. In turn, companies from the North and North-East subcontract to the South to avoid congestion and higher labour costs.⁹⁶

1.3 Italian IDs and their sources of finance

This section compares two bodies of literature. One is the established view, which claims that internally generated funds and collective self-financing are the main sources of finance of companies within IDs. This traditional understanding contrasts with a broader understanding of the importance of bank and state finance in the industrialization of countries and regions. Moreover, recent research has begun to investigate the importance of bank capital in the development of IDs.⁹⁷

1.3.1 The sources of company finance within IDs

Italian IDs have generated an extremely rich literature. However, the financial sources used by small and medium-sized firms within IDs have not been the object of specific investigation.⁹⁸ There are some indications. For example, in the process

⁹⁶ *Ibid.*, pp. 131-135.

⁹⁷ Conti and Ferri, 'Banche locali'; G. Ferri and M. Messori, 'Bank-firm Relationships and Allocative Efficiency in Northeastern and Central Italy and in the South', *Journal of Banking and Finance*, 24 (2000), pp. 1067-1095. A similar line of research has been undertaken to investigate the role of bank finance in the development of the Spanish ID of Alcoi, in the Valencia region, specialized in the production of woolen goods, J. Cuevas, 'Banking Growth and Industry Financing in Spain during the Nineteenth Century', *Business History*, 44 (2002), pp. 61-94.

⁹⁸ A recent work concerning the pottery industrial cluster in North Staffordshire, between the second half of the XIX century and the First World War, has provided evidence of the existence of a circuit of credit - particularly commercial credit - within the cluster. It also showed that banks' draft and bills of exchange dominated transactions within the industry by the end of the 1880s. Due to the slackness of the market, company failures became more frequent and it was feared that the collapse of one link in the credit circuit could have wide repercussions. See A. Popp, *Business Structure, Business Culture and the Industrial District* (Aldershot, 2001), *passim* and p. 226. However, extending these results to the Italian IDs in the second half of the XXth century seems inappropriate, due to the all too evident historical difference and to the different importance of commercial credit and bank capital in the two

described by Paci and Bull et al.,⁹⁹ the transformation of the agricultural family into an entrepreneurial unit was financed through household savings. Saba claims that as small firms are unable to access the financial market, their sources of finance must be either internal or external from banks. However, due to the high interest rates and requirement of collateral that banks demand from small firms, particularly those located in less developed areas, the only channel of finance left available to such firms is the private one, particularly self-financing by reinvesting profits.¹⁰⁰ Apparently, IDs have gone so far in the process of self-financing as to reach the stage of 'collective self-financing'. Firms that have reached a good margin of profit might be willing to lend money to firms willing to invest but unable to cover the whole investment cost. The channel of information and contact among firms is the local accountant, who is aware of the 'real' financial situation of the client firms and thus suggests 'temporary partnerships', being able to assure the reliability of the borrowing firms.¹⁰¹

Other studies¹⁰² have illustrated a different type of financing dynamic taking place within IDs. The proliferation of small firms within an ID is encouraged by 'interlinking relations of subcontracting and credit'. For workers wishing to start their own business in any of the specific stages of the production process but not possessing the financial means to do so, the easiest way to procure the capital is to borrow it from entrepreneurs involved in the final stages of the production process, or in the assembly or marketing of the final product. These entrepreneurs would be customers of the starting-up entrepreneur, who is then in the position of paying back his loan by discounting it from the payment of the work ordered by the lender. This

countries since their industrialization. Commercial credit played a key role in the industrialization of England. In Italy and other continental European countries, bank capital was of fundamental importance in promoting industrialization, see Gerschenkron, *Economic Backwardness*, pp. 11-16; M. Collins, *Banks and Industrial Finance in Britain 1800-1939* (Houndmills, 1991), pp. 22-32; J.S. Cohen, 'Financing Industrialization in Italy, 1894-1914: The Partial Transformation of a Late-Comer', *Journal of Economic History*, 27 (1967), pp. 363-382.

⁹⁹ Paci, *Struttura sociale*, pp. 114-119; Bull and Corner, *From Peasant*, pp. 144-151; Bull, Pitt and Szarka, *Entrepreneurial Textile*.

¹⁰⁰ Saba, *Il modello*, p. 132.

¹⁰¹ *Ibid.*, pp. 136-137.

¹⁰² G. Dei Ottati, 'Trust, interlinking transactions and credit in the industrial district', *Cambridge Journal of Economics*, 18 (1994), pp. 529-546; G. Dei Ottati, *Tra mercato e comunità: aspetti concettuali e ricerche empiriche sul distretto industriale* (Milan, 1995), pp. 43-64.

type of credit is based on the personal reputation of the borrower-subcontractor, with whom the lender had previous professional contacts, either as a subcontractor or employee. Therefore, the borrower is known to the lender as a trustworthy party.¹⁰³ Dei Ottati refers to 'reciprocal co-operation' as the element on which circuits of credit internal to the ID rely.¹⁰⁴ However, as Helper noted, in the case of the American automotive industry, supplying contracts with financially independent firms are expensive, as they should deal in advance with a wide variety of possible contingencies that may arise, which would not exclude the possibility of costly post-contract disputes.¹⁰⁵ Therefore, it is possible that the dynamic of supplying and credit described by Dei Ottati, offers economic advantages to the entrepreneurs in the final stage acting as lenders. These can rely to a greater extent on their financially dependent suppliers, thus reducing the cost of contracts and the possibility of post-contract disputes.

Other research mentions non-financial contribution provided by 'mother firms' deciding to decentralize stages of their production process and lending the initial equipment to employees willing to start their own firm.¹⁰⁶ This is the case of Lombardini, one of the major engineering firms in the province of Reggio Emilia, in Emilia Romagna, specialized in the production of mechanical tools for agriculture. From the early 1950s, the market for such agricultural tools boomed as the primary sector lost much of its labour force in the North. This created increasing demand for tools that could be operated by one person alone, as typified by the soaring demand for pumps to irrigate the land in the Po Valley. This led the Lombardini company to decentralize stages of its production process. The company offered to lend equipment, enabling its employees to start their own companies, with the agreement that the mother company would subcontract work to them and pay immediately for

¹⁰³ Dei Ottati, 'Trust', pp. 534-536.

¹⁰⁴ *Ibid.*, pp. 531-534; E.H. Lorenz, 'Trust, Community, and Cooperation', in: M. Storper and A. J. Scott, *Pathways to Industrialization and Regional Development* (1992), pp. 195-215.

¹⁰⁵ S. Helper, 'Strategy and Irreversibility in Supplier Relations: The Case of the US Automobile Industry', *Business History Review*, 65 (1991), p. 782.

¹⁰⁶ D. Pellegrini, 'Il profilo di un modello reggiano', in: G.L. Basini and G. Lugli (eds), *L'affermazione dell'industria. Reggio Emilia 1940-1973* (Rome-Bari, 1999), p. 173.

the work. Similar stories are told about other major engineering companies in the area, like Slanzi and Landini.¹⁰⁷

1.3.2 The importance of banks and state intervention

The emphasis on internal sources of finance used by small firms within IDs contrasts sharply with a body of literature focusing on the importance of the financial structure in the industrial development of regions and countries. This body of literature spans from Schumpeter, who considered the banking system and entrepreneurship as the two fundamental elements in the process of development,¹⁰⁸ to contemporary works in economic history.¹⁰⁹ As this thesis compares public and private sources of finance in two Italian regions with different degrees of industrialization, this section focuses on those key works that have examined the nexus between financial institutions and industrialization in the context of various degrees of industrialization.

Discussing the industrialization of various European countries, Gerschenkron pointed out the specific features of their industrialization in relation to their degree of development. This wider discussion included the role of the financial system and government intervention.¹¹⁰ The Gerschenkron analysis focused on Russia, France, Italy and the German states, in the nineteenth century up until the beginning of the First World War, and considered these countries in terms of their backwardness as compared with Britain where industrialization had started much earlier.

Gerschenkron pointed out that the more backward a country, the more important was the role played by institutions designed to provide capital and entrepreneurial guidance to the nascent industry.¹¹¹ In a context of medium backwardness, as in France or Germany, shortage of capital is often the major bottleneck. Capital in these countries

¹⁰⁷ L. Segreto, 'La storia, le storie. Imprese e imprenditori a Reggio Emilia dal 1945 agli anni Settanta', in: G.L. Basini and G. Lugli (eds), *L'affermazione dell'industria. Reggio Emilia 1940-1973* (Rome-Bari, 1999), pp. 309, 321-322, 326.

¹⁰⁸ J.A. Schumpeter, *The Theory of Economic Development* (Cambridge, Mass., 1933).

¹⁰⁹ V. Zamagni (ed.), *Finance and the Enterprise* (1992).

¹¹⁰ Gerschenkron, *Economic Backwardness*.

¹¹¹ *Ibid.*, p. 354.

was scarce and diffused, therefore institutions such as investment banks, like the *Crédit Mobilier* in France and various banks in Germany, Austria and Italy, that collect capital and make it available to industry, are of crucial importance to industrialization.¹¹² In such circumstances, institutional intervention, such as a reform of the banking system could produce a specialised industrial investment bank that could break the bottleneck.¹¹³

In the specific case of Italy, the role of providing capital for the industrial boom of 1896-1908 was performed by German-style banks.¹¹⁴ The *Banca Commerciale* and *Credito Italiano* were established in 1894-5 with German and Swiss capital, and with German management. The *Banca Commerciale* and *Credito Italiano* filled the void left by the *Credito Mobiliare* and *Banca Generale*, which collapsed in the 1890s banking crisis, and had been established on the model of the French *Crédit Mobilier*. The banks established on the German model provided not only long-term capital but also entrepreneurship, a factor of industrialization considered even more scarce than capital.¹¹⁵

If the degree of backwardness exceeds certain limits, the scarcity of capital will be such that no banking system could conceivably succeed in attracting sufficient funds to finance large-scale industrialization. Such circumstances require state intervention, which might directly promote the 'railroadization' or industrialisation of the country or divert incomes from consumption to investment through taxes. In addition, backward economies are characterised by frequent bankruptcies, which generate public distrust, making it more difficult for a bank to attract even that capital which was available. Furthermore, banks would not commit themselves to a long-term credit policy in an economy so distressed that the probability of bankruptcies is very high.¹¹⁶ These

¹¹² *Ibid.*, p. 14.

¹¹³ *Ibid.*, p. 10.

¹¹⁴ *Ibid.*, pp. 72-89, especially p. 78.

¹¹⁵ G. Federico and G. Toniolo, 'Italy', in R. Sylla and G. Toniolo, *Patterns of European Industrialization. The Nineteenth Century* (1991), p. 204. Gerschenkron emphasis on the importance of German-type banks in the Italian industrialization has stimulated further research, both contradicting and supporting his interpretation; for a review of the debate see *Ibid.*, pp. 204-206.

¹¹⁶ Gerschenkron, *Economic Backwardness*, pp. 19-20. Gerschenkron clearly held the view that bankruptcies were due to particularly low standards of honesty in business, where fraudulent

conditions might render private sector banking unviable. In this situation, the supply of capital requires the intervention of the state, as showed by the example of the Russia at the end of the XIX century, where the economic backwardness was reduced through a state-sponsored industrialization drive.¹¹⁷

In the late 1960s and early 1970s, Cameron focused on the role of financial institutions in industrialization.¹¹⁸ Discussing the Gerschenkronian hypothesis for a larger number of countries, from Spain to Serbia and from Belgium to Japan, Cameron points out that the financial system plays a greater role in those countries of 'imitative or derivative industrialization (i.e., in every case since England's original industrial revolution)'. Therefore, the banking system should be a particular interest of policy-makers in developing countries.¹¹⁹

Table I.2 GDP per capita in Western European countries (1990 international dollars)

	1870	1900	1913	1950
Great Britain	3,263	4,593	5,032	6,847
West Germany	1,913	3,134	3,833	4,281
Austria	1,875	2,901	3,488	3,731
France	1,858	2,849	3,452	5,221
Italy	1,467	1,746	2,507	3,425
Russia	1,023	1,218	1,488	2,834

Source: A. Maddison, *Monitoring the World Economy, 1820-1992* (Paris, 1995), p. 23.

Table I.2 shows that in 1913 Italy is almost half way between a country of moderate backwardness like France and a particular backward country like Russia. However, by 1950 the Italian GDP per capita is much closer to the Russian figure. In the first half of the XX century Italy did not keep pace with the growth of France, whereas Russia almost doubled its GDP per capita. Recent regional estimates of the Italian GNP, by

bankruptcies were a general business practice. However, one could wonder whether the higher probability of going bankrupt in an extremely distressed economy was not of similar importance.

¹¹⁷ *Ibid.*, pp. 20-22.

¹¹⁸ R. Cameron, O. Crisp, H. T. Patrick and R. Tilly, *Banking in the Early Stages of Industrialization. A study in Comparative Economic History* (New York, 1967); R. Cameron (ed.), *Banking and Economic Development. Some Lessons of History* (New York, 1972).

Esposito, covering the period between 1870 and 1910, show the large extent of the Italian inter-regional differential. In 1910, the Southern GNP per capita was only 55.5% of the North-western figure, whereas the North-eastern GNP was only 75%.¹²⁰ Therefore, Gerschenkron's discussion on the role of private sector banks and the state in industrialization seems to provide a useful framework for investigating the role of private and state finance in the development of IDs in the South and the North-East of Italy.

Conti and Ferri¹²¹ have investigated the nexus between bank capital and IDs and pointed out that although much has been written on the topic, not a single work has faced the issue of the financial sources utilized by these small and medium-sized firms. This neglect has allowed long-held assumptions, that such firms relied entirely on internal sources of finances, to pass unchallenged. This assumption seems doubtful, especially for the take-off stage and during economic downturns, and ignores the fact that an ID is a suitable environment for local banks. As local banks have access to informal and official information about firms applying for overdrafts and loans, they can easily monitor the way in which loans were used and act effectively in the collection of debts.¹²² The authors claim that local banks played an important role in the development of IDs, although they admit that the causal relationship is not easy to define. This study focuses on the examination of the characteristics of the banking system in municipalities located in IDs, using three benchmark years: 1936, 1970 and 1990. Throughout this period, the percentage of municipalities with banks is higher in towns within IDs than in municipalities located in the same regions and provinces but not belonging to any ID. The size (calculated as the weighted average of the bank branches in each town, with each branch attributed a weight according to the deposit size of the bank to which it belongs) of the banks located in the IDs appears to be consistently smaller. Furthermore, saving banks hold the largest share of the market, although the market in ID towns is much less concentrated than in their non-ID

¹¹⁹ Cameron et al., *Banking*, p. 292.

¹²⁰ A.G. Esposito, 'Estimating Regional per capita income: Italy, 1861-1914', *Journal of European Economic History*, 26 (1997), p. 597.

¹²¹ Conti and Ferri, 'Banche Locali'.

¹²² *Ibid*, pp. 429-430.

counterparts. These contrasts persisted from 1936 to 1970 but became less pronounced thereafter, i.e. the size of bank increased everywhere and even more so in IDs. This is explicable through the fact that larger banks moved to the IDs and that more developed IDs require financial services that large banks are better equipped to offer.¹²³

This study touches upon an extremely interesting issue: the importance of capital from small banks in the development of IDs, regardless of their geographical location. However, the analysis has simply shown that there are more bank branches in the IDs and that banks in IDs are smaller. This seems to be an important clue but it does not prove that bank capital has been important to the development of IDs, and thus it does not clearly disprove the long-held assumption of the exhaustive role played by internal sources of finance. Moreover, the Conti and Ferri study does not take into account the availability of state subsidies to firms in the South within the framework of the regional policy and in the rest of the country as part of the national policy. This thesis addresses this issue. It is expected that state subsidies were a more important source of finance for firms in the South, as, consistently with the Gerschenkronian argument, these were introduced from the 1950s to overcome the shortage of capital in the South - something that was seen as a constraint on investment in the region.

Conclusions

This chapter has presented a neo-classical interpretation of the ID in terms of economies from the division of labour and transaction costs, and compared it with more recent interpretations proposed by Beccattini and Harrison, claiming that Italian IDs can not be explained by agglomeration economies and internalisation of transaction costs within the region. They argue that concepts such as social cohesion and mutual trust are necessary to interpret this form of business organization. The theoretical foundation of the interpretations by Beccattini and Harrison is the Granovetter concept

¹²³ *Ibid*, pp. 446-450.

of 'embeddedness'.¹²⁴ Therefore, the pressures towards vertical integration do not come from uncertainties, or repetitiveness and requirement of transactions specific investments, but when firms lack a network of interpersonal relations or where such a network eventuates in conflict, disorder or malfeasance. On the other hand, where a stable network of relations mediates complex transactions and generates standards of behaviour between firms, such pressures should be absent.

The interpretation proposed by Becattini and Harrison, informed by the 'embeddedness' concept, does not seem completely convincing. Opportunistic behaviour and malfeasance within an ID would be very dangerous due to the presence of several firms in each stage of the production process, therefore if a subcontractor did not respect the terms of the agreement there would be quite a choice of alternative partners. Moreover, opportunistic behaviour could result in future exclusion from any partnership or subcontracting, given that within a number of firms concentrated in few neighbouring towns, a bad reputation could spread easily. Thus it is competition among firms and the restricted environment in which they are located which act as a deterrent to opportunistic behaviour, and not the development of social cohesion and mutual trust. Cohesion surely develops but it seems to be founded upon the business interdependence among firms. Therefore in this thesis, IDs will be analysed utilising economic concepts rather than sociological ones.

A key issue addressed in this chapter is the development of IDs in various regions. Their development received a strong stimulus by the change in macroeconomic conditions at the beginning of the 1960s, which meant a revival in the fortune of small firms. These firms, particularly those concentrated in the North-East and Centre of the country, had emerged in the 1950s and earlier in some cases, after the expulsion of families from the primary sector. Household savings and capital deriving from land sales were invested in handicraft firms, in production activities with low entry barriers. More controversial is the understanding of the development of IDs in the South. The traditional approach would not recognize their existence, whereas other studies hold the view that the Southern IDs developed much later and in smaller numbers because

¹²⁴ Granovetter, 'Economic Action'.

of the lack of an agrarian petit-bourgeoisie and an uncondusive industrial environment. On the contrary, recent research points to the disappearance of Southern IDs in the 1960s and their re-emergence at a later stage, as well as to a wide variety of factors stimulating their emergence and development.

It has also been shown that recent studies place much emphasis on self-financing not only in the establishment of the small firms but also in the subsequent financing of their activity. This interpretation clearly ignores any role that might have been played by other sources of finance, to which other schools of thought have paid much attention. In the early 1960s, Gerschenkron explained that in moderately backward areas capital is scarce and diffused, therefore institutions such as banks that collect this capital and make it available to industry are of crucial importance to industrialization. In particularly backward areas, 'the scarcity of capital is such that no banking system can succeed in attracting sufficient funds to finance a large-scale industrialization'.¹²⁵ Besides, no bank would commit itself to a long-term credit policy in an economy so distressed that the probability of bankruptcies is very high. In this situation, the supply of capital requires the intervention of the State. A very recent study has shown that small banks were particularly concentrated in IDs, and thus claims that local bank capital was important to these small and medium-sized firms.¹²⁶

The review of the literature on IDs has shown that neither the mainstream literature nor recent research takes into account the availability of credit to small and medium-sized firms through the various Medium-Term Credit Institutions. These were established in the 1950s, and in some cases even earlier (they will be introduced in chapter III). In the late 1950s, these institutions became channels of low-interest credit subsidised by the state, within the framework of national and regional industrial policies. Thus, this thesis intends to broaden the understanding of Italian IDs by including the study of the neglected state subsidies to small and medium-sized firms within the factors that might have stimulated the growth of firms within IDs.

¹²⁵ Gerschenkron, 'Economic Backwardness', p.19.

¹²⁶ Conti and Ferri, 'Banche Locali'.

CHAPTER II

The Debate on Regional Economic Policy: a review of the literature

Introduction

This chapter surveys the historical debate on regional policies and the methodologies adopted to evaluate them. The first section summarizes the theoretical debate surrounding the implementation and effectiveness of regional policies. The second section surveys studies concerning the assessment of regional policy, mainly in Great Britain, paying particular attention to their methodology. The third section focuses on the Italian case. It presents some indicators of the North-South gap and their evolution during forty years of regional policy, and surveys studies that tried to identify and quantify the effects of the regional policy. As far as the literature on the Italian case is concerned, attention is paid to the methodology as well as to the results of the analysis.

2.1 The debate about regional policy

Regional policies are designed to address the problem of disparities between the regions of a country, when regions present marked and persistent economic inequalities. Disparities show themselves with a number of indicators demonstrating lesser economic welfare, such as high rates of unemployment, low activity rates, heavy out-migration and below-average income per head.¹

There are two main approaches to explaining regional economic unbalances. The neo-classical explanation focuses on supply side factors, while the Keynesian approach stresses the importance of demand for the regional produce, and explains regional imbalances as due to structural deficiencies of demand.² From the two approaches to the causes of regional inequality, stem two fundamental approaches to reduce regional

¹ B. Nicol and D. Yuill, *Regional Problems and Policies in Europe: The Post-War Experience* (Glasgow, 1980), p. 1.

² R. Martin, 'The New Economics and Politics of Regional Restructuring: The British Experience', in: L. Albrechts, F. Moulaert, P. Roberts and E. Swyngedouw (eds), *Regional Policy at the Crossroads, European Perspectives* (1989), p. 28.

disparities. The 'restructuring for capital' approach holds that market forces are the best mechanism for regenerating investment, employment and welfare in the local economy, while the interventionist 'restructuring for labour' approach claims that the market generates economic inequalities and ignores social needs.³ Martin argues that the two approaches are not mutually exclusive. Markets stimulate technical innovation and flexibility, and are thus favourable to local prosperity and employment. At the same time, market competitive forces are shaped by the specific institutional framework in which they operate. Therefore, there is scope for 'influencing the functioning and outcome of market processes'.⁴

According to the neo-classical approach, regional growth is determined or constrained by the growth of factor supply and productivity, the latter due either to a lower capital to labour ratio, technical backwardness or to a concentration of the labour force in low-productivity sectors, such as agriculture. In the neo-classical approach, the free movement of capital, labour and technical progress across regions works as a balancing mechanism. In theory markets would clear employment disparities by a threefold mechanism: 1) wages would fall in the areas of low employment; 2) workers would migrate from low-wage to high-wage areas; 3) firms would move from high-wage to low-wage areas. Moreover, the regions with backward technology will gain productivity by reducing the technological gap.⁵

However, this adjustment process would be far too slow to eliminate regional disparities in wages and employment and there are frictions hindering the free movement of labour and capital.⁶ Thus free-market economists suggest that rents on council houses should reach market levels to enable normal mobility incentives to operate. In this case, net migration to low unemployment areas would increase, which would alleviate labour market pressures in these areas and would reduce unemployment in the areas of origin. However, the higher cost of property in more developed regions, as compared to the market level of rents in less developed regions

³ *Ibid.*, p. 36.

⁴ *Ibid.*, p. 36.

⁵ H. Armstrong and J. Taylor, *Regional Economics and Policy* (New York, 1993), pp. 58 -73 and 197.

⁶ *Ibid.*, p.197.

could still be a factor discouraging labour mobility. Therefore more land needs to be made available in more developed regions in order to increase supply and lower price of accommodation.

A further mechanism worsening unemployment is the level of benefits, as people will not take jobs that pay too little in comparison with the dole. Compulsory training programmes should be introduced for the long-term unemployed. This would have the further effect of increasing the productivity of manual workers and then increasing wages in the traded sector, to reduce unemployment. Two further measures are envisaged to reduce regional disparities: deregulating protected sectors and reducing union power. Both should reduce unemployment in all regions and particularly in the backward regions, where the lack of competition is most acute.⁷

The neo-classical approach suffers from three limitations. First, it assumes that investors and workers are perfectly informed of factor prices in all regions. However, neither investors nor workers are perfectly informed and there can be impediments to the mobility of factors. Furthermore, the neo-classical approach assumes that factor prices are perfectly flexible, whereas they often can be far from perfectly flexible. A further limitation of the neo-classical approach lies in the failure to recognize the importance of demand factors.⁸

According to the Keynesian approach, regional growth is demand driven, particularly by demand from outside the region, for a region's exports are considered as the major autonomous demand factor.⁹ In the Keynesian approach, supply adjusts to demand, therefore labour and capital will migrate to those regions experiencing a high demand for its output.¹⁰ Thus, the movement of factors will not equalize growth across regions, rather fast growing regions will sustain their advantage due to increasing returns

⁷ P. Minford and P. Stoney, 'Regional Policy and Market Forces: A Model and an Assessment' in: A. Bowen and K. Mayhew (eds), *Reducing Regional Inequalities* (1991), pp. 137-143.

⁸ Armstrong and Taylor, *Regional Economics*, pp. 58-73.

⁹ N. Kaldor, 'The Case for Regional Policies', *Scottish Journal of Political Economy*, 17 (1970), pp. 337-348.

¹⁰ A. P. Thirlwall, *Macroeconomic Issues from a Keynesian perspective*, vol. 2: *Selected Essays of A. P. Thirlwall* (Cheltenham, 1997), p. 287.

induced by growth.¹¹

Spatial Keynesianism interprets the regional imbalances as due to structural deficiencies of demand correctable by the relocation of the industrial sector or by reducing wage costs by introducing labour subsidies. Government intervention might take place in three main forms: encouraging industry to move from non-assisted to assisted areas; stimulating the emergence of new firms and the growth of small firms; and investing in social overhead capital, and introducing subsidies to reduce wage costs.¹²

However, regional economic discrepancies are not sufficient in themselves to justify the implementation of a regional policy. For such policies to be implemented, the disparities should be serious enough to prevent the whole country from achieving its economic objectives.¹³ As an example, one of the main justifications for implementing the regional policy for the Italian Mezzogiorno in the 1950s, was that its backwardness affected the Italian balance of payments and reduced the international competitiveness of the whole country.¹⁴ Furthermore, backward regions are often affected by higher unemployment than the rest of the country. As unemployment is a waste of valuable resources, the reduction of unemployment in backward regions without losing jobs in more developed regions is a gain for the whole country. The hidden labour force once employed would produce output, with a corresponding reduction in the numbers of recipients of welfare benefits. In addition, a lower unemployment rate should reduce social tensions.

Severe regional imbalances are also unfavourable to fast-growing regions, which experience excess demand for social capital, in contrast to the backward regions, where such capital is invariably under-utilised. Governments are under great pressure to

¹¹ R. Dixon and A. P. Thirlwall, 'A Model of Regional Growth-rate Differences on Kaldorian Lines', *Oxford Economic Papers* (New series), 27 (1975), p. 201.

¹² Martin, 'New Economics', p. 28; Armstrong and Taylor, *Regional Economics*, pp. 200-201.

¹³ Armstrong and Taylor, *Regional Economics*, p. 191.

¹⁴ P. Saraceno, 'Lo sviluppo industriale delle regioni meridionali e l'attività della Cassa per il Mezzogiorno', *L'Industria, Rivista di Economia Politica*, 4 (1953), pp. 651-656; Confederazione generale dell'industria italiana, *La politica di sviluppo economico del Mezzogiorno* (Rome, 1970), pp. 4-5. This point is addressed in more detail in Chapter III, section 3.1.2.

relieve congestion in booming areas, to which they respond by increasing supply of social capital. However, if backward areas could be made economically more attractive, in the longer term the demand for social capital would be diverted away from congested areas.¹⁵ Furthermore, faster-growing areas represent an inflationary 'time bomb'.¹⁶ In the case of economic upturns, low unemployment areas run into skilled labour shortages, leading to wage-driven inflation as firms tend to increase wages because of the competition for skilled labour. Such inflation spills over on to other markets and to other regions through inter-plant agreements within firms and through national wage agreements.¹⁷ An example of this situation is the Italian crisis of 1962-3, which marked the end of the so-called 'economic miracle'. Full male employment in the North brought about an increase in wages, which in turn called for a deflationary monetary policy by the Bank of Italy, a credit squeeze which damaged the economy to the extent that GNP growth fell from 5.9% in 1962 and 5.2% in 1963 to 2.9% in 1964. Investment fell by 20.2% in 1964.¹⁸ A similar case occurred in Britain, where the business upturn of 1985-1988 brought inflationary pressure, which spread from the South East to the rest of the country. The government's retaliatory deflationary policy brought about not only a sharp slow down in economic growth but ultimately recession.¹⁹ Such cases provide examples of the economic justification for the implementation of regional policies.

The debate surrounding regional policies and industrial policies in general is not confined to the implementation of such policies. The major part of the controversy and the case for regional policy, in the first place, revolves around the effectiveness of such policies, which in turn are only a specific feature of the government intervention in the economy.

¹⁵ Armstrong and Taylor, *Regional Economics*, pp. 194-195.

¹⁶ H.W. Armstrong, 'Regional Problems and Policies', in: N.F.R. Crafts and N. Woodward, *The British Economy since 1945* (1991), p. 334.

¹⁷ Armstrong and Taylor, *Regional Economics*, p. 195.

¹⁸ K. Allen and A. Stevenson, *An Introduction to the Italian Economy* (1974), pp. 51, 170.

¹⁹ R. Martin, 'Reviving the Economic Case for Regional Policy', in: R.T. Harrison and M. Hart, *Spatial Policy in a Divided Nation* (1993), p. 275; P. Scott, 'Regional Development and Policy' draft chapter for R. Floud and P. Johnson (eds), *The Cambridge Economic History of Britain*, Vol. 3 (Cambridge, forthcoming 2003).

Controversy surrounds regional incentives and in particular automatic grants. Investment incentives can have three distinct types of effects. They can promote investment that would not have taken place in the absence of incentives; they might divert to aided areas or sectors investment that would have otherwise taken place in other areas or sectors; and they might generate investment different in kind from that which would otherwise have taken place.²⁰ However, incentives could also be used by recipient firms to undertake investment that would have gone ahead anyhow or to undertake a re-location that would have taken place anyhow.²¹ The reason why investment incentives should generate additional investment is that 'the reduction in the cost of the investment will make more projects look profitable enough to be undertaken. Secondly the addition to companies' cash flow may allow them to increase their investment expenditure'.²²

In the interventionist approach, the availability of subsidised credit for small firms has the effect of correcting the bias of the capital market towards large firms, which are considered by investors as less risky, whereas the free-market supporters claim that this bias is more assumed than real.²³ The effects of this sort of intervention could be the sheltering of an uncompetitive sector or troubled firms.²⁴ Furthermore, subsidised public credit might have opposite effects on private bank credit. The government might act as the initial lender to unseasoned firms and this might crowd in private creditors. Private creditors might crowd in because the government has already undertaken monitoring costs, or because the longer term of the public credit will provide a 'senior' status to private banks.²⁵ However, governments financing fixed investment might simply underbid private lenders to secure the best clients, thus the provision of subsidised credit might crowd out private credit.²⁶

²⁰ J. Marquand, *Measuring the Effects and Costs of Regional Incentives*, Government Economic Service *Working Papers* no. 32 (1980), p. 32

²¹ K. Allen, H. Begg, S. McDowell and G. Walker, *Regional Incentives and the Investment Decision of the Firm* (1986), p. 3.

²² Marquand, *Measuring*, p. 32.

²³ G. Hall (ed.), *European Industrial Policy* (1986), pp. 3-4.

²⁴ C.W. Calomiris and C.P. Himmelberg, 'Government Credit Policy and Industrial Performance (Japanese Machine Tool Producers, 1963-91)', The World Bank, *Policy Research Working Paper* n. 1434 (Washington, 1995), p. 4.

²⁵ *Ibid.*, p. 4.

²⁶ *Ibid.*, p. 24.

2.2 The assessment of regional policies

Estimating the effectiveness of an industrial policy is a particularly complex task. It can focus upon three main issues: changes in employment levels, the performance of investment in the targeted areas or sectors, and the relocation of industry from fast growing to backward areas. An analysis of any regional policy should start from the stated objectives of the policy. Ideally, regional policies should not only set clear targets but should also quantify them, and should specify the time span in which the targets are to be achieved, and should prioritise the various objectives.²⁷ However, the objectives are usually expressed in much less precise terms, such as the reduction of unemployment, increasing levels of employment, or in the Italian case the reduction of imports to the South, and sometimes in even broader terms such as the advancement of a regional economy. In the case of the UK, a Regional Development Programme submitted to the European Development Fund in 1977 states that 'The primary objective of United Kingdom regional policy is to bring the supply and demand for labour in the Assisted Areas more closely into balance by safeguarding existing employment and creating new jobs in those areas'.²⁸

When objectives are so broad, the only observable criterion by which such a policy can be assessed is changes in the level of unemployment in the target regions, taking into account other labour market forces.²⁹ The effectiveness of a regional policy cannot be measured simply by considering whether the employment or investment gap between the region and the country as a whole has been reduced. For instance, in Italy as well as in Great Britain the unemployment gap has increased since industrial policies were implemented, but it would be incorrect to conclude that such policies have been a failure on this basis. Jobs created by the industrial policy have not necessarily been filled by the unemployed.³⁰ New jobs may have been filled by workers made redundant in declining sectors, such as the extractive industry in the UK. Moreover, before producing any change in employment, a regional policy may have the effect of

²⁷ Armstrong and Taylor, *Regional Economics*, p. 216.

²⁸ Marquand, *Measuring*, p. 4.

²⁹ *Ibid.*, p. 4.

³⁰ Armstrong, 'Regional Problems', pp. 328-330; for the unemployment gap in Italy see table II.1 in

increasing the activity rate and reducing outward migration.³¹ The last effect in particular would be interpreted as detrimental in the neo-classical perspective as it would reduce factor mobility and aggravate the regional problem. On the other hand, it cannot be excluded that if there had been no regional policy, unemployment in the depressed areas would have been worse.³² Thus assessing the effects of a regional policy requires measuring what would have happened if there had been no policy or if the policy had had a different intensity.³³

The fundamental structure of the methodology for assessing the effects of a regional government policy are: identifying those variables that should be affected by the regional policy; measuring in a consistent way the changing strength of the policy; and explaining the changes in those variables as a response to the policy.³⁴ The pioneering work in this field was the 1973 article by Moore and Rhodes, which tried to identify the effects of the UK's government regional policy on employment in manufacturing between 1950 and 1971, with particular emphasis on the effects of the Regional Employment Premium (R.E.P., a labour subsidy paid to employers, introduced in 1967).³⁵ The nucleus of the Moore and Rhodes methodology can be summarised as follows: the estimate of the effects of the regional policy is to be found in the difference between what would have happened to manufacturing employment in absence of the policy and what actually happened. The main difficulty lies in establishing the hypothetical position - a counterfactual - because this has to take into account factors unrelated to the actual policy.³⁶

The first step of the Moore and Rhodes analysis has been to measure the intensity of post-war regional economic policies. Taking into consideration the various degrees of

this chapter.

³¹ B. Moore, J. Rhodes and P. Tyler, *The effects of Government Regional Economic Policy* (1986), p. 13.

³² Armstrong, 'Regional Problems', p. 328.

³³ B. Moore, B. and J. Rhodes, 'Evaluating the Effects of British Regional Economic Policy', *The Economic Journal*, 83/329 (1973), p. 87.

³⁴ Moore, Rhodes and Tyler, *Effects*, p. 13.

³⁵ The REP was designed to compensate for the capital orientation of subsidies, and at the time of its introduction it was estimated to cover almost 8% of the labour cost, see D. Yuill, 'Regional Incentives in the United Kingdom', in: D. Yuill, K. Allen and C. Hull, *Regional Policy in the European Community* (1980), p. 195.

intensity of the regional policy is particularly important considering the variety of stages witnessed by the British regional policy. The 1950s are considered by the historiography as a period of 'passive' policy, in which subsidies to firms locating in development areas were available, but no form of location control was in place.³⁷ The 'passive' policy stage was followed by a transitional period in which the Local Employment Act was introduced, between 1959 and 1963. This led to the 'active' policy stage, the 1960s, during which interventionist measures were implemented, and incentives to investment became a right for both incoming and existing firms, resulting in a six-fold increase of the regional policy per annum cost.³⁸ Various indicators, such as discounted present values of incentives and expenditure on government factory buildings and grants and 'expenditure on government factory buildings and grants' in particular demonstrates the intensification of the industrial policy from 1963 onwards; the latter clearly shows a huge difference between the annual average expenditure for the 1955-1959 (£ 4.1m) and 1960-63 (£14.4m). After these years, the annual average expenditure on government factory buildings and grants kept increasing.³⁹

Two series of employment data were constructed for development areas: actual employment and expected employment. Expected employment was calculated by applying the national rate of employment growth to employment in each industry in the development areas in 1963. The same calculations were repeated with other base years, and it was observed that the choice of the base year did not affect the outcome. Shipbuilding and metal manufactures were excluded from these calculations, because of special factors specific to these sectors, such as the nationalization of iron and steel groups and extensive financial assistance to individual shipyards from the 1960s onwards.⁴⁰ The comparison of the two series reveals that the difference between the level of actual and expected employment increased during the period of active policy as

³⁶ Moore, Rhodes and Tyler, *Effects*, p. 30.

³⁷ S. Rosevear, 'Regional Policy and the British Motor Vehicle Industry 1945 - 1964: a Study in Selective Intervention and the Economics of Industrial Location' (Unpublished Ph. D. Thesis, University of Bristol, 1999), pp. 116-117; for a discussion of the reasons behind the Conservative government's rejection of an active regional policy between 1951-58, see P. Scott, 'The Worst of Both Worlds: British Regional Policy, 1951-64', *Business History*, 38 (1996), pp. 41-64.

³⁸ Moore and Rhodes, 'Evaluating', p. 89; Rosevear, 'Regional Policy', pp. 142-143.

³⁹ Moore and Rhodes, 'Evaluating', pp. 104-108.

⁴⁰ *Ibid.*, pp. 92-93.

compared to periods of passive policy. The same calculations have been repeated for investment, where the comparison shows that in the years of passive policy the actual annual growth rate of investment in the development areas was lower than expected, whereas in the years of active policy it was higher.⁴¹

The authors argue that the difference between expected and actual employment and investment can be attributed to the strengthening of the industrial policy rather than to other factors. This interpretation was supported in various ways, i.e. each development area experienced the relative acceleration - as compared to the national average - in manufacturing activity after 1963, and Ireland (where grants were introduced in 1954) earlier on. The interpretation acquires further support from the comparison of the difference in actual and expected employment in manufacturing in the development areas and in two prosperous areas, the Midlands and the South-East. Development and depressed areas show opposite trends as far as the difference between expected and actual employment is concerned. Actual manufacturing employment in the prosperous regions grew more rapidly than expected from 1950 to 1963, after which the trend was reversed.⁴² The interpretation that the difference is the effect of the regional policy was further strengthened by showing that alternative interpretations were not convincing. For instance, a possible explanation of the relatively faster employment growth in development areas, after 1963, would be that these areas became more attractive on the grounds of their easier labour market situation. Moore and Rhodes maintain that if this had been the case, employment in assisted areas would have increased in periods of a tight labour market situation in non-assisted regions. However, unemployment in prosperous areas was lower in the 1950s than in the 1960s, particularly if compared to post-1967 period, therefore the availability of labour in development areas would have been less attractive to firms in the 1960s.⁴³

Nevertheless, Moore and Rhodes admit that their approach has some imperfections, among which the most interesting is the time lag that should be taken into account when considering employment or investment induced by the strength of the industrial

⁴¹ *Ibid.*, p. 94.

⁴² *Ibid.*, pp. 96-97.

⁴³ *Ibid.*, pp. 100-101.

policy in a certain year. In their article, it is evident that the choice of the time lag affects the assessment of the effect of the REP, which is considerable (40,000 to 50,000 jobs from 1964 to 1970 in the development areas) with a lag of 18 months, but far less impressive (less than half) with a lag of 2 or 3 years.⁴⁴

The Moore and Rhodes work is considered a milestone in the field of evaluation of industrial policies and further improvements were introduced in subsequent versions of the methodology. The 1973 methodology takes into account industrial structural changes and effects of the industrial policy, but it does not consider any impact from national business cycles and time trends.⁴⁵ In a later refinement, the methodology not only takes into account business cycles and time trends, but also estimates the impact of the policy as the difference between the trend of the actual (A) minus expected (E) employment series in the policy-off period (pre-1960) and the level of the A-E employment series in the policy-on period (post-1960).⁴⁶ The 1986 study incorporates further refinements by distinguishing the contrasting employment patterns generated by indigenous and immigrant firms.⁴⁷

The key point of the Moore et al. methodology, the policy-on/policy-off comparison, has been adopted by other scholars. Rees and Miall calculated the development region's share in the national investment in a policy-off period and compared it with the same region's share in a policy on period.⁴⁸ They focused on investment because investment incentives have been one of the most important instruments of industrial policies in the UK. Furthermore, the availability of consistent series of data about investment and capital stock, by regions and by industry has made the analysis possible. This approach presents the shortcoming of a the relative measurement, for the increase in the relative weight of investment in assisted areas might also be due to decreasing investment in the rest of the country.

⁴⁴ *Ibid.*, pp. 101-102.

⁴⁵ Moore, Rhodes and Tyler, *Effects*, p. 30.

⁴⁶ *Ibid.*, pp. 30-31.

⁴⁷ *Ibid.*, p. 34.

⁴⁸ R.D. Rees and R.H.C. Miall, 'The Effect of Regional Policy on Manufacturing Investment and Capital Stock within the U.K. between 1959 and 1978', *Regional Studies*, 15 (1981), pp. 413-424.

Incentives should affect investment for a number of reasons and in a number of ways. Investment projects might be diverted from non-assisted to assisted areas as they are more profitable if located in the latter, or while unprofitable in the non-assisted areas they might be profitable and go ahead in the assisted areas. Indigenous projects, unprofitable without subsidies and therefore not undertaken, might now be profitable and go ahead. Investment incentives might also attract internationally mobile projects into the assisted areas. Moreover, grants relax the financial constraints of recipient companies and may thus induce further investment. By affecting the relative price of factors, capital subsidies might induce some substitution of capital for labour. However, given that the regional policy in the UK included labour incentives, a balancing effect is possible.

If incentives affect investment in the above mentioned ways the following effects should be observable: 1) assisted areas should display a higher share of the national investment and capital stock than would otherwise be the case; 2) the policy should be more beneficial, the more capital intensive the sector; 3) industries in the assisted areas will become more capital-intensive than their counterparts located elsewhere.⁴⁹ The first effect is studied through the shift-share analysis. The regional investment percentage of the national total during 1951-1958 was taken as the policy-off share, as although the UK regional policy was operative since 1934, during 1950-1958 very few funds were devoted to it, owing to cuts in public expenditure following the balance of payments crisis of 1947.⁵⁰ From 1959 onwards, the actual share as been calculated and regarded as policy-on. The authors interpret the difference in shares as an effect of the industrial policy, not taking into account that other factors than the policy might have affected it. This analysis embodies the assumption that total national investment did not change as a consequence of the industrial policy, i.e. if the government had not stimulated investment through a regional policy, it would have done so in an alternative manner.⁵¹ The analysis shows that there has generally been a positive shift of investment towards the assisted areas, and the size of the share seems to be responsive

⁴⁹ *Ibid.*, pp. 414-415.

⁵⁰ Armstrong, 'Regional Problems', pp. 313-314.

⁵¹ Rees and Miall, 'Effect', p. 415.

to the changing intensity of the phases of the UK regional policies.⁵² However, the authors do not attempt to attribute a specific value to the effects of the policy, and also make clear that shifts observable in a certain year may be due to effects of regional policy in earlier periods (recalling the same time lag problem as in Moore and Rhodes).

The Rees and Miall methodology does not seem convincing. It seems simplistic to attribute the variation in aggregate investment share witnessed by a region to the industrial policy. Over 20 years a region's share of aggregate investment might have changed for various reasons, such as the internal composition of the industrial sector. Different industrial sectors requiring different degrees of capitalization would entail a different regional participation in aggregate industrial investment. Furthermore, some areas such as the South East have experienced deindustrialization in favour of the service sector. Thus, other regions' shares in the aggregate investment would have increased. Summarising, any other factor might have affected the 'effect of the industrial policy' calculated in this way. For instance, the authors warn that the negative shift witnessed by Wales in 1974-78 should not be considered a failure of the policy, because it was entirely due to the chemical industry, or that the positive shifts of 1975 and 1976 in the assisted areas and the negative one in the following period are to be attributed to increasing investment in the chemical and metal industries. Obviously, investment in these industries had been influenced by North Sea-related developments and the investment policy of the British Steel Corporation.⁵³ The shift-shares analysis has been used to estimate the effect of industrial policies on capital stock, and the results exhibit a similar pattern.⁵⁴ In order to examine whether a policy was more beneficial to capital intensive industries, the results of the shift-share analysis have been studied by industry and regions. The results do not support the proposition. As far as the third hypothesis, on the effects of incentives on the capital intensiveness of industry, it has been observed that industry in the assisted areas was more capital-intensive from the outset of the industrial policy, and that the relative capital intensity did not increase during 1963-1973. Thus, there is no evidence to suggest that

⁵² *Ibid.*, p. 418.

⁵³ *Ibid.*, p. 419.

⁵⁴ *Ibid.*, p. 420.

investment incentives had a labour substitution effect.⁵⁵ Following the methodological approach by Moore and Rhodes and Rees and Miall, many researchers have applied some modified versions of the shift-share analysis to regional macroeconomic data.⁵⁶ However, the central problem of the approach - the difficulty of isolating the effect of the regional policy - has still not been overcome.

One application of the shift-share analysis was the 1980 work by Marquand for the Department of Trade and Industry.⁵⁷ This estimated the effects of regional policy on labour and investment, with special emphasis on the latter, and calculated regional shift-shares of national investment from 1959 to 1976, taking 1951-1958 as the base period. In attributing the increase in the shares of investment taken by the development areas to the different intensity and packages of the regional policy, allowances are made for other factors of potential relevance, such as changes in the industrial structure. For instance, separate calculations both include and exclude the oil, chemical and metal industry in order to allow for the influence of extraneous factors such as North Sea oil.

The possibility that the shares of the Development Areas in the national investment increase as a consequence of disinvestment occurring in other areas of the country is not taken into account by either Marquand or any other study. The point of the Marquand study is whether the regional policy resulted in an improved use of resources and whether gains from the policy have outweighed its costs as the author seeks to ascertain. Costs are calculated as gross and net costs for the Treasury and as diversionary effects of the regional policy. The result of the cost benefit analysis highlights that in the short to medium-term investment incentives are more costly than reductions in diverted taxation. However, in the long term, when considering employment gains, and investment increases and any contribution to competitiveness, it appears that investment incentives represent an efficient use of resources.⁵⁸ Marquand dismisses the notion of a potential misallocation of resources by showing that there were no significant differences in productivity in the assisted areas than

⁵⁵ *Ibid.*, pp. 421-423.

⁵⁶ H. Begg and S. McDowall, 'The Effect of Regional Investment Incentives on Company Decisions', *Regional Studies*, 21 (1987), pp. 459-460.

⁵⁷ Marquand, *Measuring*.

anywhere else in the UK. Marquand's approach improves upon previous studies by differentiating between the relative significance of the various sort of investment that incentives might generate i.e. additional investment and relocation of investment. However, she points out that in order to reach a more complete appraisal of the regional policy other factors that might facilitate or impede regional development (such as the structure of the regional industry and its organization) need to be investigated. The study concludes by calling for micro-economic works to examine the relative merits of different regional policy instruments.⁵⁹

Further criticisms of the shift-share methodology were expressed by Begg and McDowall in 1987.⁶⁰ They claimed that studies that intended to analyse the impact of incentives on investment through shift-share analysis simply demonstrate that regional investment is sensitive to changes in industrial policy, but offer no explanation of the effects of investment on the investment behaviour of companies.⁶¹ The most comprehensive micro-economic study addressing this issue is that of Allen, Begg, McDowall and Walker in 1986.⁶² This aimed to ascertain whether firms include incentives in the investment feasibility study, whether incentives either induce companies to make additional capital expenditure, or influence timing or scale of investment, and whether investment actually undertaken would not have occurred without incentives.⁶³

These issues are investigated using interviews concerning 100 specific investment projects. This places certain limitations on the value of the study, as the assessment of the set of issues posed in the study relies entirely on the recollections of plant managers. Another shortcoming of the study was that it was plant-based whereas decisions are taken at company level. Thus many of the interviewees had not participated in the decision-making process. Respondents were asked to define incentives according a four-point scale ranging from 'critical' (i.e. the investment

⁵⁸ *Ibid.*, p. 110.

⁵⁹ *Ibid.*, pp. 110-111.

⁶⁰ Begg and McDowall, 'Effect', pp. 459-470.

⁶¹ *Ibid.*, p. 460.

⁶² Allen et al, *Regional Incentives*.

⁶³ *Ibid.*, p. 3.

would have not been undertaken without the incentive) to 'irrelevant'.⁶⁴ 43.9% of interviewees defined incentives as critical. 12% claimed that the incentives had no influence on their investment decision. These results have been studied by firm size, and it emerged that smaller firms (regardless of their ownership structure, of the project size and amount of the investment) systematically reported higher degrees of influence than medium-sized and large firms. It is interesting to note that the significance attributed to the incentives varied according to the degree of the assistance enjoyed by the areas. 47% of interviewees located in Special Development Areas (i.e. of greatest need and enjoying additional incentives such as rent-free premises and additional building grants) answered that incentives had been crucial to the investment decision. In Development Areas and Intermediate Areas, which enjoyed lower levels of assistance, only 29% and 18% considered incentives as crucial. Similarly, only 12% of companies in Special Development Areas claimed that financial incentives were not significant, compared to 29% in the less needy Development Areas and Intermediate Areas.⁶⁵ These results remain open to a double interpretation. The first is that the higher the subsidies the more crucial is their role in the investment decision. Alternatively, one might argue that as to whether incentives are considered as crucial, is not necessarily related to their value but to the degree of development of the area, meaning that the less developed the area the greater the role played by subsidies in the investment decision.

Another study aiming to assess whether firms actually do consider grants in their investment appraisal and whether incentives generate additional investment is an earlier work by McDowell and Begg. This is particularly interesting in that it investigates the role played by regional financial assistance in the investment decision of local/indigenous firms located in areas affected by oil development. The study is conducted through personal interviews on a panel of 95 companies divided into four size categories (<50, 51-150, 151-300, >300), with 77% of the companies having less than 300 employees. The interview referred to investment decisions taken over the last ten years. 22% of the companies rated the incentives as crucial and 58% as important. More importantly, 14% of the companies interviewed stated that investment would

⁶⁴ *Ibid.*, p. 8.

have been abandoned in the absence of incentives. 20% of companies regarded the incentive as 'unimportant',⁶⁶ thus admitting that the investment would have been undertaken even without incentives.

The microeconomic studies reviewed suggest that the chief concern of the recent literature on the assessment of industrial policies is whether investment incentives have generated additional investment, i.e. whether incentives have been taken into account and revealed to be crucial in the final investment decision. An incentive extended to an investment project that would have been undertaken anyhow or to a firm that would have located in a development area in any case would be a misallocation of resources, and since 1984 there have been attempts in the British industrial policy to avoid such cases.⁶⁷

2.3 The Italian regional policy.

This section highlights the main issues in the debate concerning the Italian regional policy. It starts by giving an overview of the North/South economic divide. The second sub-section deals with the studies assessing the policy's effectiveness. Particular attention is devoted to studies dealing with the policy's impact on the growth of small firms in the South.

2.3.1 The regional problem

Southern Italy, also called the Mezzogiorno or Meridione, is an area covering 40% of the country, and comprising eight regions: Abruzzi, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia. As will be shown in Chapter III, this was the area (together with peripheral districts of the Lazio and Marche regions) targeted by the so-called 'Extraordinary Intervention for the South', managed by the Cassa per il Mezzogiorno (hereafter Cassa).

⁶⁵ *Ibid.*, p. 33.

⁶⁶ Begg and McDowall, 'Effect', p. 465.

⁶⁷ Armstrong, 'Regional Problems', p. 323.

Figure II.1 The regions of Italy



Italian regions: 1 Piedmont; 2 Valle d'Aosta; 3 Lombardy; 4 Trentino-Alto Adige; 5 Veneto; 6 Friuli Venezia Giulia; 7 Liguria; 8 Emilia Romagna; 9 Tuscany; 10 Umbria; 11 Marche; 12 Lazio; 13 Abruzzo; 14 Molise; 15 Campania; 16 Puglia; 17 Basilicata; 18 Calabria; 19 Sicilia; 20 Sardegna.

The National Bureau of Statistics (henceforth Istat, Istituto Nazionale di Statistica) divides Italy into: North-West = 1 Piedmont; 2 Valle d'Aosta; 3 Lombardy; 7 Liguria; North-East = 4 Trentino-Alto Adige; 5 Veneto; 6 Friuli Venezia Giulia; 8 Emilia Romagna; Centre = 9 Tuscany; 10 Umbria; 11 Marche; 12 Lazio; South = 13 Abruzzo; 14 Molise; 15 Campania; 16 Puglia; 17 Basilicata; 18 Calabria; Islands = 19 Sicilia; 20 Sardegna.

The table below displays some indicators of the North-South economic divide starting from the 1950s.⁶⁸

⁶⁸ For a discussion of the origins of the Italian economic dualism see L. Cafagna, *Dualismo e sviluppo nella Storia d' Italia* (Venice, 1989), pp. 187-220, reprinted in English as L. Cafagna, 'Discussion of the Origins of Italian Economic Dualism' in C. Feinstein (ed.), *The Economic Development of Modern Europe since 1870*, vol. 3, G. Federico (ed.), *The Economic Development of Italy since 1870* (Aldershot, 1994), pp. 634-653.

Table II.1 South and Centre-North economic indicators (%), 1951-1990.

	1951-60	1961-70	1971-80	1981-90	1990
<i>Share of South in Italian</i>					
Population	37.2	36.0	35.1	36.1	36.6
GDP per capita	54.5	56.6	58.6	58.2	56.7
Fixed investment	26.1	29.0	31.2	29.0	26.9
<i>Investment/output</i>					
South: whole economy	22.4	25.6	26.0	24.5	22.0
South: industry	14.7	20.6	24.5	22.8	22.0
Centre-North: whole economy	20.3	20.0	18.2	19.7	19.6
Centre-North: industry	21.3	16.9	13.8	17.4	18.6
<i>Unemployment</i>					
South	9.1	6.4	9.6	16.3	19.7
Centre-North	6.8	4.5	5.2	7.6	6.5

Source: R. Faini, G. Gallo and C. Giannini, 'Finance and Development: the Case of Southern Italy', in: A. Giovannini (ed.), *Finance and Development: Issues and Experience* (Cambridge, 1993), pp. 159, data sources: Istat and Svimez.

Table II.1 shows that in forty years of regional policy, the North-South gap was reduced only in terms of GDP per capita, and even there the reduction was insignificant. Scholars pointed out that the very fact that the South kept pace with the North when the latter experienced its fastest growth ever should be regarded as a considerable achievement. In years like 1975, the Southern GDP per head amounted to 65% of the corresponding figure for the Centre and North, thus reducing the gap by 10.5 percentage points as compared to 1951. The differential has been widening since that date, but overall from 1951 to 1983 the gap in terms of GDP per head decreased by eight percentage points.⁶⁹ Moreover, by the end of the 1970s the South had become the location for a considerable economic and industrial power, which played an active role in the Italian economy.⁷⁰

In table II.1, the economic indicator showing most dramatically the widening of the

⁶⁹ S. Cafiero, *Tradizione ed Attualità del Meridionalismo* (Bologna, 1989), p.110; P. Sylos-Labini, P., *L'evoluzione economica del Mezzogiorno negli ultimi trent'anni*, Servizio Studi della Banca d'Italia, *Temi di discussione*, 46 (1985), p. 4.

⁷⁰ A. Graziani and E. Pugliese, *Investimenti e Disoccupazione nel Mezzogiorno* (Bologna, 1978).

North-South divide since the 1970s is unemployment. The increase in unemployment is clearly related to the increase in the participation rate and the end of large outward migratory flows from the beginning of the 1970s. However, studies of this topic have pointed out other factors behind the high Southern unemployment. Graziani maintains that the policy's failure in reducing unemployment is also due to the emphasis of the policy on increasing productivity rather than employment. From the early 1960s, increasingly more access to subsidies was granted to large private firms and state-owned enterprises in basic sectors. This reflected the aim to create a large and modern industrial base in the South and to ensure a release of labour required by the fast industrial growth in the North.⁷¹

Recent studies have placed much emphasis on a neo-classical explanation of unemployment in Southern Italy. In 1970, following the approval of the Workers' Charter, it was adopted a single minimum national wage and a single cost-of-living adjustment, which replaced the previous system according to which the country was divided into 13 wage-areas. The adoption of a single minimum national wage led to an increase in labour costs in Southern Italy, which was not matched by an increase in productivity. As a result, the ratio of Southern Italian labour cost as a percentage of the national cost became higher than the ratio of Southern labour productivity as a percentage of national productivity. Therefore according to this explanation, the excessive regulation of the Southern labour market prevented the regional policy from yielding higher results.⁷²

A very critical view of the regional policy is taken by Padoa Schioppa Kostoris, who points out that despite the large amount of public resources devoted to the South, the Italian economic divide has not been reduced.⁷³ This disappointing result can be attributed to various causes, ranging from the growth of criminal economy in the region

⁷¹ A. Graziani, 'Introduzione' in: Id. (ed.), *L'economia italiana: 1945-1970* (Bologna, 1972), pp. 64-69.

⁷² F. Siracusano, C. Tresoldi and G. Zen, *Domanda di lavoro e trasformazione dell'economia del Mezzogiorno*, Servizio Studi Banca d'Italia, *Temi di discussione*, 83 (1986); Padoa Schioppa Kostoris, *Italy*, pp. 91-101.

⁷³ Padoa Schioppa Kostoris, *Italy*, pp. 74-113.

to a very flawed allocation of subsidies.⁷⁴ The allocation of soft loans and grants on a discretionary basis, entrusted to an inefficient bureaucracy, is considered as a waste of resources and as generating room for bribery. Moreover, as the procedure for allocating subsidies was not linked to the progress of the investment project, subsidies might have been used by recipient companies to increase their liquidity and undertake financial investment.⁷⁵

The main point of this criticism of government intervention in the South lies in the composition of government expenditure. The following table displays disaggregate government expenditure by regions in 1988.

⁷⁴*Ibid.*, pp. 108-109.

Table II.2 Regional distribution of government expenditure, 1988 (total in 000 bn L1980)

	DI	IPD	VA	E	LA	Total
As a % of total expenditure in the area						
Centre-North, excl. Lazio	43,2	11,3	7,9	6,7	30,9	203 (100)
Latium	47,1	8,0	5,6	6,4	32,9	39 (100)
Centre-North	43,8	10,8	7,5	6,6	31,2	243 (100)
South	46,5	4,7	6,6	5,8	36,5	129 (100)
Italy	44,8	8,6	7,2	6,3	33,1	371 (100)
Per capita (1988 bn lire) ^a						
Centre-North, excl. Lazio	2,8	0,7	0,5	0,4	2,0	6,6 (32.8) ^c
Latium	3,6	0,6	0,4	0,5	2,5	7,7 (40.1) ^c
Centre-North	2,9 (65.5) ^b	0,7	0,5	0,4	2,1	6,7 (33.8) ^c
South	2,9 (116.4) ^b	0,3	0,4	0,4	2,3	6,2 (55.0) ^c
Italy	2,9	0,6	0,5	0,4	2,2	6,5 (39.0) ^c

Keys: DI= expenditure to support disposable income, including wages and pensions; IPD= interest on public debt; VA= expenditure with direct effect on value added, including purchase of goods and services, direct investment and the Cassa expenditure; E= total transfers to state-owned and private enterprises; LA= transfers to local authorities; ^a own calculation on the source below; ^b DI in 1985-1986 as a percentage of the regional fiscal contribution in the same years, own calculations on the sources below; ^c Total government expenditure as a percentage of value added, own calculations on the source.

Source: Padoa Schioppa Kostoris, *Italy*, pp. 78-79 and 89; data sources: O. P. Attanasio and F. Padoa Schioppa, 'Regional Inequalities, Migration and Mismatch in Italy, 1960-1986', in F. Padoa Schioppa (ed.), *Mismatch and Labour Mobility* (Cambridge, 1991), pp.237-320; Senato della Repubblica, *Relazione generale sulla situazione economica del Paese* (Rome, 1989); I.Re.R., *La distribuzione regionale della spesa dello Stato* (Milan, 1986); ISTAT, unpublished data of the new regional accounts; F. Padoa Schioppa, 'Evoluzione demografica, crisi e redistribuzione del sistema pensionistico', in Ente per gli Studi Monetari, Bancari e Finanziari 'Luigi Einaudi' ed., *Il disavanzo pubblico in Italia: Natura strutturale e politiche di rientro* (Bologna, 1992) pp. 357-427.

Lazio, the region where Rome is located, has been isolated as it presents values higher than the average for various components of government expenditure. Lazio is an outlier as compared to the Centre, in terms of GDP and value added, also according to estimation of regional differentials referring to the beginning of the XXth century.⁷⁶

Table II.2 clearly shows that government expenditure in support to household

⁷⁵ Padoa Schioppa Kostoris, *Ibid.*, pp. 109-110

⁷⁶ V. Zamagni, *Industrializzazione e squilibri regionali in Italia* (Bologna, 1978), pp. 198-199.

disposable income is by far higher than subsidies with a direct effect on the growth of output, such as government direct investment and the Cassa expenditure, which are included in VA. Although government expenditure show a similar composition in the other regions, the bias towards supporting disposable income is held as a source of undesirable effects in the South. Such measures of income support have a smaller multiplier effect than funds directed to productive activity. Moreover, in an area like the South where the increase in disposable income is not matched by an increase in output, the increase in disposable income can cause an increase in the reservation wages.⁷⁷

Although Padoa Schioppa Kostoris raises a very important criticism of government intervention in the South, there seems to be room for some scepticism. Her argument of the government's bias towards supporting disposable income is based on a rich data set, but referring to one year only, 1988. The limitation is understandable in the light of the admitted difficulties in collecting empirical evidence of the government's effort to overcome the economic dualism, as mentioned in the Introduction. Nevertheless, such limitations should be born in mind when making inferences from this evidence. Secondly, the similar composition of state expenditure across the country indicates that the high share of support for disposable income is a problem affecting the whole Italian economic policy, rather than merely the regional policy. Thirdly, undoubtedly the South was the net beneficiary of government expenditure, as shown by the expenditure to support disposable income as a percentage of fiscal contribution.

One surprising feature emerging from Padoa Schioppa Kostoris figures is the large amount of government expenditure in the Centre and North, particularly when considering expenditure with a direct impact on value added and government transfers to enterprises, which include also incentives. In this respect, the Centre and North benefited more than the South in absolute terms, but in per capita terms, the benefits were roughly equal. Therefore, the effectiveness of government expenditure in the South, for instance in stimulating investment from non-Southern firms, might have been reduced by the availability of government funds in the Centre and North, for what

⁷⁷ Padoa Schioppa Kostoris, *Italy*, p. 107.

would make a difference in determining the location of the firm in the South would not be the entire subsidy, but only the difference between the subsidy it would receive locating in the South as compared elsewhere in the country. Moreover, when assessing the growth of the South as compared to the rest of the country, it should be born in mind that one is comparing the growth of an underdeveloped and subsidised region with the growth of a developed region in which some crucial government expenditure, like VA and E, were equally or even more important.

2.3.2 The assessment of the Italian regional policy

The methodology proposed by Moore and Rhodes has been applied by Del Monte to assess the effects of the Italian regional policy on Southern employment during the 1970s.⁷⁸ This study aimed to ‘quantify the impact of regional policy and separate it out from the other forces influencing the performance of assisted areas’.⁷⁹ With this purpose he calculated the ‘difference function’ between actual and ‘expected employment’. Expected unemployment was calculated by applying the national employment growth rate for each year to each industry in the region. Actual employment exceeded ‘expected employment’ every year. However, as the author admits, this result might be affected by the process of de-industrialization occurring in the more advanced areas of the country.⁸⁰ Therefore, the study intends to quantify the impact of regional policy in the 1970s on the employment difference function using econometric techniques. With this purpose Del Monte calculated several indicators of the intensity of the regional industrial policy: 1) grants and subsidised loans divided by value added in manufacturing; 2) the amount of investment in public and semi-public enterprises, added to grants and subsidised loans in the South divided by the corresponding national figures; 3) grants as percentage of investment; 4) investment in public and semi-public enterprises, plus subsidised loans and grants, plus public consumption and investment in public works, divided by the corresponding national figures; 5) public consumption plus investment in public and semi-public enterprises

⁷⁸ A. Del Monte, ‘The Impact of Italian Industrial Policy, 1960-1980’, in: G. Hall (ed.), *European Industrial Policy* (1986), pp. 128-164.

⁷⁹ *Ibid.*, p. 138.

⁸⁰ *Ibid.*, p. 140.

plus investment in public works.⁸¹ All these indicators, except the third, clearly show a peak from 1970-1 to 1973 and fall back to pre-1970 values in 1974 and 1975. From 1976, indicators 1) and 2) show a clear weakening of the industrial policy, when figures halved suddenly. Thus, it seems that the trend of these indicators suggests that the regional industrial policy as a whole weakened after 1976/7. Lastly, Del Monte undertook a simple linear regression analysis, having as the dependent variable the difference between employment and expected employment and as explanatory variables indicators 2) and 3) above – indicated respectively as IIP and IIPN in table II.3 below. The various equations used same year values for the dependent and explanatory variables, and also lagged the explanatory variables by one and two years. The most convincing result is provided by equation 5, obtained by using indicator 2) lagged by one year -expressed as IIPN1 in table II.3 below - where the coefficient, R² and D-W statistics appear to be satisfactory. Equation 3 shows the highest explanatory power as well as the highest significant coefficient, however, the low D-W statistic suggests strong caution. In order to exclude the possibility of auto-correlation, the D-W value should be around 2. Therefore, apart from equation 5, none of the equations seems convincing. The table below displays the results.

Table II.3 Actual and expected employment in the Mezzogiorno, 1971-80.

Dependent variable: difference between actual and expected employment (T values in brackets, number of observations not specified).

	Explanatory	Constant	Coefficient	R ²	DW
1	IIP	2.505 (0.45)	2.417 (1.425)	0.20	1.19
2	IIP1	3.937 (0.74)	3.479 (2.039)	0.34	1.84
3	IIP2	-5.403 (-1.24)	5.204 (3.948)	0.66	1.61
4	IIPN	-1.665 (-0.24)	0.37 (1.905)	0.31	1.28
5	IIPN1	-5.347 (-0.84)	0.463 (2.648)	0.46	2.05

Keys:

IIP= grants and subsidised loans divided by value added in manufacturing, in the South, indicator of the intensity of the policy 1); IIP1= IIP lagged by 1 year; IIP2= IIP lagged by 2 years;

IIPN=investment in public and semi-public enterprises plus grants and subsidised loans in the South divided by the corresponding national figures, indicator of the intensity of the regional industrial policy 2); IIPN1= IIPN lagged by 1 year.

Source: Del Monte, 'The Impact', p. 144.

⁸¹ *Ibid.*, pp. 142-143.

The five equations were obtained using two explanatory variables IIP and IIPN, lagged by 1 or 2 years. Therefore, the different values displayed by the coefficients in regressions 4 and 5 as compared to 1, 2 and 3, can be due to different units of the explanatory variables. What is puzzling is the different signs of the constants, particularly in equation 3, which has been obtained using the same explanatory variable as equations 1 and 2. However, the constants have such a low R^2 that no precise meaning can be attributed to their values. Although the results of the whole set of equations do not seem conclusive, they suggest a higher influence of the policy when allowing for a time lag.

The Moore and Rhodes methodology, in its simplest formulation (1973) was re-applied in 1997 by Del Monte and Giannola, to study the impact of the Cassa incentives on employment.⁸² According to the authors, employment is the main variable on which the effectiveness of the regional industrial policies should be assessed. The same exercise on investment would not be sufficient to assess industrial policies as increases in investment do not necessarily bring about increases in employment and value added, but could simply bring about an increase in the ratio of capital to output and capital per employee.⁸³ However, the authors do not take into account that output and productivity growth could be valid alternative variables, which would enable them to avoid the problems connected with investment. Their reasoning relies on the assumption that the main objectives of regional industrial policies in general, and the one for Southern Italy in particular, are increases in employment and value added.

Del Monte and Giannola estimated the expected employment in manufacturing by sectors from 1951 to 1987. This is particularly interesting in that it offers an estimate by sectors and covers virtually the whole period of Cassa activity. The comparison expected - actual employment (E-A) by sectors shows that the most capital-intensive industries are the most sensitive to changes in the intensity of the regional industrial policy, and that the effects on employment of the industrial policy were particularly

⁸² A. Del Monte and A. Giannola, *Istituzioni economiche e mezzogiorno. Analisi delle politiche di sviluppo* (Rome, 1997).

⁸³ *Ibid.*, p. 311.

evident in the 1970s.⁸⁴ The same calculation is repeated on value added in industry as a whole. The difference function E-A value added shows a downward slope from 1951 to 1962, and an upward one in the 1962-1980 period. In the 1980s, it decreased, probably as a result of the decreasing investment in the capital-intensive sectors.⁸⁵ A number of reasons may have determined these results. The 1969-75 period was characterized by investment undertaken by State-owned enterprises in the South. The economic irrationality of these investments would demonstrate itself in at the end of the 1970s and in the 1980s. Another reason might be the loss of attractiveness of Southern locations due to an increase of the incentives available since the end of the 1970s in the rest of the country. A further reason that contributed to the lowering of investment in the South since 1970s has been the restructuring of large plants in the North. The substitution of capital with labour and the subcontracting of stages of the production process once developed inside the large firm lessened rigidities in the labour market and the bargaining power of the labour supply in the North, thus making Southern locations less attractive as compared with those in the North and Centre. This process instead favoured North-Eastern industrialization via small-scale industry.⁸⁶ Thus, if on the one hand Del Monte and Giannola have not taken into account many factors in specifying their hypothetical employment, on the other hand they offer a variety of explanations to the 'all-embracing' employment differential they calculated. However, despite downplaying investment as the major determinant of success of a regional industrial policy, investment remains central to most of their interpretations.

In analysing Southern industrialization, commentators tend to concentrate on the role played by state-owned enterprises and non-Southern private companies, such as Fiat or Montedison. Consequently, Southern industrialization is usually regarded as 'imported from outside'. Furthermore, the establishment of immigrant firms coincided with the crisis of local industry and business, rather than the spread of industrialization.⁸⁷ The core point of this interpretation is that the industrial policy for the South failed to

⁸⁴ *Ibid.*, p. 314.

⁸⁵ *Ibid.*, p. 322.

⁸⁶ *Ibid.*, pp. 327-329.

⁸⁷ A. Del Monte and A. Giannola, *Il Mezzogiorno nell'Economia Italiana* (Bologna, 1978), p. 257.

stimulate small business enterprise and local entrepreneurship.⁸⁸ In other words, it failed to promote a self-propelling industrial development similar to that taking place in the North-East and Centre, where various areas not only closed the gap between themselves and the industrial triangle, but even outperformed the leading region.⁸⁹

The concept of a Southern industrialization characterized by large firms established by state-owned enterprises or non-Southern capital is not unanimously supported. Using the 1981 census, Pontarollo argues that the recent development of Southern Italy has been characterised by a growing number of small (<99 employees) and medium-sized firms (100-499 employees).⁹⁰ From 1974 to 1979, employment in the South increased by 50,000, of which medium-sized and large enterprises accounted for only 15,000.⁹¹ Other indicators allow comparisons between the performance of small and larger firms in the South and the rest of the country in the 1970s.

⁸⁸ S.A. Castronuovo, 'Mezzogiorno: the Theory of Growth and the Labour Market' p. 346, *Journal of Regional Policy*, 12/2 (1992), pp. 333-365.

⁸⁹ Zamagni, *Economic History*, p. 370.

⁹⁰ E. Pontarollo, *Tendenze della Nuova Imprenditoria nel Mezzogiorno degli Anni '70* (Milan, 1982).

⁹¹ The authors do not specify the definition of small, medium-sized and large firms, but it appears they define small firms as those employing less than 20 workers. R. Faini and F. Schiantarelli, 'Regional

Table II.4 Average annual rate of growth (%) of value added, employees and productivity in manufacturing industry (excluding construction).

	Southern Italy		Northern Italy	
	All firms	Firms with more than 20 workers	All firms	Firms with more than 20 workers
Value added				
1970-79	4.4	4.7	3.5	3.5
1974-79	3.1	1.3	2.3	0.7
Employees				
1970-79	1.9	2.1	0.3	-0.2
1974-79	1.0	0.6	-0.3	-1.4
Productivity output/employee				
1970-79	2.5	2.6	3.2	3.7
1974-79	2.1	0.7	2.6	2.1

Source: R. Faini and F. Schiantarelli, 'Regional Implications of Industrial Policy', *Journal of Public Policy*, 3/1 (1983), p. 107; data source: Istat, *Annuario di contabilit  nazionale*, 1981; Istat, *Annuario di Statistiche Industriali*, various years.

The table shows that in the 1970s value added, employment and productivity per employee grew more in firms with more than 20 employees. However, after the oil shock, the reverse was true, suggesting a much stronger performance by small firms. The table also shows that indicators grew faster in the South than in the rest of the country, with the exception of output per employee.

It is often argued whether small firms benefited from the Cassa's industrial policy. According to Lizzeri, small firms developed independently from the system of incentives.⁹² On the other hand, Faini claims that the development of small firms in the South has not yet been explained. In particular, the relationship between the development of small-medium firms and financial and fiscal incentives has not been analysed. In other words, the Lizzeri thesis is not well demonstrated. The analysis of the relationship between the two factors would also be a relevant test for the

Implications of Industrial Policy', *Journal of Public Policy*, 3 (1983).

⁹² G. Lizzeri, *Mezzogiorno Possibile. Dati per un Altro Sviluppo* (Milan, 1983).

effectiveness of the industrial policy.⁹³

In order to analyse the impact of the system of incentives on small and medium-sized firms, Faini explored whether smaller firms were discriminated against by the Cassa and made less use of its services. His analysis covered the 1970-1983 period, and takes into account only data referring to newly established firms. During that period, establishing firms received almost 50% of the subsidies extended by the Cassa.⁹⁴

As far as the first point is concerned, indexes of financial subsidies per unit of investment accepted by firm size have been calculated. Financial subsidies included grants and subsidised loans, in order to have a single figure including the grants and the 'economic advantage' that a subsidised loan provided, the implicit subsidy in a subsidised loan has been calculated in the following way:⁹⁵

$$S = L \left\{ 1 - \frac{r_A(1+r_A)^N}{(1+r_A)^N - 1} \right\} \left[\frac{(1+r_M)^N - 1}{r_M(1+r_M)^N} \right]$$

where: L = loan; r_M = market long-term interest rate; r_A = subsidised interest rate; N = length of the loan

According to this formula the absolute amount of the implicit subsidy within a subsidised loan depends on the absolute amount of the loan, the differential between subsidised and market interest rates and the redemption period. However, the implicit subsidy as a percentage of the total subsidised loan is determined only by the differential between market and subsidised interest rates and the redemption period.

In order to measure the incentives, subsidies implicit in low interest loans and grants have been summed up across recipient firms by group size and divided by the amount of the investment approved by the Cassa by group size. This provides the so-called "coefficient of subsidies".

⁹³ R. Faini, 'Incentivi e Piccole e Medie Imprese nel Mezzogiorno', *Ricerche Economiche*, 39/3 (1985), pp. 318-319.

⁹⁴ *Ibid.*, p. 321.

Table II.5 Coefficient of subsidy by firm size, 1970-1983

Firm size	1970-1973	1974-1979	1980-1983
A	.22	.43	.56
B	.22	.45	.58
C	.20	.41	.56
D	.19	.34	.46
E	.24	.29	.42

Keys: A=0-20 employees; B=21-50 employees; C=51-100 employees; D=101-500 employees; E=500< employees;

Source: Faini, 'Incentivi e Piccole', p. 322, data provided by the Ministry of Industry.

The table shows that the largest firms received the highest levels of subsidies only during 1970-73. During subsequent periods, smaller firms fared better than their larger counterparts. This is even more significant given the consistent increases of the subsidy/admitted investment ratio over time. The table shows that small firms were not disadvantaged as far as the subsidised proportion of investment was concerned. However, it is possible that small firms had less access to financial incentives due to bureaucratic barriers or the lack of collateral, which could have reduced the approved investment thus making less meaningful the ratio calculated above. In order to assess this issue, investment undertaken by firms with more than 20 employees has been divided by total investment in Southern manufacturing. This ratio has been compared with that of investment submitted by firms with more than 20 employees approved by the Cassa and total investment approved by the Cassa. The same comparisons have been calculated for firms with more than 50 employees. Data on subsidised investments refer to newly established firms only.⁹⁶

⁹⁵ *Ibid.*, p. 320.

⁹⁶ *Ibid.*, p. 324.

Table II.6 Investment and subsidised investment.

Year	I>20/I	S>20/S	I>50/I	S>50/S
1970	.83	.87	n.d.	----
1971	.84	.79	n.d.	----
1972	.86	.87	n.d.	----
1973	.68	.91	.65	.83
1974	.58	.84	.56	.67
1975	.66	.87	.62	.74
1976	.70	.81	.64	.66
1977	.69	.85	.65	.75
1978	.83	.84	.60	.69
1979	.73	.58	.67	.29
1980	n.d.	.70	n.d.	.46
1981	n.d.	.46	n.d.	.22
1982	n.d.	.56	n.d.	.34

Keys:

I > 20 (50): investment by firms with more than 20 (50) employees.

I : total investment

S > 20 (50): investment submitted by firms with more than 20 (50) employees and approved by the Cassa.

S : investment in new firms/plants approved by the Cassa.

Source: R. Faini, 'Incentivi e Piccole', p. 322.

The higher values of column 2 as compared to column 1 show that firms with more than 20 employees made extensive use of subsidies. However, this tendency changed at the end of the 1970s. For firms with more than 50 employees, the trend is similar. Thus, the author concludes that firms with less than 20 employees used financial incentives to a small extent, but the medium-size firms used them extensively.

Although the percentage of incentives over investment was high, this does not exclude the possibility that small firms experienced difficulties accessing the system. Thus the available evidence does not prove or disprove the hypothesis that small firms in the South developed independently of the system of incentives at the end of the 1970s.⁹⁷ However, it did not show any bias against small firms, so there is no a priori reason to

⁹⁷ *Ibid.*, p. 326.

believe that the development of small firms was not fostered by the Cassa incentives.

A different approach to assessing the effectiveness of regional subsidies has been proposed in a recent study by Bagella and Caggese.⁹⁸ Using a sample of more than 3,000 manufacturing companies, the study assesses the effectiveness of regional subsidies by studying the profitability of subsidised firms as compared to non-subsidised ones, from 1989 to 1991. The same comparison is conducted also for other areas of the country - the North-West, North-East and Centre - thus enabling a comparison of the performance of Southern subsidised companies with subsidised companies in the rest of the country. The analysis concludes that regional incentives were less effective than their national counterparts, as Southern subsidised companies are not only less profitable than non-subsidised Southern companies but also riskier. Subsidies extended in the framework of the national policy appear to be more effective, as subsidised companies in other areas of the country are less profitable than non-subsidised companies, but at least are less risky.⁹⁹

Conclusions

This chapter reviewed the theoretical and historical debate concerning the implementation and evaluation of regional policies. From a methodological perspective, the studies reviewed in this chapter show that the initial approach to the assessment of industrial policies has been a macro-economic one, the key point of which is the comparison of a hypothetical policy-off scenario with the actual policy-on situation. This counterfactual analysis proved to be the most intractable of the problems affecting the macro studies. Furthermore, studies based on regional data do not allow the study of the effects of individual policy instruments. The awareness of these limitations stimulated an interest in the micro-economic analysis of the same issue. These studies are based on information about decision making collected through questionnaires. Such works have various merits, particularly in enabling the analysis of specific policy instruments by area and by firm size. However, by relying entirely on questionnaires, the insight and analytical potential is somehow limited. The

⁹⁸ Bagella and Caggese, 'Struttura del capitale', pp. 813-837.

assessment of the importance of the subsidies was entrusted to the personal judgement and memory of some plant managers, and was not the result of a careful analysis.

The second section has reviewed the lively debate surrounding the Italian regional policy, and the numerous criticisms it has received. Indicators of the regional differentials show that the North-South gap was not reduced while the policy was implemented, an outcome that divided scholars. Critics of the policy have interpreted this as disappointing,¹⁰⁰ whereas supporters consider it an achievement that the South did not fall further behind while the rest of the country was experiencing its fastest growth.¹⁰¹

Despite this, even supporters of the regional policy pointed out its flaws. The indicator that most dramatically shows the Italian regional differential is unemployment, where the gap widened from the 1970s onwards. This has been interpreted as due to the policy's emphasis on increasing productivity and value added in the South, rather than employment. In turn, this meant making it easier for large private and state-owned companies to access subsidies from the 1960s onwards.¹⁰² Other scholars hold the view that the excessive regulation of the Italian labour market prevented the policy from achieving better results in terms of unemployment.¹⁰³

Padoa Schioppa Kostoris criticized government expenditure in the South as unbalanced, supporting disposable income rather than output and value added growth.¹⁰⁴ However, her data also show that government expenditure with direct impact on added value in the South were slightly below the corresponding figure for the North and Centre, in per capita terms, and far below when considering the absolute figures. This is surprising considering that government expenditure in the South includes also funds transferred to the South within the framework of the regional policy. Therefore, on the basis of 1988 data, developed areas of the country were the

⁹⁹ *Ibid.*, pp. 828-830.

¹⁰⁰ Padoa Schioppa Kostoris, *Italy*, pp. 74-113.

¹⁰¹ Cafiero, *Tradizione*, p. 110; Sylos-Labini, *L'evoluzione*, p. 4.

¹⁰² Graziani, *L'Economia*, pp. 64-69.

¹⁰³ Siracusano, Tresoldi and Zen, 'Domanda di lavoro'.

¹⁰⁴ Padoa Schioppa Kostoris, *Italy*, p. 107.

target of government expenditure to a larger extent than the underdeveloped areas, which were entitled to additional funds through the regional policy. Financial subsidies, such as grants and subsidised loans are included within this group of expenditure, although no details are provided about their share. This point seems worth stressing, as the equal or even higher availability of subsidies in developed areas, might have reduced the effectiveness of regional subsidies in attracting investment to the South.

Among criticisms of the policy, the claimed inability of the policy to stimulate the growth of small firms features prominently. However, studies dealing specifically with the effects of the incentives on small firms have found no evidence of reduced access to subsidies by small firms, or of any Cassa discrimination against such firms. Studies dealing specifically with the effects of the incentives on small firms have ended up by demonstrating that small firms were not disadvantaged in accessing the incentives, although the significance of these policy instruments in fostering their growth has not been addressed.

Studies reviewed in this chapter show that the effectiveness of the Italian regional policy has been assessed in various ways. Del Monte and Del Monte and Giannola¹⁰⁵ adopted the Moore and Rhodes methodology and attempted to estimate the impact of the regional policy on employment, but they did not yield conclusive results. The authors admit that their estimate of the differential between actual and expected unemployment, can be due to various factors, and not only to the policy. Moreover, it seems more appropriate to estimate the impact of the policy on investment. As will be shown in detail in Chapter III, promoting investment was the direct aim of incentives.

A new methodology to assess the effectiveness of incentives has been recently proposed by Bagella and Caggese, and is based on the comparison of the profitability of subsidised and non-subsidised firms. Their analysis seems to be particularly appropriate for the sources utilized in the micro-analysis (Chapters VI and VII), can be extended to a comparison of the investment activity of subsidised and non-subsidised

¹⁰⁵ Del Monte, 'Impact'; Del Monte and Giannola, *Istituzioni*.

firms, and their methodology is explained in greater detail in section 7.1.

CHAPTER III

National and regional incentives to industry, 1950 to 1991.

Introduction

The present chapter provides an overview of the system of incentives created by the industrial policy for the South and compares it with its national counterpart. Both the system of incentives implemented in the South and that available at the national level were so complex and convoluted, that the various schemes were later described as a 'jungle of incentives'. Studying both systems in detail is necessary as it provides elements of the analysis that follows in the next chapters. Moreover, the major institutional changes and shifts in the system of incentives have been also investigated from an economic policy perspective.

The chapter is organised in two sections. The first introduces the institutions charged with the provision of finance to industry, and which became the channel of state subsidies within the framework of the national and regional industrial policy from the 1950s. The second traces the evolution of the various national and regional schemes to promote economic development by offering inducements to industry, with particular reference to the 'extraordinary intervention in the South', and its executive instrument, the Cassa per il Mezzogiorno (the Fund for the South). The section will outline each of the major schemes, and will offer a quantitative analysis of the main priorities and activities of the Cassa in order to single out the relative importance of the subsidies in the context of the regional policy.

3.1.1 The establishment of medium-term credit institutions

This section deals with the establishment of credit institutions specialising in subsidised and market medium-term credit to small and medium-sized firms, and their refinancing body the Mediocredito Centrale. This is part of a wider story, in which the history of the Italian banking system and the economic policy pursued in the 1950s come together.

The establishment of the medium-term credit institutions, starting at the end of the 1940s, stems from the reorganization of the Italian banking system¹ following the banking crisis of 1931-1933,² which culminated in the Banking Reform Law in 1936. This conferred upon the Bank of Italy (henceforth BoI) the power of shaping the banking sector in terms of market specialisation and territorial competence, which were in turn related to the legal status of the banks, and from 1975 to the size of their deposits (details concerning the legal status of banks and their territorial competence are provided in Appendix A).³ The BoI, by the powers conferred by the 1936 law,⁴ divided the credit system into two branches, one comprising institutions entitled to take short-term savings and providing short-term finance - for working capital (henceforth ordinary banks) - the other consisting of institutions that take medium- and long-term savings and extend medium- and long-term finance and industrial credit (henceforth medium-term credit institutions, MTCIs).⁵

The distinction between short-, medium- and long-term for the collection of savings was as follows: short-term until 18 months, medium-term from 18 months to five years, long-term above five years. The corresponding distinction for loans, used by the Bank of Italy until the end of the 1940s was: short-term up to one year, medium -

¹ The Italian banking system has undergone three major transitions: in 1893-95, from a credit mobilier to the mixed bank system; in 1931-36 with the end of the mixed bank system and establishment of a clear distinction between short and medium term credit; and the early 1990s when banks were again authorised to operate on the medium term market (in accordance with the second EU Banking Directive). A. Gigliobianco, G. Piluso and G. Toniolo, 'Il Rapporto banca-impresa in Italia negli anni cinquanta', in: F. Cotula (ed.), *Stabilità e sviluppo negli anni cinquanta*, Vol. 3: *Politica bancaria e struttura del sistema finanziario* (Rome-Bari, 1999) p. 229; Federico and Toniolo, 'Italy', p. 204; E. Gualandri 'The Restructuring of Banking Groups in Italy: Major Issues', in: J. Revell (ed.), *The Recent Evolution of Financial Systems* (Basingstoke, 1997), p. 157.

² For the causes of the early 1930s crisis with particular reference to Italy, among others see the recent works: G. Toniolo, 'The Rise and Fall of the German-Type Bank in Italy, 1894-1934', in: P. Klep and E. Van Cauwenberghe (eds), *Entrepreneurship and the Transformation of the Economy (10th-20th Centuries). Essays in honour of Herman van der Wee* (Leuven, 1994), pp. 429-440; G. Toniolo, 'Italian Banking, 1919-1936', in C.H. Feinstein (ed.), *Banking, Currency, and Finance in Europe between the Wars* (Oxford, 1995), pp. 296-314; M. De Cecco and G. Ferri, *Le Banche d'Affari in Italia* (Bologna, 1996); G. Conti, 'Finanza d'Impresa e Capitale di Rischio in Italia (1870-1939)', in *Rivista di Storia Economica*, N.S., 10/3 (1993), pp. 307-332.

³ S. Cassese, *E' ancora attuale la legge bancaria del 1936? Stato, banche e imprese pubbliche dagli anni '30 agli anni '80* (Rome, 1987), pp. 33-35 and 60-82.

⁴ For the role attributed to the Bank of Italy by the Banking Reform law, see S. Battilossi, *L'Italia nel Sistema Economico Internazionale, Il Management dell'Integrazione Finanza, Industria e Istituzioni 1945-1955* (Milan, 1996), pp. 92-94 and bibliography therein.

⁵ L. Ceriani, 'Italy', in R.S. Sayers (ed.), *Banking in Western Europe* (1962), pp. 124 and 129-130.

from one to five years and long-term above five years. In 1952, with the establishment of the Mediocredito Centrale (MCC), the definitions were changed: short-term credit up to one year and medium-term credit from one to ten years, except in Southern Italy (up to 15 years).⁶ Therefore, henceforth only the denomination 'medium-term credit' (MTC) will be used.

The establishment of two institutions, the Istituto Mobiliare Italiano (IMI) in 1931 and the state-owned holding company Istituto per la Ricostruzione Industriale (IRI) in 1933 paved the way to the Banking Reform Law of 1936.⁷ Both found their origins in the BoI's rescue of the three major mixed banks (Banca Commerciale, Credito Italiano and Banco di Roma) in 1931 and their confinement to the short-term credit market. Both IMI and IRI were called to provide fresh capital to the industrial sector. The IMI was a public institution charged with the provision of long-term industrial finance, and IRI had the task of placing the industrial portfolio of the former three mixed banks on the market and financing industrial firms under its control.⁸

The separation between the short-term and medium-term credit markets should have ensured stability in the banking system, as it implied harmony between bank assets and liabilities. It also avoided the excessive freezing of capital that had characterized the

⁶ V. Pontolillo, 'Aspetti del sistema di credito speciale con particolare riferimento all'intervento dello Stato', Banca d'Italia, *Bollettino*, 1971/1 (1971), p. 109 and footnote 3.

⁷ C. Pace and G. Morelli (eds), *Origini ed identità del Credito Speciale* (Milan, 1984), p.13. For the crucial role played by IMI and IRI, and the other so-called Beneduce institutions - such as Istituto nazionale assicurazioni (1913), Consorzio di credito per le opere pubbliche (1919), Istituto di credito opere di pubblica utilità (1924) and Istituto di credito navale (1928) in collecting small savings and channelling them towards the financing of the economic development of the country, as well as the dirigist approach behind such institutions, see P.F. Asso and M. De Cecco, *Storia del Crediop. Tra Credito Speciale e Finanza Pubblica 1920-1960* (Rome-Bari, 1994), pp. 19-22; M. De Cecco, 'Splendore e crisi del sistema Beneduce: note sulla struttura finanziaria ed industriale dell'Italia dagli anni venti agli anni sessanta', in F. Barca (ed.), *Storia del capitalismo italiano, dal dopoguerra a oggi* (Rome, 1997), pp. 392-394.

⁸ P. Ciocca and G. Toniolo, 'Industry and Finance in Italy, 1918-1940', *Journal of European Economic History*, special issue: *Banks and Industry in the Interwar Period*, 13/2 (1984), pp. 131-134. For a more detailed account of the role of the IRI, its tasks and its sources of finance, see G. Toniolo, 'Il profilo economico', in: G. Guarino and G. Toniolo, *La banca d'Italia e il sistema bancario, 1919-1936* (Rome-Bari, 1993), pp. 82-92. For a more detailed account of the rescue of the Banca Commerciale see G. Toniolo, *L'economia dell'Italia fascista* (Rome-Bari, 1980), pp. 228-233. For the causes of the early 1930s crisis with particular reference to Italy, see Toniolo, 'Rise and Fall'; Toniolo, 'Italian Banking'; De Cecco and Ferri, *Le Banche d'Affari*; Conti, 'Finanza d'Impresa'.

mixed banks and their collapse,⁹ leading to huge losses for the depositors and political repercussions.¹⁰ However, if this had been the only aim, it would have sufficed to impose a clear equilibrium between medium-term assets and liabilities on the banks, and restricting the banks to the short-term credit market would have not been necessary. The decision, supported in particular by Menichella (director of the IRI 1933-1944, director of the BoI 1946-1947 and governor of the BoI 1948-1960) and Beneduce (president of the IRI 1933-1939, president of several of the so-called Beneduce institutions, and senator from 1939 to his death in 1944) was more about reducing the role of banks in the Italian economy, as in the Thirties banks had risen to the head of industrial and financial groups and were determining the direction of the country's industrial development.¹¹ Therefore, the ultimate aim of the distinction was to bring the banking system within the realm of the state economic planning.¹²

Menichella and Beneduce advocated the separation of short- and medium-term credit, as the latter required expertise such as knowledge of the borrowing company and of the production process to be financed. This in turn required specialized credit institutions on the medium-term market. Menichella felt the IMI to be appropriate to perform such tasks and it should endow itself with peripheral institutions, to which banks and saving banks in particular should contribute, to be able to provide also small and medium-sized firms with their financial requirements.¹³ However, the colonialist experience and the outbreak of the Second World War interrupted the development of the new banking system and the void in the medium-term credit market was not filled either by the IMI or by other banks.¹⁴

The only exception was the establishment of the Isveimer (Istituto per lo sviluppo economico dell'Italia meridionale, Institute for the Economic Development of Southern Italy) on the initiative of the Bank of Naples. This exception is justified in

⁹ R. Banfi, 'Gli Istituti di Credito Speciale e il Sistema del Credito Agevolato', in *Rivista Bancaria - Minerva Bancaria*, 1981/1-2 (1981), pp. 30-31.

¹⁰ Gigliobianco, Piluso and Toniolo, 'Il rapporto banca-impresa', p. 229.

¹¹ *Ibid.*, pp. 229-230; Toniolo, 'Il profilo economico', p. 72.

¹² M. De Cecco, 'Note sugli sviluppi della struttura finanziaria nel dopoguerra' in De Cecco, M., *Saggi di politica monetaria* (Milan, 1968), p. 42.

¹³ P.F. Asso and G. Raitano, 'Trasformazione e sviluppo del credito mobiliare negli anni del governatorato Menichella', in: F. Cotula (ed.), *Stabilità e sviluppo negli anni cinquanta*, vol.3 *Politica bancaria e struttura del sistema finanziario* (Rome-Bari, 1999), pp. 312-314.

the literature by the understanding that the Isveimer was established not only as a medium-term credit institution^(MTCI), but also as a development bank, which was consistent with the programme of economic autarky pursued by the Fascist regime.¹⁵ According to its Statute, its aim was to promote and increase productive activities in continental Southern Italy and Sardinia, the regions under its competence (thus excluding Sicily, where the Bank of Sicily was operating). Among its specific tasks were the establishment, enlargement and financial and technical reorganisation of industrial firms, with particular attention to those utilising local resources and the local labour force.¹⁶ It was endowed and managed by the establishing bank and it is perceived that its poor endowment was a hindrance to the smooth functioning of both Isveimer and the entire medium-term credit activity managed by the Bank of Naples.¹⁷ Until Isveimer's reorganisation in 1953, the Bank of Naples remained its only source of finance, as the Banking Reform Law, in its original 1936 formulation, recognised the possibility of issuing bonds only to the IMI, as far as institutions involved in medium-term credit to industry were concerned. Only from 1946 would this financing technique be extended to the newly established institutions involved in the medium-term credit to industry. However even at that date the Isveimer was not authorised to issue bonds.¹⁸ Only in 1953 when the Isveimer was re-organised with a new statute and it was no longer entitled to acquire direct participation in industrial firms and was transformed into a 'classical' MTCI, was it authorised to finance itself on the market by issuing bonds. From this date the Isveimer was entitled to operate with the MCC, whereas at the end of 1952 it had already started operating with the Cassa per il Mezzogiorno and became one of the institutions handling financial subsidies made available by the regional and national industrial policies in the South.¹⁹

¹⁴ *Ibid.*, p. 321.

¹⁵ In turn the Isveimer was preceded by a Fund established in 1926 (Fondo per concorso a speciali opere di propulsione economica interessanti le provincie continentali e la Sardegna). P. Croce, 'Il credito industriale nel Mezzogiorno', in: F. Cotula (ed.), *Stabilità e sviluppo negli anni cinquanta*, vol. 3: *Politica bancaria e struttura del sistema finanziario* (Rome-Bari, 1999), pp. 604-605; Asso and Raitano, 'Trasformazione', p. 321.

¹⁶ A.S. Camilleri, *Industrial Medium-Term Financial Institutions in Italy* (1966), p. 2.

¹⁷ The endowment fund of the Isveimer amounted to 50 million lire, together with an annual endowment amounting to a maximum of 20% of the Bank of Naples' net profit. The 1926 fund was endowed with 50 million lire plus an annual endowment up to 25% of the net profit. Croce, 'Il credito', p. 605.

¹⁸ *Ibid.*, pp. 604-605.

¹⁹ *Ibid.*, pp. 620-625. The coincidence between Isveimer's exclusion from direct participation in industrial concerns and its authorization to finance itself on the market is clear. However, the author believes that the former is not a sufficient explanation for the latter. *Ibid.*, p. 610, fn 22.

Despite Beneduce and Menichella's original plan, formulated in the 1930s, to limit the proliferation of MTCIs, and as far as credit to industry was concerned to limit it to the IMI, by the end of the 1950s there were 30 institutions specializing in MTC to industry, including Departments for Industrial Credit (DICs, *Sezioni di credito industriale*) and MTCIs.²⁰ The Beneduce and Menichella plan aimed to assure BoI control of the MTC to avoid leaving room for the interests of financial and industrial groups. However, from the second half of the 1940s strong pressures were put on the BoI to authorize the establishment of MTCIs from public as well as private banks.²¹ The rigid separation between medium-term savings and credit meant that ordinary banks could not access the medium-term market, and thus could not transfer surplus funds from short-term operations to the medium-term credit market.²² By establishing DICs and MTCIs, ordinary banks could transfer short-term deposits to the medium-term market, and provide firms with MTC. The transfer took place by acquiring DIC and MTCI bonds, which was a profitable investment in itself, considering these bonds paid higher yields than state securities and were risk free. A further source of profit for banks was the sale of such bonds to the public. Moreover, by establishing DICs and MTCIs, ordinary banks created an intermediary providing firms with assistance in placing their shares on the market.²³

The earliest attempts to overcome the confinement to the short-term credit market were the institutions of the DICs. As already mentioned, these could finance themselves by issuing bonds, and came from the main public banks, as banks could finance the DICs in various ways, contributing to their paid-up capital and buying their bonds.²⁴ The proliferation of DICs and MTCIs in the post-War period took place in connection with the process of economic growth and the availability of capital that it required.²⁵ This is confirmed by the fact that the BoI nominated the DICs at the Southern Banks (Banks of Sicily and of Naples) and the Isveimer as the institutions in charge of financing the

²⁰ Asso and Raitano, 'Trasformazione', pp. 317-321; V. Pontolillo, *Il sistema di credito speciale in Italia* (Bologna, 1980), pp. 19-20.

²¹ Asso and Raitano, 'Trasformazione', pp. 321-324.

²² Banfi, 'Gli istituti', p. 33.

²³ F. Carnevali, 'British and Italian Banks and Small Firms: a Study of the Midlands and Piedmont, 1945-1973' (Unpublished Ph. D. Thesis, University of London, 1997), pp. 201, 205.

²⁴ Asso and Raitano, 'Trasformazione', p. 331.

²⁵ Pontolillo, 'Aspetti', p. 108.

industrialization of the South.²⁶ The Bank of Sicily was authorised to establish a DICs in 1949, and a similar body was set up by the Bank of Naples in 1946 (however, it is said to have been functioning from 1944). The DICs focused particularly on small and medium-sized Southern firms from 1947 when, with Decree 1419, they were endowed by the state, with the latter agreeing to guarantee up to 70% of possible losses. Yet another body of this type, the DIC at the Banca Nazionale del Lavoro, was established on similar terms. These departments exploited the existing banking networks, and their operations could thus be diffused all over the country. Decree 1419/ 1947 did not offer a definition of a small or a medium-sized firm, but fixed the maximum loan at £15m. The maximum was increased to £50mill in 1954 and in 1960, the limit of advances was increased to the 20% of their paid up capital.²⁷

Not only banks were interested in breaking their confinement to the short-term credit market. Pressure from business and financial circles led to the establishment of MTCIs, as exemplified by the case of the Banca di Credito Finanziario (Mediobanca). This was established in 1946 by the three former mixed banks and authorised to issue medium-term loans, and from 1949, it was also authorised to acquire direct participation in industrial firms, although within established limits.²⁸ The banks were under IRI and thus State control. The Mediobanca remained the property of the three banks until the 1980s, when it was privatised.²⁹ In the same year, the Centrobanca (Banca Centrale di Credito Popolare) was established with the capital of the cooperative banks. The purpose of the Centrobanca was to issue medium-term loans (also for agriculture) through the cooperative banks' network. Other institutions established in 1949 with the purpose of providing medium term loans to industry were the Efibanca and the Interbanca. The Efibanca (Ente Finanziario Interbancario) was established by the Ordinary Credit Banks and the Interbanca by the Public Law Banks.³⁰ This clearly demonstrates the heavy involvement of the Italian state in the

²⁶ Banca d'Italia, *Relazione Annuale*, 1948, p. 151.

²⁷ Law no 445 of 1950 fixed the maximum loan size at 50m for the regional MTCIs and law no 135 of 1954 fixed the same amount for the Special Departments at BNL, Banco di Napoli and Banco di Sicilia; in 1960 the ICCS established the limit of advances for all the institutions as 20% of the paid-up capital. Associazione Bancaria Italiana (ABI), *La Legislazione Italiana sul Credito Speciale all'Industria e al Commercio* (Roma, 1963), pp. 179-180.

²⁸ Battilossi, *L'Italia*, pp. 124-133.

²⁹ Zamagni, *Economic History of Italy*, pp. 358-359.

³⁰ Pergolesi, *Il credito*, p. 22.

banking system. As Zamagni noted, given that the Public Law institutions, which include the MTCIs and the three former mixed banks that were IRI property, “all the major national banks were owned by the State”. As in addition, savings and cooperative banks that were also run with non-private capital and were either non-profit making or cooperative societies, the State held between 70% to 80 % of the bank assets.³¹

The Centrobanca, Efibanca and Mediobanca were authorised to issue medium-term loans throughout the country.³² These MTCIs were supposed to finance themselves by placing bonds and securities on the market, which were also bought up by the deposit banks.³³ Only Mediobanca financed itself with time deposits (from 1 to 5 years) placed by the public at the three Banks of National Interest (BINs, Banca Commerciale Italiana, Credito Italiano, Banco di Roma) and could not issue bonds and securities. The peculiarity of the Mediobanca financing system was due to the peculiarity of the three BINs. These banks specialised in the highest segment of the deposits/credit market and Mediobanca was very selective in its choice of industrial projects to finance, particularly in the 1950s.³⁴

This first stage in the creation of institutions dedicated to medium-term finance marks a decentralization of the provision of that type of credit and the progressive blurring of the distinction between short- and medium-term finance, particularly when considering that few of the departments for credit to industry were distinct from the establishing banks, from a legal point of view.³⁵ In the second stage, the establishment of Regional medium-term credit institutions (henceforth RMTICs, Mediocrediti Regionali), the issue of decentralization is combined with the issue of providing medium-term credit to small and medium-sized firms.³⁶

³¹ Zamagni, *Economic History*, p. 363.

³² Pergolesi, *Il credito*, p. 25.

³³ Zamagni, *Economic History*, p. 359.

³⁴ S. Battilossi, ‘L’eredità della Banca Mista. Sistema Creditizio, finanziamento industriale e ruolo strategico di Mediobanca 1946-1956’, *L’Italia Contemporanea*, 185 (1991), pp. 625-654.

³⁵ The distinction between short and medium-term credit has also been partly overcome by authorizing banks to increase their share of medium long-term operations. Pontolillo, *Il sistema*, pp. 14-15.

³⁶ G. Piluso, ‘Gli istituti di credito speciale’, *Annali di Storia Einaudi*, vol. 15: F. Amatori, D. Bigazzi, R. Giannetti and L. Segreto (eds), *L’industria* (Turin, 1999), p. 517.

The BoI was aware of the importance of small firms in the Italian economy,³⁷ which also emerges clearly from a report commissioned by Menichella from the BoI Study Centre. The report shows that firms with less than 100 workers employed almost 37% of the national workforce in 1947.³⁸ Recent research has shown that both the Bank of Italy and the Association of Industrialists (Confindustria) considered small firms were at a disadvantage in accessing finance. However, the solutions envisaged by the two institutions were very different. Since 1937, Menichella had indicated that the IMI should establish regional medium-term credit institutions (henceforth RMTICs) with the cooperation of banks, and saving banks in particular.³⁹ The association of industrialists, led by Costa, saw the IMI as inadequate to perform such a task as its activity was geared towards large firms, particularly in the sectors of electricity and shipping. Only in the management of state subsidies was the IMI displaying a more open attitude towards small firms. However, the key point of the controversy was the role that state subsidies should have played in the financial activity of the RMTICs. Costa was aware that the new institutions had to face fierce competition from the IMI and IRI on the bond market, in order to finance themselves, which would have not allowed them to offer finance at the lowest possible interest rate, which was presented as an indispensable step towards the country's industrial reconstruction. The fulfilment of this aim was seen as dependent on subsidies provided by the state and within the framework of the European Recovery Programme. Menichella was diffident toward the establishment of institutions that would have not been able to support themselves on the market and that would have needed state subsidies beyond specific and extraordinary circumstances.⁴⁰

³⁷ Banca d'Italia, *Relazione Annuale*, 1952, p. 289.

³⁸ Asso and Raitano, 'Trasformazione', p. 464. On the perceived importance of small firms, particularly in the late 1950s, see G. Scimone, 'The Italian Miracle', in: J. Hennessy, V. Lutz and G. Scimone, *Economic Miracles* (Leavesden, 1964), pp. 179-182 and 218. The author considers the proliferation of small firms as one of the bases of the Italian economic miracle.

³⁹ D. Menichella, 'Memoria sottoposta dall'IRI all' esame della Corporazione della previdenza e del credito', (Rome, 1937) published in Cotula, F., C.O. Gelsomino and A. Gigliobianco, *Donato Menichella. Stabilità e sviluppo dell'economia italiana 1946-1960*, vol. I: *Documenti e discorsi* (Rome-Bari, 1997), pp. 128-152. Such perceptions are also clearly expressed by contemporary studies such as G. Dominici, 'La funzione propulsiva del credito nell'industrializzazione del Mezzogiorno e delle Isole', *Bancaria*, 11 (1955), p. 810; N. Garrone 'Il Credito Industriale in Italia', *Rassegna Economica*, 4 (1956), pp. 616-617; Camilleri, *Industrial Medium-Term*, p. 2.

⁴⁰ Asso and Raitano, 'Trasformazione', pp. 408-416.

Law 445/50, establishing the first RMTCI in Piedmont, marked a compromise between the two stances, as the possibility that such institutions would receive subsidies was left open. The law opened the possibility for insurance companies to contribute to the establishment of the institutions, by increasing the ceiling on the RMTCI's loans from 15 to 50 million lire and allowing them to operate through the branches of their establishing banks.⁴¹ Although the establishment of the first regional term-credit institution was authorised in 1950, the proliferation of such institutions occurred from 1953 onwards in Northern and Central Italy. Only at a much later stage - the beginning of the 1980s - did the Interministerial Committee for Credit and Savings (henceforth ICCS) authorize the establishment of four RMTCI's in Southern Italy (in the regions of Puglia, Calabria, Basilicata and Sicily) to assist the existing MTCI's (Isveimer and Irfis) in their lending to small and medium-sized firms.⁴²

The proliferation of RMTCI's in the North and Centre of Italy took place following the establishment of their financing institution - the MCC - in 1952, endowed both directly and indirectly by the Treasury.⁴³ The MCC was deemed necessary by the BoI because the funds available to other RMTCI's were insufficient to allow adequate functioning and their ability to finance themselves by issuing bonds was questioned.⁴⁴ Moreover, the monetary authorities considered the MCC necessary to avoid an excessive dependence of the RMTCI's on their establishing banks and to coordinate them.⁴⁵

The MCC refinanced the regional institutions by discounting their bills, buying their medium and long-term bonds; by extending loans using returns from the issuing of its own bonds, and by grants to cover part of the financing to small and medium-

⁴¹ *Ibid.*, pp. 416-421.

⁴² P. D'Onofrio and R. Pepe, 'Le strutture creditizie nel Mezzogiorno', in Banca d'Italia, *Il sistema finanziario nel Mezzogiorno*, Numero speciale dei *Contributi all'analisi economica* (Rome, 1990), p. 235.

⁴³ The endowment of the MCC amounted to 60bn current lire, out of which 15bn were provided directly by the Treasury. The remaining 45bn were provided by the repayments of loans granted by the Treasury to industrial and agricultural enterprises in order to purchase equipment from the sterling area. Banca d'Italia, *Relazione Annuale*, 1952, p. 290; Law 258/1950 published in ABI, *La legislazione*, pp. 89-90.

⁴⁴ Banca d'Italia, *Relazione Annuale*, 1952, p. 289.

⁴⁵ G. Carli, 'Le Origini del Mediocredito Centrale', *Credito Popolare*, 1984/6 (1984), p. 261.

sized firms.⁴⁶ The MCC was regulated by the ICCS, which fixed its rediscounting rate, the lending limit and the size of companies that would have been eligible for loans.⁴⁷ These were defined as firms with less than 500 workers and fixed assets below 1.5bn lire. This was not applicable in the area covered by the Cassa per il Mezzogiorno, where the MCC applied the Cassa's definition. The fact that the MCC was not placed under the control of the BoI, but under the ICCS, has been interpreted as a symptom that the MCC was conceived as an instrument of government intervention, which was placing small and medium-sized firms at the centre of its intervention in favour of industry.⁴⁸

3.1.2 The establishment of the Cassa per il Mezzogiorno

The idea of a specific policy and institutions to tackle the underdevelopment of the South was born at IRI, during the summer of 1943, when the end of the Fascist regime became clear.⁴⁹ Menichella, Cenzato,⁵⁰ Giordani,⁵¹ and the young IRI economist Saraceno⁵² together with Morandi⁵³ the socialist Minister of Industry, established a brains trust called the Svimez (Associazione per lo sviluppo dell'industria nel Mezzogiorno - Association for the Development of Industry in

⁴⁶ Banfi, 'Gli Istituti', p. 54.

⁴⁷ G. Amato (ed.), *Il governo dell'industria in Italia* (Bologna, 1972), p. 23.

⁴⁸ Asso and Raitano, 'Trasformazione', pp. 427-432.

⁴⁹ V. Negri Zamagni and M. Sanfilippo, 'Introduzione', in V. Negri Zamagni and M. Sanfilippo (eds), *Nuovo meridionalismo e intervento straordinario. La Svimez dal 1946 al 1950* (Bologna, 1988), p. 15.

⁵⁰ Cenzato was, among other positions, president of the Compagnia Nazionale Imprese Elettriche (1938-1943), the Federazione nazionale fascista degli esercenti delle imprese elettriche (1940-1943), deputy president of the Confindustria (Association of Industrialists, 1953-1957) and president of the Svimez (1960-1969). M. Fatica, 'Giuseppe Cenzato (1882-1969)', in: A. Mortara (ed.), *I protagonisti dell'intervento pubblico in Italia* (Milan, 1984), pp. 431-470.

⁵¹ Giordani became deputy director (1937-1939) and then director (1939-1943) of the IRI, the Italian executive director of the IBRD (1947-1950) and president of the Svimez (1950-1958). L. Scalpelli, 'Francesco Giordani (1896-1961)' in: A. Mortara (ed.), *I protagonisti dell'intervento pubblico in Italia* (Milan, 1984), pp. 471-499.

⁵² Pasquale Saraceno (1903-1991), an economist who was an academic (1933-1979) and from 1933 to 1991 held various posts at the IRI, from director of the inspectorate to general economic consultant. Saraceno also held various positions within the Svimez and became the its president from 1970 to 1991.

<http://www.iri.it/personaggi/saraceno.html>.

⁵³ Rodolfo Morandi (1902-1955), historian and philosopher, organized the resistance in some areas of Northern Italy. He was Minister of Industry (1946-1947) and until his death was an active member of the Socialist party. Biographical note in R. Morandi, *Storia della grande industria in Italia* (Turin, 2nd. ed. 1966).

Southern Italy) in 1946.⁵⁴ The establishment of the Svimez was a reaction not only to the lack of interest in the development of Southern Italy but also to the debate on the future of the IRI. The current debate focused on two issues: on the one hand the liquidation of the IRI, considered as the embodiment of Fascist state interventionism, but on the other hand the IRI was still considered useful for various sectors of the Italian economy, including compensating for the lack of private investment in the South. The IRI economists within Svimez pointed out that the IRI's resources were inadequate for such a task, and that its investment would suffer the same disadvantages as private investment. Therefore, they claimed that before the IRI could intervene, the government should create conditions for profitable investment in the South.⁵⁵ They argued that state intervention in infrastructure and agriculture (land reclamation and reform) would create external economies in that they would increase income and demand for investment goods.⁵⁶ At a later stage in this process, the establishment of industrial plants in the South would further increase income and consumption.⁵⁷

They further argued that the whole country had an interest in the development of the South, as Southern underdevelopment would dampen the expansion of the national economy. In fact, the industrialised Northern regions would soon find themselves with a very small domestic market due to the limited purchasing power of the backward South. Increasing the market for already industrialised regions, in turn would mean expansion of their production, which was a precondition to the further development of their production process. Furthermore, the weakness of the Southern Italian industry provoked a reduction in the productivity of Italian industry as a whole. The increase in productivity of the Italian industry as a whole was a priority goal, in so far as economic policy implemented since the Reconstruction period was

⁵⁴ Around the original nucleus, several representatives of the business world soon gathered, from Confindustria to Fiat, the Bank of Naples and IMI. S. Cafiero, 'Menichella meridionalista', in: F. Cotula (ed.), *Stabilità e sviluppo negli anni cinquanta*, vol. 2: *Problemi strutturali e politiche economiche* (Rome-Bari, 1998), pp. 469-470.

⁵⁵ P. Saraceno, 'L'intervento dell'IRI per lo smobilizzo delle grandi banche, 1933-1936', in: AA. VV., *Alberto Beneduce e i problemi dell'economia italiana del suo tempo* (Rome, 1985), pp. 125-126.

⁵⁶ S. Cafiero, *Storia dell'intervento straordinario nel Mezzogiorno (1950-1993)*, (Manduria-Bari-Rome, 2000), pp. 39-41.

⁵⁷ Associazione per lo Sviluppo dell'Industria nel Mezzogiorno (Svimez), 'Gli effetti moltiplicativi di un programma di investimenti pubblici nel Mezzogiorno', in: V. Negri Zamagni and M. Sanfilippo

to prepare the Italian economy to be part of an international context, in other words to be competitive as compared with foreign countries.⁵⁸

Pescatore, director of the Cassa from 1954 to 1975, pointed out that the two main objectives of the Italian economic policy at the end of the 1940s and beginning of the 1950s were the economic expansion of the country and a greater degree of harmonization of the Northern and Southern economies. Whereas as the middle of the twentieth century the Southern economy displayed the same rate of growth as during the previous century, the Northern economy had shot ahead in the meantime. The intervention of the State was considered as necessary in order to control the spontaneous process of self-accumulation in the North and start the self-accumulative process in the South.⁵⁹ Furthermore, the underdevelopment of the South was damaging the Italian balance of payments. The South consumed more than it produced. Thus the industrialization of the South was necessary in order to be able to import raw materials rather than manufactured goods.⁶⁰

The politicians also supported intervention in favour of the South. The ministerial report introducing the bill proposing the Cassa stressed the economic advantages. It pointed out that a developed South would offer a wider domestic market for Italian industry, and would help to avoid a heavy balance of payments deficit once the European Recovery Programme (ERP) came to an end. Furthermore, additional investment in the South would mean increased demand for capital goods produced throughout the country.⁶¹ Moreover, the programme for the South was an important part of the De Gasperi policies, as also demonstrated by the establishment of a permanent committee for Southern Italy in the Parliament.⁶² However, critics stressed that additional investment in the South might reduce investment in other

(eds), *Nuovo meridionalismo et intervento straordinario. La Svimez dal 1946 al 1950* (Bologna, 1988), p. 302.

⁵⁸ P. Saraceno, P. 'Lo Sviluppo Industriale delle Regioni Meridionali e l'Attività della Cassa per il Mezzogiorno', *L'Industria, Rivista di Economia Politica*, 4 (1953), pp. 651-656; Confederazione generale dell'industria italiana, *La politica di sviluppo economico del Mezzogiorno* (Rome, 1970), pp. 4-5.

⁵⁹ G. Pescatore, *Dieci Anni di Esperienze della Cassa per il Mezzogiorno* (Rome, 1961), p. 9.

⁶⁰ Saraceno, 'Sviluppo Industriale', p. 655.

⁶¹ S. Cafiero, 'La nascita della <<Cassa>>', in: M. Annesi, P. Barucci, G.G. Dell'Angelo (eds), *Studi in Omore di Pasquale Saraceno* (Milano, 1975), p. 187.

areas of the country or create inflationary pressure,⁶³ and that the development of the South could be pursued only within the limits dictated by the national savings.⁶⁴

The important role played by the Svimez economists in the take-off stage of the regional policy presents analogies with the contemporary industrial environment, and particularly state-owned companies. In the 1950s and 1960s, state-owned enterprises played an important role in modernizing Italian industry, but this was not due to a coherent industrial policy but rather to the ingenuity and entrepreneurship of individual managers. A good example was Oscar Sinigaglia, the president of Finsider, the steel sub-holding of the IRI. Despite criticism from Marshall Plan advisors and Italian steel industrialists, he pushed through a plan for modernizing the steel sector. The cornerstone of this was the plant in Cornigliano (Genoa), financed by Marshall aid, which turned out to be a success considering that it worked at full capacity and even exported. A similar story can be told about Enrico Mattei, president of Agip (the state-owned oil company) who after heated discussions secured exclusive rights to drill for gas in the fields of the Po Valley. In the 1950s, Agip ensured that the country had a cheap supply of energy.⁶⁵ Similarly, as will be shown below, the Italian monetary policy in the late 1940s and 1950s was decided only by Menichella and the Treasury Minister Pella. It is not surprising to observe that important decisions in economic and industrial policy, both at the national and regional level, were taken by individuals in key positions, rather than being the result of government economic and industrial programmes. The Italian political instability might have played an important role in determining this situation, for fifteen different governments led the country between 1945 and 1960. The Christian Democratic party held a relative majority throughout the fifteen years, and from 1945 to 1953, De

⁶² L. D'Antone, '<< Straordinarietà >> e Stato ordinario', in: F. Barca (ed.), *Storia del capitalismo italiano dal dopoguerra ad oggi* (Rome, 1997), pp. 596-597; Cafiero, 'La nascita', p. 180.

⁶³ L. Magnani, 'Il finanziamento del piano decennale' *Informazioni Svimez*, 1950/12 (1950), pp. 164-165.

⁶⁴ C. Bresciani-Turroni, 'Il problema delle aree depresse e il finanziamento dello sviluppo economico', *Informazioni Svimez*, 1950/13-14 (1950), pp. 194-196.

⁶⁵ G. Federico and R. Giannetti, 'Italy: Stalling and Surpassing', in: J. Foreman-Peck and G. Federico, *European Industrial Policy. The Twentieth-Century Experience* (Oxford, 1999), pp. 136-137. For Sinigaglia and the steel industry see R. Ranieri, 'La grande siderurgia in Italia', in G.L. Osti (ed.), *L'industria di stato dall'ascesa al degrado* (Bologna, 1993), pp. 9-98; on Mattei and the ENI case see G. Sapelli and F. Carnevale, *Uno sviluppo tra politica e strategia: ENI 1953-1985* (Milan, 1992).

Gasperi was consistently the Prime Minister, but the ruling coalition changed with every single government.⁶⁶

However, the decision to create the Cassa was not entirely internal, as a strong push had come from the International Bank for Reconstruction and Development (IBRD). In 1948, the Italian government submitted to the IBRD a request for financing 11 industrial projects (including the Cornigliano steelworks and a steel plant for Fiat). Menichella and Francesco Giordano, then deputy executive director of the Italian section of the IBRD and member of the Svimez, appeared to convince the IBRD that such projects should rather be financed through the Marshall Plan, whereas the IBRD could finance a long-term plan of investment in the South, considered to be Italy's main economic and social problem. The investment plan for Southern Italy, drafted at the Svimez in 1949, was well received by the economists at the IBRD, led by Rosestein Rodan, and in the same year Menichella prepared the bill for the establishment of the Cassa.⁶⁷ By doing so Menichella was complying with an IBRD request, for this required that the plan be managed by a single institution, rather than several ministries.⁶⁸

The IBRD's support for the plan for Southern Italy was of great importance in reconciling disagreements concerning the financing of the plan. The Svimez was in favour of using the UNRRA counterpart fund, and later, supported by the parliamentary committee, it suggested using part of the ERP counterpart fund. However, since 1947 Menichella had made it very clear that the American aid would be used to finance the balance of payment deficit, which that year was expected to grow to \$600m. A similar use of Marshall Aid - to rebuild the monetary reserves of the country, and to pursue a deflationary policy, even after the stabilization of 1947⁶⁹

⁶⁶ For the succession of governments from 1946 to 1964 see D. Fausto, 'L'intervento pubblico in Italia (1846-1964)', in: AA. VV. *Stabilità e sviluppo negli anni cinquanta*, vol. 2: *Problemi strutturali e politiche economiche* (Rome-Bari, 1998), pp. 558-559.

⁶⁷ D'Antone, '<<Straordinarietà>>', pp. 598-600.

⁶⁸ S. Cafiero, *Storia dell'Intervento Straordinario nel Mezzogiorno (1950-1993)* (Manduria-Bari-Rome, 2000), pp. 25-26.

⁶⁹ For the 1947 stabilization see C.O. Gelsomino, 'Moneta e sviluppo nel dopoguerra. La politica monetaria italiana negli anni Cinquanta (1946-1964)', in: AA. VV. *Stabilità e sviluppo negli anni Cinquanta*, vol. 2: *Problemi strutturali e politiche economiche* (Rome-Bari, 1998), pp. 272-283; F. Lutz and V. Lutz, *Monetary and Foreign Exchange Policy in Italy* (Princeton, 1950); P. Baffi,

- earned Menichella and Pella harsh criticism both at home and in the European Cooperation Administration's *Country Study*.⁷⁰

By 1949, a wave of strikes and occupation of farmland in the South put further pressure on the recently elected (1948) Christian Democratic government, which feared that the South, with its vast number of peasants, labourers, unemployed intellectuals and underemployed city proletariat offered a fertile breeding ground for left-wing extremism, while the region's petit bourgeois was perceived by politicians as still displaying leanings towards fascism.⁷¹

3.1.3 The 'pre-industrial' period 1950-57

During the first years of its existence, the Cassa was more concerned with infrastructure and agriculture than with industrial development. This subsection will chart this 'pre-industrial' stage, and outline the debate that led to the change of emphasis in 1957.

In 1950 the Cassa was established as a public executive body, to elaborate, fund and execute specific plans based on a general 10-year plan formulated by several Government Ministries (Agriculture, Industry and Commerce, Public Works, and Social Security). The General Plan was to be implemented from 1950 in an area including the South and some provinces in Central Italy.⁷² Although the geographical

'L'evoluzione monetaria in Italia dall'economia di guerra alla convertibilità (1935-1958)', in: P. Baffi, *Studi sulla moneta* (Milano, 1965), pp. 225-315.

⁷⁰ For criticisms of the Menichella policy see M. De Cecco, 'Sulla politica di stabilizzazione del 1947' in: M. De Cecco, *Saggi di Politica Monetaria* (Milano, 1968), p. 173; B. Bottiglieri, *La Politica Economica dell'Italia centrista (1948-1958)* (Milano, 1984), pp.35-39 and 68-70. For a recent re-interpretation of the policy see A. Fazio, 'Introduzione' pp.14-17, in F. Cotula, C. O. Gelsomino and A. Gigliobianco, *Donato Menichella. Stabilità e sviluppo dell'economia italiana 1946-1960*, vol I: *Documenti e discorsi* (Rome-Bari, 1997), pp. 7-30; C. Spagnolo, 'Le polemiche sul <<Country Study>>, il fondo lire e il Piano Marshall', pp.111-126 and *passim*, in: AA.VV. Italia, Europa, America. L'integrazione internazionale dell'economia italiana (1945-1963), *Studi Storici*, numero speciale, 37/1 (1996), pp. 111-126; Battilossi, *L'Italia*, pp. 118-120.

⁷¹ K. Allen and M.C. MacLennan, *Regional Problems and Policies in Italy and France*, (1970), p.45; L. Weiss, 'Small Firms and the Christian Democratic Party', (Unpublished Ph.D. Thesis, University of London, 1984), p. 125; Cafiero, 'Menichella meridionalista', pp. 485-486; R. Stefanelli, *Lotte agrarie e modello di sviluppo 1947-1967* (Bari, 1975), pp. 21-22.

⁷² By 1955, the Cassa area included Abruzzo and Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna; the provinces of Frosinone and Latina, including some municipalities in Rome province geographically belonging to the reclaimed area in Latina province; the islands of Elba, Giglio and

limitation of the Cassa is often mentioned in the literature, no explanation is offered for the inclusion of areas in Central Italy.

Works on regional policies in the European community maintain that political pressures and the lack of a precise definition of backwardness played an important role in the identification of designated areas.⁷³ However, in the Italian case these areas seem to present similar features to the South, as they were immediate targets for land reclamation and road construction.⁷⁴ Moreover, the level of industrialization (expressed in terms of industrial income as a percentage of total income) of three central provinces (Latina, Rieti and Ascoli Piceno) was below the average of Central and even Southern Italy, with only one province (Frosinone) presenting a degree of industrialization above the Southern average, although below the Central average, in 1951.⁷⁵ Pressures to include depressed areas in the Centre and North in the Cassa programme, by establishing an independent department of the Cassa, were expressed in Parliament. The government rejected this proposal because the designated areas in the Centre-North were smaller and less backward than the South.⁷⁶ Therefore, another bill was passed in the same period, dealing specially with the underdeveloped areas of the Centre and North.⁷⁷

The Cassa del Mezzogiorno was originally endowed with 1,000 billion lire (\$1.6bn) from the government, to cover a ten-year period. Such amount was to be provided partly by the Treasury and partly with the ERP counterpart fund. The IBRD committed itself to a contribution of \$10m per year, which became available from 1952 onwards.⁷⁸ In 1952, the Cassa's period of activity was extended to 1962, and the government

Capraia; municipalities previously belonging to Cittaducale in the Rieti province and municipalities in the reclaimed area of the river Tronto, in the Ascoli Piceno province, see laws 646/1950, 13/1955, 105/1955.

⁷³ D. Yuill, K. Allen and C. Hull, *Regional Policy in the European Community* (1980), p. 215.

⁷⁴ Cassa per il Mezzogiorno, *Relazione al Bilancio 1950-1951* (Rome, 1951), pp. 88-95.

⁷⁵ G. Tagliacarne, *Il reddito prodotto nelle province italiane nel 1973* (Milan, 1975), pp. 25-28 and Table 9.

⁷⁶ The Svimez agreed with the government's stance, but disagreed as to the justification, claiming that the nature of the problem was different, because underdeveloped areas in the Centre and North were located within a wider economic context where industry was already present and therefore differed considerably from the large agricultural and over-populated South. See Cafiero, 'La nascita', pp. 186-187.

⁷⁷ Law 647/50; Cafiero, *Storia*, p. 42.

⁷⁸ For more on the initial financing of the Cassa see D'Antone, '<<Strordinarietà>>', pp. 601-602.

endowment increased to 1,280 billion lire (\$2.05bn). This increase, together with minor public contributions in the following years, brought the annual financial capacity of the Cassa to 190 billion per year, from the 100bn initially granted by the establishing law.⁷⁹

The General Plan specified the spheres of activity of the Cassa, and the budget share it was to devote to each: 70% of its funds to agriculture and 30% to civil infrastructures.⁸⁰ The plan clearly demonstrates that its priority was to endow Southern Italy with more social fixed capital (roads and railways, water mains, sewers and reclaimed land) in order to create external economies for investment in the South, and to increase income by improvements in agriculture and as a consequence of direct public expenditure and its multiplier effect.⁸¹ Moreover, according to a later interpretation, investment in infrastructure aimed to stimulate migration, as these programmes involved the release of labour (particularly unemployed and under-employed) from agriculture and an increase in demand for industrial products in northern regions, thus increasing demand for labour in those regions.⁸²

However, in 1953, Svimez economists announced that only 12% of private investment undertaken in 1952 was located in the South, where 60-70% of the Italian population increase was predicted to take place in the 1950s.⁸³ By this time, it was suggested that the Cassa should expand its activities to the industrial sector. It was already clear by 1953, that investment in the traditional sector would not generate any significant capital accumulation because Southern agriculture was too backward to act as an engine of development.⁸⁴ Furthermore, a Svimez economist, Pilloton, demonstrated that the Centre and North of Italy were benefiting from the multiplier effects of the Cassa investment in public overhead capital in the South. Due to the

⁷⁹ The annual average financial capacity of the Cassa is calculated by Pescatore for the years 1950-1962. G. Pescatore, *L'Intervento Straordinario nel Mezzogiorno d'Italia* (Milan, 1962), p. 6.

⁸⁰ The precise shares were: social overhead capital in agriculture 37.3%, agrarian reform 21.9%, improvements in agriculture 10.2%, roads 9.0%, railways 5.9%, waters mains and sewers 13.8%, infrastructures for tourism 1.9%. S. Cafiero and G.E. Marciani, 'Quarant'anni di intervento straordinario (1950-1989)', *Rivista Economica del Mezzogiorno*, 5/2 (1991), p. 251.

⁸¹ G. Di Nardi, 'I provvedimenti per il Mezzogiorno', *Economia e Storia: rivista italiana di storia economica e sociale*, 7 (1960), pp. 494-495.

⁸² S. Petriccione, *Politica industriale e Mezzogiorno* (Bari, 1976), p. 8.

⁸³ Vaccaro, *Unita'*, p. 240.

⁸⁴ P. Saraceno, *L'Unificazione Economica dell'Italia e' Ancora Lontana* (Bologna, 1988), p. 9.

lack of Southern firms able to provide capital goods as well as to carry out public works, the majority of contracts went to Northern firms. Therefore, the Cassa intervention in infrastructure was generating an increase in income, in demand for consumption goods, and in producers' investment decisions in the North, but not in the South.⁸⁵ It was suggested that the Cassa should not invest directly in industry, but should rather seek to enhance the potential profitability of private investment in industry in the South, which given the lack of Southern capital meant attracting private capital from the North.⁸⁶

In the same year, a law was passed to increase the availability of capital to industry, through the reorganisation of two Southern RMTICs - Isveimer and Irfis (Regional Institute for the financing of small and medium-sized firms in Sicily) - and the creation of Cis (Institute for the Industrial Credit in Sardinia).

The issue of the provision of capital to Southern industry was not new. In 1947, the DICs at the Banks of Naples, Sicily and Sardinia were allowed to allocate 10 billion lire for credits to industrial concerns. The State covered up to 70% of their possible losses and provided a contribution on the interest credit of 4% for a maximum 10 years, to enable the three special sections to extend loans on favourable terms. The money came directly from the central Government budget allocation, which, according to a later criticism from the Svimez, prevented the smooth functioning of the system and caused the Bank of Naples to be ineffective in stimulating investment.⁸⁷ However, recent research claims that government allocations were paid very frequently and that the DIC of the Bank of Naples which received them was very active in financing industry. In contrast, the Isveimer, which was financed entirely by the Bank of Naples (see section 3.1.1), did not reach considerable levels of activity.⁸⁸ In 1953, it was hoped that would be addressed on permanent basis.

⁸⁵ F. Pilloton, 'Effetti Moltiplicativi degli investimenti della Cassa per il Mezzogiorno nel periodo 1951-55', in Svimez, *Il Mezzogiorno nelle ricerche della Svimez 1947-1967* (Rome, 1968), pp.421-435.

⁸⁶ Saraceno, 'Sviluppo Industriale', p. 664.

⁸⁷ Svimez, *Gli Investimenti Industriali Agevolati nel Mezzogiorno* (Rome, 1972), p. 3.

⁸⁸ In turn, the reason why government allocations were concentrated in the Department of Industrial Credit of the Bank of Naples rests with the Bank of Naples, which despite pressures from the Bank of Italy, the Treasury and the Isveimer itself to change the denomination and statute of the Isveimer and transform it in a department of credit to industry, decided that the Isveimer should keep its aim of

The choice was either the complete restructuring of the three DIC or the reorganization of Isveimer and Irfis, and the creation of Cis. The solution finally adopted was a compromise, because the banks of Naples, Sicily and Sardinia joined the Cassa and the Southern ordinary banks in contributing to the endowment to the Isveimer, Irfis and Cis. Thus, the South was provided with institutions able to generate their own funding via the issuing of bonds rather than depend upon Government budget allocations.⁸⁹

By the middle of the 1950s, the widespread understanding that the extraordinary intervention in the South had achieved some results only in the sphere of public infrastructure further strengthened the opinion that Cassa direct intervention in the industrial sector was necessary.⁹⁰ This belief was boosted by the Vanoni scheme (*Schema di sviluppo dell'occupazione e del reddito in Italia nel decennio 1955-64*) presented to Parliament in 1954, which although never implemented had a strong influence on the economic policy making.⁹¹ The scheme addressed the issue of state intervention in order to increase national income and reduce the high level of unemployment in the country. According to the plan, the national income should have increased at an annual rate of 5% in order to reduce unemployment to the level of frictional unemployment. Although, the largest part of the employment opportunities should have been created by directly productive investment, the government should have invested in 'propulsive' sectors: agriculture, public utilities (electricity, railways, telephones) public works (such as roads, school, airports), and residential housing.⁹² The plan recommended that 50% of such investment should

promoting the economic development in the Southern mainland also through the acquisition of participation, whereas for the management of government allocation - aimed mainly at the reconstruction of industry - the Bank of Naples considered more appropriate to establish a separate department for credit to industry, allowed to issue bonds. Croce, 'Il credito', pp. 606-612.

⁸⁹ Confederazione generale dell'industria italiana, *La Politica*, pp. 12-13.

⁹⁰ Ufficio Studi del Banco di Napoli, 'L'intervento straordinario nel Mezzogiorno: l'evoluzione legislativa', *Rassegna Economica* 49/4 (1985) p. 767.

⁹¹ Petriccione, *Politica industriale*, p. 10. It is widely accepted that it was only a preliminary programme that should have been refined to become a realisable plan. For the various interpretations, ranging from political to economic, as to why the plan was never implemented see F. Sullo, 'Il dibattito sulla programmazione economica in Italia dal 1945 al 1960', *Economia e Storia*, 7/3 (1960), pp. 383-443.

⁹² E. Vanoni, 'Schema di sviluppo dell'occupazione e del reddito in Italia nel decennio 1955-1964', in: Ministero del Bilancio, *La programmazione economica in Italia*, vol. 1 (Rome, 1967), pp.117-118; F. Vicarelli, 'Note in tema di accumulazione di capitale in Italia (1947-63)', in: G. Lunghini (ed.), *Scelte politiche e teorie economiche in Italia 1945-1978* (Turin, 1981), p. 39; R. Balducci and M.

have been concentrated in the South over the following ten years, which implied a higher per capita share in the South, in order to reduce the North-South gap in social overhead capital.⁹³ However, as also stressed in the literature, investment in fixed social capital alone could not be a powerful engine for Southern economic development, and the Vanoni plan made it clear that investment in infrastructure needed to be integrated with investment in directly productive activity, as only the latter would be a source of income and employment.⁹⁴

The plan did not seem to address whether investment in directly productive activities was to be undertaken by the state or by private entrepreneurs, although other works have interpreted the plan as concentrating state investment only in the 'propulsive sectors' and residential housing.⁹⁵ However, the scheme does make it clear that the state could undertake investment not only in the 'propulsive sectors' but also in industry with the purpose of 1) locating additional industry in 'certain regions'; 2) increasing the production in basic sectors; 3) furthering the development of state-owned sectors.⁹⁶ Therefore, the plan seems to leave open the option of state intervention mainly in capital-intensive sectors, but as according to Vanoni, capital was the missing factor of production, investment in labour-intensive sectors was to be preferred, as it would generate the highest increase in employment with minimum capital requirements.⁹⁷

However, the expansion of the Cassa programme to include direct intervention in industry was not universally welcomed, as witnessed by the wide support given to stinging criticism of the policy published shortly afterwards.⁹⁸ This work claimed that the industrial policy for the South had been disappointing as the income gap had

Marconi, 'L'accumulazione del capitale nella visione del governo, della Banca d'Italia e della Confederazione generale dell'industria', in: G. Lunghini ed., *Scelte politiche e teorie economiche in Italia 1945-1978* (Turin, 1981), pp. 73-74.

⁹³ Vanoni, 'Schema', p. 171.

⁹⁴ *Ibid.*, p.171; Confederazione generale dell'industria italiana, *La Politica*, p. 19.

⁹⁵ Vicarelli, 'Note', p. 39.

⁹⁶ Vanoni, 'Schema', p. 118.

⁹⁷ Petriccione, *Politica industriale*, p. 10.

⁹⁸ Lutz, 'Italy as a Study', mentioned for instance in Confederazione generale dell'industria italiana, *La Politica*, p. 44.

not been reduced,⁹⁹ for Southern Italian income was increasing even less than in the rest of the country, as table III.1 below shows.

Table III.1 Percentage increase in per-capita income

	Centre-North	South	Italy
1951-57	0.328	0.231	0.305
1957-62	0.368	0.269	0.352

Source: Calculations from data in Comitato dei Ministri per il Mezzogiorno, *Relazione sull'attivit  di coordinamento*, 1965, Vol.2, p.47.

Lutz questioned how the industrial policy for the South, relying on public investment in industry and infrastructure, was going to create a market for industrial output. Supporters of the policy claimed that large industrial units in leading sectors would have stimulated private investment in smaller plants in a wide range of industries. Consequently, the policy had introduced financial incentives to remove capital constraints hampering private investment. It was believed rising incomes, would create a market for Southern industry. This approach neglected a relevant factor, notably the low consumption of high-quality foodstuffs by the Southern population. Disagreeing with the dominant view, Lutz thought that rising incomes in the Southern population would translate into demand for higher quality foodstuffs rather than for TV sets and motor scooters. It was thus the lack of demand for industrial products that made the industrialization of Southern Italy such a difficult task. She proposed increasing per capita income by encouraging large-scale internal migration. Remittances from emigrants as well as reduction of population pressure on agriculture resources would help to achieve the increase in per capita income. This 'policy' was to be implemented in conjunction with the removal of disincentives (arising from the structure of taxation and labour costs) which were preventing Northern industry from fulfilling its full potential. Mass migration would allow the North to exploit its locational advantages, and to expand industrial exports, which Lutz regarded as essential if the Southern population was to be able to improve its consumption of foodstuffs.¹⁰⁰

⁹⁹ *Ibid.*, p. 41.

¹⁰⁰ Lutz, 'Italy as a Study', p. 44.

Other reasons offered in the literature as justification for the expansion of the Cassa's activity include the inadequacy of the various ministerial programmes in the South and the insufficient cooperation between the Ministries and the Cassa.¹⁰¹ These were supposed to coordinate their investment plans in the South.¹⁰² As already mentioned the Interministerial Committee for the South had to formulate a general ten-year programme of investment. The Cassa broke down this programme into annual plans, and was entrusted with their financing and implementation.¹⁰³ In addition, Ministries were entitled to include in their annual budgets "extraordinary" investments, i.e. complementary to the activities of the Cassa. This potential division of responsibilities made coordination between the Ministries and the Cassa essential, but this was not guaranteed by the law as both the Cassa and the Ministries had full autonomy in drafting their plans.¹⁰⁴ Coordination should have occurred because the Cassa had to integrate its own activity into the ten year plan formulated by the Interministerial Committee, which was constituted by the same Ministries allowed to plan "extraordinary" investment. A further reason why co-ordination should have occurred was that the Interministerial Committee was empowered to modify the Cassa's programme once the Ministerial and Cassa programmes had already been approved. However, this meant that effective co-ordination could be attempted only *a posteriori* and that only the Cassa's programmes could be modified.¹⁰⁵ A broadening of the Cassa's sphere of responsibilities and activities was seen as an effective way to overcome such a clearly unsatisfactory situation.¹⁰⁶

3.2 National and regional industrial policies and their instruments.

This section will describe the plethora of incentive schemes devised between 1957 and 1991, at regional and national level, and is broken down into chronological subsections in order to highlight the most notable policy shifts. Moreover, the

¹⁰¹ E. Colombo, *Linee di una Politica Industriale (1959-1962)* (Bologna, 1963), pp. 288-289.

¹⁰² Cafiero and Marciani, 'Quarant'anni', p. 251.

¹⁰³ L. Ammannati, *Cassa per il Mezzogiorno ed Intervento Straordinario* (Naples, 1981) p. 31.

¹⁰⁴ Cafiero, 'La Nascita', p. 189.

¹⁰⁵ Ammannati, *Cassa*, p. 32.

¹⁰⁶ Colombo, *Linee*, p. 380.

section includes the study of the significance of Cassa incentives to industry, within the wider framework of the regional policy.

D) 1957-65

The Cassa involvement with Southern industrialization started in 1957, with a law (634/1957) expanding and extending its activities until 1965. From 1957, the Cassa was able to offer incentives to the industrial sector, craft-based manufacturing and fisheries, and to assist with the building of schools and with professional training.¹⁰⁷ Its endowment was increased up to 12,000 billion lire (1980 prices).¹⁰⁸ The Cassa's endowment per year in the period 1957-65 was thus 1,333.3 billion lire, a slight increase from the 1,266.6 billion during 1952-1962 (both figures expressed in 1980 prices).

The same law compelled State-owned enterprises to undertake 60% of their investment in new plants in the South, so that a minimum 40% of their total investment would be located in the South by 1964/65.¹⁰⁹ The inclusion of state-owned enterprises in the industrial policy for the South was also a consequence of the necessity of developing both an energy industry and the production of intermediate goods by the public sector, in order to allow the private industrial sector to successfully exploit the opportunities offered by the expansion in international trade following the formation of the EEC in 1957.¹¹⁰ Therefore what this interpretation seems to suggest is that the two aims of industrializing Southern Italy and increasing investment by state holding companies in sectors producing energy, chemicals, steel, and so on, were linked by compelling state-owned enterprises to undertake 40% of their investment in the South. On the other hand, linking the two aims meant that state-owned enterprises became recipients of subsidies, thus diverting finance from the private sector. Dunford claims that after 1957, the industrial policy for the South was strongly oriented towards the financing of large

¹⁰⁷ Cafiero and Marciani, 'Quarant'anni', p. 252.

¹⁰⁸ M.F. Dunford, *Capital, the State and Development* (1988), p. 147.

¹⁰⁹ Cafiero and Marciani, 'Quarant'anni', p. 252.

¹¹⁰ Dunford, *Capital*, pp. 145, 147. The State's direct intervention in industry was interpreted as an attempt to remove bottlenecks in strategic sectors such as metallurgy, energy, oil and chemical, in order to promote national industrial growth. Cer-Irs, *Quale Strategia per l'Industria?* (Bologna, 1986), p. 143.

plants in the energy and intermediate goods sectors, concentrated in a small number of industrial zones, such as: 1) Napoli-Caserta; 2) the Bari-Brindisi-Taranto triangle; 3) the Catania-Siracusa axis in Sicily; 4) the Ottana-Porto Torres zone in Sardinia.¹¹¹

The Cassa involvement in industrial development took the form of fiscal incentives, financial incentives and the establishment of industrial areas and nuclei. Six types of fiscal incentives for Southern firms were introduced, among which the most relevant was a 10-year exemption from tax on industrial income, (which in 1970 ranged from 28% to 36% depending on income). Southern firms were also exempted from customs duties on material and machinery required for constructing and equipping the plant (before 1957, these duties had amounted to an average 15% of the value of imported materials and machinery, though this had subsequently decreased). These goods were also exempted from the equalization tax amounting to 4% of their price. Industrial concerns in the South were partially exempted from the turnover tax on material not imported but produced in Italy (amounting to 3.3% of the purchase price). The law also provided minor exemptions such as: exemption from fees on registration and mortgages, which amounted to about 1% of the value of assets involved.¹¹²

In order to explain the system of financial incentives envisaged by law 634/1957, it is necessary to mention another instrument of the industrial policy introduced by the same law: areas of industrial development and nuclei of industrialization. The former were to be composed of a number of localities with a combined population of more than 200,000 inhabitants and with more than one industrial estate. The latter were to be composed of one or two localities, with fewer than 75,000 inhabitants, and with a single industrial estate. The establishment of areas or nuclei was up to local bodies (Chamber of Commerce, Municipalities, etc.), once they had organized themselves in "consortia" which had to be approved by the Committee of Ministers for Mezzogiorno. The consortia were responsible for drawing up plans for the infrastructural investment to be realised in the area or nucleus in order to attract and favour a concentration of new plants. The Cassa could award grants to the consortia

¹¹¹ Dunford, *Capital*, p. 146.

¹¹² Allen and MacLennan, *Regional Problems*, p. 54.

covering up to 50% of the costs of the infrastructure projects; the percentage was increased to 85% in 1961. In addition, the Cassa could extend grants and soft loans to firms establishing in industrial areas and nuclei, covering a percentage of the necessary investment. The percentage covered by the Cassa was higher for firms establishing in areas and nuclei than for firms establishing outside, as will be explained below. Thus the industrial policy for the South aimed at creating a limited number of areas in which investment in general infrastructure as well as specific infrastructure for industry were to be concentrated, in order to create the pre-conditions for industrialization. The system of incentives aimed to facilitate investment in such areas. In particular, the aim was that of attracting complementary industries in the same neighbourhood, in order to develop external economies.¹¹³ The attempt to concentrate investment in a limited number of areas would have also allowed a more efficient use of limited funds,¹¹⁴ as nuclei and areas were planned in locations thought to have marked development potential.¹¹⁵ The literature acknowledges in the early industrial policy for the South the attempt to apply a growth centre policy derived from the theory of unbalanced growth and 'on a geographical interpretation of the concept of the growth pole or development centre'.¹¹⁶

The growth pole theory claims that economic growth originates in certain industries or in certain zones and proceeds with unequal intensity, as each step in the ideal pattern of development is generated by a previous disequilibrium and will induce a new disequilibrium which will generate a further leap. This contrasts with the balanced growth theory, which holds that development takes place simultaneously in many sectors. The simultaneity argument is based on both demand and supply side considerations. The simultaneous development of many activities would be able to create a market for new goods. On the other hand, the development of secondary industries generates an increased demand for raw materials needed by machines and food needed by workers. If any of the items for which demand increases is imported,

¹¹³ Dunford, *Capital*, p. 147.

¹¹⁴ Allen and MacLennan, *Regional Problems*, p. 61.

¹¹⁵ S. Ronzani, 'Regional Incentives in Italy', in: D. Yuill, K. Allen and C. Hull (eds), *Regional Policy in the European Community* (1980), p. 138; Cer-Irs, *Quale strategia*, p. 143.

¹¹⁶ Dunford, *Capital*, p. 147.

an increase in exports will be necessary.¹¹⁷ The argument of unbalanced growth is based on external economies generated by the expansion of an industry that are appropriable by another industry, which in turn will create new external economies to be exploited by other industries.¹¹⁸ The Perroux formulation of the growth pole theory, the concept of 'pole de croissance' was applied mainly to industry but also to geographical areas. The concentration of inter-related key industries generates expansive forces. For industrial growth poles, which can be defined as an agglomeration of human and fixed capital, generate collective needs that call for services and other industries. Industrial agglomerates modify their neighbourhood, and an industrial pole brings into existence a further one. Important industrial centres affect the entire national economy.¹¹⁹

Law 634/1957 established financial grants and subsidised interest credits for small and medium-sized firms locating or expanding in the South. The definition of small and medium-sized firms, and thus eligibility for Cassa assistance underwent changes over time, as shown in table III.2. The original 1957 definition specified upper limits for both employment and asset size of the firm. In 1959, the employment limit was abolished, but the limit on asset size underwent the first of several adjustments. The 1961 changes ensured that any firm of any size could benefit from Cassa grants, provided the investment could be distributed among individual plants with the fixed assets of each not exceeding 6 billion lire. The redefinition in terms of plant size rather than firm size had already opened up Cassa funds to large state-owned or private enterprises, but the process was made even easier in 1962 with the elimination of any limit on circulating or fixed assets.¹²⁰

¹¹⁷ A.O. Hirshman, *The Strategy of Economic Development* (Boulder, 3rd ed., 1988), p. 62.

¹¹⁸ *Ibid.*, p. 67.

¹¹⁹ Perroux, F., 'Note sur la Notion de <<Pôle de Croissance>>', *Economie Appliquée*, 8/1-2 (1955), pp. 317-318.

¹²⁰ Dunford, *Capital*, p. 149.

Table III.2 Criteria for eligibility for Cassa assistance.

	Employees	Value of fixed capital (bn lire)
1957	< 500	<3 per firm
1959	n/a	<6 per firm
1961	n/a	<6 per plant
1962	n/a	grants awarded on first 6 bn of investment for firms of any size

Key: n/a = not applicable.

Source: Dunford, *Capital*, p. 149.

It has been stressed how the laws of 1961-62 twisted the incentive system from its original intention of developing an organic network of small and medium-sized firms. The diversion from the original idea of limiting incentives only to small and medium-sized firms has been interpreted as due to the need to attract modern industries to the South, and investment by large Northern companies.¹²¹ Dunford maintains that the diversion also aimed at releasing labour to promote Northern industrial development,¹²² thus assuming that a network of small and medium-sized firms would have employed more labour than large plants, which is not obvious.

However, the lifting of the size limit for recipient firms was also supported by the Svimez activist, Saraceno, who in the 1960s was the deputy president of the National Commission for Economic Planning. In his report he maintained that although small and medium-sized firms create job opportunities, the establishment of capital-intensive plants was necessary to increase Southern labour productivity to European levels. Therefore, not only did large private investment need to be attracted to the South but also state-owned enterprises should locate all their new investment in the South.¹²³

¹²¹ *Ibid.*, p. 149; S. Conti, 'Industrialization in a Backward Region: the Italian Mezzogiorno, (Unpublished Ph.D. Thesis, University of London, 1979), p. 126; Federico and Giannetti, 'Italy', pp. 139-140.

¹²² Dunford, *Capital*, p. 149.

¹²³ P. Saraceno, 'Rapporto del vicepresidente della Commissione nazionale per la Programmazione Economica', in: Ministero del Bilancio, *La programmazione economica in Italia*, vol. 2 (Rome, 1967), pp. 175-176. See also Petriccione, *Politica industriale*, pp. 21-29.

The percentage of construction expenditure, defined as including supply roads, sewers and water systems, covered by the grant was determined according to industrial sector, size of the enterprise, investment per employee and location:

a) industrial sector and size of the enterprise. Industry was grouped in three categories: modern, intermediate and traditional. Industries such as aeronautics and electronic instruments were defined as the modern sector, with steel and cars as intermediate, while the traditional sector included textiles and wood products.¹²⁴

The actual percentage within the ranges of subsidies specified was determined by the size of the investment, i.e. the bigger the investment the higher the percentage. Thus, a firm in the first category would receive 22% if its investment was below 50 million lire, 23% for 50 - 200 million lire, 24% for 200 - 500 million lire and the maximum of 25 % above 500 million lire.¹²⁵

Table III.3 Sectoral entitlement to Cassa subsidies

Group	Description	Subsidies (% of investment)
1	Modern	22-25
2	Intermediate	17-21
3	Traditional	9-16

Source: Allen and MacLennan, *Regional Problems*, p.55-6.

b) Investment per employee. The percentage of the investment that could be covered by financial subsidies was inversely proportional to the investment per employee, thus displaying the aim of encouraging the development of labour intensive enterprises. The percentage of financial subsidy could range from 5% for an investment per employee beyond 12 million lire to 25% for investment below 4 million lire per employee.¹²⁶ Such parameters clearly reflect the recommendation of the Vanoni Plan, in which reducing unemployment, despite the shortage of capital, was a priority.¹²⁷ The emphasis on labour-intensive sectors might seem to contrast

¹²⁴ Cassa per opere straordinarie di pubblico interesse nell'Italia meridionale, *Tipologia industriale ed infrastruttura del territorio per una politica di sviluppo del Mezzogiorno* (Rome, 1975), pp. 19.

¹²⁵ Allen and MacLennan, *Regional Problems*, p. 55.

¹²⁶ *Ibid.*, p. 56.

¹²⁷ The criteria of investment per employee and location are clearly priority criteria in law 634/57. Article 19 states that the Cassa contribution to the firm is going to be graded according to the employment opportunities it creates and its contribution to the economy of under-industrialized areas.

with the aim of encouraging migration. However, as mentioned above, investment in infrastructure was seen as inductive to migration. Therefore, it seems plausible that encouraging migration and creating job opportunities in the South were two distinct strategies to tackle the problem of unemployment in the South.

c) Location. In accordance with the growth centre policy, the criterion of location aimed at granting higher financial subsidies to firms locating in industrial areas and nuclei, particularly in those less industrialised. It first assessed the degree of industrialization of the areas and nuclei by looking at the percentage of employees in firms with more than ten workers as a proportion of the resident population. In addition, the policy differentiated between the industrial core of each area and nucleus (designated the 'industrial zone') and the remainder of each unit. For each permutation, a different set of points was awarded as shown in table III.4.¹²⁸

Table III.4 Grants as % of investment for firms locating in areas or nuclei

Degree of industrialization ^a	Area or Nucleus	Industrial Zone
< 1.5	20	25
1.5-2.8	16	20
> 2.8	12	15

Source: Allen and MacLennan, *Regional Problems*, p.56-57.

Key: ^a = Percentage of employees in firms of more than ten employees as a proportion of the resident population (see previous paragraph).

Firms locating outside areas and nuclei could be awarded grants covering 10% of the admissible expenditures. The amount of the grant was the arithmetical average of points awarded under each head, and with the maximum grant being 25%. As an example, the maximum would be granted to a firm in the modern industrial sector (e.g. chemicals) investing more than 500 million lire, but with a low investment per employee (less than 4 million lire). The firm should also be located within the industrial zone of a relatively underdeveloped Area or Nuclei. The lowest grant - 8% - would be awarded to a firm with a traditional product (e.g. foodstuffs) undertaking

¹²⁸ *Ibid.*, pp. 56-57.

an investment below 50 million lire, but with a high level of investment per employee (over 12 million lire) and located outside an Area or Nuclei.¹²⁹

A further grant was introduced in order to cover expenditure for machinery and equipment. The grant could reach up to 20% in case of machinery and equipment purchased from Southern suppliers, but otherwise only up to 10%, if not already exempted from custom duties. The actual value of the grant was decided by the Cassa and the MTCIs, following no specified criteria.¹³⁰

As far as soft loans were concerned, the law passed in 1957 released medium term credits at interest rates lower than those available in the open market. These loans were managed by the three MTCIs operating in the South: Isveimer, Irfis and Cis. The Cassa gave a contribution on interest.¹³¹

The subsidised interest rate to the borrowing firm was fixed by the appropriate law or by *ad hoc* decrees, whereas the Cassa or government contribution varied to cover the difference between the subsidised interest rate and the base rate. The base rate, defined on the basis of the cost (weighted average) incurred by the MTCIs in issuing bonds in the previous four months, was determined bimonthly by ICCS. Such a system was advantageous for firms, as they knew exactly the interest rate to be included in their investment appraisal, but it disburdened entirely on institutions the cost due to the variation of the market interest rate. This also implied that the amount of subsidised loan which could be made available with a given budget allocation was inversely proportional to the difference between subsidised and market interest rate.¹³²

The loan schemes established by 1957-59 laws are described in table III.5.

¹²⁹ *Ibid.*, p. 57.

¹³⁰ Allen and MacLennan suggest that these criteria should be the same as those applied for grants. *Ibid.*, p. 55.

¹³¹ Cassa per il Mezzogiorno, *Relazione al Bilancio 1959-1960* (Rome, 1960), p. 135.

¹³² Pontolillo, 'Aspetti', pp. 111-114; Pontolillo, *Il sistema*, p. 103, fn 91.

Table III.5 Soft loan schemes, 1957-59

Interest rates	Size and type of investment
3%	< 1.5 bn (new plant)
	<0.5 bn (expansion or modernization)
4%	<6 bn (new plant or expansion)
5%	>6 bn (new plant or expansion)

Source: Allen and MacLennan, *Regional Problems*, p. 58.

For all three types, the loans could cover a maximum 70% of the planned investment, while all loans were repayable over 15 years. Such loans could be obtained in addition to the grants mentioned above, with the provision that the combined grant and loan could not exceed 85% of the total investment.¹³³

The provision of soft loans was not a peculiarity of the policy for the South. In the same period, subsidised medium-term credit was available in the whole country in addition to ordinary and commercial credit. In 1952, MTC was made available to small and medium sized industrial concerns in the whole country on a preferential basis through the network of RMTICs. These were able to extend loans at lower interest rates because, as already mentioned, they could refinance themselves under favourable terms at the MCC. A further soft loan scheme in favour of small and medium-sized firms was approved in 1959, subsidised by the MI. Small and medium-sized firms were considered as needing support as they were supposed to hold disadvantages in accessing the financial market as well as a smaller bargaining power with banks. It was considered a matter of equity to support the weaker sectors of the economy. Political considerations, such as gaining the support of small entrepreneurs and avoiding concentrations of labour demand and supply, also played a significant role in the formulation of these schemes.¹³⁴

Under the terms of law 949/1952, small and medium-sized firms could borrow up to 50 million lire. The scheme was managed in the South by Isveimer and Irfis after 1952, by Cis after 1953 and by the DICs of Banco di Napoli and Banco di Sicilia

¹³³ Allen and MacLennan, *Regional Problems*, pp. 58-59.

¹³⁴ Cer-Irs, *Quale Strategia*, p. 143.

from 1954. Thus, Southern firms through the same institutions could access credit from the Cassa as well as the MCC. The only difference lay in the institution's criteria for recipient firms. The MCC applied a more restrictive size criterion, allowing up to 1.5 bn lire investment and no more than 500 employees per plant in the North and Centre and 3 bn fixed capital and the same limit on employment in the South. In 1961, the MCC adopted the same size criterion as the Cassa, for Southern applicants.¹³⁵ Moreover, the MCC was entitled to determine the interest rate on its financial operations, which was to be approved by the ICCS.¹³⁶ The scheme managed by the MI applied the same size criteria as the MCC and fixed the interest rates at no more than 3% for Southern firms and a maximum of 5% for firms located in any other area of the country. The maximum loans were 500 million lire for new plants (in exceptional cases up 1000 mill) and 250 million for expansion outside the South, compared with 1,000 and 500 million respectively for Southern firms (in exceptional cases 1,500 mill. for new plants). The loans were repayable over 15 years in the South and over 10 years elsewhere in the country.¹³⁷

In the same period, more soft loan schemes were introduced. In 1961, a fund was instituted at the IMI to finance small and medium-sized firms (including firms that had suspended trading, and thus were unable to secure funds from banks). This scheme (law 1470/1961) aimed to assist firms with restructuring or reconversion.¹³⁸ According to later research, this scheme was passed to support wool manufacturers in Biella, who were experiencing difficulties from foreign competition, particularly from other European countries.¹³⁹ In 1965, IMI was entrusted with a further fund to finance small and medium-sized firms hit by the economic crisis of 1964-5. This law raised the limit of medium firms to 6 billion fixed capital, to be applied to the plant in the South and to the firm in the rest of Italy.¹⁴⁰ Law 1329/1965 sought to help the machine tool industry recover from the crisis. It subsidised the purchasing and leasing of domestically produced machines - a limitation later abolished in

¹³⁵ Pergolesi, *Il credito*, p. 45.

¹³⁶ Law 949/52, article 26, published in ABI, *La legislazione italiana*, p. 187.

¹³⁷ *Ibid.*, pp. 193-194.

¹³⁸ Pergolesi, *Il credito*, p. 48.

¹³⁹ E. Pontarollo, 'Le politiche di ristrutturazione industriale in Italia dal 1961 al 1977', *L'Industria: Rivista di Economia e Politica Industriale*, Nuova Serie, 1 (1980), p. 372

¹⁴⁰ Pergolesi, *Il Credito*, p. 49.

accordance with the EEC regulation - worth between 1 million lire to 3 billions and the scheme was managed by the MCC.¹⁴¹ Both the producer and the purchaser benefited from this scheme as producers could rediscount bills and purchasers could dilute the payment over five years at a subsidised interest rate.¹⁴² The proliferation of schemes, which was later called a 'jungle of incentives' in which the same firm could benefit from various schemes, is interpreted in the literature as a consequence of the lack of a coherent industrial policy. The absence of an all-embracing approach left room for pressures by economic and industrial groups which then brought about the formulation of schemes each of which addressing a specific and/or sectoral problem.¹⁴³

The table below aims at displaying the relevance of the industrial policy in the context of the Cassa policy as a whole during 1957-1965:

¹⁴¹ Mediocredito Centrale, Osservatorio sulle Piccole e Medie Imprese, *L'efficacia degli incentivi di politica industriale: aspetti teorici ed evidenza empirica* (Rome, 1997), pp. 16-17; G. Scanagatta, 'Le leggi nazionali di incentivazione per le piccole e medie imprese industriali e il Mezzogiorno', *Rivista Economica del Mezzogiorno*, 3/1 (1989), p. 79. The original lower limit was 500.000 lire and the scheme did not include any size limit on eligible companies, see law 28, November 1965, n.1329.

¹⁴² F. Momigliano (ed.), *Le leggi della politica industriale in Italia* (Bologna, 1986), pp. 175-176.

¹⁴³ L. Barca and G. Manghetti, *L'Italia delle Banche* (Rome, 1976), p. 187.

Table III.6 Annual average Cassa expenditure, 1957-65 (1980 billion lire)

	Infrastructures				Incentives				Credit ^c		Various	Total	
	Agr.	Ind.	Oth.	Total	Agr.	Ind.	Oth.	Total	Abroad	Total			
	a/n ^a				Grants								
					c/int ^b								
Bill	315.7	6.9	256	578.7	93	28.8	33.2	20.4	175.4	211.7	286.4	62	1102.
													5
%	28.6	0.6	23.2	52.5	8.4	2.6	3	1.8	15.9	19.2	26.0	5.6	100

Source: Cassa per il Mezzogiorno, *Relazione al Bilancio*, years 1957 to 1965.

Keys:

^a = financial subsidies extended by the Cassa in the areas and nuclei of industrialization.

^b = contribution on interest against loans extended under the terms of law 623/1957.

^c = subsidised loans extended directly by the Cassa.

As the table shows, during 1957-1965 the Cassa provision of financial subsidies for industry was still a very small part of its programme. Grants extended to firms amounted to 2.6% of total expenditure, and contributions on interest extended to the medium term credit institutions amounted to a further 3% of the total. Thus incentives to industry amounted to just 5.6% of the whole, and the entire Cassa incentives programme, including other sectors (such as fisheries and handicrafts) represented just 15.9% of its total budget. Despite the emphasis placed in the literature on the Cassa involvement with industry,¹⁴⁴ during the early period this was relatively insignificant compared with the Cassa involvement with infrastructure projects, which absorbed 52.5% of its total expenditure. However, 1.2% of the sums allocated to infrastructure project (or 0.6% of the whole) was devoted to industry, particularly the building of infrastructures in the areas and nuclei.

The perceived role played by the IBRD in establishing the Cassa has already been noted. IBRD funds helped finance the Cassa's direct credit activity aimed at supporting the establishment of large plants in the South, for which borrowing requirements exceeded the 300 million lire - lending limit of the three Southern Institutes. Recipient firms included a cement plant in the Naples area (the largest in Europe at the time), a car manufacturing plant in the same area with a productive capacity of 30.000 vehicles a day, and electric power stations. Direct credit amounted to 26% of the total budget of the Cassa. Of this sum 73.9% (or 19.2% of the Cassa activity as a whole) was provided by foreign capital, namely that of the IBRD. This supports the claims of the important role played by the IBRD in the establishment of the Cassa.¹⁴⁵

The publicising of the system of incentives available to firms willing to expand or establish in the South was entrusted to IASM (Institute for the Promotion of the Development of the South) established in 1961 and financed by the Cassa in collaboration with the three special credit institutions. The IASM provided firms with information on the full range of available incentives and advice on eligibility for

¹⁴⁴ See for instance O. Castellino (ed.), *La politica economica italiana dal 1946 al 1970* (Turin, 1973), p. 206.

¹⁴⁵ Cassa per il Mezzogiorno, *Relazione al Bilancio, 1956-57* (Rome, 1957), pp. 84-91.

various schemes. Advice was given on technical aspects of location and expansion, and on taxation issues. Assistance was also provided to the bodies responsible for creating and equipping industrial nuclei and areas (Chambers of Commerce, local authorities, etc.) to deal with unprecedented judicial, administrative and fiscal issues. The IASM's broad task was to arouse interest of foreign and Italian industry in locating to the South via advertising and personal contacts.¹⁴⁶

II) 1965-1970

In 1952, the Cassa's functions had been extended to 1965. Law 717/1965 further extended the Cassa until 1980 and allocated it 1,640 billion lire (7,130.4 bn at 1980 prices) for the period 1965-69. In late 1968 the Cassa's programme, as defined in 1965, was extended to 1970 to match up with the National Programme which was due to end in that year. In 1968, the Cassa was also endowed with a further 560 billion lire (2,240 bn 1980 lire), which was to cover the extra year but also to boost the Cassa's resources.¹⁴⁷ Thus the Cassa was endowed with 9,370.4 billion lire (1980 prices) to cover the 1965-70 period, which calculated on an annual basis amounted to 1,561.7 billion, a slight increase compared with the 1957-1965 period, when the corresponding figure was 1,333.3 billion lire.

The table below displays the Cassa's expenditure by sectors:

¹⁴⁶ Allen and MacLennan, *Regional Problems*, pp. 60-62.

¹⁴⁷ *Ibid.*, p. 75.

Table III.7 Annual average Cassa expenditure, 1966-70 (1980 billion lire).

	Infr				Incent				Credit		Various	Total	
	Agric.	Industry	Others	Total	Agric.	Industry	Others	Total	Abroad	Total			
	a/n ^a				Grants				c/in ^b				
bill	191.1	23.6	332.5	547.3	56	208.2	193.6	41	498.7	188	291.3	138.3	1475.5
%	13	1.6	22.5	37.1	3.8	14.1	13.1	2.8	33.8	12.7	19.7	9.4	100

Source: Cassa per il Mezzogiorno, *Relazione al Bilancio*, years 1966 to 1970.

a= financial subsidies extended by the Cassa in the areas and nuclei of industrialization

b= contribution on interest against loans extended under the terms of law 623/1957.

During 1966-70, incentives to industry represented 27.2% of the annual average Cassa expenditure. This was a significant increase on the corresponding figure for the previous period (5.6%). Furthermore, among the assisted sectors (agriculture, industry, tourism, fisheries and handicrafts) industry replaced agriculture as the principal recipient. The Cassa's involvement with infrastructure lost significance during 1966-70, when dropping to 37.1% of total expenditure, (compared with 52.5% in 1957-65). The direct credit activity of the Cassa, (directed towards large investment such as electric power stations) represented 19.7% of total expenditure. Of this, 64.5% (or 12.7% of its total budget) was funded through loans from abroad. The role of foreign capital had decreased from the previous period, when the corresponding figures were 73.9% and 19.2%.

The increased share of the industrial incentives highlighted above demonstrates the increased importance of the industrial policy in the 'extraordinary intervention' for the South. This industrial policy developed the growth centre policy further. Indeed, firms were provided with more generous grants and loans if locating or expanding in Areas and Nuclei. A further and equally important objective of the policy was to attract more dynamic and modern industries to the South. This aim was pursued by reiterating the obligation of state-owned enterprises to undertake 40% of their new investment (or investment in new plants) in the South so that investment in the South would amount to 60% of their total investment.¹⁴⁸ This policy arose from the perception that industrialization processes can start only through the establishment of capital-intensive plants. This was the period of large chemical, steel and metallurgical plants, which accounted for 60% of the investment made in those years in the South, whereas the same industrial sectors accounted for 26% of industrial investment in the rest of the country.¹⁴⁹

The system of Cassa incentives underwent some changes during 1965-70. For small and medium firms with fixed capital not exceeding 6 billion lire, grants were graded as follows: the maximum percentage of grant to be awarded over the admissible expenditure (building costs, sewers and water systems, roads) was reduced from 25%

¹⁴⁸ Castellino, *La politica economica*, p. 210.

¹⁴⁹ Ufficio Studi Banco di Napoli, 'L'Intervento', pp. 768-769.

to 20%. The criteria for grant size as established in 1965 were location, sector and firm size, and the total amount was the sum of the percentage points for each criterion, in contrast with the previous period, when the total amount was the average of the percentage points for each criterion. The criterion of the investment per employee, introduced in 1957, was abolished in 1965.

a) Location. A firm could obtain between 0.5% and 6.5% of its admissible expenditure, depending on its choice of location, as shown in table III.8. The 1965 criteria thus abolished distinctions between individual nuclei and areas, based on their degree of industrialization. As mentioned in the previous section firms locating in less industrialised areas or nuclei were granted a higher percentage of their costs. Thus though the growth pole policy was still applied, the effort to push firms into the less industrialized areas of the South lost momentum.

Table III.8 Location criterion: grants as a percentage of the investment.

Location	percentage
Industrial zone of area and nucleus	6.5
Outside industrial zone of area and nucleus	3.5
Outside area or nucleus	0.5

Source: Allen and MacLennan, *Regional Problems*, p. 89.

b) Industrial sector. Industry was divided into three groups. The maximum percentage (6.5) was obtainable by firms belonging to the first group, i.e. firms in the food, chemical and engineering industries, and capital goods, which made heavy use of local resources. The second group included industries partially complying with those criteria; industries producing goods and services necessary for southern development; firms contributing to the modernization of declining industries in the South or elsewhere. Firms in this group could receive a grant amounting to 3.5% of their admissible expenditures. Firms considered not to fulfil the above conditions could receive a grant covering 0.5% of their expenditure.¹⁵⁰ Thus apart from the engineering, chemicals and food sectors no other sector was clearly specified, which left room for arbitrary decisions.

c) Size of the investment. Industries were divided into twelve technologically homogenous categories. In each of these three groups of investments were identified. The highest percentage of expenditure that could be covered by the grant (7%, the others were 4% and 1%) was secured by the lowest level of investment. These levels of investments differed between groups of industries. Table III.9 gives the levels for two example groups, H, which included agricultural machinery, paint and chemicals, and G, which included the weaving of artificial fibres.¹⁵¹ Thus, the size criterion as established in 1965 aimed at favouring the smallest enterprises in each group, in sharp contrast to the previous size/sector criterion of 1957, which favoured large investments in modern industry.

Table III.9 Percentage of grants by size of investment

Groups	7%	4%	1%
G	< 1 bn	1 -2.5 bn	> 2.5 bn
H	< 1.2 bn	1.2 - 3 bn	> 3 bn

Source: Allen and MacLennan, *Regional Problems*, pp. 88-89.

Grants were also available for larger firms. These did not have to fulfil the complex criteria outlined above, but were relatively less generous in their coverage of the planned investment, as table III.10 demonstrates.¹⁵²

Table III.10 Grants for larger firms under the 1965 scheme.

Investment size	Maximum grant as % of investment
First 6 bn	20
Subsequent 6-12 bn	10
> 12 bn	50% of grant extended on first 12 bn (until 1968) 12 (from 1968)

Source: Allen and MacLennan, *Regional Problems*, p. 88.

An additional grant could be awarded to cover 50% of the expenditure on machinery produced in the South. A double purpose is implicit in this grant: to stimulate firms

¹⁵⁰ Allen and MacLennan, *Regional Problems*, p. 87.

¹⁵¹ *Ibid.*, p. 88.

¹⁵² *Ibid.*, p. 88.

to locate in the South, and to purchase their equipment from Southern firms, thus expanding the market for both existing and planned southern enterprises.¹⁵³

Law 717/1965 also created a new soft loan scheme, with varying terms for different levels of investment as shown in table III.11. The law also established that the loan size should be graded according to the same criteria used for grants, with the exception that the size criterion used for grants was inverted. Thus firms eligible for maximum grants would qualify for minimum loans, and vice versa, the rationale being that grants are more suitable for small firms which cannot be burdened with debts. Loans could cover from a minimum 15% to a maximum 70% of the planned investment, calculated according to criteria displayed in table III.12.¹⁵⁴

Table III.11 Soft loans under scheme 717/65

Investment size	Interest rate	Maximum coverage (% of investment)
< 6 bn	4	70
> 6 bn	5-6	70
< 12 bn	5-6	70
> 12 bn	5-6	50% of loan granted on first 12 bn (until 1968) 50 (from 1968)

Source: Allen and MacLennan, *Regional Problems*, pp. 85-86.

Table III.12 Gradation of soft loans

	Location	Sector	Size
25%	Industrial zone (IZ)	Modern ^a	Firms eligible for 1% grant*
15%	Outside IZ	Declining	Firms eligible for 4% grant
5%	Outside area/nucleus	Others	Firms eligible for 7% grant

a: includes chemicals, food processing and capital goods industries.

* Such firms were eligible for loans covering 20% of investment.

Source: Allen and MacLennan, *Regional Problems*, pp. 86-88.

The 1968 modifications, offering more generous subsidies to large firms, were subject to a range of conditions. Thus to be eligible, investment had to be undertaken in sectors poorly represented in the South, had to make significant direct

¹⁵³ *Ibid.*, p. 89.

or indirect contribution to employment; had to be located in an industrial zone, or had to induce new complementary investment in the South.¹⁵⁵ Allen points out that these conditions were very vague and that companies investing more than 12 billion surely had such bargaining power that the maximums became norms.¹⁵⁶ Some literature interprets the 1968 modifications as the result of pressure by large private groups, attempting to match their expansion plans with the aims of the regional policy, and to increase their profit through public subsidies.¹⁵⁷ The main example is the location of the Alfa-Sud plant (planned in 1967, when the Alfa Romeo was owned by the IRI) in the South. Without the 1968 increase in subsidies, the incentives available for this plant would have been very small and well below those, for instance, obtained by the British car firms moving from England to Scotland.¹⁵⁸ However, this interpretation overlooks the fact that the economic policy of the Moro and other centre-left governments intended to attract more large investment in the South from private and state-owned enterprises (particularly in the car industry, which was considered relatively more labour intensive and able to generate other industrial activity). The aim was not only to increase the growth of the Southern economy but also to put a brake on Southern migration to the North-west and particularly to the Turin area, which was unprepared for such a rapid increase of the population and where social tensions were increasing.¹⁵⁹

In 1967 medium-term credit conditions for industrial concerns located in the whole country were made more favourable. Firms employing less than 100 workers and willing to borrow up to 300 million would pay only 5% on the first 70 million (instead of the previous 5.85%), and only 5.75% on amounts between 70 million and 300 (down from the previous 5.85%). Medium-sized and small firms willing to borrow more than 300 million could obtain loans at 5.85% (down from the previous 6%).¹⁶⁰ In 1967, the size criteria to access soft loans under the scheme passed with law no 623/59 were changed. The Interministerial Committee for

¹⁵⁴ *Ibid.*, pp. 88-89.

¹⁵⁵ *Ibid.*, pp. 85-86.

¹⁵⁶ *Ibid.*, p. 86.

¹⁵⁷ Del Monte and Giannola, *Il Mezzogiorno*, pp. 293-294.

¹⁵⁸ *Ibid.*, p. 86.

¹⁵⁹ V. Castronovo, *Fiat 1899-1999, un secolo di storia italiana* (Milan, 1999), pp. 1032-1036 and 1166-1170.

Economic Planning (CIPE) established that soft loans could be extended to new plants to a maximum of 70% of the investment, with fixed capital not exceeding 50 million. Expanding and modernizing plants could borrow up to 150 million, with no limits on fixed capital. These limits were to be applied to plants located in the most industrialised area of the North-west, the Industrial Triangle, the area between Turin, Milan and Genoa. Broader borrowing limits were applied to the 'depressed areas of the North-west'. New plants could borrow up to 150 million lire and expanding plants could borrow up to 250 million. In the rest of Northern and Central Italy, the maximum borrowing amount was decreased by 35% compared with the limits established by law 623/59. The maximum loan amount was decreased to 375 from 500 million lire, though in exceptional circumstances this could be increased up to 750m. Limits remained unchanged for the area under Cassa's competence and in the neighbouring regions.¹⁶¹

III) 1971-75.

In 1971, law 853 changed the institutional framework for the southern policy by abolishing the Interministerial Committee for Extraordinary Activities in the South (Comitato Interministeriale per gli Interventi Straordinari nel Mezzogiorno), and by transferring the planning and the coordinating functions to the CIPE, in order to integrate programmes for the South into the wider framework of national economic planning and industrial policy. The Cassa retained its functions of implementing southern policy and of financing and co-ordinating the activities of its associated organs. Its endowment in this period amounted to 7,125 bn lire¹⁶² or 25,446 bn 1980 lire, an average 5,089.2 bn per year, a considerable increase from the 1,561.7 bn (1980 lire) annual average during 1965-70.

The 1971 law also increased the percentage of investment which state-controlled enterprises (and agencies) were obliged to undertake in the South, from the previous 60% to 80%, and could not be less than 60% of each firm's total investment. State-

¹⁶⁰ Mediocredito Centrale, *Relazione al Bilancio, 1967* (Rome, 1967), pp. 14-15.

¹⁶¹ Delibera CIPE, 24 May 1967. Pergolesi, *Il credito*, p. 75.

¹⁶² Dunford, *Capital*, pp. 153-154.

owned firms and agencies were also bound to submit annually a five-year investment plan, specifying the amount of the investment, foreseen employment level, regions where new investments were going to be located and also the programmes relating to the transfer to Southern Italy of the administrative and sales managements of the groups and firms operating in the South.¹⁶³ In 1971, the financing and implementation of the so-called Special Projects was entrusted to the Cassa. The Special Projects were divided into five main groups, including the development and distribution of water resources; agricultural-development projects; specific infrastructure for industry, etc. The projects were to be put forward by the newly created Regions (administrative units created in 1970), and had to be approved by the CIPE in order to be implemented by the Cassa.

¹⁶³ Organization for Economic Co-operation and Development (OECD), *Latest Results and New Features of Official Action in the Mezzogiorno (Italy)* (Paris, 1973), p. 50.

Table III.13 Annual Average Cassa Expenditures, 1971-1975, (bn lire 1980)

	Infrastructure				Incentives				Credit		S P ^a	Var	Total	
	Agr	Ind	Oth	Tot	Agr	Ind	Oth	Tot	Abr	Tot				
	a/n ^b				Gr ^c	C/In ^d								
Bill	285.3	189.6	585.3	1060.2	93.3	418.5	346.3	36.4	894.4	122.2	259.2	93	323.3	2630.2
%T	10.8	7.2	22.3	40.3	3.5	15.9	13.2	1.4	34	4.6	9.9	3.5	12.3	100

Source: Cassa per il Mezzogiorno, *Relazione al Bilancio*, years 1971-1975.

a: SP= Special Projects

b= financial subsidies extended by the Cassa in the areas and nuclei of industrialization

c: Gr= Grants

d: C/In= Contribution on interests, on loans extended by the credit institutions.

During 1971-1975, incentives to industry amounted to 29.1% of the Cassa's expenditure, up from 27.2% in 1966-70. In real terms, the increase was much more significant, up to 764.8 billion from 401.8 billion in the previous period. The Cassa's expenditure on incentives in 1971-1975 amounted to 34%, as in the 1966-70, which meant an increase in absolute terms, for in the latter period expenditure in incentives increased to 894.4 billion against 498.7 billion in the previous one. Cassa expenditure on infrastructure increased from 547.3 to 1060.2 billion in 1971-1975, and infrastructure for the industrial sector, since 1966 confined into areas and nucleus of industrialization, jumped from 23.6 billion in 1966-70 to 189.6 in 1971-1975. In contrast, the Cassa's direct credit activity considerably decreased in percentage terms, from 19.7% to 9.9%, and slightly decreased in absolute terms, from 291.3 billion in 1966-1970 to 259.2 in 1971-1975. Loans from abroad lost significance, decreasing from 12.7% to 4.6% of expenditure, and in real terms from 188 billion, in 1966-70, to 122.2 billion, in 1971-75. Expenditure on the Special Projects amounted to just 180 million per year in the first five years of their implementation.

During 1971-75 official priorities changed, with encouragement for investment in areas experiencing depopulation rather than in nuclei and areas of industrial growth. In the 1960s large inner areas within the 'Mezzogiorno' experienced international migration and two kinds of internal migration: from the South to the North, and from the rural hinterland to industrial agglomerations within the South.¹⁶⁴ On the one hand the movement of population satisfied the demand for manpower of the large modern industrial complexes created in the South,¹⁶⁵ on the other hand it was seen as creating economic and social costs of congestion in immigration areas and the further impoverishment of areas experiencing emigration.¹⁶⁶

¹⁶⁴ Ronzani, 'Regional Incentives', p. 139.

¹⁶⁵ OECD, *Latest Results*, p. 9.

¹⁶⁶ U. La Malfa, 'Problemi e prospettive dello sviluppo economico italiano', (also known as 'Nota aggiuntiva' alla 'Relazione generale sulla situazione economica del Paese per il 1961'), in: Ministero del Bilancio, *La programmazione economica in Italia*, vol. 2 (Rome, 1967), p. 127. The so-called 'Nota aggiuntiva' is considered the economic policy statement of the centre-left government. G.M. Rey, 'L'economia Italiana negli anni di Menichella', in: F. Cotula (ed.), *Stabilità e sviluppo negli anni Cinquanta*, vol.2: *Problemi strutturali e politiche economiche* (Rome-Bari, 1998) p. 47.

The objectives of the Cassa's intervention for the years 1971-75 were expressed by the CIPE through deliberations in 1972. Priority was to be given to: (1) small and medium-sized firms; (2) firms linked with the production of large plants; (3) restructuring programmes in declining sectors so that employment levels could be maintained (these included food processing, shoes, paper, tobacco processing and domestic electric equipment); (4) investment in research centres in the South, and (5) high technology industries.¹⁶⁷ The CIPE also redefined the system of incentives.

The new system divided firms into three large groups, as shown in table III.14. Additional inducement was made available for firms locating in areas experiencing depopulation, where the grant covered 45% of fixed investment, and the Cassa was able to award further grants to undertake small works connected with specific infrastructures, as well as for the training of manpower, up to a ceiling of 5 % of the fixed investments.¹⁶⁸ The law itself did not specify the interest rate of the soft loan, but entrusted the task to the Treasury, under the advice of the Interministerial Committee for the Credit and Savings. However, the law established that interest rates for small industrial concerns had to be a third lower than those for large industrial concerns.

Table III.14 Industrial incentives by firm/investment size, 1971-75.

Firm size	Fixed Capital (£ bn)	Grants ^a	Soft Loans ^a
Small	0.1-1.5	35%	35%
Medium	1.5-5	15-20%	35-50%
Large	> 5	7 -12%	30-50%

Source: OECD, *Latest Results*, p. 51.

Key= ^a as % of investment

Financial incentives available to medium sized firms were more complex, and included a range of possible grants and loans. Industry was divided into four groups. Group A, being the priority sector, had access to the highest grants and contributions. It included extractive and manufacturing firms connected with large plants located in the South, i.e. firms in the machine tool industry, the products of which were used as

¹⁶⁷ M. Annesi, *Nuove Tendenze dell'Intervento Pubblico nel Mezzogiorno* (Milan, 1973), pp. 66-68.

¹⁶⁸ OECD, *Latest Results*, p. 51.

equipment in the Southern large plants; firms producing components and accessories for the products of large firms; and firms involved in the further processing of the products of large plants. Group A also included high technology firms involved in products of social utility (telephones etc.), firms involved in products useful to technological modernization and improvement of sectors in group D, etc. Group B included all industries not included in the other groups. Group C included capital intensive extractive and manufacturing firms, while group D included manufacturing and extractive sectors needing restructuring, including the manufacture of shoes and textiles. The gradation of the financial incentives was as follows:

Table III.15 Incentives for medium sized firms, 1971-75

Groups	New Plants				Enlargement		Reopen & Convers	
	Depopulated Areas		Other Areas		loan ^a	grant ^a	loan ^a	grant ^a
	loan ^a	grant ^a	loan ^a	grant ^a				
A	50%	20%	45%	20%	50%	20%	50%	20%
B	45%	20%	40%	20%	45%	20%	50%	20%
C	35%	15%	35%	15%	45%	15%	50%	20%
D	35%	15%	35%	15%	35%	15%	35%	15%

Key= ^a as a percentage of investment.

Source: Decreto Ministeriale, 6th May, 1972.

As demonstrated in table III.15, incentives for medium-sized firms were tailored to three different circumstances: the opening of new plants, enlargement of existing ones and reopening & conversion, with different sizes of loan and grant available for each. The location of the plant was important only in the case of the opening of new plants, for firms included in groups A and B, and affected soft loans only. New firms in group C and D were not encouraged to establish in depopulated areas, as the percentage of subsidies did not increase in such circumstances. Generally speaking, groups benefiting from the highest percentage of contribution were groups A and B. It seems clear that grants were aimed at encouraging smaller firms, as medium-sized firms were supposed to be more able to bear debts, and were assisted primarily through loans.¹⁶⁹ The gradation of the incentives shows the willingness to encourage industries in areas experiencing depopulation and to favour those firms connected with large plants, which meant trying to develop a virtuous circle around large plants. However, some inconsistencies are apparent. Until 1971 small and large firms had been encouraged to concentrate in the areas and nuclei, which given the concentration of industries had experienced population growth. Thus, firms producing services and semi-raw materials, or processing the output of large plants were encouraged to place themselves away from the large plants with which they were linked.

The system of financial incentives available to firms investing or reaching fixed capital above 5 billion lire was completely different. The CIPE - on the basis of the sectoral promotional plans and in the framework of planned bargaining procedures (the so-called *contrattazione programmata*) - could approve grants amounting to between 7% and 12%, and loans from 30% to 50% of the planned investment.¹⁷⁰ The bargaining procedures ensured that consultations between firms planning investment, particularly in the South, and a restricted group of Ministries (Budget and Economic Planning, Treasury, Labour and Industry) had to take place. The purpose of these consultations was to make firms aware of the public investment made and about to be made so that they could exploit it to the fullest, as well as to adjust future public investment to large companies' needs. In addition, the Italian

¹⁶⁹ Allen and MacLennan, *Regional Problems*, p. 89.

¹⁷⁰ OECD, *Latest Results*, p. 51.

government tried with the new law to gain more control over the investment made by large companies, in order to ensure that these investment projects were compatible with the directives of the national economic planning to limit new investment in areas suffering from congestion and labour shortages. However, as the Committee of the Ministries had no directional power over companies, the latter had a far stronger bargaining position.¹⁷¹ The attempt to gain more control over large private investment was pursued by establishing that any investment costing more than 7 billion lire, as well as any investment made by a company with a share capital of not less than 5 billion, had to submit its investment plans to the CIPE for approval. It was intended that firms ignoring rules were to be penalised with a fine totalling 25% of the investment. However, as sanctions were not enforced, the attempt of the State to control large private capital proved to be ineffective.¹⁷²

The Ministerial Decree of May 1972 fixed interest rates of 4% for small and medium-sized industrial projects (up to 5bn lire fixed investment) and 6% for investment above this figure. In addition, the Southern commercial sector could benefit from loans at the 3% interest rate. This measure aimed at helping the marketing structure for industrial, agricultural and local craft products.¹⁷³

Two more bills were passed in 1971. Law 184/1971 established a fund at IMI to favour the restructuring and reconversion of firms, through soft loans or the acquisition of shares. No size limit was specified for recipient firms. The same law increased (by ten billion lire) the IMI fund established by law 1470/1961, which was aimed at assisting the restructuring of small firms. The fund thus reached 73 billion in 1971.¹⁷⁴ In December of the same year, law 1101 authorized medium term credit institutions to extend soft loans at 4% to textile firms in order to undertake restructuring. Such loans could cover up to 70% of the first 500 million, 60% of the following 2.5 billions and 50% on the further 3 billion lire.¹⁷⁵ In 1972, the subsidy was extended to firms with no more than 500 employees, regardless of sector. Based

¹⁷¹ Annesi, *Nuove Tendenze*, pp. 33-35.

¹⁷² Dunford, *Capital*, p. 155.

¹⁷³ OECD, *Latest Results*, p. 55.

¹⁷⁴ Banca d'Italia, *Relazione Annuale*, 1970, p. 170.

¹⁷⁵ Banca d'Italia, *Relazione Annuale*, 1971, pp. 169-170.

on a restructuring/reconversion plan, firms could receive soft loans covering 70% of the first 500 million, 60% to cover the following 3 billion and 50% on the investment exceeding 3.5 billion lire.¹⁷⁶ In 1973, the borrowing limits and the size of firms applying for loans under the Ministry of Industry scheme were partially modified. Borrowing limits applicable to firms located in the depressed areas of the Centre and North Italy were increased. The same firm size and borrowing limits were applicable to firms in all other areas of the country.¹⁷⁷

IV) 1976-1980 and 1981-1986.

The main concern of the economic policy in the middle of the 1970s was to increase the productivity of Italian industry in order to make the Italian economy internationally competitive. The objective was to increase businesses' profit margins without damaging their international competitiveness, which meant without incurring inflation. To this end, two paths were envisaged: increased availability of subsidised medium-long term credit to industry, reducing labour cost and consequently household purchasing power. However, the only viable strategy to reduce labour costs was to make public finances pay for the social costs of labour, and demand was restrained by increasing indirect taxation. As far as subsidised credit to industry was concerned, its relevance as tool of industrial policy was increased by the restrictive monetary policy, characterized by Central Bank's high discount rate, high returns on Government bonds in order to finance the public debt and the subsequent high cost of credit. It was felt that in such a situation, credit to industry had to work as a balancing and corrective mechanism able to facilitate firms' access to credit.¹⁷⁸ Furthermore, the rigidity of the labour market together with the increase in the oil price had produced a severe recession, which hit the North more dramatically in the short run and the South more dramatically in the longer run.¹⁷⁹ Indeed in 1975, in the North-West investment in industry fell by 24.5% and by 22.2% in the South. In the North-West, investment increased again the following year, whereas the negative

¹⁷⁶ Banca d'Italia, *Relazione Annuale*, 1972, p. 168.

¹⁷⁷ Comitato Interministeriale gestione 623/1959, seduta 22 Febbraio; Pergolesi, *Il credito*, pp. 75-76.

¹⁷⁸ F. Vassalli and G. Visentini (eds.), *Legislazione Economica, Settembre 1976- Agosto 1977* (Milan, 1978), pp. 27-30.

¹⁷⁹ Faini and Schiantarelli, 'Regional Implications', p. 104.

trend in the South lasted until 1978. However, the increase in investment was very small in the North-West until 1978 and the value stayed negative for the country as a whole.¹⁸⁰ A further reason lying behind the systematic reorganization of financial incentives in the country was the awareness of the need to simplify what was called the 'jungle' of incentives created since the 1950s.¹⁸¹ Thus 1976-77 witnessed the usual five-year reorganization of the 'extraordinary intervention in the South', together with a reorganization of the subsidised credit to industry in the country as a whole and of the incentives to the industrial restructuring and reorientating production.

The reorganization of the Cassa activity and policy up to 1980, as well as of the incentives to Southern firms was provided by law 183, passed in 1976. This endowed the Cassa with 16,000 billion current lire of which 1,000 were to cover commitments taken before 1976. The endowment was increased with 2,080 billion current lire from the National Fund for subsidised credit to industry (Fondo Nazionale per il credito agevolato all'industria) established in 1976. The Fund amounted to 3,200bn lire (6,037.7 bn 1980 lire) of which 65% was passed on to the Cassa. Thus the Cassa's endowment for the 1976-1980 years amounted to 18,080 bn current lire or 34,113.2bn 1980 lire. Law 183 designated sectors and aims on which 8,843 billion current lire had to be spent, while the CIPE designated sectors and aims on which the remaining 9,237 billion lire had to be spent.¹⁸²

Law 183/1976 introduced few changes in the organization of the extraordinary intervention in the South, in future Cassa involvement with infrastructure projects would be managed by regional local authorities and would be financed by central government.¹⁸³ The Cassa retained responsibility only for infrastructure in the industrial sector, to be implemented exclusively in the areas and nuclei, and only general infrastructural plans approved before 1976. Law 183 reorganized the policy for the South for five years, up until 1980, when it was envisaged that the Cassa

¹⁸⁰ Data from Pergolesi, *Il credito*, p. 134, sources: Istat, *Annuario di contabilità nazionale*, Tomo III, 1983; Istat, *Notiziario di statistiche regionali*, 1986.

¹⁸¹ Ronzani, 'Regional incentives', p. 140.

¹⁸² Ufficio Studi del Banco di Napoli, 'L'Intervento', pp. 779-780.

¹⁸³ *Ibid.*, p. 776.

would be disbanded. The Cassa had been established as a temporary institution supposed to last until 1980, but between 1980 and 1986, 11 ministerial decrees were passed to prolong its activities. All political parties agreed to keep an additional flow of resources going to the South but there was disagreement concerning the institutional framework for the management of these funds. The 11 decrees left the institution in a state of uncertainty and precariousness, for each decree prolonged the Cassa's life for a brief period only, sometimes as short as a year or even 6 or 3 months.¹⁸⁴ After 1976, the direct credit activity of the Cassa and credit from abroad disappear from the balance sheets.

¹⁸⁴ Cafiero and Marciani, 'Quarant' anni', pp. 267-268.

Table III.16 Annual Average Cassa expenditures 1976-80 (1980 bn lire)

	SP ^a		Industry			Total	Area Regional Competence				Total
	Total	a/n ^b	grants	con/int ^c	other		Cap Form ^d	Credit ^e	Others	Total	
Bill 1980	681.2	274.8	417	329.7	37.3	1058.9	1250.3	75.4	7.1	1332.7	3072.8
% Total	22.2	8.9	13.6	10.7	1.2	34.5	40.7	2.5	0.2	43.4	100

Sources: Cassa per il Mezzogiorno, *Relazione al Bilancio*, 1976-1980.

Keys:

a=Special Projects

b= expenditure in infrastructure in areas and nuclei of industrialization.

c= contribution on interest paid to Southern medium-term credit institutions: Isveimer, Irfis and Cis.

d= capital formation in various sectors, among which more relevant were agriculture, water and road systems.

e= credit to agriculture and tourism.

A comparison of the average annual expenditure of the Cassa in the years 1971-75 (table III.13) and 1976-80 (table III.16) shows that the expenditure increased in the later period. However, the analysis of the annual expenditure (see graph IV.2) shows that a decreasing trend started from 1976, coinciding with the reorganization of subsidised loans and grants, mentioned above.

Similar findings are presented by Cafiero and Marciani,¹⁸⁵ who have analysed the Cassa expenditure from 1951 to 1989. This study shows that the trend of Cassa expenditure reached a peak of 9,400 bn (1989 lire) in 1975, and started decreasing afterwards, but the average annual expenditure remains lower in the 1971-75 period (6,700 bn 1989 lire) than in the 1976-80 period (7,900 bn 1989 lire). No further comparison can be made with this study as the Cafiero and Marciani analysis is much more aggregated than the one performed in this chapter, as they divide the Cassa expenditure into: a) direct investment (including investment in infrastructure in all sectors of Cassa intervention, from agriculture to railways); b) subsidies to private investment (including grants and contributions on soft loans in all sectors, from industry to tourism); c) others (including the direct credit activity of the Cassa and its working expenditure).¹⁸⁶

As the table above shows, the traditional sectors the Cassa activity (social overhead capital, credit to agriculture, etc.) represented the largest share of the Cassa's expenditure, i.e. 43.4%. In 1976, responsibility for these passed to the regional authorities. However, plans approved before 1976 were to be completed by the Cassa. Special projects absorbed 22.2% per cent of the Cassa's annual average expenditure over the period 1976-80. Special projects had been introduced in 1971 and consisted of inter-regional and inter-sectoral projects concerning civil infrastructure or infrastructure in agriculture, or in industry etc. The Cassa's expenditure in industry (including financial incentives as well as infrastructure to be implemented in areas and nuclei of industrialization) represented 34.5% of its

¹⁸⁵ *Ibid.*

¹⁸⁶ *Ibid.*, pp. 272-273, sources: data provided by the Cassa per il Mezzogiorno from 1951 to 1980; Cassa per il Mezzogiorno, *Relazione al Bilancio*, 1981 to 1986; Agenzia per il Mezzogiorno, *Relazione al Bilancio*, 1987-1989.

expenditure over the years 1976-80, slightly less than the 36.3% of the previous period.

Since 1976, the Cassa's direct credit activity implemented through credit from abroad is no longer recorded in the balance sheets or mentioned in the report. It seems plausible that it ceased. The Annual Report of 1976 still mentioned that the Cassa received loans from the IBRD as well as Morgan and Warburg, but unlike as in previous reports, it was specified that these loans were to be managed by the Southern Medium-Term Institutions to finance loan schemes to small and medium-sized firms and industrial plans. In 1976, 13 industrial plans were financed for a total amount of 299.4 billion in 1980 lire.¹⁸⁷ Thus from 1976 large industrial plans are financed from the MTCIs and no longer directly from the Cassa. Among foreign sources in 1976 is mentioned the European Regional Fund for Development. The Fund was established in 1975 and in 1976 approved 374 plans against which its contribution was going to be 127.6 billion lire (240.7 billions 1980 lire). To have an idea of the timing and procedure through which these funds were actually made available, it should be mentioned that, by the middle of 1977, 98.3 billion current lire had been accredited from the European Fund to the Treasury, and in turn the Treasury had passed on to the Cassa just 43.3 billion lire.¹⁸⁸

¹⁸⁷ Cassa per il Mezzogiorno, *Relazione al Bilancio 1976*, p. 43.

¹⁸⁸ Cassa per il Mezzogiorno, *Relazione al Bilancio 1976*, p. 57.

Table III.17 Annual Cassa expenditures, 1981-1986 (1980 bn lire)

	Special Projects	Industry					Areas Regional Competence				Total
	total	a/n ^a	grants	cont/int ^b	other	total	Capitform ^c	Credit ^d	Others	total	
Bill 1980	1344.9	164.7	337.1	146.9	54.6	703.3	485.2	6.4	17.7	509.3	2557.5
%tot	52.6	6.4	13.2	5.7	2.1	27.5	19	0.3	0.7	19.9	100

Sources: Cassa per il Mezzogiorno, *Relazione al Bilancio*, 1981-1986.

Keys:

a= expenditure in infrastructure in areas and nuclei of industrialization.

b= contribution on interest paid to Southern MTCIs: Isveimer, Irfis and Cis.

c= capital formation in various sectors among which more relevant were agriculture, water and road systems.

d= credit to agriculture and tourism.

The precariousness of the years 1981-1986 reflected itself in the concrete activity of the Cassa. From this period, the decline in Cassa expenditure is apparent also from the annual expenditure, which decreased by 16.8% compared to the previous period. It can be observed that special projects considerably increased their relevance in the uncertain period. They amounted to 52.6% of the total Cassa expenditure as compared to the 22.2% in 1976-1980 period, which meant that expenditure to finance special projects, in absolute terms, almost doubled in the last period. On the other hand expenditure in the industrial sector (infrastructures in nuclei and areas, grants and contribution on interest paid to the Southern medium term credit institution) decreased in absolute and relative terms. Particularly, subsidies on interest in the uncertain period amounted just to 146.9 billion, less than half than in the previous period. The 55.4% decrease meant a decreased availability of credit to Southern firms. Grants extended to industrial concerns decreased by 19.2%, whereas expenditure in infrastructure in areas and nuclei decreased by 40.1%. It can be observed that those sectors of the Cassa intervention which were transferred to the regional authorities decreased their relevance of 61.8% in 1981-1986 as compared to the previous period, and amounted just to 19.9% of the Cassa's expenditure.

The new system of incentives managed by the Cassa and available to firms in the South was as described in table III.18. Grants could be increased up to 1/5 for investment in depressed areas and up to a further 1/5 if in priority sectors as defined by the CIPE. However, these priority sectors were so numerous that almost all industry was included, and a large part of the area of Cassa's competence was defined as depressed.¹⁸⁹ The system of gradation of grants as defined by in 1976 appears favourable to small firms. However, in 1979, it was redefined to be more favourable towards larger enterprises: the limit of 15 billion was eliminated and investment plans of more than 7 billion were entitled to receive grants covering 20% of the quota exceeding 7 billion.¹⁹⁰

¹⁸⁹ Pegolesi, *Il Credito*, p. 61.

¹⁹⁰ *Ibid.*, p. 84.

Table III.18 Grants by size of investment, 1976-86

Investment (bn current lire)	Coverage (%)
0.2-2	40
2-7	30
7-15 ^a	20
> 15 ^a	15
> 7 ^b	20 (on the quota exceeding 7 bn)

a: until 1978

b: from 1979

Source: S. Pergolesi, *Il Credito*, p. 61.

Law 183/1976 entrusted the Government with the task of setting the terms of the soft loan scheme for Southern firms so that it could be coordinated with the national scheme. A few months later, Presidential Decree 902 reorganized subsidised credit for manufacturing and extractive industries in the country as well as in the South. This law represented the main tool of coordinating and simplifying the various soft loan schemes in the South and elsewhere in Italy as it replaced all previous soft loan schemes. More precisely, it abolished the soft loan schemes set up by laws 623/1959, 614/1966, and 1427/1961. Law 949/1952, which authorized MTCIs to refinance themselves at the MCC, was not abolished, and applications for soft loans approved under the abolished schemes had to be honoured. Applications under the old schemes that had not yet been processed were to be examined under the new soft loan scheme term. Law 902/1976 established a national fund of 3,200 billion lire (6,037.7 billion 1980 lire), 65% of which was handed down as a contribution on interest against loans extended to Southern firms and 35% to firms in the rest of the country. As it will be shown below in more detail, this scheme linked subsidised interest rates to the reference rate, the government-determined base rate mentioned previously. This system introduced a more direct connection between the subsidised interest rate and the market and enabled the system of subsidised credit to work more smoothly.¹⁹¹ Italy was subdivided into four areas: 1) the South; 2) less developed areas in the Centre; 3) less developed areas in the North; 4) the Centre and North.¹⁹² The details for each region are given in table III.19. Grants and loans for Southern

¹⁹¹ Pontolillo, *Il sistema*, p. 103.

¹⁹² Pergolesi, *Il credito*, p. 63.

firms could account for 70% of the total investment. In 1979, the size limit of the firm or of the investment was eliminated and the subsidisable quota limited to the first 30 billions of the investment.¹⁹³ At the same time medium-term credit from MTCIs was available nationally, with maximum loans of 1.25 billion in the South, 1 billion in the Centre and 0.75 billion in the North.¹⁹⁴

Table III.19 Soft loan scheme 902/76

Area	Firm size ^a	Max. invest..	Coverage ^b	Period	Interest (% R. R) ^c
South		15 bn*	40%	15	30
Centre (underd)	< 5 bn	7 bn	60%	10	40
North (underd)	<4 bn	3 bn	60%	10	40
Elsewhere	<2 bn	4 bn	50%	10	60

Keys:

* abolished in 1977.

a: firm size expressed in fixed assets

b: coverage as percentage of investment.

c: Interest rate as percentage of the reference rate.

Sources: Pergolesi, *Il Credito*, p. 63 (columns 1 to 4).

Ronzani, 'Regional Incentives in Italy', Yuill et al., *Regional Policy*, pp. 142-144 (columns 5 and 6).

Law 675/77 dealt specifically with the reorganization of loan schemes for firms undertaking restructuring or reorientating production. It established a fund of 2,630 billion available nationwide either directly from the Fund or through institutions authorised to extend credit to industry.¹⁹⁵ The terms of this scheme are shown in table III.20. Restructuring was defined as the rationalization of production as well as the introduction of new technology, if it was achieved without decreasing the number of employees. Reorientation was defined as either shifting production to a different product, modifying the production line or replacing a plant in the country with one in the South of the same size.¹⁹⁶

¹⁹³ Banca d'Italia, *Relazione Annuale*, 1978, p. 161.

¹⁹⁴ Ronzani 'Regional Incentives', p. 145.

¹⁹⁵ Banca d'Italia, *Relazione Annuale*, 1978, p. 163.

¹⁹⁶ Pergolesi, *Il credito*, pp. 81-82.

Table III.20 Scheme 657/77

	Size invest	Coverage (% inv)	Period	Interest*
South		70	15	15-30
Elsewhere:				
Restructuring	<2bn	60	10	30-60
	>2bn	50		
Reorientation		40		

*Interest rate as a percentage of the Reference Rate. The lower interest rate applied if borrowing from the Fund, the higher rate if borrowing from an intermediary.

Sources: Pergolesi, *Il Credito*, p. 65 (columns 1 to 3). Banca d'Italia, *Relazione Annuale*, 1978, p. 163 (columns 4 and 5).

Scheme 675/77 is considered particularly important in economic and institutional terms. In economic terms, it placed emphasis on the restructuring of existing plants, rather than on the establishment of new ones. On the institutional side, its importance lies in the fact that it replaced previous schemes¹⁹⁷ and established the Interministerial Committee for Industrial Policy (CIPI). The CIPI was charged with drawing up specific sectoral plans to bring about a more selective industrial policy. However, by 1982 it had drawn up plans for as many as 15 sectors, spanning from fashion to chemicals and from food processing to car industry. The large number of sectoral plans designed by the CIPI is perceived as a failure to formulate a more selective industrial policy.¹⁹⁸

Yet another scheme became operational in 1984. This was the Fund for Technological Innovation managed by the MI, set up by law 46 in 1982. It aimed to provide soft loans to firms of any size planning to undertake investment to introduce technologically more advanced production processes, either to improve the quality of the products or to reorientate production. Loans could cover up to 35% of the planned investment, or to 55% of 'highly innovative programmes' and up to 70% of programmes held relevant to the national economy.¹⁹⁹ This scheme is considered today the pillar of the policy for technological innovation in the country. Its origin

¹⁹⁷ It abolished previous laws: nos 1470/61, 1101/71, 184/71 and 464/72. Pergolesi, *Il Credito*, p. 79.

¹⁹⁸ G. Pent Fornengo, 'Le politiche di ristrutturazione e salvataggio', in: F. Momigliano (ed.), *Le leggi della politica industriale in Italia* (Bologna, 1986), pp. 33-49.

dates back to 1980, when an attempt had been made to make available 2,895.7 bn for firms in sectors relevant to the national economy and experiencing sectoral problems. In 1980, this clearly meant the car industry, which was undertaking massive restructuring of its production lines. The 1980 proposal was rejected by Parliament, but an *ad hoc* commission reformulated it under the guise of law 64/82, which was then accepted.²⁰⁰

The early 1980s also witnessed the introduction of grants for the purchase and leasing of high-tech equipment, for small and medium-sized firms located throughout the country (scheme 696/1983). Firms located in the South were entitled to grants covering up to 32% of the cost of the equipment and firms located elsewhere in the country up to 25%.²⁰¹

Law 675/1977 also introduced a particular type of fiscal concession. Manufacturing and extractive firms of any size throughout the country were exempted from the payment of VAT, up to 4%, on the purchase of newly produced equipment. Law 696/1983 increased the percentage of VAT exemption to 6% and restricted access to small firms only, consistently with the criterion that subsidies in order to be effective should be of such an amount as to affect firms' investment decisions. This in turn required a stricter selection of beneficiaries on grounds of costs and careful screening, for such subsidies were not automatic, a feature considered partly responsible of their limited use, as is explained in more depth in chapter VI.²⁰² Although this thesis focuses on financial incentives, this specific type of fiscal subsidy has been included, as it is clearly an incentive to invest.

V) 1987-1991

The uncertainty of the 1980-1986 period was ended by law 64/1986, which reorganized the extraordinary intervention for the South. The CIPI (Comitato

¹⁹⁹ M. Campus, *Un'analisi del profilo delle imprese agevolate nel triennio 1989-1991* (Rome, 1995), p. 36; Mediocredito Centrale, Osservatorio sulle piccole e medie imprese, *Quaderni di Politica Industriale*.

²⁰⁰ Momigliano, *Le Leggi*, p. 104.

²⁰¹ This provision was introduced on a temporary basis and renewed by a later scheme (399/87); see Campus, *Un'analisi*, pp. 40-41; Scanagatta, 'Le leggi', pp. 71-75.

Interministeriale per la Politica Industriale) was given the task of programming and coordinating the policy. The Minister for the Extraordinary Intervention in the South together with the MI proposed the objectives to be reached in the South. The CIPI was to take into account the proposal of the two Ministers and include the targets to be reached in the South in the National Industrial Plan. These targets were to constitute the Triennial Plan. The CIPI had to coordinate the incentive policy for the South into the National Industrial Plan. The CIPI was also in charge of coordinating the incentives created in law 64 with those offered by other bodies such as the European Community, the Regions and the State.

The Triennial Plan was split up into annual implementation plans (the so-called piano annuale di attuazione), which defined the criteria and procedures for industrial incentives. These were: a) sectors to be subsidised; b) real services; c) gradation of subsidies; d) list of areas characterised by high unemployment; e) updating of groups of investment.²⁰³ The actual implementation of the CIPI plan was entrusted to the Agency for the Promotion of the Development in the South (Agenzia per la promozione dello sviluppo del Mezzogiorno, hereafter the Agency) which replaced the Cassa. Its task was the financial support and incentives to firms. The Agency had thus been stripped of its predecessor's planning role. The 1986 law financed the Agency's activity up until 1993.²⁰⁴

Law 64/1986 states the objectives of the Agency's activity. Its responsibilities were defined in vague general language, but included the promotion of 'new economic activities', and the 'strengthening of entrepreneurial structures'.²⁰⁵

The system of loans and grants created by law 64 is given in table III.21. The gradation of grants took into account the amount of the investment, the development of the area and the industrial sector. Each Southern province was studied according to four criteria: industrial development, unemployment, emigration, and per-capita

²⁰² M. Leccisotti, E. Pace and M. Sica, 'Incentives in Favour of the South of Italy: a Quantitative Evaluation', *Journal of Regional Policy*, 5/4 (1985), p. 613; CER-IRS, *Quale strategia*, pp. 111-113.

²⁰³ Borrello, 'Gli Incentivi', p. 1023.

²⁰⁴ Vaccaro, *Unità*, pp. 264-265.

²⁰⁵ Law no 84, 1 March 1986, article. 6.

income. Thus, Southern Italy was subdivided into three groups of various stages of development. The most developed area (C) included the Southern provinces of Latium, Abruzzi and Taranto province in Puglia, and qualified for the lowest financial contributions. Area B, which included Barletta, contained areas defined as being of average development, and received identical subsidies as Area C until the end of 1987. Area A contained the least developed Southern areas including the inland provinces of Campania and Basilicata, the Calabria region, most of Sicily and few Sardinian provinces. This area received the highest incentives.²⁰⁶

For the purpose of this law, priority sectors embraced selected categories from a wide range of industries, including chemicals, pharmaceuticals and toiletries; engineering, electronics industry; food processing, textiles, silk and synthetic fibre weaving, computer software, as well as toy production and fibre optics.²⁰⁷

Table III.21 Law 64 (1986)

Portion of investment	Grants (max.coverage as % of investment)		Soft Loans (as % of investment)	
	Area A ^a	Areas B and C ^a	Max coverage	Int. rat (%RR) ^b
First 7bn	48*/56	40/48	40	36
7bn-30bn	36*/42	30/36	30	36
Above 30bn	18*/21	15/18	15	60

* (until 31.12.87)

Keys: a= the higher number refers to the grant available for investment in 'priority' sector; b= Interest rate as percentage of the Reference Rate.

Sources: Law 84,1 March 1986, art.7; Yuill et al., *European Regional Incentives*, p. 295 (column 5).

The following table displays the expenditure by sectors made by the Agency for the South in the years 1986-91:

²⁰⁶ CIPE, Deliberazione 29.12.1986, pp. 68-69.

²⁰⁷ D. Yuill, K. Allen, J. Bachtler and F.Wishlade (eds.), *European Regional Incentives* (1989), p. 303.

Table III.22 Annual Average Agency Expenditures, 1987-1991 (1980 bn lire)

	Annual Plans of Implementation					Areas of Regional Compet Spec Proj ^a		Various	Total
	Inf&Manag ^b	Incentives ^c	Research ^d	Various	Total	Total	Total		
bill 80	387.5	615.3	98.2	220.6	1321.6	668.1	942	93.3	2,356.9
% total	16.4	26.1	4.2	9.4	56.1	28.3	40	4	100

Keys:

a: Special Projects

b: Infrastructure and Management of Infrastructure

c: Incentives to Industry, including grants and contribution on interest.

d: Scientific Research

Source: Agenzia per la Promozione dello Sviluppo nel Mezzogiorno, *Relazione al Bilancio*, 1987-1991.

The Agency's average annual expenditure decreased in this period, as the Cassa's had declined during the previous period. Thus, the extraordinary intervention in the South had undergone a steady decline since 1976 and in terms of average annual expenditure since 1981.

The bulk of the Agency's expenditure was taken up by the annual plan of implementation, which absorbed up to 56.1% of the total. Incentives to industry, which were part of the annual plan, increased both in absolute and percentage terms as compared to the previous period. The second core activity of the Agency, designated the sphere of "regional competence", included expenditure on investment projects soon to be handed over to local authorities. Such expenditure increased considerably compared with the corresponding sums allocated by the Cassa during the previous period, as in 1987 a further CIPE decision compelled the Agency to complete all projects where 80% of the investment had already been undertaken, and to transfer to regional authorities the remaining projects, which were to be completed with Agency funds.²⁰⁸ The so-called special projects, also to be transferred to the regions, were calculated separately. The Agency expenditure on such projects during 1987-91 was just over half of the corresponding Cassa total during 1981-86, in both real and percentage terms.

Law 64/1986 refinanced the extraordinary intervention in the South until 1993. As that date approached, attempts to prolong funding failed because of domestic and external pressure. The Parliamentary debate coincided with growing resentment in the North about the levels of public expenditure in the South, and its harmful effects on Northern employment. Furthermore, critics pointed out that few tangible results had been achieved in 40 years of the Southern policies, which had been a drain on the economy of the North. In addition, there was growing antipathy towards the role of the public administration in the Italian economy and to the institutional structure operating the Mezzogiorno policy. These tensions were reflected in calls for a referendum on the Southern policy and in the considerable success of the Northern separatists. Apart from domestic pressures, the European Commission also

²⁰⁸ F. Moro 'Le spese dell'Agenzia per il Mezzogiorno per categorie economiche e per regioni', *Rivista Economica del Mezzogiorno*, 7/3 (1993), p. 707.

influenced the course of events, by refusing to approve the 1992 bill to refinance the Agency. Taking into account the Commission's opposition, in December 1992 the Italian Parliament decided to abolish the 'Extraordinary intervention' and its institutions, with the Southern policy to be replaced by a national programme of assistance for depressed areas.²⁰⁹

Conclusions

This chapter has provided a long-term overview of the regional and national system of incentives and isolated the weight of financial incentives to industry within the wider context of 'Extraordinary intervention for the South'. An extensive literature is available, in particular on the regional policy and subsidies available within that framework. However, such literature focuses on specific periods, whereas this chapter has pieced together the evolution of the subsidies from their introduction almost to the end of the 'Extraordinary intervention', and compared them to those available in the framework of the national industrial policy. While this comparison is mainly based on secondary sources, the analysis of primary sources, the Cassa and Agency balance sheets, was necessary in order to assess the weight of financial subsidies within the Cassa activity. Other works²¹⁰ have addressed the same point, but either they have analysed more limited periods or their level of disaggregation of the Cassa expenditure was not suitable for this thesis.

The first section has introduced the institutions charged with the provision of subsidies, in the whole country and in the South, from the MTCIs to the Cassa, and explained the motives behind their establishment. Secondary sources stress that pressures from banks, financial and industrial circles led to the establishment of MTCIs, and that an economic rationale lied behind the implementation of the regional policy for the South, rather than considerations of social justice.

²⁰⁹ Yuill *et al.*, *European Regional Incentives*, pp. 3 and 47-49.

²¹⁰ Vaccaro, *Unità*, p. 283, covers the issue from 1950 to 1993, however her data are expressed in percentage terms only, and thus give no idea of the magnitude of the Cassa policy, and do not specify Cassa expenditure for contributions on soft loans; in addition, the periodisation does not suit the purposes of this thesis; Moro, 'Le spese', p. 694 and *passim*, where only the period 1985-1991 is covered and Cassa expenditures are aggregated according to different criteria as compared to this

The establishment of the Cassa and the implementation of the 'Extraordinary Intervention for the South' also show similarities with the contemporary industrial environment. The regional policy for Southern Italy had no opponents in Parliament and was an important part of the De Gasperi policy. However, the literature demonstrates that those who designed and promoted the policy were the economists gathered at the Svimez rather than political forces or ministries. This episode is reminiscent of similar developments in the steel and energy sector in the 1950s, when key decisions for the Italian economy, such as the modernization of the steel sector and the exploitation of gas reserves in the Po valley, were based on the ingenuity of individual managers rather than on a coherent economic policy.

The comparison of incentives to industry available exclusively in the South with those available nationwide highlighted main features and significant changes in the two systems. In particular the regional policy presented a number of aims, sometimes in contrast among themselves, i.e. incentives to small and medium sized companies in traditional sectors aimed at creating job opportunities *in loco*, whereas public works sought to promote emigration. At the same time, the establishment of capital-intensive plants was considered as necessary in order to increase Southern labour productivity to European levels.

Throughout most of the period industrial policies, both regional and national appeared to be characterized by the so-called 'jungle of incentives'. This proliferation of financial subsidies was due to the lack of any clear long-term strategy. In the absence of a coherent all-embracing policy, pressures from single industrial sectors and economic groups grew stronger and called for disorganic measures from the political front. In the middle of the 1970s, the system of industrial incentives underwent a process of reorganization and simplification, which implied the inclusion of the soft loan scheme for Southern firms in the national scheme. The process of reorganization is presented in the literature as due to the awareness of the necessity to simplify the system of incentives to industry.

Moreover, its aim was to assist industrial recovery after the oil crisis and help Italian industry regain its international competitiveness.

Throughout its evolution, the system of subsidies not only displayed changing objectives as far as industrial sectors were concerned, but also as far as size of eligible companies was concerned. As early as 1962, the original aim of developing small and medium sized companies was abandoned in favour of the extension of subsidies to large companies. This tendency became more evident at the end of the 1960s with the introduction of the planned bargaining procedure. However, primary sources show that the diversion was supported by the Svimez activists themselves, who meant to attract not only state-owned enterprises but also large private investment to the South.

The analysis of Cassa expenditure reveals a continuous increase of resources invested in the 'extraordinary intervention in the South until 1976, with a steady decline thereafter. Thus, although the Southern policy lasted until 1992, it had increasingly lost momentum from that date onwards. Within total expenditure, incentives to industry rose dramatically from an annual average of slightly more than 60bn lire (1980 constant) in 1957-65, to 400bn in 1966-70, to remain above 700bn throughout the 1970s. During the following decade expenditure on such incentives declined to 600bn, and never recovered to previous levels. This is consistent with the picture that emerges from total Cassa/Agency expenditures.

CHAPTER IV

Subsidised and ordinary medium-term credit, 1953-1991

Introduction

This chapter completes the study of the schemes presented in Chapter III. The first section compares interest rates on soft loans, available at regional and national levels, with the cost of ordinary credit, thus providing an initial assessment of the profitability of subsidies, as well as studying the indicators used in the empirical analysis (Chapter VI). The chapter moves on to provide a long-term analysis of the geographical distribution of subsidised and ordinary medium-term credit in the second section. The final section assesses to what extent the institutions managing subsidies within the framework of the regional and national industrial policy were able to satisfy applications for subsidised loans and grants.

4.1 Interest rates

The following comparison of interest rates on subsidised and market medium-term credit covers the period from 1953, when the first subsidised scheme (law 949/1952) became operational, to 1991. The analysis is broken into sub-periods reflecting the changes in regional policy, as explained in Chapter III.

Various indicators of ordinary medium-term interest rates have been included in the comparison, though some of those were not available for the entire period. Yields on long-term government bonds are available throughout the period and have been used as an indicator of the cost of medium-term credit and of the opportunity cost of capital. OECD data on market interest rates on medium-term loans have been used from 1960 to 1980. From 1976 to 1991, the reference rate (based on the cost incurred by the MTCIs in issuing bonds, see section 3.2, I) has been taken as a proxy of interest rates on market medium-term credit. In Italy, the reference rate is fixed bimonthly by the ICCS, and from 1976 was used to determine the subsidised interest rate as well as the contribution on interest paid to banks by the State, the Cassa and

the MI (e.g. in 1976 the interest rate on soft loans available in the South was fixed as 30% of the reference rate and the public institutions covered the remaining 70%, see section 3.2, IV). Interest rates on short-term credit have been included in the comparison because of a certain degree of overlap between the two, resulting partly from the decisions of the ICCS to increase banks' limits to allow them to operate in the medium-term market, and partly from the customary periodical renewal of formally short-term loans.¹ As already explained in section 3.1., according to the definition applied by the BoI since the early 1950s, short-term or commercial credit is repayable in no more than one year, and medium-term in 10 years and 15 in the South. Short-term loans aim to furnish working capital and medium-term loans aim to provide capital for investment.

4.1.1 The fifties and sixties

The years between 1950 and 1969 saw stability in nominal interest rates, as shown in tables IV.1 and IV.3, but not in real ex-post rates. The BoI's monetary policy had two main objectives: a) to contain internal demand in order to avoid a balance-of-payments deficit, which had been a priority since the stabilisation of the lira in 1947-48;² b) to ensure a stable cost of capital, in order to reduce uncertainty in investment decisions, as capital formation was a priority in the period.³ However, a stable monetary policy obliged the BoI to recommend that consumption should be kept within the limits of internal formation of resources, to avoid inflationary pressures and a balance-of-payments deficit, to which the BoI would have had to react with a restrictive monetary policy, thus interrupting conditions favourable to capital

¹ As an example, in 1972, popular and ordinary banks were authorized to use 8% of their deposits to operate on the medium-term market; see Pontolillo, *Il sistema*, p.14; Banfi, 'Gli Istituti', p. 31.

² A. Fazio, 'La politica monetaria in Italia dal 1947 al 1978', *Moneta e Credito*, 32 (1979), pp. 273. For the post-war inflation in Italy see P. Baffi 'Il Problema monetario Italiano sullo scorcio del 1944' in Idem, *Studi sulla moneta* (Milan, 1965); P. Baffi, 'Il primo anno di Menichella alla direzione della Banca d'Italia' in: F. Cotula, C.O. Gelsomino and A. Gigliobianco (eds), *Donato Menichella. Stabilità e sviluppo dell'economia italiana 1946-1960*, vol. 1: *Documenti e Discorsi* (Rome-Bari, 1997), pp. 867-877; M. Omiccioli, 'Einaudi e l'inflazione del 1946-47: un riesame' in *Rivista di Storia Economica*, 16/1 (2000), pp. 37-63; for the stabilization see the recent work by E. Gaiotti, 'La stabilizzazione del 1947: <<effetti psicologici>> e domanda di moneta', in: F. Cotula (ed.), *Stabilità e sviluppo negli anni cinquanta*, vol. 1: *L'Italia nel contesto internazionale* (Rome-Bari, 2000), pp. 441-486, where previous works and interpretations are also discussed.

³ G.M. Rey, 'L'economia italiana', pp. 28-29; Vicarelli, 'Note in tema', pp. 42-51.

formation.⁴ Monetary stability was in turn made possible by measures undertaken by the central bank between 1947 and 1949, such as the establishment of compulsory reserves (approximately 25% of deposits) to mop up excess liquidity, and restrictions on the Treasury's borrowing requirements, as regards to government expenditure.⁵ Lastly by 1949, the accumulation of gold and foreign exchange was the main factor in broadening the credit base, and reserves were built up through Marshall Aid and increased exports due to a slightly undervalued lira and an overvalued pound.⁶ In the 1950s, the monetary base and the banks were controlled through the issuing of government bonds and reserve requirements.⁷

Another factor enabling the BoI to pursue a stable monetary policy was the low cost of labour, particularly until 1963. Italian trade unions agreed to a policy in favour of industrialization and an increase in employment - the social contract. The rise in wages - between 1951 and 1958, wages in the private sector rose by an annual average of 7.6% in current lire and productivity by 4.9% - created only moderate inflationary pressures (the annual average increase in retail prices was 3.3%). This may in part have been the outcome of private consumption increasing less than GNP. In the 1950s, private consumption as a share of the GNP decreased from 63.1% to 58.3%.⁸

I) 1953-1956 and 1957-1965

This first sub-section covers two sub-periods: 1953-1956 and 1957-1965. The former includes the years between the launch of the first soft loan scheme, available in the whole country and managed by the MCC (scheme 949/1952) and the launch of the first soft loan scheme for Southern firms in 1957. The second sub-period includes the years of the first stage of the industrial policy for the South. The two have been dealt with together as they present strong elements of continuity in terms of the country's economic history and monetary policy.

⁴ Vicarelli, 'Note in tema', p. 45; Banca d'Italia, *Relazione Annuale*, 1967, p. 357.

⁵ P. Baffi, 'Monetary Stability and Economic Development in Italy, 1946-1960', *Banca Nazionale del Lavoro Quarterly Review*, 14/56 (1961), p. 9.

⁶ *Ibid.*, pp. 7-9.

⁷ Fazio, 'La politica monetaria', p. 274.

Although the years under analysis were characterised by low inflation, inflationary pressures occurred in 1955 and 1956, and even more in the years between 1962-65, when real subsidised interest rates became negative. In 1955, the expansion of production increased the prices of raw materials, which together with an investment boom increased monetary pressures. The higher inflation of 1956 was due in the first half of the year to a bad harvest, which reflected on wages given the widespread use of wage indexation. In the last month of the year, inflationary pressures were fuelled by the Suez crisis, which caused an increase in wholesale prices. However, the BoI was not forced to impose a restrictive monetary policy, as in 1956 the formation of liquidity was reduced by the decrease in the budget deficit and the deterioration of the balance of payments.⁹

⁸ Rey, 'L'economia italiana', p. 29.

⁹ Baffi, 'Monetary Stability', pp. 25-28; Banca d'Italia, *Relazione Annuale*, 1956, pp. 369-370.

Table IV.1 Ordinary interest rates, 1953-65 (ex-post real interest rates in brackets, percent)

	Commercial credit		MTC ^a	YLTGB ^b
	(BoI) ^c	(OECD) ^d		
1953	7.5 (5.5)		8.57 (6.57)	6.13 (4.13)
1954	7.5 (4.5)		8.56 (5.56)	6.22 (3.22)
1955	7.5 (4.5)		8.48 (5.48)	6.40 (3.40)
1956	7.5 (2.5)		8.53 (3.53)	6.93 (1.93)
1957	7.5 (5.5)		8.65 (6.65)	7.27 (5.27)
1958	7.2 (5.2)		8.65 (6.65)	6.19 (4.19)
1959	7 (5.0)		7.74 (5.74)	5.42 (3.42)
1960	7 (5.0)	8.23 (6.23)	7.14 (5.14)	5.26 (3.26)
1961	7 (5.0)	7.91 (5.91)	6.97 (4.97)	4.97 (2.97)
1962	7 (2.0)	7.69 (2.69)	7.08 (2.08)	5.05 (0.05)
1963	7 (0.0)	7.71 (0.71)	7.9 (0.9)	5.19 (-1.81)
1964	7 (1.0)	8.13 (2.13)	8.58 (2.58)	5.74 (-0.26)
1965	7 (3.0)	8.15 (4.15)	8.51 (4.51)	5.39 (1.39)

Keys:

a: MTC= Medium-Term Credit. The column displays ordinary interest rates on medium-term credit, published by the Bank of Italy.

b: YLTGB = Yields on long-term government bonds.

c: interest rates charged by banks to borrowers as published by the Bank of Italy. These interest rates do not include any other commission charged by the bank on the borrowers and represent the minimum cartel interest rate, charged by banks under the terms of the Interbank Agreement. These rates are to be treated with caution as banks often disregarded the norms of the cartel.¹⁰

d: ordinary effective interest rates published by the OECD, including all charges (i.e. taxes, stamp duty, registration duty on the contract, commissions, etc.).

Sources: column 2 : Banca d'Italia, *Bollettino*, 1964, n 4, tav.12, and 1966, n.4, tav.12; column 3 : OECD, *Financial Statistics*, vol. 2, December 1970, pp. 228-229; columns 4 and 5: P. Garofalo and D. Colonna, 'Gli anni cinquanta statistiche monetarie e creditizie', Tav. 16 pp. 702-703 in: F. Cotula (ed.), *Stabilità e sviluppo negli anni cinquanta*, vol. 2: *Problemi Strutturali e politiche economiche* (Rome-Bari, 1998), sources Banca d'Italia, *Bollettino*, various years and Banca d'Italia, Base Informativa del Servizio Studi.

¹⁰ A.M. Biscaini, G. Carosio and T. Padoa Schioppa, 'Borrowing and Lending Rates in an Oligopolistic Banking System', Banca d'Italia, *Italian Credit Structure. Efficiency, Competition and Controls* (1984), p. 69 and fn 23; Carnevali, 'British and Italian banks', pp. 212-213; concerning the origin of the Interbank Agreement see V. Lutz, 'The Central Bank and the System of Credit Control', in R.S. Sayers (ed.), *Banking in Western Europe* (1962), pp. 154-173.

1957 brought stagnation in investment, with the BoI reacting by allowing banks to borrow more from abroad. Thus from 1958 interest rates decreased and investment took off in the following year.¹¹ The years between 1958 and 1962, the peak of the 'Economic Miracle' (between 1958 and 1963, GDP grew at an average annual rate of 6.3%)¹² were years of an expansionary monetary policy, with low interest rates and low yields on government bonds. Throughout the 1950s until the first half of the 1960s, the public sector borrowing requirements were the most moderate of the whole period under analysis.¹³ From 1961, medium-term interest rates and, from 1962, commercial rates show an upward trend with a considerable increase in 1964. 1963 marks the end of the 'Economic Miracle' - due to labour unrest and wage increases. The initial government reaction was to increase the availability of finance to allow growth to continue, by authorising banks to borrow abroad in October 1962. As inflation increased and trade deficits emerged, the BoI opted for a deflationary policy in 1963, introducing a credit squeeze by directing banks not to increase their foreign indebtedness. By doing so, the balance of payments showed a surplus in 1964, but the economy suffered.¹⁴ The growth of real GNP fell from 5.9% in 1962 and 5.2% in 1963 to a mere 2.9% in 1964.¹⁵ Investment fell by 20.2 % in 1964.¹⁶

¹¹ Fazio, 'La politica monetaria', pp. 274-275.

¹² N. Rossi and G. Toniolo, 'Italy', in: N. Crafts and G. Toniolo, *Economic Growth in Europe since 1945* (Cambridge, 1995), p. 442..

¹³ Rey, 'L'economia italiana', p. 43; Rossi and Toniolo, 'Italy', p. 442; P. Ganugi and G. Toniolo, 'Il debito pubblico italiano in prospettiva secolare (1876-1947)' in Ente Einaudi, *Il disavanzo pubblico in Italia: natura strutturale e politiche di rientro*, vol. II (Bologna, 1992).

¹⁴ Allen and Stevenson, *Introduction*, pp. 169-170.

¹⁵ *Ibid.*, p. 51.

¹⁶ *Ibid.*, p. 170.

Table IV.2 Subsidised interest rates 1953-65 (ex-post real interest rates in brackets, percentage)

	Cassa	MCC ^a		MI ^b	
		South	C/N ^c	South	C/N
1953		n.a.	n.a.		
1954		n.a.	n.a.		
1955		n.a.	n.a.		
1956		6.5 ^d (1.5)	6.5 ^d (1.5)		
1957	3-5 (1 to 3)	n.a.	n.a.		
1958	3-5 (1 to 3)	n.a.	n.a.		
1959	3-5 (1 to 3)	n.a.	n.a.	3 (1)	5 (2)
1960	3-5 (1 to 3)	n.a.	n.a.	3 (1)	5 (2)
1961	3-5 (1 to 3)	n.a.	n.a.	3 (1)	5 (2)
1962	3-5 (-2 to 0)	6.50 (1.5)	6.50 (1.5)	3 (-2)	5 (0)
1963	3-5 (-4 to -2)	6.50 (-0.5)	6.50 (-0.5)	3 (-4)	5 (-2)
1964	3-5 (-3 to -1)	n.a.	n.a.	3 (-3)	4.68 (-1.32)
1965	3-5 (-1 to 1)	3-4 (-1 to 0)	6 (2)	3 (-1)	4.74 (0.74)

Keys:

a: Medio Credito Centrale operating under the terms of law 949/1952.

b: Fund Ministry of Industry. The terms of this national soft loan scheme were fixed by law 623/1959.

c: hereafter in tables C/N means Centre and North of Italy.

d: since November 1955.

Sources: column 2: Cassa per il Mezzogiorno, *Relazione al Bilancio*, various years; columns 3 and 4: Mediocredito Centrale, *Relazione al Bilancio*, 1955, p. 13; 1962, p. 25; 1963, p. 14; 1965, p. 17; columns 5 and 6: Pergolesi, *Il Credito*, p. 45.

Subsidised medium-term credit (hereafter medium-term credit will be indicated as MTC and specified whether subsidised or ordinary) offered obvious advantages compared to ordinary MTC rates (table IV.1, column 4). In 1961, the year of the lowest interest rates, the difference was 3.97 or 1.97 points according to the type of soft loan received. In 1964, the year of the highest ordinary MTC interest rates, the difference amounted to 5.58 and 3.58 points. Furthermore, MTC subsidised by the Cassa and the MI was more attractive to firms because the interest rates were fixed by law, thus sheltering firms from fluctuations in the money market.

Columns 3 and 4 in table IV.2 display the interest rates of the MTC subsidised by the MCC under the terms of law 949/1952. As mentioned above, MTCIs could extend credit to industry at interest rates lower than those of the market, because they were allowed to rediscount a percentage of the loan extended. This percentage changed over time, from 63% until May 1964 to 67% from June to September of the same year. After September 1964, MTCIs could rediscount 80% of the loans extended or 70% of the loan plus a contribution of 0.5% on interest.¹⁷ The increased contribution from Mediocredito Centrale allowed firms to borrow at 6% in the Centre and North.¹⁸ Southern MTCIs could rediscount 80%, and after 1965 could obtain a contribution on interest of 2.5%. The additional contribution introduced at the end of 1964 allowed the Southern MTCIs to extend loans at 3%-4%, the same as those extended through the Cassa contribution.¹⁹ Given that the 1965 interest rates were the result of the additional contribution from the MCC, one would assume that in the previous period the interest rate had been higher. The most appealing rates of interest were those of the MTC subsidised by the MI (columns 5 and 6 in table IV.2), which could not be higher than 5% for the whole country and 3% for Southern firms. Thus the best options available to Southern firms seemed to be either a special loan subsidised by the Cassa or a medium-term loan subsidised by the MI. In the first case, a new firm could get up to 1050 million lire at 3%, repayable over 15 years, and 350 million lire on the same terms if willing to renew. In the second case, a Southern new firm could borrow on the same terms up to 1000 million, or 500 million if willing to expand.

¹⁷ Mediocredito Centrale, *Relazione al Bilancio*, 1965, p. 15.

¹⁸ Mediocredito Centrale, *Relazione al Bilancio*, 1966, p. 13.

¹⁹ Mediocredito Centrale, *Relazione al Bilancio*, 1965, p. 17.

II) 1966-70

Table IV.3 Nominal and ex-post real^a market interest rates 1966-70 (%).

	Commercial credit						M T C ^b	YLTGB ^c
	Italy ^d	North-W ^e	North-E	Centre	South	Islands	Italy	(IMF)
1966	7.87 (5.87)						8.16 (6.16)	6.54 (4.54)
1967	7.81 (6.81)						7.96 (6.96)	6.61 (5.61)
1968	7.80 (5.80)						7.89 (5.89)	6.7 (4.7)
1969	7.29 (4.29)	7.10 (4.10)	7.28 (4.28)	7.26 (4.26)	7.98 (4.98)	8.04 (5.04)	8.17 (5.17)	6.85 (3.85)
1970	9.15 (5.15)	9.06 (5.06)	9.09 (5.09)	9.02 (5.02)	10.06 (6.06)	10.10 (6.10)	9.78 (5.78)	9.01 (5.01)

Keys:

^a: ex-post real interest rates in brackets.

^b: MTC= interest rates on medium-term credit, published by the OECD.

^c: YLTGB= yields on long-term government bonds, published by the IMF.

^d: ordinary effective interest rates published by the OECD, including all charges (i.e. taxes, stamp duty, registration duty on the contract, commissions, etc.)

^e: commercial interest rates by region are published by the Bank of Italy since 1969, quarterly observations.

Sources: OECD, *Financial Statistics*, vol. 2, December 1970, and vol. 3, June 1971; Banca d'Italia, *Relazione Annuale*, 1969-1970; IMF, *International Financial Statistics Yearbook*, 1996.

From table IV.3 it is evident that interest rates differed across various regions of the country, being higher in the less developed areas – a feature that was to remain constant throughout the period of analysis. Official sources explain the difference in terms of greater bank risks given the backwardness of certain areas and the small size of their industries. Furthermore, as small firms were more dependent upon external (bank) finance they had far less bargaining power.²⁰ More recent works have analysed these factors in greater detail and have pointed out that Southern firms are riskier as they present a higher variability of profits, determining a higher risk (defined as bad loans as a percentage of total loans) for the lending institutions (these features are dealt with in Chapter VII).

²⁰ Banca d'Italia, *Relazione Annuale 1969*, pp. 288-289.

Not only higher risk and regional underdevelopment explain differentials in interest rates, but also a lower degree of competition in the Southern banking system.²¹ For instance, in 1951 each bank branch served more than twice (2.5) as many people in the South than in the Centre and North, and still 1.8 times as many as late as 1988. Moreover, the Southern banking system is polarised into very large and very small banks, whereas small and medium-sized banks have acquired increasing importance in the rest of the country.²² The polarization of the Southern banking system between several very small and few large banks does not generate competition, as the two groups specialize in different clients, strategies and locations.²³ Furthermore, banking monopolies occur in a higher number of areas in Southern Italy. In 1987, of the 1,500 areas into which the country is divided, with each area including on average 5 municipalities,²⁴ banking monopolies existed in 23% of Southern areas, as compared with only 8% in the rest of the country.²⁵

The higher interest rate might also be determined by the lower margin of profit of Southern banks. Due to a lower level of savings, credit institutions in the South make more use of inter-bank loans, which entails higher costs of the collection of funds. Also, Southern banks have higher operational costs, for the average transaction size is smaller, therefore the cost on each lira transacted is higher, and also value added per employee is lower and the labour cost is higher, as managers comprise a higher percentage of employees.²⁶

²¹ N. D'Amico, G. Parigi and M. Trifilidis, 'I tassi d'interesse e la rischiosità degli impieghi bancari nel Mezzogiorno', in: Banca d'Italia, *Il sistema finanziario nel Mezzogiorno*, Numero speciale dei *Contributi all'analisi economica* (Rome, 1990), pp. 329-331 and 335-343.

²² D'Onofrio and Pepe, 'Le strutture', pp. 216-217 and 222-223.

²³ G. Galli and M. Onado, 'Dualismo territoriale e sistema finanziario', in: Banca d'Italia, *Il sistema finanziario nel Mezzogiorno*, Numero speciale dei *Contributi all'analisi economica* (Rome, 1990) pp. 35-36; D'Onofrio and Pepe, 'Le strutture', pp. 222-223.

²⁴ Banca d'Italia, *Composizione delle aree di gravitazione bancaria* (Rome, 1985); Banca d'Italia, *Indicatori di concorrenza e produttività delle aree di gravitazione bancaria* (Rome, 1985).

²⁵ D'Onofrio and Pepe, 'Le strutture', pp. 231-232.

²⁶ P. Marullo Reedtz, 'La redditività delle aziende di credito. Un'analisi per aree geografiche', in: Banca d'Italia, *Il sistema finanziario nel Mezzogiorno*, Numero speciale dei *Contributi all'analisi economica* (Rome, 1990), pp. 251-271. P. Sabbatini, 'I conti economici degli istituti di credito speciale', in: Banca d'Italia, *Il sistema finanziario nel Mezzogiorno*, Numero speciale dei *Contributi all'analisi economica* (Rome, 1990), pp. 292-295.

During 1966-1968, ordinary interest rates decreased slightly. An increasing trend began in 1969 (not observable for commercial interest rate) and in 1970, ordinary short and medium-term interest rates increased considerably. During 1969, the country was hit by a major labour crisis, which resulted in the introduction of a rigid wage system and firing and hiring regulations favourable to workers. Furthermore, changes in labour organization became difficult to introduce as they needed to be negotiated at the shop-floor level.²⁷ The crisis fuelled an inflationary circle as in 1962 wage increases brought inflation, by provoking increases in costs and prices of Italian products.²⁸ This meant increased imports and decreased exports, causing severe balance-of-payments problems worsened by capital outflows, due to increasing interest rates in foreign markets.²⁹ In contrast to 1962, the Bank of Italy immediately opted for a deflationary policy. It limited its lending availability³⁰ and increased the discount rate from 3.5% to 5% in July 1969 and to 5.5% in August of the same year.³¹ Moreover, the Bank gradually withdrew its support for government bonds from August 1969 and suspended it in 1970. Therefore, yields on long-term government bonds aligned with foreign interest rates.³² Thus, the increase in interest rates to the public was the result of the banking system's adjustment to the Bank of Italy's monetary policy.³³

²⁷ The workers' and trade unions' bargaining power was later even strengthened by the approval of the Workers' Charter in 1970, Rossi and Toniolo, 'Italy', p. 445.

²⁸ G. Gualerni, *Economia Aperta: Un Approccio Storico all'Economia e Politica Industriale in Italia, 1860-1972* (Turin, 1991), p. 481.

²⁹ Allen and Stevenson, *Introduction*, p. 169; L. Capomassi, G. Cervone, F. Cotula and E. Sacerdoti, 'Le operazioni di mercato aperto', in: F. Cotula and P. de' Stefani, *La politica monetaria in Italia: istituti e strumenti* (Bologna, 1979), p. 513.

³⁰ Banca d'Italia, *Annual Report*, 1969, abridged English version, pp. 96-100.

³¹ OECD, *Financial Statistics*, 1970, vol.1, table I.B/12.

³² Capomassi et al., 'Le operazioni', p. 513.

³³ Banca d'Italia, *Relazione Annuale*, 1969, p.108.

Table IV.4 Subsidised interest rates (%), 1966-70.

	Cassa	MCC		MI	
		South	C/N	South	C/N
1966	4-6	3-4	5-6	3	5
1967	4-6	3-4	5-5.85	3.7 ^a	4.8 ^a
1968	4-6	3-4	b	b	b
1969	4-6	3-4	5.4-6.25	b	b
1970	4-6	4	6-6.90	3	4.68

Keys:

a= even though interest rates under the 623/1959 scheme were fixed by law at no more than 3% for the South and no more than 5%, for the North, in the 1967 Report by the Bank of Italy, these figures are mentioned thus showing that interest rates applied in the South were not exactly those established by the law.

b= no figures provided.

Sources: Cassa per il Mezzogiorno, *Relazione al Bilancio*, 1966-1970; Mediocredito Centrale, *Relazione al Bilancio*, 1966-1970; Banca d'Italia, *Relazione Annuale*, 1966-1970.

As table IV.4 shows, interest rates available to Southern firms under the Cassa-subsidised scheme remained fixed through the whole period. Interest rates on soft loans rediscounted at the Medio Credito Centrale and available to Southern firms increased slightly only in 1970.

Interest rates on soft loans available from the MCC outside the South witnessed the same trend as ordinary rates, decreasing in 1966-67 and increasing in 1969-70. The 1966-67 decrease was because the MCC increased its contribution on interest by an amount between 0.15%-1.50%.³⁴ It is not specified whether the further contribution was extended to Southern MTCIs. However, given that the interest rate for the South in 1966 remained the same as in 1965, one would assume that the further contribution was limited to Northern and Central medium-term credit institutions, and went to reduce the gap between rediscounting facilities available to Southern and Northern medium-term credit institutions.

³⁴ Mediocredito Centrale, *Relazione al Bilancio*, 1966, p. 13.

4.1.2 The Seventies

When examining the fluctuations in interest rates in the 1970s, the distinctive feature of the Italian economy in that decade - high inflation - should be emphasised. While the output slowdown was a common feature to all industrialised countries, the inflation differential between Italy and the seven most industrialized countries reached its highest point, 4.5% as compared with 0.2% in the 1960s.³⁵ In turn the high inflation had its roots in the explosion of the government deficit, monetized by an acquiescent monetary policy until 1976, when the BoI let the yields on long-term government bonds rise and the monetization ratio decreased.³⁶

D) 1971-75

Table IV.5 Nominal and ex-post real^a ordinary interest rates, 1971-75

	Commercial Credit					M T C ^b	YLTGB ^c
	North-W	North-E	Centre	South	Islands	Italy	(IMF)
1971	8.82%	9.07%	8.91%	10.24%	10.59%	9.87	8.34
	(3.82%)	(4.07%)	(3.91%)	(5.24%)	(5.59%)	(4.87)	(3.34%)
1972	7.51%	8.01%	7.65%	9.31%	10.23%	8.98	7.47
	(1.51%)	(2.01%)	(1.65%)	(3.31%)	(4.23%)	(2.98)	(1.47%)
1973	8.10%	8.27%	8.15%	9.43%	10.36%	8.71	7.42
	(-2.9%)	(-2.73%)	(-2.85%)	(-1.57%)	(-0.63%)	(-2.29)	(-3.58%)
1974	14.31%	14.32%	13.68%	14.87%	15.67%	11.1	9.87
	(-3.69%)	(-3.68%)	(-4.32%)	(-3.13%)	(-2.33%)	(-6.9)	(-8.13)
1975	14.89%	15.11%	14.48%	16.84%	17.57%	12.8	11.54
	(-2.11%)	(-1.89%)	(-2.52%)	(-0.16%)	(0.57%)	(-4.2)	(-5.46)

Keys:

a: ex-post real interest rates in brackets.

b: MTC= market interest rate on medium-term credit.

c: YLTGB = yields on long-term government bonds.

Source: Banca d'Italia, *Relazione Annuale*, 1971-1975; OECD, *Financial Statistics*, 1972-1976. IMF, *International Financial Statistics Yearbook*, 1996.

³⁵ M. Fratianni and F. Spinelli, *A Monetary History of Italy* (Cambridge, 1997), pp. 212-214, 279 and fn 1.

³⁶ The monetisation ratio was 74% from 1970 to 1976, as compared to the long historical trend of 50%. After 1977 the ratio fell below its historical trend. *Ibid.*, pp. 213-217.

1971 and particularly 1972 saw a considerable decrease in interest rates ranging from 0.36 points in the Islands to 1.31 points in the North-West. Interest rates on MTC and government bonds kept decreasing until 1973. The decreasing trend of the yields on long-term government bonds created favourable conditions for medium-term credit institutions to place a considerable amount of bonds on the market, which determined the availability of medium-term credit (as shown in table 4.2.18) and therefore finance for investment.³⁷ With respect to commercial interest rates, the decreasing trend was reversed in 1973, and for medium-term interest rates in the following year. The 1972-1974 period witnessed strong inflation - consumer price inflation rose from 6% in 1972 to 11% in 1973 and 19% in 1974.³⁸ In 1972, a rapid growth of internal demand led to increased prices for imported primary products as well as labour costs, fuelling inflation. Increasing domestic demand was also reducing the potential for exports, worsening the balance of payments. In 1973 inflation jumped from 6% to 11%, but the Italian monetary authorities kept pursuing expansionary policies. Nominal interest rates rose slightly, whereas real interest rates became negative. The low interest rate policy was pursued in order to assist the recovery of fixed investment, higher utilization of productive capacity and higher levels of employment, after the rigidity and strength gained by the labour force during the Hot Autumn of 1969.³⁹

The increase in the demand for credit by the private sector was accompanied by a soaring government deficit. The increasing public sector deficit determined an increase in the offer of bonds, exceeding demand. The BoI intervened directly to limit the increase in the yields on government bonds introducing the obligation for banks to invest a quota of their reserves in government bonds (this obligation was part of the so-called portfolio obligation, see section 4.2, III). However, the BoI gradually withdrew its support for bonds in the first half of 1974, in the face of an increasing deficit and inflation, thus letting the yields on long-term bonds increase. In 1975, due to an increasing demand for long-term bonds, in turn related to the

³⁷ Fazio 'La politica monetaria', p. 289 ; Banca d'Italia, *Relazione Annale*, 1973, p. 33.

³⁸ Own calculations on OECD, *International Financial Statistics Yearbook*, 1993, Table 136, pp. 432-433.

³⁹ Banca d'Italia, *Relazione Annuale*, 1973, p. 33.

decreasing production activity, the BoI intervened by selling bonds in order to keep yields above short-term interest rates and channelling savings into the long-term market.⁴⁰

At a moment in which monetary policies were still expansionary, the oil crisis hit the economy, with oil prices increasing fourfold between October and December 1973. This further worsened the terms of trade between imported raw materials and exported manufactured goods and accelerated price increases.⁴¹ The balance-of-payments deficit absorbed part of the monetary base, which caused a sensible decrease in bank liquidity causing a rise, particularly in 1974, of short-term interest rates, whereas the rate on MTC was kept deliberately low by the ICCS.⁴² The differential in rates between short and MTC determined the preference of banks in lending on the short-term market rather than buying the bonds of MTCIs, thus generating a shortage in the availability of MTC (as shown in section 4.2 III).⁴³

By 1975, the further worsening of the balance of payments forced the introduction of measures to contain credit expansion (to curb monetary base creation)⁴⁴ and restrictive fiscal policies aiming at reducing imports.⁴⁵ 1975 saw a drastic reduction of the balance-of-payments deficit, from 5,212bn lire in 1974 to 361bn in 1975. However, the BoI pointed out that industrial investment as a whole was hit, whereas it would have been better to shelter sectors that could be internationally competitive. Italian competitiveness was very low in 1975 due to the highest increase in per-unit labour costs as compared to other European countries. In addition to this already considerable factor, Italy experienced a fall in productivity, as labour utilization could not be varied as quickly as production would require, due to the rigidity of the labour supply.⁴⁶ These factors led to a fall in the Italian GDP by 3.5% in 1975,⁴⁷ for the first time since the Great Depression and World War II.⁴⁸

⁴⁰ Capomassi et al., 'Le operazioni', pp. 514-515; as for the causes of the increase of government deficit see Fratianni and Spinelli, *A monetary history*, pp. 215-217.

⁴¹ Banca d'Italia, *Annual Report*, 1974, abridged English version, p. 101.

⁴² *Ibid.*, pp. 147-148.

⁴³ Fazio, 'La politica monetaria', pp. 291-292.

⁴⁴ Banca d'Italia, *Annual Report*, 1974, abridged English version, p. 101.

⁴⁵ *Ibid.*, pp. 27-28.

⁴⁶ Banca d'Italia, *Annual Report*, 1975, abridged English version, pp. 25-27.

Despite the increase in ordinary interest rates since 1973, subsidised interest rates remained constant until 1974. The MCC interest rate even decreased by 0.35 points in 1972, and remained the same until 1974. In 1975, interest rates for all categories of loans rose, with the exception of those subsidised through IMI funds. The increase ranged from a minimum of 1-1.5 points in the case of the Cassa soft loans to a maximum of 2.35-4.45 points in the case of the MCC soft loans to Northern and Central firms. The adjustment of the soft-loan interest rates was affected by the delay with which the ICCS proceeded to the adjustment of the base rate on subsidised operations. The difference between the subsidised and the base rate was financed by the various bodies: the Cassa, the MI, IMI, and the MCC, which combined the rediscounting of loans with subsidies on interest. In the second half of 1974, the base rate as well as subsidised rates were raised.⁴⁹ The delays in adjusting the base rate resulted in a decreasing availability of subsidised as well as ordinary MTC, as will be explained in the last section.

⁴⁷ Output in manufacturing decreased by -9.7% in the same year. Banca d'Italia, *Relazione Annuale*, 1976, p. 4.

⁴⁸ Rossi and Toniolo, 'Italy', p. 447.

⁴⁹ Banca d'Italia, *Annual Report*, 1974, pp. 147-148.

Table IV.6 Subsidised interest rates, 1971-75 (%).

	Cassa ^a	MCC ^b		MI ^c		IMI Funds ^d	IMI ^e		IR ^f
		South	C/N	South	C/N		South	C/N	
1971	4-6	4	6-6.90	3	4.68				
1972	4-6	3.65	5.65-6.65	3	5				
1973	4-6	3.65	5.65-6.65	3	5				
1974	4-6	3.65	5.65-6.55	3	4-5	3	3	4-5	4
1975	5-7.50	5	8-10.10	4.55	6.10-7.60	3	3	4-5	6.10

Keys

a: interest rates subsidised by the Cassa under the terms of law 853/1971.

b: interest rates on loans subsidised and/or rediscounted at the Medio Credito Centrale under the terms of law 949/1952.

c: soft loan scheme subsidised by the Ministry of Industry under the terms of law 623/1959.

d: includes soft loan schemes introduced by laws 1470/1961 and 1089/1968.

e: soft loan scheme under terms of law 184/1971.

f: subsidised loans available for industrial restructuring introduced by scheme 1101 in 1971.

Source: Banca d' Italia, *Relazione Annuale*, 1971-1975.

Thus in 1971, the difference between ordinary and subsidised interest rates ranged from a minimum of 4.24 points⁵⁰ to a maximum of 7.59 points⁵¹ in the South, with the same difference ranging from a minimum of 1.92 points⁵² to 4.39 points⁵³ in the rest of the country. In 1974, when ordinary interest rates had risen and the base and subsidised interest rate had not yet been adjusted, the corresponding differences ranged from 8.87 points to 12.67 points in the South and 7.13 points to 11.32 points in the rest of the country. In 1975, with the adjustment of the base and subsidised rate the difference in the South ranged from 9.34 points to 14.57 points, and from 4.38 points to 12.11 points in the rest of the country.

II) 1976-80

For the 1976-1980 period, OECD data on market interest rates on medium-term credit and the BoI reference rate are available. The comparison shows that OECD figures are 0.4 to 0.5 points lower than the reference rate. The reference rate, fixed by the ICCS, was lower than the ordinary rate available in any area of the country through the whole period, and follows the trend of commercial interest rates. Both rates increased in 1977 and decreased in 1978, to increase again in 1980.

⁵⁰ The difference between the ordinary rate in the Continental South (10.24%) minus the highest Cassa rate (6%).

⁵¹ The difference between the ordinary rate available in the islands (10.59%) and the lowest subsidised rate, available from the Ministry of Industry (3%).

⁵² The difference between ordinary rate in the North West (8.82%), and the highest subsidised rate (6.90%), available from Medio Credito.

Table IV.7 Nominal and ex-post real^a ordinary interest rates (%), 1976-80.

	Commercial Credit					MTC ^b	YLTGB ^c	RR ^d
	North-W	North-E	Centre	South	Islands	(OECD)		
1976	17.20	17.08	17.04	19.02	19.16	14.15 ^e	13.08	14.55
	(0.20)	(0.08)	(0.04)	(2.02)	(2.16)	(-2.85)	(-3.92)	(-2.45)
1977	18.29	18.59	18.53	20.51	19.75	15.44	14.62	15.95
	(0.29)	(0.59)	(0.53)	(2.51)	(1.75)	(-2.56)	(-3.38)	(-2.05)
1978	15.62	16.06	16.02	18.21	17.46	14.9	13.70	15.50
	(3.62)	(4.06)	(4.02)	(6.21)	(5.46)	(2.9)	(1.70)	(3.5)
1979	15.08	15.45	15.29	17.28	16.87	14.35 ^f	14.05	^g
	(0.08)	(0.45)	(0.29)	(2.28)	(1.87)	(-0.65)	(-0.95)	
1980	19.00	19.53	19.43	21.04	20.17	15.7 ^c	16.11	16.10
	(-2)	(-1.37)	(-1.57)	(0.04)	(-0.83)	(-5.3)	(-0.89)	(-4.90)

Keys:

a: ex-post real interest rates in brackets.

b: MTC= market interest rate on medium-term credit, published by the OECD.

c: YLTGB = yields on long-term government bonds.

d: Reference Rate is taken as proxy of market interest on MTC, see p. 1 in this chapter.

e: annual average based on three quarterly observations.

f: annual average based on two quarterly observations.

g: no observations available.

Source: Banca d'Italia, *Bollettino*, 1976-80; OECD, *Financial Statistics*, 1976-79, and *Monthly Financial Statistics*, January 1981, December 1981.

1976 witnessed a considerable increase in ordinary commercial interest rates as compared to 1975 (table IV.5). The increase ranged from 1.59 points in the Islands to 2.56 points in the Centre. In the second half of 1975, the government attempted an expansionary monetary policy in order to allow the economy to recover. This manoeuvre triggered a rise in investment, particularly in industrial stocks. Furthermore, household consumption reached a high level in 1975, and remained high in the following year. This generated inflation, which on the one hand allowed firms to rebuild their profit margins even with increasing labour costs,⁵⁴ and on the other hand generated a deficit in the balance of payments. Thus in 1976, the central bank intervened with a combination of measures. It devalued the lira by 21%,

⁵³ The difference between ordinary interest rate in the North East (9.07%) and rate subsidised by the Ministry of Industry (4.68%), the lowest available in the country.

⁵⁴ In 1975, wage indexation was made more rigid in favour of the labour force.

leading to a faster increase of exports than of imports;⁵⁵ it allowed the yields on long-term government bonds to increase,⁵⁶ and it imposed a deposit on purchases of foreign currencies (the advance-deposit scheme), thus controlling imports, improving the balance of payments and contracting the monetary base. The discount rate was increased in February and March, and in October reached an unprecedented 15%,⁵⁷ thus absorbing excess liquidity and causing increases in interest rates. In the autumn of the same year, both inflation and the balance of payments improved, so that less drastic measures needed to be introduced in the following year. Thus in 1977, commercial interest rates kept increasing, but at a slower pace, whereas the reference rate increased considerably. The BoI kept a tighter control on banks' reserves, and towards the end of the year the reserve on borrowings as well as the central bank discount rate were increased to control the expansion of credit. 1978 witnessed a relatively expansionary policy, for nominal interest rates decreased. However, real interest rates increased as inflation, together with investment, decreased.⁵⁸ Between the end of 1978 and the beginning of 1979, the oil price doubled thus provoking an inflationary push. Controlling inflation became the priority of Italian monetary authorities,⁵⁹ as the decision to enter the European Monetary System established in 1978 meant stabilizing exchange rates.⁶⁰ The EMS was an agreement supporting fixed but adjustable (through negotiation) exchange rates between the currencies of those EEC countries choosing to participate, with Italy joining in 1979, after managing to obtain a wider fluctuation band of +/- 6%.⁶¹ Exchange rate stability was considered necessary both for the control of inflation and for the establishment of economic conditions favourable to industrial restructuring and productivity growth.⁶² 1980 saw a further increase in nominal interest rates, for the central bank intervened to control inflation, which had increased from 15% in 1979 to 21% in 1980. In 1980, internal demand increased as well as GDP (4%), and the balance of payments

⁵⁵ S. Micossi, F. Traù, 'The Role of Monetary and Financial Policies in the Restructuring of Industry', in: M. Baldassarri (ed.), *The Italian Economy. Heaven or Hell?* (1994), p. 90.

⁵⁶ Capomassi et al., 'Le operazioni', p. 516.

⁵⁷ Banca d'Italia, *Annual Report*, 1976, abridged English version, p. 79.

⁵⁸ Banca d'Italia, *Relazione Annuale*, 1978, pp.59, 217.

⁵⁹ Banca d'Italia, *Relazione Annuale*, 1979, p. 363.

⁶⁰ Micossi and Traù, 'The Role', p. 90.

⁶¹ For the EMS see for instance M. Fratianni and J. von Hagen, *The European Monetary System and European Monetary Union* (Boulder, 1992); for the Italian negotiations to obtain the wider band see P. Baffi, 'Il negoziato sullo SME', *Bancaria*, 45 (June, 1989), pp. 67-70.

⁶² Rossi and Toniolo, 'Italy', p. 447.

plunged back into the red. The BoI intervened by increasing the discount rate and temporarily assigning bonds, thus absorbing excess liquidity.⁶³ The strict monetary policy applied brought interest rates above inflation in 1981.⁶⁴

As explained in the previous chapter, both the national industrial policy and the regional one were reorganised in 1976. The new soft loan scheme fixed the subsidised interest rates as a percentage of the reference rate, and previous schemes were abolished. The following table displays subsidised interest rates for expanding and establishing firms under the new scheme as well as the previous ones, as a period of overlapping occurred.

Table IV.8 Subsidised interest rates^a on soft loan schemes for establishing and expanding firms (%), 1976-1980.

	1976 Scheme	Cassa ^b	Cassa ^c	MI ^d	
	Italy	South	South	Italy	South
1976	^e	^e	5.5-8.25 ^f	8.35	5.30
1977	6.40-9.60 ^g	4.80	5.5-8.25	8.35	5.30
1978	6.20-9.30	4.65	5.9-8.85	8.35	5.30
1979 ^e					
1980	6.45-9.70	4.85	5.9-8.85	8.35	5.30

Keys: a = interest rates displayed in the table refer to 30th April of each year; b = interest rates on credit subsidised by the Cassa under the 1976 scheme; c = interest rates on credit subsidised by the Cassa under previous schemes; d = soft loan subsidised by the Ministry of Industry under the terms of law 623/1959; e = no data available; f = various interest rates depending on the size of the firms; g = various interest rates depending on the area.

Sources: Banca d' Italia, *Relazione Annuale*, 1975-79.

The interest rates on soft loans were fixed at 30% for firms expanding and locating in the South (table IV.8, column 3), 40% in the less developed areas of the North and Centre and 60% in the rest of the country (table IV.8, column 2). As the reference rate followed the fluctuations in the capital markets, interest rates under the new scheme changed accordingly. Thus they decreased in 1978 and increased in 1980. In the same period interest rates under the scheme managed by the MI remained stable,

⁶³ Banca d'Italia, *Relazione Annuale*, 1980, pp.49, 203.

⁶⁴ Micossi and Traù, 'The Role', p. 92.

whereas interest rates under the 1965 scheme and managed by the Cassa increased in 1978. For firms locating or expanding in the South and in depressed areas of the North and Centre, the new soft loan scheme offered lower interest rates than the previous schemes. In the rest of the country, the interest rates of the MI scheme remained more attractive.

As explained in the previous chapter, scheme 675/1977 made available soft loans for firms undertaking restructuring and reconvertng their production. The following table displays interest rates on soft loans under such scheme.

Table IV.9 Subsidised interest rates on loans available to converting and restructuring firms (%), 1976-1980.

	1977		IR ^a		IMI Funds ^b		
	Scheme		Fund	Instit			
	Fund	Instit.	Fund	Instit			
	C/N	C/N	South	South		Italy	South
1976					7.75	6.85-8.35	4.50-5.30
1977					7.75	6.85-8.35	4.50-5.30
1978	3.10-4.65 ^c	6.20-9.30	2.35	4.65	7.90	6.85-8.35	4.50-5.30
1979 ^d							
1980	3.25-4.85	6.45-9.70	2.45	4.85	8.50	6.85-8.35	4.50-5.30

Key:

a: Industrial Restructuring under the terms of law 1101 passed in 1971.

b: includes interest rates of loans extended under the schemes 1470/61 and 184/71.

c: two interest rates because the scheme envisaged different interest rates in case of restructuring and reconvertng production.

d: no data available.

Source: Banca d'Italia, *Relazione Annuale*, 1975-79.

Interest rates equalled 20% of the reference rate for restructuring and 30% for reconvertng production in the whole country, while in the South the interest rates equalled 15% for restructuring and reconvertng loans. The percentages doubled if firms borrowed from institutions rather than from the fund. The 1977 scheme offered loans at much more advantageous rates compared with those from the IMI

funds. The rates in this last scheme were fixed and remained constant (6.85%-8.35%) during the whole period. The highest rates were those on loans available under the scheme for Industrial Restructuring passed in 1971. These were stable in the years 1976-7 and increased in 1979 and 1980.

4.1.3 The Eighties

Overall, the period under analysis is characterised by an increase in real interest rates, with nominal interest rates decreasing less than inflation. The appreciation of real interest rates, rather than credit ceilings, was the BoI's preferred policy to squeeze inflation, in order to comply with the EMS exchange rate commitments and maintain a fixed lira/Deutschemark parity. The manoeuvre led to a considerable appreciation of the lira in real terms *vis-à-vis* the other six EMS members (e.g. appreciation of 42% *vis-à-vis* the Deutschemark between 1979 and 1990) but also had a depressing effect on the economy in terms of growth and unemployment.⁶⁵

D) 1981-1986

The 1981 jump in market rates (from the levels of the previous year; see table IV.7) was the result of a slower growth in the monetary base.⁶⁶ Indeed, monetary policy, restrictive since the end of 1979, was further tightened in 1981. The beginning of the year saw accelerating inflation, exchange rate tensions and balance-of-payments deficits, against which the central bank set instruments such as an increased discount rate (rising from 15% to 19%, between the end of 1980 and the beginning of 1981) and an increase in the banks' compulsory reserve ratio.⁶⁷ Moreover, in July 1981, the BoI increased its degree of independence by abandoning the role of residual buyer of Treasury bills issued to finance the budget deficit.⁶⁸

⁶⁵ Fratianni and Spinelli, *Monetary History*, pp. 235-239 and 250-251.

⁶⁶ Banca d'Italia, *Annual Report*, 1981, abridged English version, p. 92.

⁶⁷ *Ibid.*, p. 91.

Table IV.10 Nominal and ex-post real ^a ordinary interest rates (%), 1981-1986.

	Commercial Credit					YLTGB ^b	RR ^c
	North-W	North-E	Centre	South	Islands	IMF	Italy
1981	21.38 (2.38)	22.21 (3.21)	22.15 (3.15)	23.22 (4.22)	22.67 (3.67)	20.56 (1.56)	17.85 (-1.15)
1982	21.07 (5.07)	22.21 (6.21)	21.64 (5.64)	23.18 (7.18)	23.36 (7.36)	20.90 (4.90)	21.3 (5.3)
1983	18.74 (3.74)	19.55 (4.55)	19.80 (4.80)	21.52 (6.52)	22.81 (7.81)	18.02 (3.02)	21.1 (6.1)
1984	19.09 (8.09)	19.37 (8.37)	19.50 (8.50)	20.77 (9.77)	21.51 (10.51)	14.95 (3.95)	19.9 (8.9)
1985	17.64 (8.64)	17.73 (8.73)	17.88 (8.88)	19.61 (8.61)	20.39 (11.39)	13.00 (4.00)	17.85 (8.85)
1986	15.34 (9.34)	15.55 (9.55)	15.92 (9.92)	17.72 (11.72)	18.16 (12.16)	10.52 (4.52)	16.8 (10.8)

Keys:

a : ex-post real interest rates in brackets.

b: YLTGB = yields on long term government bonds.

c: RR = Reference Rate taken as a proxy of market interest rate on MTC.

Source: Banca d'Italia, *Bollettino*, 1981-1983 and *Bollettino Statistico*, 1984-1986; IMF, *International Financial Statistics Yearbook*, 1996.

1982 was a year of stagnating production, employment and slowdown in inflation.⁶⁹ The lowering of inflation made it possible for the central bank to decrease interest rates without causing faster growth of monetary aggregates.⁷⁰ From the second half of 1983, production recovered and inflation decreased over the year, leading to a return to a balance-of-payments equilibrium. However, unemployment increased and industry kept suffering from large cost differentials compared with its competitors.⁷¹ The upturn in economic activity was accompanied by a recovery in bank credit. The central bank took a cautious stance, fearing that a growth in internal demand could undo the results obtained in restoring the balance-of-payments

⁶⁸ D. Gressani, L. Guiso and I. Visco, 'Disinflation in Italy: An Analysis with the Econometric Model of the Bank of Italy', in: M. Baldassarri (ed.), *The Italian Economy. Heaven or Hell?* (New York, 1994), p. 115.

⁶⁹ Banca d'Italia, *Annual Report*, 1982, abridged English version, p. 26.

⁷⁰ *Ibid.*, p. 89.

⁷¹ Banca d'Italia, *Annual Report*, 1983, abridged English version, p. 21.

equilibrium and curbing inflation. Consequently, around the middle of the year banks' reserves were controlled more strictly.⁷² Overall, 1983 was a year characterised by an expansionary monetary policy, for the discount rate decreased by half a point and compulsory reserve regulations were made more permissive.⁷³ In 1984 nominal and real interest rates increased. After three years of stagnation and recession, the growth that had started in 1983 strengthened in 1984. Economic policies and a substantial increase in productivity led to a slowing of the increase in inflation.⁷⁴ The growth in bank credit gained speed until the middle of 1984, with foreign lending as well as bank deposits increasing rapidly. It became clear that trade deficit was increasing. At the end of the summer, a series of measures was taken to counter these developments. The discount rate was raised by one point at the beginning of September, and the BoI launched a sale of securities. These measures were enough to contain the growth of credit aggregates as well as mop up excess liquidity, thus at the beginning of 1985 discount rate could be lowered.⁷⁵

Table IV.11 Subsidised interest rates available to establishing and expanding firms (%), 1981-1986.

	Scheme76	Cassa ^a	Cassa ^b	MI ^c	
	C/N	South	South	C/N	South
1981	7.15-10.75	5.40	5.9-8.85	8.35	5.30
1982	10.25-15.35	7.70	5.9-8.85	8.35	5.30
1983	10.15-15.20	7.60	5.9-8.85	8.35	5.30
1984	9.60-14.35	7.20	5.9-8.85	8.35	5.30
1985	8.60-12.90	6.45	5.9-8.85	8.35	5.30
1986	8.10-12.10	6.05	6.05-10.10 ^d	8.35	5.30

Keys:

a: interest rates on soft loans managed by the Cassa under the 1976 scheme

b: interest rates on soft loans managed by the Cassa under previous schemes

c: soft loan scheme subsidised by the Ministry of Industry under the terms of law 623 passed in 1959.

d: including changes brought about by law no.64, 1st March 1986.

Source: Banca d'Italia, *Relazione Annuale*, 1980-1985.

⁷² *Ibid.*, p. 77.

⁷³ *Ibid.*, p. 79.

⁷⁴ Banca d'Italia, *Annual Report*, 1984, abridged English version, p. 23.

⁷⁵ *Ibid.*, pp. 78-79.

Table IV.11 displays the reference rate, the interest rates on loans available to establishing and expanding firms under the scheme approved in 1976 and under previous schemes.

Interest rates under the 1976 scheme rose considerably in 1982 because of the increase in the reference rate and the increased percentage of the reference rate that the borrowers were supposed to cover. Under the terms of the 46/1982 scheme, the interest rate on subsidised credit was fixed at 36% of the reference rate in the South, 48% in the Centre and 72% in the North. From 1983 until 1986, subsidised interest rates under the new scheme decreased, following the trend of the market. In 1981-86, as well as in 1976-80, the new scheme offered Southern firms soft loans at lower interest rates than previously. Thus from 1981 to 1986, expanding or planned Southern industrial concerns could enjoy soft loans at rates ranging from a minimum of 5.9%-8.85% in 1981; to a maximum of 6.05%-10.10% in 1986. In the same period the ordinary rate in the South varied from a minimum of 17.72% (mainland) - 18.16% (Islands) in 1986 to a maximum of 23.18% (mainland) - 23.36% (Islands) in 1982. Thus the difference between ordinary interest rates and subsidised ones to Southern firms could reach a minimum of 8.87 points (calculated as the difference between the lowest ordinary interest rate in the period 17.72%, experienced in 1986 in the South mainland and the highest subsidised interest rate in the year of lowest interest: 8.85% in 1978) to a maximum of 17.31 points (calculated as the difference between the highest ordinary interest rate in the period experienced in the Islands in 1982, 23.36%, and the lowest of subsidised interest rates in the year of highest subsidised interest rate: 10.10% in 1986). Interest rates under the MI scheme remained stable over the period and from 1982 offered the cheapest rates to Northern firms. Interest rates under the 1965 scheme were stable until 1985.

The table below displays subsidised interest rates available to firms under the 1977 scheme for restructuring and reorienting production. Subsidised interest rates under previous schemes, which had been abolished and replaced in 1977, are also displayed.

Table IV.12 Subsidised interest rates on restructuring and reorienting production schemes (%), 1980-1986.

	1977 Scheme				IR ^a	IMI Funds ^b		Technology ^c	E ^d	
	Fund	Institu	Fund	Institu		C/N	South		C/N	South
		tions		tions						
	C/N	C/N	South	South						
1981	3.60-5.40	7.15-10.75	2.70	5.40	10.25	6.85-8.35	4.50-5.30			
1982	4.30-6.40	8.55-12.80	3.20	6.40	13.70	6.85-8.35	4.50-5.30		15.35 15.35	
1983	4.25-6.35	8.45-12.70	3.20	6.35	13.50	6.85-8.35	4.50-5.30		15.20 15.20	
1984	4.00-6.00	8.00-12.00	3.00	6.00	12.30	6.85-8.35	4.50-5.30	12.0	10.95 9.0	
1985	3.60-5.40	7.15-10.75	2.70	5.40	10.25	7.15-10.75	4.50-5.40	10.75	9.95 8.05	
1986	3.40-5.05	6.75-10.10	2.55	5.05	9.20	6.75-10.10	4.50-5.05	N 10.1 S 6.05 ^e	9.25 7.60	

Keys:

a: scheme for industrial restructuring passed in 1971.

b: includes interest rates of loans extended under the schemes 1470/61 and 184/71.

c: 1982 scheme for the introduction of technologically advanced production processes.

d: scheme for the purchase of equipment passed in 1965.

e: N= North and S=South, in 1986 was introduced interest rates differentiated according to the area in which the firm was located.

Source: Banca d'Italia, *Relazione Annuale*, 1980-1985.

In 1982, interest rates under the 1977 scheme for restructuring and reorienting production increased because of the technical adjustment of the reference rate mentioned above. From 1982 to 1985, interest rates under the 1977 scheme decreased following the trend in the money market. The same saw a drop in the interest rates of the 1971 Industrial Restructuring scheme (column 5), which offered loans for restructuring at the highest interest rate. Interest rates under this scheme were the same for the country as a whole and were not officially linked to the reference rate, ranging from a maximum of 64% in 1982 to a minimum of 55% in 1986. From 1982, the BoI published rates of soft loans available under scheme 1329, passed in 1965 and not replaced by any other scheme during 1976-7. Law 1329 sought to assist the recovery of the machine tool industry by offering soft loans to firms of any size for the purchase of equipment (see section 3.2, I). This scheme provided loans at an interest rate of 72% of the reference rate in 1983 and 1984. After 1984, it offered different rates for the North (55%) and South (45%). Rates under this scheme followed a decreasing trend from 1982 to 1986. A similar trend was also shown by the most recent scheme of 1982, designed to subsidise the introduction of technologically advanced production processes. Generally, the years 1982-86 saw decreasing interest rates. The only scheme that showed stable interest rates until 1984, was the IMI Fund. However, during 1985-6 this scheme also saw a lowering of interest rates.

II) 1987-91

Table IV.13 Nominal and Real^a Market Interest Rates (%), 1987-1991.

	Commercial credit					YLTGB ^b	RR ^c
	North-W	North-E	Centre	South	Islands	IMF	Italy
1987	13.04 (8.04)	13.28 (8.28)	13.64 (8.64)	15.48 (10.48)	14.83 (9.83)	9.68 (4.68)	12.3 (7.3)
1988	13.11 (8.11)	13.36 (8.36)	13.77 (8.77)	15.44 (10.44)	15.26 (10.26)	10.16 (5.16)	14.15 (9.15)
1989 ^d	13.90 (7.90)	14.12 (8.12)	14.67 (8.67)	15.95 (9.95)	16.01 (10.01)	10.72 (4.72)	14.8 (8.8)
1990	13.86 (7.86)	14.16 (8.16)	14.74 (8.74)	15.83 (9.83)	16.02 (10.02)	11.51 (5.51)	14.65 (8.65)
1991	13.72 (7.72)	13.91 (7.91)	14.62 (8.62)	15.59 (9.59)	15.86 (9.86)	13.18 (7.18)	14.55 (8.55)

Keys:

a: ex-post real interest rates in brackets.

b: YLTGB = yields on long term government bonds.

c: RR = Reference Rate taken as a proxy of market interest rate on MTC.

d: for 1989, the annual average has been calculated on three observations as the last quarterly observation is not available.

Source: Banca d'Italia, *Relazione Annuale*, 1986-1990; IMF, *International Financial Statistics Yearbook*, 1996, pp. 452-453.

The decrease that started in 1981 continued until 1987, when commercial rates fell by a minimum of 2.27 points (in the North-East) to a maximum of 3.33 points (in the Islands), while the reference rate was reduced by 4.5 points, whereas yields on long-term government bonds fell by only 0.84 points. Both interest rates and inflation (1% in 1989) rose during 1988-1989. In this period, the Italian economy was expanding with GDP growing by 2.9% in 1986,⁷⁶ 3.1% in 1987 and 3.9% in 1988.⁷⁷ The increase in employment in 1988 caused an increase in internal demand and price rises.⁷⁸ Rising inflation plunged the Italian currency into the lower band of the EMS. The central bank controlled inflation by increasing the discount rate, and market rates

⁷⁶ Banca d'Italia, *Annual Report*, 1987, abridged English version, p. 28.

⁷⁷ Banca d'Italia, *Annual Report*, 1988, abridged English version, p. 28.

⁷⁸ *Ibid.*, pp. 49-50.

soon followed.⁷⁹ In the following year, the lira entered the narrow band of the EMS (+/- 2.25), but GDP growth decreased: by 3% in 1989 and 2% in 1990.⁸⁰

The table below displays the interest rates at which subsidised interest credit was available to small and medium-sized firms.

Table IV.14 Subsidised interest rates available to establishing and expanding firms (%), 1987-91

	1976 Scheme	Agency ^a	MI ^b	
	Italy	South	Italy	South
1987	4.95-7.40	4.45-7.40	8.35	5.30
1988	5.70-8.50	5.10-8.50	8.35	5.30
1989	5.95-8.90	5.35-8.90	8.35	5.30
1990	5.90-8.80	5.30-8.80	8.35	5.30
1991	5.85-8.75	5.25-8.75	8.75	5.25

Keys

a= interest rates on soft loans managed by the Cassa under the 1976 scheme.

b= soft loan scheme subsidised by the Ministry of Industry under the terms of law 623 passed in 1959.

Source: Banca d'Italia, *Relazione Annuale*, 1986-1990.

Under the 1976 scheme, soft loans were available to Southern firms at 36% or 60% of the reference rate, according to the size of the investment. Northern firms were entitled to borrow at rates equal to 40% if located in the less developed areas of the Centre and the North, and 60% if in the rest of the Centre and North, irrespectively of the size of the investment.⁸¹ Pegged to the reference rate, the subsidised rates followed the capital market closely, decreasing until 1987, increasing in 1989-90, and decreasing again in 1990-91. Interest rates of the MI scheme had remained stable from 1976, varying slightly in 1991. Interest rates to Northern firms went up slightly, thus matching those available to small firms located in the North and Centre outside undeveloped areas. Interest rates available to Southern firms slightly decreased thus matching interest rates available to Southern firms investing up to 30 billions.

⁷⁹ *Ibid.*, p. 84.

⁸⁰ Banca d'Italia, *Annual Report*, 1990, abridged English version, pp. 26-27.

⁸¹ Yuill et al., *European Regional Incentives*, p. 310.

The table below displays interest rates available to firms undertaking restructuring or reorienting production.

Table IV.15 Subsidised interest rates for restructuring and reorienting production firms (%), 1987-91.

	1977 Scheme				IR ^a	IMI Funds ^b		Technology ^c		Equipment ^d	
	Fund	Institut	Fund	Institut		Italy	South	Italy	South	Italy	South
	Italy	Italy	South	South							
1987	2.50-3.70	4.95-7.40	1.85	3.70	4.70	4.95-7.50	4.50-3.70	7.40	4.45	6.80	5.55
1988	2.85-4.25	5.70-8.50	2.15	4.25	6.55	4.50-8.50	4.25-4.50	8.50	5.10	7.80	6.40
1989	3.00-4.45	5.95-8.90	2.15	4.45	7.20	4.50-8.90	4.45-4.50	8.90	5.35	6.70	5.20
1990	2.95-4.40	5.85-8.80	2.20	4.40	7.05	4.50-8.80	4.40-4.50	8.80	5.25	9.65	6.65
1991	2.95-4.40	5.85-8.75	2.20	4.40	7.10	4.50-8.75	4.40-4.50	8.75	5.25	8.75	5.85

Keys:

a: Industrial Restructuring scheme passed in 1971.

b: IMI Funds includes scheme 1470/61 for the reconversion of industry; scheme 1089/68 for applied research; scheme 184/71 for the reconstruction of industry.

c: 1982 scheme, subsidising the introduction of technologically advanced production processes.

d: 1965 scheme, subsidising the purchasing of equipment.

Source: Banca d'Italia, *Relazione Annuale*, 1986-1990.

The rate of the 1977 scheme remained equal to 15% of the reference rate for Southern firms. Northern firms undertaking restructuring programmes could benefit from loans carrying rates of 20% and 30% if the loan was to be used to undertake a reconversion programme. Rates for Southern and Northern firms doubled if borrowing from medium-term credit Institutions rather than from the Fund. The 1977 scheme was the cheapest available to Northern and Southern firms, cheaper than the schemes it was supposed to replace, such as that for the Industrial Restructuring (column 6) and IMI funds. Columns 9 and 10 display rates available to firms for the introduction of technological innovations in their production process. The 1982 scheme envisaged interest rates equal to 36% to firms located in the South and 60% of the reference rate to firms located in the rest of the country.

Rates under various schemes followed the same trend, decreasing until 1987, increasing in 1988-89 and slightly decreasing in 1990-91. The only exception was the 1965 scheme subsidising the purchasing of machines (columns 11 and 12). This scheme's rates decreased until 1987, increased in 1988 and decreased again in 1989, when other rates were still increasing. In 1990, its rates increased considerably while other subsidised and market rates were slightly decreasing. In 1991, its rates matched the general downward trend.

4.2 Geographical distribution of MTC.

This section studies the regional distribution of subsidised credit generated by soft loan schemes, within the framework of the regional and national industrial policies, and compares it with the distribution of market credit. It also provides an indication of the geographical distribution of subsidised credit to small and medium sized firms.

I) 1953-1956 and 1957-1965

The analysis starts from 1953, the year in which the MCC initiated the provision of subsidised credit to small and medium-sized firms throughout the country.

Table IV.16 Geographical distribution of subsidised MTC, 1953-1956 (annual average, bn, 1980 lire)

1953-56	North-W	North-E	Centre	South	Italy
bn lire	48.4	23.7	26.6	19.8	118.5
% Italy	40.8	20.0	22.5	16.7	100

Source: Mediocredito Centrale, *Relazione al Bilancio*, 1962

Table IV.16 clearly shows that in the first half of the 1950s, when the only soft loan scheme was that subsidised by the MCC (scheme 949/1952), the North-West was the main recipient, whereas the South received the lowest share. The small amount of loans extended to the South is explained by the MCC in terms of the lack of interest from credit institutions in the South. The MCC scheme offered credit institutions the possibility of refinancing themselves at a lower interest rate, but Southern credit institutions could finance themselves using funds bearing no cost, such as their endowment funds and funds provided by the Cassa, which were also expected to increase in the following years.⁸²

Table IV.17 Geographical distribution of subsidised MTC, 1957-1965 (annual average, bn, 1980 lire)

	North-W	North-E	Centre	South	Italy
bn lire	152.7	119.4	113.6	252.4	638.1
% Italy	23.9	18.7	17.8	39.6	100

Sources: Mediocredito Centrale, *Relazione al Bilancio*, 1962; Pergolesi, *Il Credito*, p. 302.

Table IV.17 displays the annual average of soft loans extended by the MCC and by the MI (scheme 623/59). The only scheme operational in those years and not included in the table is the one managed by the Cassa.⁸³

It is clear that with the introduction of the MI scheme, the South received the lion's share of subsidised credit, which can be due to both a larger number of soft loans extended and larger sums granted. The scheme allowed Southern firms to borrow

⁸² Mediocredito Centrale, *Bilancio*, 1954, p. 7 and 1955, pp. 13-14.

twice as much as their Northern and Central counterparts. The Centre and the North-East benefited least from the MCC and MI schemes.

II) 1966-70

The following table displays the geographical distribution of loans subsidised under various schemes operational in the period under examination. It also includes figures referring to the ordinary MTC. Subsidised MTC includes sums awarded under all national schemes in operation, and for the South, all loans issued by the Cassa.

Table IV.18 Geographical distribution of net subsidised and ordinary MTC to industry and public works,^a 1966-70 (annual average, bn, 1980 lire)⁸⁴

	S	O	T	S	O	T
	Absolute amount			% Italy		
North-W	754	886	1,641	27.3	46.9	35.3
North-E	359	250	609	13.0	13.2	13.1
Centre	413	491	904	15.0	26.0	19.4
South	1,233	264	1,498	44.7	14.0	32.2
Italy	2,760	1,891	4,652	100.0	100.0	100.0

Source: Banca d'Italia, *Relazione Annuale*, 1967-1971.

Keys: a: Net balance of credit transactions; S= Subsidised credit; O= Ordinary credit; T= Total;

Whereas the North-West received the highest percentage of total MTC, the South secured the highest share of subsidised credit, which formed the overwhelming majority of MTC it received. The North-East benefited least from both forms of credit during this period.

⁸³ Information on soft loans managed by the Cassa between 1957 and 1965 is included in tables IV.25 and IV.26. It could not be included in table IV.17 as it refers to soft loans approved by the Cassa in those years, whereas information on MCC and MI schemes refer to loans extended.

⁸⁴ For this sub-period, the Bank of Italy published figures referring to credit extended by the end of the period; therefore, it was possible to calculate only the net balance of credit transactions. Moreover, credit to industry is not separated from credit to public works. From 1974 onwards, the same source publishes more detailed information, not only for credit extended by the end of the period

III) 1971-75 and 1976-80

Given the peculiar nature of the 1971-75 period, it is more appropriate to analyse credit on an annual basis. For comparative purposes, this section also presents annual data for the 1976-80 period. As already mentioned, after 1974 the Bank of Italy published figures for both new credit extended and the net balance of credit transactions, and the following tables present both. It would be preferable to use only new credit extended for the years between 1974 to 1991, as these figures are not affected by changes in patterns of loan repayments and display consistently positive values. On the contrary, the net balance of credit transactions displays negative values from 1973 to the first half of the 1980s, when credit repaid exceeded new credit extended, which makes the interpretation of percentages cumbersome. However, the net balance of credit transactions has been included in the tables below in order to preserve the comparability with the years between 1966 and 1973, for which only this figure is available.

but also for credit extended in each period, with credit to industry separated from credit to public works. Thus from that year onwards it is possible to provide a more detailed analysis.

Table IV.19 Geographical distribution of net subsidised and ordinary MTC, 1971-1975 (000 billion lire at 1980 prices).

000 bn 80	North-W			North-E			Centre			South			Italy		
	S	O	T	S	O	T	S	O	T	S	O	T	S	O	T
1971 ^a	1.1	2.7	3.8	0.3	0.7	1.0	0.3	0.6	1.0	2.3	0.3	2.6	4.0	4.4	8.3
1972 ^a	0.3	2.0	2.3	0.2	0.6	0.8	0.3	0.5	0.8	3.1	0.6	3.7	3.9	3.7	7.7
1973 ^a	-0.8	3.1	2.3	0.06	0.5	0.5	-0.2	0.8	0.6	-1.4	2.2	0.8	-2.3	6.5	4.2
1974 ^a	-1.3	-1.5	-2.8	-0.5	-0.5	-1.1	-0.4	-0.7	-1.1	-2.0	-0.4	-2.4	-4.2	-3.2	-7.4
1975 ^a	0.3	-1.1	-0.8	-0.1	-0.4	-0.5	-0.02	-0.14	-0.16	0.5	-0.6	-0.1	0.6	-2.2	-1.6
1971-75 aa ^a	-0.1	1.0	0.9	-0.02	0.2	0.2	0.01	0.2	0.2	0.5	0.4	0.9	0.4	1.8	2.2
% Area	-8.4	108.4	100	-12.2	112.2	100	4.3	95.7	100	54.7	45.3	100	17.9	82.1	100
% Italy	-19.8	56.0	42.4	-5.0	10.0	7.3	2.5	11.9	10.2	122.3	22.1	40.0	100	100	100
1974-75 aa ^b	1.0	4.2	5.3	0.7	1.1	1.8	0.8	1.5	2.3	2.1	1.7	3.8	4.6	8.6	13.2
% Area	19.9	80.1	100	37.9	62.1	100	33.5	66.5	100	54.9	45.1	100	34.9	65.1	100
% Italy	22.8	49.0	39.9	15.2	13.3	14.0	16.7	17.7	17.4	45.3	19.9	28.8	100	100	100

Keys: a: Net balance of credit transactions; b: New credit extended; S= subsidised; O= ordinary; T= total; aa= annual average.

Note: From 1974 details on credit to public works are available, in the 1974-1975 period subsidised credit to public works amounted to 0.7% of the total new subsidised credit extended in the country and total credit to public works 8.7% of the total new credit extended.

Source: Banca d'Italia, *Bollettino*, 1971-1976; Banca d'Italia, *Relazione Annuale*, 1970.

Table IV.20 Territorial distribution of net subsidised and ordinary MTC to industry and public works^a, 1976-1980, (000 billion lire, 1980 lire).

000 bn 80	North-W			North-E			Centre			South			Italia		
	S	O	T	S	O	T	S	O	T	S	O	T	S	O	T
1976 ^a	0.4	-1.8	-1.4	0.23	-0.27	-0.05	0.1	-0.6	-0.5	-1.3	-0.4	-1.6	-0.6	-3.0	-3.6
1977 ^a	0.4	-1.0	-0.6	0.03	-0.27	-0.24	-0.004	0.3	0.3	-1.4	0.0	-1.4	-1.0	-1.0	-2.0
1978 ^a	-0.2	0.8	0.6	-0.3	0.4	0.03	-0.1	0.3	0.2	-0.8	-0.3	-1.1	-1.4	1.2	-0.3
1979 ^a	-0.3	-0.6	-0.9	-0.2	-0.2	-0.4	-0.1	-0.02	-0.2	-1.1	-0.5	-1.6	-1.7	-1.3	-3.0
1980 ^a	-0.3	-0.7	-1.0	-0.2	-0.3	-0.5	-0.2	-0.2	-0.4	-0.7	-1.3	-2.1	-1.4	-2.6	-4.0
1976-80 aa ^a	-0.01	-0.7	-0.7	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-1.1	-0.5	-1.6	-1.2	-1.4	-2.6
% Area	1.58	98.4	100.0	39.9	60.1	100.0	57.5	42.5	100.0	67.9	32.1	100.0	47.7	52.3	100.0
% Italy	0.9	49.1	26.1	7.3	10.0	8.7	5.6	3.8	4.7	86.2	37.1	60.5	100.0	100.0	100.0
1976-80 aa ^b	1.5	3.8	5.3	0.7	1.1	1.8	0.7	1.8	2.5	1.0	1.3	2.2	3.8	8.0	11.8
% Area	28.1	71.9	100.0	38.3	61.7	100.0	27.8	72.2	100.0	42.9	57.1	100.0	32.3	67.7	100.0
% Italy	39.0	47.7	44.9	17.7	13.6	14.9	18.4	22.9	21.4	25.0	15.9	18.8	100.0	100.0	100.0

Sources: Banca d'Italia, *Bollettino*, 1976-1980.

Keys as above

Note: Subsidised credit to public works amounted to 1.1% of the total new subsidised credit extended in the country and total credit to public works 11.0% of the total new credit extended.

During 1971, the provision of credit increased throughout the country, reaching values well above the average for the previous period. In 1972, Southern Italy experienced an even more remarkable increase in the supply of MTC, mainly because 1972 was the first year in which credit envisaged by law 853 (approved at the end of 1971) was actually available. For 1970-1, the statistics on credit demand and supply are available. Loan applications in 1970 amounted to 4,200 bn lire and the credit extended amounted to 1,972.8 bn. In 1971, loan applications totalled 13,200 bn lire whereas loans provided amounted to 3,594.7 bn (current prices). Thus in 1970, MTCIs were able to satisfy 46.9% of demand, but only 27.2% in 1971. The exceptional increase in demand for credit resulted from the exceptional quantity of industrial applications, mainly concerning plans for investment in the basic sector in the South.⁸⁵ The huge increase of Southern demand together with the belated approval of the 1971-1975 programme helps to explain the fall of the percentage of credit demand which the MTCIs were able to satisfy.

From 1972, the overall availability of MTC decreased, except in the South. From 1973, new issues of such credit were less than the repayments on previous issues, hence the negative figures until the early 1980s. Various factors are held responsible for this: funds allocated as contributions towards interest payments dried up in some sectors; difficulties developed in fund raising by the MTCIs, due to the drop in quotations on the bond market. This last factor, combined with the delay in adjusting the basic rates on subsidised operations, made medium-term lending unprofitable. Given the difference between short and long-term interest rates (as displayed in tables IV.5 and IV.6), banks preferred lending their liquid assets at higher interest rates, i.e. short term. Diverting resources from medium to short-term lending is technically possible because of close institutional and economic links existing between the special institutions and the banks.⁸⁶ As explained in Chapter III, the MTCIs had been created, under the terms of their charters, by ordinary banks, which contributed to the financing of MTCIs acquiring their bonds (for the establishment of MTCIs and the economic links between ordinary banks and MTCIs see Chapter III).

⁸⁵ Banca d'Italia, *Annual Report*, 1971, abridged English version, pp. 132-134.

⁸⁶ Banca d'Italia, *Annual Report*, 1974, abridged English version, pp. 146-148.

In order to redirect money into the medium-term market, preserving low interest rates, in June 1973 the BoI introduced the so-called 'portfolio obligation' (vincolo di portafoglio), which obliged banks to increase their investment in bonds, to reach a minimum of 6% of their deposits at the end of the previous year. Within this increase, a large share was represented by bonds issued by the MTCIs, ENI and private companies, whereas a minor share was allocated to government bonds. Banks had until the end of 1973 to comply with this requirement, which was then renewed and banks were obliged to invest up to 9% of their deposits by June 1974, when it was renewed once again, obliging banks to invest a further 3% of their deposits at the end of 1973. However, the investment in bonds should not have exceeded 50% of new deposits in the first six months of 1974. The portfolio obligation was periodically renewed until 1978, however, since 1975 the amount of investment in percentage of new deposits was gradually decreased.⁸⁷

In the same years, 1973-1978, the BoI also introduced a ceiling on loans extended. Clients were divided into four groups, according to the size of their loans to the bank. For each of these groups, a ceiling on further loans was imposed, with the exception of the smallest group - clients with loans below 500m lire (current lire) - on which no ceiling was imposed if these were neither financial nor commercial enterprises. With this manoeuvre, the BoI was avoiding credit rationing towards small firms, which were perceived as the most affected by a liquidity squeeze.⁸⁸

From 1975, MTC showed a slight recovery due to the BoI measures, the increase in the net value of securities issued by the institutions and the profitability of the adjusted basic rate and interest rates on MTC.⁸⁹ For although the net balance of credit transactions remained negative until the beginning of the 1980s, it never again reached the 1974 low.

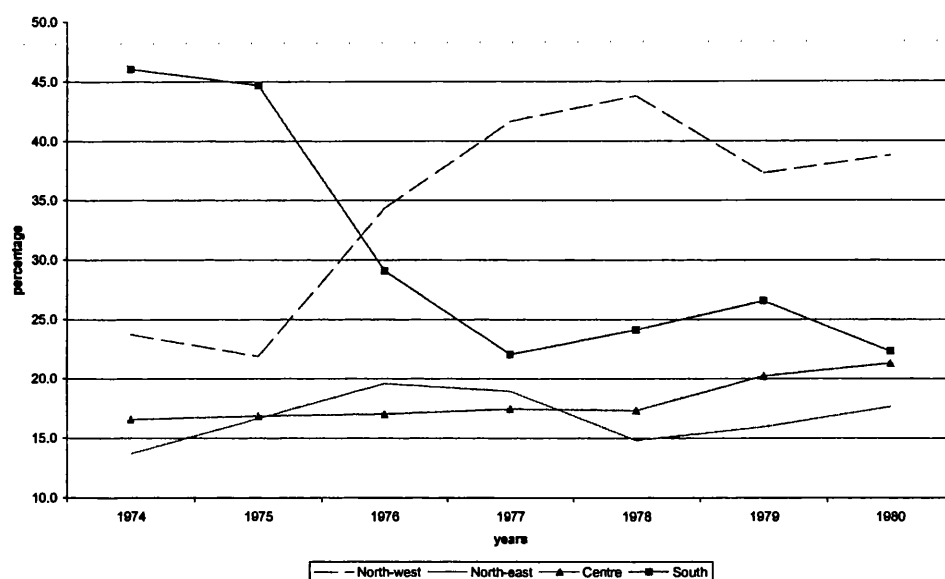
⁸⁷ Fazio, 'La politica', p. 292; D. Croff and F. Passacantando, 'Il controllo diretto del credito', in: F. Cotula and P. de' Stefani, *La politica monetaria in Italia. Istituti e strumenti* (Bologna, 1979), pp. 578-582.

⁸⁸ Croff and Passacantando, 'Il controllo', pp. 575-578.

⁸⁹ Banca d'Italia, *Annual Report*, 1975, abridged English version, pp. 134-136.

In the 1971-75 period, only 18% of MTC extended nationally was subsidised, against 60% in the previous sub-period. The area worst hit by the decreased availability of subsidised loans was the North-West. At the opposite end of the spectrum was the South, which secured the lion's share of subsidised and ordinary credit. However, from 1976, a major change took place in the direction of subsidised credit, for from 1976 the North-West, not the South, was the main beneficiary, as also shown in graph IV.1 below.

Graph IV.1 Geographical distribution of subsidised MTC, 1974-1980: new credit extended (percentage of national total).



Source: Banca d'Italia, *Bollettino*, 1975-1981.

In 1975, the BoI observed that consistently with the pattern of the previous year, subsidised credit was increasing more in the North and Centre than in the South, mainly because of an increase of credit to small and medium-sized firms.⁹⁰ The increase did not occur in the North-West, where subsidised credit decreased by 4% in 1975 as compared to the previous year. The increase took place in the North-East (26.5%) and Centre (6%), which easily outstripped the 1% increase in the South.⁹¹ However, the amount of subsidised credit received by the North-East and Centre was

⁹⁰ Banca d'Italia, *Relazione Annuale*, 1975, p. 349.

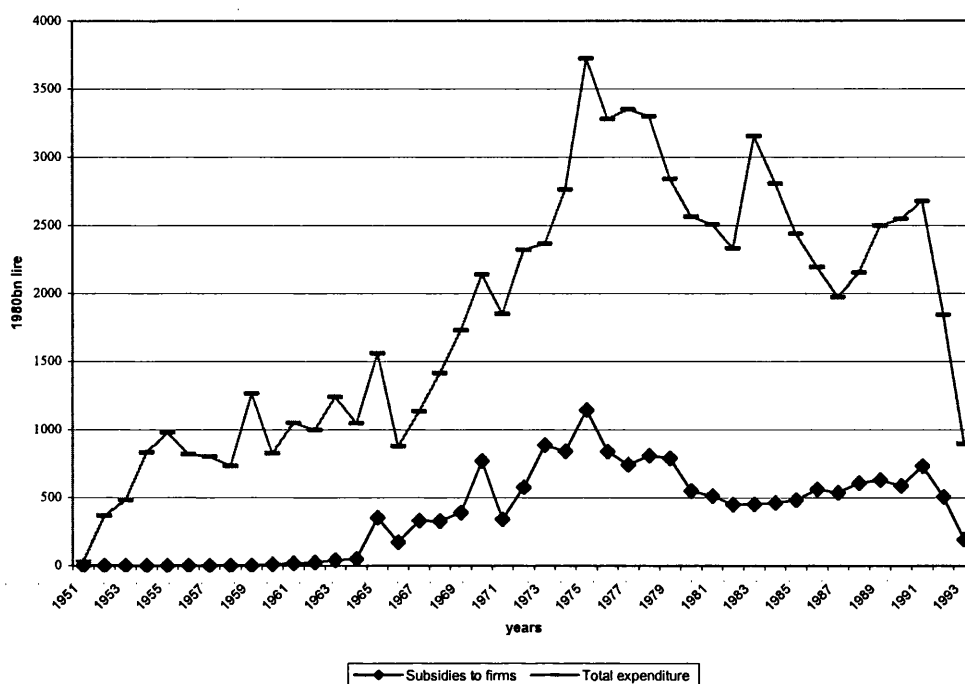
⁹¹ Increase calculated from data reported in Banca d'Italia, *Bollettino*, 1975 and 1976.

much less than that received by the South before 1976-1977. Thus, a comparison of the percentage increase of these three regions is not very meaningful.

The BoI points out the dramatic loss of share of subsidised MTC experienced by the South in 1976⁹² and explains it as due to a tendency, already shown in the previous years, to leave almost entirely to the Cassa the financing of Southern firms, whereas national schemes concentrated in the North and Centre. In 1976, the disadvantage suffered by the South became evident due to the delay in the approval of the 1976 scheme, whereas the previous scheme (law 853/1971) covered only the 1971-75 period.⁹³ The reduced access of Southern firms to national schemes is clearly born out by table IV.24 below, which shows that from 1976 a smaller percentage of applications for subsidies coming from the South was accepted under the terms of the national scheme. Moreover, not only the access of Southern firms to national schemes was reduced, but also the Cassa expenditure on subsidies as well as its overall expenditure started a declining trend after 1976, as shown in graph IV.2 below.

⁹² The BoI estimated the Southern share of subsidised MTC in 1976 as equal to 24.7%, against 43.1% in 1975 and approximately 50% in the previous decade. The estimation of the decrease in the Southern share changed in the following report, when the South was reported as benefiting from 27.8% in 1977 as compared to 33.7% in 1976. The computations presented in tables IV.19, IV.20, and graph IV.1, do not equal precisely the estimations of the BoI, but the values are very close and the computation of the Southern share in 1976 falls in between the two values given by the BoI. Banca d'Italia, *Relazione Annuale*, 1976, pp. 328-330; Banca d'Italia, *Relazione Annuale*, 1977, p. 330.

Graph IV.2 Real expenditure of the Cassa, 1951-1993.



Source: Cassa per il Mezzogiorno, *Relazione al Bilancio*, 1951-1993.

Establishing 1976 as the turning point is supported not only by the analysis of the total expenditure of the Cassa, but it also matches with the reorganisation of the system of subsidised credit (see chapter III). It seems plausible that following the fall in the Italian GDP in 1975, the boosting of the national economy by directing state resources into the most productive areas, and therefore the diversion of resources from the South to the North-West, became the new priority. A similar interpretation is proposed by Faini and Schiantarelli.⁹⁴ The authors point out that the industrial policy legislation passed in 1976 and 1977 meant that 'incentives that were once reserved to the South were extended on massive scale to the entire country'.⁹⁵ In turn, this was caused by the end of cheap labour in 1969 and cheap energy in 1973. In the face of the changed economic conditions, the industrialization of Southern Italy began to be addressed within the context of the restructuring of industry in the whole country.⁹⁶

⁹³ Banca d'Italia, *Relazione Annuale*, 1976, p. 330.

⁹⁴ Faini and Schiantarelli, 'Regional Implications', pp. 97-117.

⁹⁵ *Ibid.*, p. 105.

⁹⁶ *Ibid.*, p. 98.

Previous authors have acknowledged this change in the direction of subsidies but the timing seems imprecise. Pergolesi identified it as starting from 1973-74, on the basis that from 1973 subsidised credit decreased in the South. This is correct: in the South subsidised credit decreased by 39.5% between 1973 and 1974, but the decrease was even more marked in the North-west, where the correspondent figure was 72.8%. Therefore at that date the South still seems to be 'privileged'. This is certainly not the case after 1976, when subsidised credit continued to increase in the North-west and decreased in the South.

Del Monte and Giannola have calculated the ratio between the value of grants and contributions on interest awarded to the South, and the value of awards to the Centre and North.⁹⁷ They point out a sudden decrease of the ratio after 1974, when it reached the highest level. By 1976, the ratio dropped to pre-1970 levels. The authors draw the conclusion that from the second half of the 1970s the Centre and North have been privileged by the system of incentives and that the comparative advantage to invest in the South decreased after that date.⁹⁸ Therefore, the re-analysis of the distribution of subsidised credit presented in this chapter confirms the timing identified by Del Monte and Giannola on a different set of data. However, the two authors do not associate the change in geographical priorities with any institutional change, and in particular with the one taking place exactly in 1976.

On the contrary, the 1976 institutional change concerning the Italian regional policy is noticed by D. Yuill et al.,⁹⁹ who point out similar changes in the Netherlands and in the UK in 1979. A distinct hostility towards regional policy in the Western European countries followed the oil crisis of 1973-74. The changed economic conditions, characterized by 'widespread high unemployment, inflation, industrial over-capacity, low levels of investment, increasing competition from low-labour-cost countries and public expenditure curtailment' were 'clearly not at all favourable to regional policy'.¹⁰⁰ In addition, the previous fear of congestion in the major cities due to migratory flows from poorer areas of the countries had receded, the lack of

⁹⁷ Del Monte and Giannola, *Istituzioni economiche*, pp. 271-275.

⁹⁸ *Ibid.*, pp. 272.

⁹⁹ Yuill et al., *Regional Policy*, pp. 220-224.

¹⁰⁰ *Ibid.*, p. 220.

expansion of manufacturing industry meant that government had very little control over its location, and the rapid growth of incentive schemes available at the national level automatically decreased the profitability of investing in less developed regions.¹⁰¹

The analysis conducted in chapter III and in this chapter, brings together the institutional and economic side studied by different authors and points out that the 1976 institutional change was associated with a change in the direction of subsidies in favour of the most industrialised areas of the country. Other authors attribute the decrease of subsidies to Southern Italy in the 1970s and 1980s as due to the change in priorities of the industrial policy in the whole country. This now became focused more on the restructuring of existing plants (in particular law 675/77, mentioned in chapter III) than on the establishment of new plants. As plants were mainly concentrated in the North and Centre of the country, these were the areas that benefited most from subsidies.¹⁰² However, this can hardly explain the whole shift of subsidies from the South to the North-West, particularly as the 675 scheme was passed in 1977 and preliminary measures to extend subsidies under this scheme were undertaken in December 1978.¹⁰³ The shift of subsidised loans had already become clear in 1976, when not only the financing of Southern firms was left almost entirely to the Cassa, following a pattern observed by the BoI in the previous years, but also the expenditure of the Cassa start to decrease (as shown in Graph IV.2 above). Moreover, until 1984, 44% of investment approved under scheme 675/77 was located in the South,¹⁰⁴ therefore it seems unlikely that the scheme was the major cause of the shift of subsidised loans away from the South.

¹⁰¹ *Ibid.*, pp. 220-224.

¹⁰² Jossa, B., 'Credit and economic development in Southern Italy', *Review of Economic Conditions in Italy*, 1995/2 (1995), pp. 192-196.

¹⁰³ Measures such as the definition of sectoral programmes which indicated the sectors benefitting from subsidies under the 675/77 scheme, Pent Fornengo, 'Le politiche', p. 38.

IV) 1981-86 and 1987-91

This section analyses the geographical distribution of MTC in the sub-periods 1976-81 and 1986-91.

¹⁰⁴*Ibid.*, p. 44.

Table IV.21 Geographical distribution of subsidised and ordinary MTC to industry and public works, 1981-86 (000bn, 1980 lire).

	North-West			North-East			Centre			South			Italy		
	S	O	T	S	O	T	S	O	T	S	O	T	S	O	T
aa ^a	0.2	0.4	0.6	0.05	0.01	0.07	-0.003	0.7	0.7	-0.4	0.2	-0.2	-0.1	1.3	1.2
%Area	39.1	60.9	100	78.9	21.1	100	-0.4	100.4	100	254.2	-154.2	100	-9.5	109.5	100
% Italy	-197.4	26.6	47.9	-45.5	1.1	5.5	2.4	54.4	59.4	340.6	17.9	-12.7	100	100	100
aa ^b	1.6	5.4	6.9	0.7	1.3	2.1	0.7	3.7	4.4	0.8	1.7	2.5	3.8	12.1	15.9
% Area	22.4	77.6	100	35.2	64.8	100	15.1	84.9	100	32.6	67.4	100	23.6	76.4	100
% Italy	41.5	44.5	43.7	19.3	11.0	13.0	17.7	30.8	27.7	21.5	13.8	15.6	100	100	100

Source: Banca d'Italia, *Bollettino*, 1981-1983, and *Bollettino Statistico*, 1984-1987.

Keys: aa: annual average; a: net balance of credit transactions; b: new credit extended.

Note: Subsidised credit to public works amounted to 0.8% of the total new subsidised credit extended in the country and total credit to public works 9.1% of the total new credit extended.

Table IV.22 Geographical distribution of subsidised and ordinary MTC to industry and public works, 1987-1991 (000bn, 1980 lire).

	North-West			North-East			Centre			South			Italy		
	S	O	T	S	O	T	S	O	T	S	O	T	S	O	T
aa ^a	0.2	1.2	1.4	0.2	0.6	0.8	0.2	2.6	2.8	0.1	0.7	0.8	0.8	5.1	5.8
% Area	11.5	88.5	100	30.3	69.7	100	8.1	91.9	100	16.9	83.1	100	13.2	86.8	100
% Italy	20.8	24.3	23.8	31.4	11.0	13.6	29.8	51.4	48.5	18.0	13.4	14.0	100	100	100
aa ^b	1.7	6.6	8.3	0.8	1.7	2.6	0.9	5.8	6.7	1.0	2.2	3.2	4.4	16.4	20.8
% Area	20.4	79.6	100	32.9	67.1	100	13.8	86.2	100	30.3	69.7	100	21.4	78.6	100
% Italy	38.1	40.5	40.0	19.0	10.5	12.3	20.9	35.4	32.3	21.9	13.7	15.4	100	100	100

Source: Banca d'Italia, *Bollettino Statistico*, 1987-1992.

Note: Information on credit extended in 1990 refer only to credit extended during the period October-December 1990, as only those are published by the BoI.

Keys as above.

Note: Subsidised credit to public works amounted to 1.9% of the total new subsidised credit extended in the country and total credit to public works 7.5% of the total new credit extended.

Tables IV.21 and IV.22 show that the recovery of subsidised and market MTC in terms of the net balance of credit transactions took place in the first half of the 1980s, apart from the South, and only to a smaller extent in the Centre, where the net balance of subsidised credit did not return to positive values until the 1987-91 sub-period.

During both sub-periods, the North-West continued to be the major recipient of both types of MTC, obtaining approximately 40% of the national total of soft loans, while the South remained the second most important destination for such loans. The Southern share in the national total continued to decline, as did the importance of subsidised credit as a percentage of all MTC in the South. The North-East continued to receive the least amount of MTC as it had since 1976, and its share in the national total declined even further. The Centre had experienced continual gradual increases in the total amount of credit received since 1976.

The analysis developed so far has assessed to what extent the various regions benefited from subsidised loans, and which regions were the main beneficiaries of such schemes. The clear conclusion is that the South was the main beneficiary until 1976 and its share considerably decreased by the end of the period, and the North-east was consistently the region that least benefited from subsidised loans. These conclusions are drawn based on the regional distribution of subsidised medium-term credit as a whole. As the following chapters (chapters V and VI) will evaluate the importance of subsidies for small and medium-sized firms within IDs, it seems appropriate to focus as far as possible on subsidised credit to small and medium-sized firms.

Scheme 623/1959 financed by the MI was specifically designed for small and medium-sized firms in the whole country (as explained in Chapter III). Based on original data provided by the MI (the MI data set is described more in details in section 4.3) and from 1971 on the basis of information published by the BoI, it was possible to gain some insights into the regional distribution of the above-mentioned scheme. The results are displayed in table IV.23.

Table IV.23 Geographical distribution of soft loans to small and medium-sized firms (Scheme MI, 000 bn 1980 lire, and as a percentage of total subsidised credit to the area in brackets)

	North-W	North-E	Centre	South	Italy
1962-65 aa ^a	0.18	0.16	0.22	0.54	1.09
1966-70 aa ^a	0.35	0.34	0.36	0.71	1.75
1971-75 aa ^b	0.01	0.01	0.002	-0.27	-0.24
1974-75 aa ^a	0.06 (11.4)	0.14 (43)	0.11 (28.8)	0.13 (12.8)	0.4 (19.6)
1976-80 aa ^a	0.03 (10.1)	0.03 (23)	0.02 (16.4)	0.02 (11.8)	0.1 (13.9)

Source: data provided by the Ministry of Industry; Banca d'Italia, *Relazione Annuale*, 1967-1971 and *Bollettino*, 1971-1981.

Keys: a = New credit extended; b = Net balance of credit transactions.

Note: It was not possible to calculate the scheme MI as a percentage of total subsidised credit for the period 1962-65, as figures of total subsidised credit available do not include the Cassa subsidies (as for table 4.2.2, see fn 85), and thus the percentages for the Centre and South would have been misleading. For 1966-70, total subsidised credit is available only as net balance of credit transactions, whereas the data provided by the MI refer to new credit extended. For the 1971-75 period information on the MI scheme and total subsidised credit are published by the BoI as net balance of credit transactions, however due to negative numbers it was preferred not to express MI as a percentage of total subsidised credit. From 1974 to 1980, when the scheme ended, figures for the MI scheme and total subsidised credit are provided by the BoI as new credit extended.

From table IV.23, it is clear that the South was the main recipient of this scheme in the 1960s. The North-East also received significant amounts, particularly in the 1970s. This is broadly in line with the already mentioned BoI reports, which in 1975 pointed out an increase in subsidised credit to small and medium-sized firms in the North and Centre (as shown in graph IV.1).¹⁰⁵ This contrasts with the geographical distribution of subsidised credit as a whole, where the North-East, together with the Centre received the smallest shares (tables IV.16-IV.22).

When considering only the MI scheme, specifically targeting small and medium-sized firms, the North-East, although not consistently the main beneficiary, fares much better in comparison with other areas, unlike when considering subsidised credit as a whole (see tables IV.16-IV.22). On the one hand, this result reflects the importance of small firms in the regional economy, an issue addressed in previous chapters of this thesis. On the other hand, the result indicates that subsidised loans to

¹⁰⁵ Banca d'Italia, *Relazione Annuale*, 1975, p. 349.

small and medium-sized North-Eastern firms might turn out to be more important than initially suggested by the regional distribution of subsidised MTC as a whole, a point that the analysis of the two samples, in chapters V and VI, will help clarify.

4.3 Requests for and availability of subsidies

The analysis conducted in the previous section has shown to what extent the various regions benefited from subsidies. However, whether such a distribution was determined by the applications for, or availability of, subsidised loans has not been explained. Table IV.24 below addresses this issue based on original data provided by the Ministry of Industry.

The Ministry of Industry data set includes information on applications and extension of soft loans under the above-mentioned MI scheme (scheme 623/1959, see section 3.2, I) and on the soft loan scheme DPR 902 introduced in 1976 (see section 3.2, IV). These two schemes are particularly interesting as the former specifically targeted small firms and the latter marked the reorganisation of soft loan schemes throughout the whole country. Information on these two schemes include, for each year and region, the number of applications received by the central institutions, investment proposed and the value of subsidised loans applied for. Corresponding statistics are provided for approved applications, by year and region, specifying their number, the value of the approved investment and amount of the subsidised loan granted. These figures refer to the 'second stage' of the selection. The initial assessment of the investment project was performed by the credit institutions authorised to extend subsidised credit. However, these were under great pressure to accept a wide number of projects.¹⁰⁶

¹⁰⁶ F. Ventriglia, 'Il credito a medio termine', in *Rassegna Economica*, 44 (1980), pp. 903-970; F. Ventriglia, 'La responsabilità del banchiere a medio termine' in *Rassegna Economica*, 45 (1981), pp. 609-657.

Table IV.24 Subsidised credit granted as a percentage of subsidised credit applied for.

	Scheme	S% tsc ^a	S % sci ^b	North-w	North-e	Centre	South & Islands	Italy	Italy Inv ^c
1953-55	MTCI	100 ^d	100 ^d	87.6 ^d	92.6 ^d	82.4 ^d	98.7 ^d	88.4 ^d	n.a.
1957-65	MI	n.a.	48 ^e	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1966-70	MI	50	n.a.	100	100	99.6	99.7	99.8	99.9
1971-75	MI	28	46	95.8	96.6	97	95.8	96.3	97
1976-80	MI	14	39	83.7	78.2	79.13	83.1	81	85.8
	DPR 902 ^f	3 ^f	14 ^f	56.4 ^f	69.9 ^f	72.5 ^f	^g	66.3 ^f	65.5
1981-86	DPR 902	9	44	89.3	81	83.5	75.3	82.3	86
1987-91	DPR 902	3.2	17	88.3	90.9	94	51	81	87

Keys:

a: Scheme as % of total subsidised credit.

b: Scheme as % of subsidised credit to investment.

c: Value of investment approved as % of investment projects submitted, national average.

d: from 1953 to 1955, as only for those years information on applications is provided

e: as a percentage of subsidised and non-subsidised medium term credit to industry (1961-1964), as these are the only figures published by the Bank of Italy in these years appropriate for comparison.

f: 1978-80 only, as the scheme DPR 902/76, became operational in 1978.

g: no requests for loans were reported from the South.

Sources: Mediocredito Centrale, *Bilancio*, 1955 (MTCI scheme); data obtained from the Ministry of Industry (for MI and DPR 902 schemes); Banca d'Italia, *Bollettino* and *Bollettino Statistico*, various years, for total subsidised credit and subsidised credit to investment. All data were calculated into constant 1980 lire before the percentages were calculated.

Columns 3 and 4 in table IV.24 show the percentage of total subsidised credit (tsc) and subsidised credit to investment (sci) represented by the MI and DPR 902 schemes. For the period up to 1975 and from 1981 to 1986, the schemes for which data were available represent a high share of the subsidised credit to industry for investment purposes, therefore the results are most reliable for those periods. The table indicates the degree to which the national institutions in charge of subsidised credit responded to applications for loans. It is clear that a very high share of the applications for subsidised loans was successful, suggesting that areas benefiting less from such schemes - like the North-East - were those where less subsidised credit had been sought, with the exception of Southern Italy from 1976 onwards, where far stricter selection criteria were applied after that date.

Figures in table IV.24 indicate the ability of Southern firms to access only national soft loan schemes. Southern firms and firms expanding in the South were eligible also for soft loans and grants managed by the Cassa. Figures on Cassa subsidies in tables IV.25 and IV.26 refer to grants and soft loans approved by the Cassa in a given year, rather than those actually awarded. The Cassa was legally permitted to grant

incentives beyond its current financial means, and could thus award sums out of funds that were expected to be available in years to come.¹⁰⁷ Tables IV.25 and IV.26 demonstrate the trends in both availability of, and applications for, Cassa assistance from 1957 onwards. These tables are based on a further data set provided by the MI, specifying the number of applications, value of the investment represented by applications, number of applications accepted and investment represented by successful applications. Moreover, the data set includes the value of grants and subsidised loans approved by the Cassa, but it does not include information on the amount of subsidies requested by applicants. This information is provided by years and by regions, therefore it has been possible to separate the South from the areas in Central Italy included in the Cassa territories.

Table IV.25 Cassa subsidies to Southern Italy, bn lire 1980.

	AR	VR	AA	VA	G	L	VA%VR	MSD
1957-65	9,000	10,216	4,035	2,602	376	880	25.47	14.46
1966-70	5,363	10,582	5,216	7,749	1,262	1,867	73.23	34.79
1971-75	13,561	40,334	6,095	15,837	2,742	2,919	39.26	16.51
1976-80	10,084	12,280	7,786	8,366	2,179	2,243	68.13	51.45
1981-86	16,575	13,084	10,469	5,765	2,005	1,658	44.06	40.00
1987-91	25,349	22,773	9,729	7,437	2,592	1,806	32.66	27.59

Source: Calculations on data provided by the Ministry of Industry.

Keys: AR= Applications for subsidies received by the Cassa; VR =Value of the investments represented by the applications; AA =Applications accepted by the Cassa; VA=Value of investments represented by successful applications; G = Grants given by the Cassa; L = Loans extended by the Institutions.

MSD= Maximum satisfied demand, calculated as $(G+L)/0.85VR$ until 1975 and as $(G+L)/0.7VR$ after 1976.

Table IV.25 demonstrates the trends in both supply of, and demand for, Cassa (and later, Agency) assistance from 1957 onwards. It is possible to calculate how much of the demand was actually satisfied by Cassa subsidies in terms of investment approved as a percentage of investment plans submitted (VA%VR). Moreover, given that the Cassa incentives allowed for assistance (loan and grant together) amounting to a maximum of 85% of the value of the intended investment (70% after 1975), the maximum demand for subsidies can be estimated as 85% (70% after

¹⁰⁷ Vaccaro, *Unità*, p. 237.

1975) of the submitted investment (VR). Therefore, the maximum satisfied demand can be calculated as explained in the table keys.

The VA%VR and MSD percentage varied considerably, mainly due to fluctuations in the demand (VR) rather than in supply (G and L). Demand grew rapidly in the first half of the 1970s, and from the previous sub-period, the average investment size (VR divided by AR) increased considerably. As explained in the previous chapter, in these years the policy tried to promote large investment in capital-intensive sectors by obliging state-owned companies to undertake a percentage of investment in the South, and by increasing subsidies for private investment within the framework of the 'planned bargaining' procedure (see section 3.2 II). The increase in demand dragged down VA%VR and MSD in the first half of the 1970s, despite the increase in the availability of G and L in real terms. During the early 1980s, the collapse of demand pushed VA%VR and MSD up to the highest level, despite a relative drop in Cassa assistance, the sharp decrease in the average size of investment matches with the decrease in large investment undertaken by state-owned enterprises and big companies.¹⁰⁸ During the final period of the Agency, a substantial relative increase in application for subsidies, coupled with a small increase in the availability of subsidies led to a reduction of VA%VR and MSD.

Table IV.26 Cassa subsidies to areas in Central Italy (bn 1980 lire)

	AR	VR	AA	VA	G	L	VA%VR	MSD
1957-65	1,119	1,710	523	619	88	345	36.18	29.78
1966-70	835	1,460	702	1,250	191	366	85.58	44.84
1971-75	2,136	4,558	965	1,971	440	733	43.25	30.27
1976-80	2,028	3,399	1,340	1,700	542	361	50.03	37.93
1981-86	3,018	3,769	1,866	1,457	498	475	38.66	36.88
1987-91	4,063	6,716	3,168	4,517	1,478	1,341	67.25	59.97

Source and keys as above.

Comparing tables IV.26 with table IV.25, it clearly emerges the disproportionate extension of subsidised loans and grants to small areas in Central Italy, which accounted for only 6.3% of the population included in the designated area of Cassa

intervention.¹⁰⁹ This was due not only to a high demand but also to a higher percentage of satisfied demand in the Central areas, with the only exception of the 1976-1986 period. The percentage of satisfied demand in Central areas shows the same trend as the Southern Italian counterparts, with the exception of the Agency period, 1987-1991, when despite the increase in demand, the supply of grants and subsidised loans was so high that the percentage of accepted investment and satisfied demand increased.

A more disaggregated analysis clarified that the area of Southern Latium was the main recipient of subsidies in Central Italy. It is obvious that 'the intervention areas close to the boundaries experienced a remarkable concentration of industrial activity', resulting from the availability of subsidies and the possibility to locate plants as close as possible to Central Italy and in the case of Southern Latium to the market of Rome.¹¹⁰ A famous example of investment in Southern Latium is the Fiat plant in Cassino in 1972, and in the late 1980s, electronic and telecommunication industries.¹¹¹ Moreover, the area also witnessed a relocation of industry moving away from the congested metropolitan area of Rome and at the same time benefiting from subsidies.¹¹² The industrial development in the Central areas was such that by the end of the 1980s, they presented very few features common to the South and therefore a redefinition of the designated areas to exclude these areas in Central Italy was recommended.¹¹³

The value of grants as displayed in tables IV.25 and IV.26 is much more consistent, throughout the whole period, than the value of grants as displayed in the tables showing Cassa expenditure in Chapter III. One possible reason for this considerable discrepancy is that the latter tables report grants actually extended in a period, where

¹⁰⁸ Castronovo, 'Mezzogiorno', p. 346.

¹⁰⁹ Moro, 'Gli investimenti', pp. 148-150.

¹¹⁰ S. Conti, 'Industrialization in a Backward Region: the Italian Mezzogiorno' (Unpublished Ph.D. Thesis, University of London, 1979), pp. 249-250.

¹¹¹ M. Samek and F. Silva, 'Gli investimenti delle imprese non meridionali nel Mezzogiorno. Un'analisi sul campo', F. Silva and G. Viesti (eds), *Il difficile sviluppo dell'industria nel Mezzogiorno* (Milan, 1989), p. 95.

¹¹² Conti, 'Industrialization', pp.249-250.

¹¹³ G. Viesti, 'Alcune considerazioni sull'industria dell'Italia meridionale nella seconda metà degli anni ottanta', in: F. Silva and G. Viesti (eds), *Il difficile sviluppo dell'industria nel Mezzogiorno* (Milan, 1989), p. 56.

tables IV.25 and IV.26 include grants secured by, but not necessarily extended to, firms during the same period, a result of the Cassa's ability to undertake commitments in excess of its current financial means.¹¹⁴

Grants extended by the Cassa were not the only ones available in the country. As explained in Chapter III, scheme 696 in 1983 (replaced by the similar scheme 399 in 1987) provided grants for the purchase and/or leasing of high technology equipment.¹¹⁵ Similarly to the data sets on the MI and DPR 902 schemes, as well as on the Cassa subsidies, the data set concerning the two grant schemes was provided by the MI and contains information by region and year on the number of applications submitted, specifying the amount of the investment and the grant requested and the number of applications approved with the same detail on investment and grant. This makes it possible to study the regional distribution of grants available nationwide and whether the distribution was due to the interest of applicants or availability of subsidies. The results are displayed in table IV.27 below.

Table IV.27 Requests for and availability of grants (schemes 696/1983 and 399/1987), 1984-1991^a (bn lire 1980)

	AR	IR	GR	%AA	%IA	%GA
North-West	10,706	1,023	250	88.5	91.7	91.8
North-East	6,748	590	145	87.5	90.8	91.3
Centre	3,113	232	57	85.1	88.7	88.7
South	248	25	8	68.7	70.6	71.5
Italy	20,815	1,870	460	87.3	90.7	90.8

Source: Calculations on data provided by the Ministry of Industry.

Keys: a= The usual division into sub-periods has not been adopted for this scheme due to the small number of years reported in the table; AR= Applications for subsidies; IR =Value of the investments represented by the applications; GR= Value of the grant applied for; %AA=Applications accepted as a percentage of AR; %IA= investments represented by successful applications as a percentage of IR; %GA= Grants extended as a percentage of GR.

It is clear that the South benefited less from these schemes. Previous works¹¹⁶ have pointed out that Northern regions were by far the main beneficiary of these schemes

¹¹⁴ Vaccaro, *Unita*, p. 237.

¹¹⁵ Campus, *Un'analisi*, pp. 40-41; Scanagatta, 'Le leggi', pp. 71-75.

¹¹⁶ Campus, *Un'analisi*, p. 41; Scanagatta, 'Le leggi', p. 73.

and have explained it because of the high technology content of the investment required by the scheme. However, it is also pointed out that a large part (more than 50%) of these grants went to finance the purchasing or leasing of numerically-controlled machines and computer-controlled machines, rather than more sophisticated cad-cam systems (for the integration of design and production) or for the computer-aided management of stocks. Therefore, it seems that firms used this scheme to finance in the large part for investments, such as numeric or computer-controlled machines, that by the 1980s cannot be considered cutting-edge technology. It is then difficult to believe that the whole explanation of the regional differential in the distribution of grants lies in the lack of interest and/or the inability of Southern small or medium-sized firms to undertake such investment.

It seems likely that other factors, both on the institutional side and on the firms' side, are part of the explanation of the geographical distribution of grants. The two previously mentioned works dealing with this issue do not rely on consistent information on the number and value of applications. The MI data set provides such information and reveals not only that a smaller number of applications was received from the South, although those represented bigger investments and grants, but also that a smaller percentage of applications was approved.

The sectoral composition of recipient firms also helps to explain the geographical contribution of grants. The sector most benefiting from the grant schemes was engineering, receiving an average 44% of grants between 1984 and 1987, a sector poorly represented in the South as table IV.28 below shows.¹¹⁷

¹¹⁷ The sectors that benefited most from these grant schemes, after engineering were textiles (13%) and printing (7%). See Scanagatta, 'Le leggi', pp. 74-75.

Table IV.28 Regional distribution of employees in engineering industry, Italy, 1982.

	North-W	North-E	Centre	South	Italy
% of national total	55.4	19.5	11.6	13.4	100
% employment in industry	37.9	24.3	16.7	14.0	25.5

Source: Istat, *Annuario di Contabilità Nazionale*, 1982, vol. II.

Moreover, alternative grant schemes to finance investment were managed by the Cassa and those were only available to Southern firms from 1957, therefore it is possible that only part of the Southern demand for grants was directed to a much more recent scheme.

Conclusions

This chapter has analysed the differentials between market and subsidised interest rates, thus providing a first assessment of the profitability of subsidised MTC and completing the study of the various schemes developed in Chapter III. It has also compared the interest rates on short-term and market MTC, pointing out a particularly marked differential between 1974 and 1981. In those years, short-term interest rates were considerably higher than medium-term interest rates, thus channelling finance from the medium to the short-term market and causing a shortage of medium-term finance. This shortage is particularly visible in the regional distribution of market MTC in those years, but also of the subsidised counterpart.

The analysis of the geographical distribution of medium-term loans from 1953 to 1991 has shown that the areas benefiting most from such credit have been the North-West followed by the South. The picture changes when differentiating between subsidised and ordinary MTC. The South secured the largest share of subsidised credit (which included the Cassa soft loans) until the first half of the 1970s, but after that, the North-West was consistently the biggest beneficiary of subsidised loans. The North-East, where the San Mauro Pascoli ID is located, invariably received the smallest amount of subsidised credit throughout the period under review. However, this result is not confirmed by a more detailed analysis of the MI scheme specifically designed for small and medium-sized firms. Particularly in the 1970s, the North-

East was among the main recipients of the scheme. Therefore, the possibility that state subsidies were not a negligible source of finance for firms within North-Eastern IDs cannot be ruled out.

The reorganization of the system of subsidies in the whole country and the harmonization of soft loan schemes available in the South with those available in the rest of the country in 1976 has been illustrated in chapter III. The study of the regional distribution of subsidised loans clearly shows that the institutional change meant a redirection of subsidised credit from the South towards the most productive area of the country, the North West. This turning point is confirmed by the comparison between applications for subsidies submitted and approved, showing that after 1976 far stricter selection criteria were applied to applications from Southern firms. The identification of 1976 as the turning point coincides also with the beginning of a declining trend of Cassa expenditure, shown in graph IV.2, and contradicts previous studies, which saw 1973-74 as the period when subsidised credit was redirected from the South to the North-West.

This chapter offers a contribution to the understanding of subsidies, by addressing for the first time the issue of as to whether the regional distribution of subsidies was determined by the requests for, or the availability of subsidies. This analysis was performed on original data provided by the MI and referring to two grant schemes and two subsidised loans scheme. It showed that overall the distribution of subsidies was driven by applications, with the notable exception of Southern Italy where the share of accepted applications decreased after 1976.

The regional distribution of subsidies and the comparison of applications for and the availability of subsidies redefine the common perception of a heavily-subsidised South. The analysis showed that the North-West employed the highest amounts of subsidised MTC in the years after 1976, precisely at the time when the South was experiencing a drastic reduction. Even when considering grants to the South, the total subsidies going to the Mezzogiorno after 1976 were less than those going to the North-West. Furthermore, the small areas in Central Italy benefited to a larger extent, in relative terms, from Cassa subsidies and Southern firms had much less

access to grants available throughout the whole country. These elements belie the common assumption that the 'Extraordinary intervention for Southern Italy' had been a drain on Northern resources, an assumption that contributed strongly to the decision to abolish the Agency for the South.

CHAPTER V

Case studies: Barletta and San Mauro Pascoli Industrial Districts.

Introduction

Chapters III and IV studied the system of subsidies from the institutional perspective. This chapter opens the section of the thesis (comprising chapters V, VI and VII) that assesses the importance and effectiveness of subsidies for recipient companies. The chapter introduces the two case studies: the Southern ID of Barletta and its North-Eastern comparative example – the San Mauro Pascoli ID. It explains the choice and establishes their comparability in the first section. The second section outlines the economic importance of the two IDs.

5.1 The choice of Barletta and San Mauro Pascoli

The literature survey presented in Chapter I has shown the great academic interest raised by IDs, but it was clear that far less attention has been devoted to Southern Italian IDs, the existence of which was not even acknowledged until recently. The second section of this thesis focuses primarily on the Southern ID of Barletta, as the study of a Southern example might offer new insights in the broader topic of the IDs and their features. Further interest in a Southern example arises from the interpretation of IDs as a process of industrialization. Thus, by analysing the features of the Barletta ID, located within an under-industrialized region, one may enhance an understanding of the process of industrialization in the South.

The comparative example, the North-Eastern ID of San Mauro Pascoli, has been chosen on the basis of a survey of IDs and/or system areas across the country.¹ The study identifies IDs/system areas on the basis of Local Labour Market Areas (henceforth LLMAs) singled out by the Italian National Bureau of Statistics (Istat). The Istat work divides the country in 955 LLMAs, defined as areas including a

varying number of municipalities, which are relatively self-contained in terms of labour force. In the LLMAs, the largest part of the population can find or change jobs within the same LLMA where they live, conversely employers recruit their employees mainly within the LLMA.² Clearly, starting from the LLMAs in order to identify IDs implicitly refers to the interdisciplinary approach to the topic (see Chapter I), which considers an ID as a socio-territorial as well as an economic concept.³

Out of the 955 LLMAs, Garavini, Calistri and Cilona identified 99 IDs and/or system areas, singled out on the basis of local knowledge provided by territorial units of trade unions and indicators of industrialization, which are not specified in the study.⁴ The San Mauro Pascoli ID has been selected from these 99 by applying three criteria: location, product similar to the Barletta ID and same period of emergence.

a) Location. This thesis is concerned with the sources of finance of firms within IDs and seeks to ascertain whether IDs can develop against the background of state intervention in the South, and through private sources of finance in the classical area of IDs, the North-East also called Third Italy. This suggests the desirability of a comparative example from the North-East, where the ID of San Mauro Pascoli is located.

b) Similar products. Both the Barletta and the San Mauro Pascoli IDs are specialized in the production of footwear and clothes. However, the former specialises in sports shoes, whereas the latter specializes in leather shoes.⁵

c) Period of emergence. It was logical to choose two IDs that had emerged during the same chronological period, in order to compare the importance attained by each

¹ The study does not aim at assessing whether the identified areas present the features of Marshallian IDs, therefore a more generic terminology is adopted. See Garavini, Calistri and Cilona, *La Quarta*.

² Istat - Irpet, *I mercati locali del lavoro in Italia* (Rome, 1986), p. 13.

³ Becattini, 'The Marshallian Industrial District', pp. 37-51.

⁴ Garavini, Calistri and Cilona, *La Quarta*, pp. 13-14.

⁵ Viesti, 'Lo sviluppo', pp. 119 - 140; Garavini, Calistri and Cilona, *La quarta*, p. 239.

during the period under review. Both San Mauro Pascoli and Barletta are said to have emerged during the 1950s.⁶

5.2 The geographical identification of the Barletta and San Mauro Pascoli IDs.

In order to compare the Barletta and San Mauro Pascoli (henceforth SMP) IDs it is necessary to identify their geographical extension. According to the study by Garavini, Calistri and Ciona, the Barletta ID expands over a very broad area although the study indicates that the towns of Barletta and Trani are the centre of the ID, whereas the same study points out only the core of the SMP ID.⁷ This difference makes it necessary to identify the extent of the two IDs. The first sub-section discusses the methodologies available to identify IDs, and in the second sub-section the most recent methodology is adapted to define the borders of the two IDs.

5.2.1 Methodology

Specific studies have been conducted in order to develop a methodology to single out IDs. In 1987, Sforzi developed a two-stage analysis.⁸ Starting from the 955 LLMAAs identified by the Istat, the work considers eligible for consideration as IDs those LLMAAs presenting specific socio-economic features. The socio-economic features are: entrepreneurs and workforce in small manufacturing firms, with a high proportion of younger workers and married women in the labour force, with a high prevalence of extended families.⁹ Just 161 of the 955 LLMAAs presented those features and therefore were eligible to be defined as IDs. It seems possible to find the theoretical background to these socio-economic criteria in an approach that locates the origin of this industrial pattern in the extended family - which allowed a concentration of house-holding savings - and in the shifting of the whole family from the primary sector to the handicraft-industrial one, as the whole family became an entrepreneurial

⁶ Garavini, Calistri and Ciona, *La quarta*, pp. 239, 354.

⁷ *Ibid.*, pp. 239, 354.

⁸ F. Sforzi, 'L'identificazione spaziale dei distretti industriali', in: G. Becattini (ed.), *Mercato e Forze Locali: il Distretto Industriale* (Bologna, 1987), pp. 143-167.

⁹ *Ibid.*, p. 81.

unit.¹⁰ This first stage seems to be of particular importance as the Becattini and Sforzi approach stresses a strong interdependence between the social structure and the systems of firms in the area.¹¹ It is at this first stage that well known IDs such as Biella (textiles) in Piedmont, Cantù (furniture) and Vigevano (footwear and mechanical) in Lombardy and Solofra (tanning) in Campania, were not recognised as IDs. In fact these areas were characterised by 'managerial and white-collar workers, by employment in services, although industrial employment is significant and there are consistent numbers of working wives. The real difference lies in the social status of the small industrial entrepreneur and the type of family he lives in'.¹²

Finally, the economic structure of the 161 LLMAAs (i.e. those which passed the first stage) was analysed according to the sectoral characteristics of their firms, selecting those areas characterised by a dominant manufacturing specialization. The analysis pointed out the existence of 61 Marshallian IDs located in North-eastern and Central Italy, and to a lesser extent in the North-West of the country.¹³ Because none of the Southern LLMAAs presented the required socio-economic features, there were no examples from this region.

There are various reasons for rejecting this methodology:

- it fails to identify developed and well known IDs such as Biella, Cantu', Vigevano and Solofra. This failure seems significant enough in itself to cast doubts upon the methodology and body of literature to which it refers.

- it clearly places much emphasis on the social features and social values supposed to be necessary requirements for the development and growth of an ID,¹⁴ whereas this

¹⁰ Bagnasco, *Tre Italie*; Bull and Corner, *From Peasant*; Bull, Pitt and Szarka, *Entrepreneurial Textile Communities*.

¹¹ G. Becattini, 'The Development of Light Industry in Tuscany: An Interpretation', *Economic Notes*, 7/2-3 (1978) pp. 107-123.

¹² F. Sforzi, 'The Geography of Industrial Districts', in E. Goodman and J. Bamford with P. Saynor (eds), *Small Firms and Industrial Districts in Italy* (1989), p.161.

¹³ *Ibid.*, p. 80.

¹⁴ Becattini, 'The Marshallian Industrial District', p. 39.

thesis approaches the ID as a model of business organization, and focuses on one specific economic aspect, their sources of finance.

- it refers to an explanation of ID creation (the importance of the extended family and the share-cropping system as a source of household savings) that is so far unconvincing as it excludes *a priori* any impact of external sources of finance, and in particular of finance made available on preferential basis to small and medium-sized firms since the early 1950s.

- When investigating the economic characteristics of the area, this methodology examines only whether there is any dominant sector in manufacturing. This indicator of specialization considered in isolation has very little significance. A LLMA might have a small manufacturing sector – as compared to other industrial sectors, agriculture and services - concentrated in one or two industries such as textiles, footwear and clothing, wood and furniture, etc. Therefore, although specialized, a LLMA might have only a small number of workers in the industries of specialization. On the contrary, another LLMA less specialized but with a larger manufacturing sector might include a larger number of workers in the industries of specialization. This possibility is exemplified at the municipality level by towns like Andria and Molfetta in table V.1 below. Andria presents an indicator of specialization lower than Molfetta. Nevertheless, Andria includes 1,700 workers in footwear and clothing, whereas Molfetta only has 800. Thus, this methodology might identify LLMA's of negligible economic importance as IDs, whereas it might miss more important examples.

The 1986 methodology has been refined by the same author in 1996. As before, the starting point is the identification of the LLMA's. In the 1996 elaboration an increased commuting distance is taken into account, and therefore the whole country is divided in 784 LLMA's. Out of these, those areas where the following conditions were observed could be considered as IDs:

1) workers in manufacturing as a percentage of total workers in industry and services - thus excluding workers in agriculture - higher than the national average

$$WM_{LLMA} \% W_{LLMA} > WM_N \% W_N$$

where WM_{LLMA} = workers in manufacturing within the LLMA; W_{LLMA} = total workers in industry and services within the LLMA; WM_N = workers in manufacturing, national total; W_N = workers in manufacturing and service, national total.

2) the percentage of manufacturing workers employed in firms with less than 250 employees should be higher than the national counterpart.

3) in at least one manufacturing industry the following condition should be met: workers in that industry as a percentage of manufacturing workers should be higher than the national figure

$$Wsp_{LLMA} \% WM_{LLMA} > Wsp_N \% WM_N$$

where Wsp_{LLMA} = workers in sectors of specialization in the LLMA; WM_{LLMA} = workers in manufacturing within the LLMA; Wsp_N = workers in the sectors of specialization, national total; WM_N = workers in manufacturing, national total.

4) in that manufacturing industry, the percentage of workers in firms with less than 250 employees should be higher than the national average.¹⁵

The 1996 methodology represents a substantial improvement on the previous formulation. The social characteristics of the LLMA's - the first stage of selection in the 1986 methodology - are no longer taken into account, whereas more attention is devoted to the industrial characteristics of the areas. Moreover, the combination of the indicator of industrialization in stage 1) with the indicator of specialization in stage 3) seems to be of particular importance. The requirement that LLMA's qualifying as IDs should have a higher than average percentage of the non-agricultural workforce ensures that in eligible LLMA's there is a higher than average concentration of workers in manufacturing. Once LLMA's have been selected on the basis of 'concentration' in manufacturing, the indicator of specialization can be considered and it will not capture secondary examples and miss more important ones, as in the previous formulation. Moreover, the size selection criteria in stages 2) and 4) ensure that the eligible LLMA is characterized by the presence of a larger number of small and medium-sized firms than the national average, in manufacturing and industries of

¹⁵ Istat, *Rapporto annuale. La situazione del Paese nel 1995* (Rome, 1996).

specialization. The methodology defines as small firms those employing less than 50 workers and medium-sized firms those with less than 250.¹⁶

Applying the concept of concentration in the empirical analysis is important also from a theoretical perspective. The neo-classical approach considers the ID as a model of business organization and considers the 'concentration of firms' as the key point to explain its competitiveness. In the Marshall analysis, external economies arise from the concentration of many small businesses of a similar character in particular localities; firms of moderate size can enjoy economies of division of labour and of production on a large scale by aggregating into one district.

5.2.2 The geographical identification of the Barletta and San Mauro Pascoli IDs.

This section establishes the extent of the Barletta and SMP IDs. The identification of the towns to be included in the IDs is particularly important in the case of the Barletta ID. Some authors include several municipalities within the ID,¹⁷ but it is probable that many of these towns contribute little to the economy of the ID. Therefore all towns included by the literature in the Barletta ID have been studied following the criteria proposed by the 1996 methodology discussed in the previous sub-section.

Table V.1 presents the indicators of specialization ($W_s\%W_m$), concentration of labour force in manufacturing ($W_m\%A_p$) and indicators of average firm size in the industries of specialization - footwear and clothing - and manufacturing for the towns allegedly constituting the Barletta ID. For comparative purposes the same indicators are presented for the region in which those towns are located, Puglia, and for the whole of Italy. It was not possible to study the percentage of workers in firms with less than 250 employees, as the necessary information is not provided at the municipality level in the Censuses of Industry. The only information available at the municipality level is the number of workers, firms and plants by sectors and industries, therefore it was possible to calculate only the average firm size.

¹⁶ The definitions of small and medium-sized firms are those applied by Istat, which are in turn consistent with those applied in the EU legislation regulating subsidies to small and medium sized firms. Brusco and Paba, 'Per una storia', p. 275.

Table V.1 Barletta, surrounding municipalities and Puglia, 1981.

	Ws	Wm	Ap	Ws%Wm	Wm%Ap	S size	M size
	(000)	(000)	(000)				
Barletta	4.8	6.9	28.3	69.1	24.4	8.6	7.9
Trani	1.8	2.9	15.2	62.7	19.1	6.0	5.4
Bisceglie	1.4	2.1	15.7	68.3	13.4	7.9	6.3
Andria	1.7	3.6	27.5	47.0	13.2	4.5	3.9
Molfetta	0.8	1.6	20.9	48.6	7.6	4.8	4.0
Canosa	0.2	0.5	10.6	43.7	4.9	3.3	2.7
Minervino	0.2	0.4	4.1	48.0	9.7	5.8	4.7
Trinitapoli	0.06	0.2	4.3	26.2	5.6	3.3	3.1
Margherita	0.04	0.2	3.9	24.1	4.3	2.5	3.9
S. Ferdinando	0.03	0.3	4.6	9.2	7.3	1.6	3.7
Puglia	48	149	1,418	32	10.5	5.4	5.8
Italy	1,452	4,942	22,550	29.4	21.9	7.8	8.9

Keys: WS= workers in industries of specialization 43) textiles, 44) leather, 45) shoes and clothing, and 48) rubber, absolute figures; Wm= workers in manufacturing, absolute figures; Ap= active population, absolute figures; S size= average firm size in terms of employees in the sectors of specialization; M size= average firm size in terms of employees in manufacturing.

Note: Percentages have been calculated on non-rounded absolute figures.

Source: Istat, *Censimento dell'Industria*, 1981 and *Censimento della Popolazione*, 1981.

Apart from the towns of Barletta and Trani, Bisceglie and Andria have indicators of concentration in manufacturing and specialization higher than the regional figures. In comparison with the national figures they all have far higher indicators of specialization but only Barletta has a higher indicator of concentration in manufacturing. This clearly points out the specialized nature of these 4 towns, but also reflects the underdevelopment of the South, with 18% of the total labour force employed in agriculture, as compared to 8.4% in the Centre and North.¹⁸ Moreover, by definition the active population includes people in employment and people seeking

¹⁷ Garavini, Calistri and Cilona, *La quarta*, p. 354.

¹⁸ Figures from R. Faini, G. Galli and C. Giannini, 'Finance and Development: the Case of Southern Italy', in: A. Giovannini (ed.), *Finance and Development: Issues and Experience* (Cambridge, 1992), p. 159; data source: Istat and Svimez.

their first job. In the case of Puglia people seeking their first job were 15% of the active population, whereas the national average is 10%.¹⁹

Following the selective criteria of the 1996 methodology in the previous section, only the municipality of Barletta presents the feature of an ID. However, the towns of Trani, Bisceglie and Andria present indicators of specialization and concentration of labour force in manufacturing significantly higher than the regional average. In other words, these towns present the statistical characteristics of an ID when compared to their regional economic context. Therefore, in the following chapters, the Barletta ID will be considered as constituted by the towns of Barletta, Trani, Bisceglie and Andria.

As already mentioned, table V.1 also shows that the indicator of specialization alone is not effective in identifying the towns that contribute more significantly to the economy of the Barletta ID. According to such indicators towns like Canosa Minervino and Molfetta should be included as they present an indicator of specialization above the regional average. However, the absolute figures clearly show that these towns contribute very little, in terms of labour force, to the economy of the ID. On the contrary, the indicator of concentration of the workforce in manufacturing isolates those towns that contribute more significantly to the economy of the ID.

The same indicators used to identify the extent of the Barletta ID have been calculated for Savignano and Gatteo, municipalities surrounding the town of San Mauro Pascoli. These three towns are presented in the literature as the core of the San Mauro Pascoli ID. The corresponding indicators for the region where the SMP ID is located, Emilia Romagna, and for the whole of Italy have been included for comparative purposes.

¹⁹ Calculations based on Istat, *Censimento della Popolazione*, 1981.

Table V.2 San Mauro Pascoli, surrounding municipalities and Emilia Romagna, 1981.

	Ws	Wm	Ap	Ws%Wm	Wm% Ap	S size	M size
	(000)	(000)	(000)				
S Mauro Pascoli	2.0	2.3	3.4	89.5	67.9	10.2	8.7
Rimini	1.4	7.2	52.3	20.1	13.8	4.2	6.1
Savignano	1.0	1.5	5.7	65	26.4	9.3	7.4
Gatteo	0.4	0.7	2.6	60.3	26.3	9.5	7.7
Santarcangelo	0.3	1.2	7.0	22.8	17.3	5.0	6.8
Cesenatico	0.1	0.6	8.6	21.3	7.0	2.4	2.6
Gambettola	0.1	0.4	4.1	31.6	8.7	2.5	2.8
Longiano	0.1	1.1	2.1	5.7	52.1	4.2	14.7
Bellaria	0.1	0.3	5.4	44.5	6.3	4.2	3.3
Emilia Romagna	117	466	1,789	25.1	26	5.0	7.3
Italy	1,451	4,941	22,550	29.4	21.9	7.8	8.9

Keys and sources as for Table V.1

In the case of the SMP ID, the towns presenting a concentration of labour force in manufacturing and in the industries of specialization above the regional and national average, coincide with the core of the ID mentioned in the Garavini, Calistri and Cilona study.²⁰ The case of the city of Rimini seems controversial. Following the Sforzi methodologies, Rimini should be excluded from the SMP ID, as its indicators of specialization and concentration are below the regional average. However, considering the absolute figures of the labour force in the sectors of specialization, Rimini is second only to the town of San Mauro Pascoli, whereas in terms of manufacturing it would rank as first. Therefore, it seems appropriate to include the town of Rimini in the SMP ID on the grounds that having such a high number of workers in the sectors of specialization, it is likely to contribute to a great extent to the economy of the ID. The small size of the manufacturing and specialization industries, in relative terms, is easily understandable considering that Rimini, as well as Cesenatico, are famous tourist resorts and the dominant sectors in these cities are services and commerce. Therefore, in this thesis, the towns of San Mauro Pascoli,

²⁰ Garavini, Calistri and Cilona, *La quarta*, p. 239.

Rimini, Savignano and Gatteo will be considered as belonging to the SMP ID. Also in the case of the SMP ID, the condition of an average firm size below the regional average is met only by one town, Rimini. However, for the reasons already explained discussing the extent of the Barletta ID, not meeting this condition is not considered a sufficient reason for exclusion.

The Barletta ID, including the towns of Barletta, Trani, Andria and Biscglie, and the SMP ID, including San Manuro Pascoli, Rimini, Savignano and Gatteo, compare in 1981 as shown in table V.3.

Table V.3 The Barletta and SMP IDs, 1981

	Ws	Wm	Ap	Ws%Wm	Wm%Ap	S size	M size
	(000)	(000)	(000)				
Barletta ID	10	16	87	62.7	17.9	6.8	5.8
SMP ID	5	12	64	41.9	18.2	7.1	6.7

Keys as for table V.1.

The Barletta ID is clearly larger in terms of active population and workers in the industries of specialization - textile, leather, footwear and clothes, and rubber - and in manufacturing. However, while a very similar proportion of the active population of both IDs is employed in manufacturing, a considerably smaller proportion is employed in the industries of specialization in the North-Eastern case study, thus the SMP ID is less specialized than the Southern ID. As shown in the next section, the lower degree of specialization of the North-eastern ID is due to the presence of the engineering industry.

5.2.3 A comparison of the Barletta and San Mauro Pascoli IDs.

Having identified the territorial extent of the two IDs, this section compares the development and the size each has attained since the early 1950s.

As already mentioned, the emergence of both IDs is dated in the literature to the beginning of the 1950s. In both areas, the pre-existent handicraft tradition provided a

nucleus of skilled labour for the emerging industry. The presence of artisans in the footwear industry in Barletta dates back to the end of the 19th century. Local production of stocking soles and slippers with recycled materials and women's shoes developed in the inter-war period.²¹ A similar presence of shoemaking artisans is mentioned also for the SMP ID. However, while in the North-Eastern ID the shift from artisan to industrial production took place through the initiative of local entrepreneurs, in the Barletta ID, the industrial production started via subcontracting work from large firms outside the region such as Adidas, Dunlop and Pirelli-Superga (sports shoes). Only in the 1960s did local entrepreneurs begin independent production.²² A further difference in the emergence of the two IDs is that in the SMP ID, the shift from artisan to industrial production is said to have been gradual and it took place by using local capital made available through the strong links between the artisan and the agricultural sector.²³ Firms in the Barletta ID are said to have benefited from the Cassa subsidies, particularly grants extended to companies in the start-up stage, although self-financing remained the main type of finance used by those firms.²⁴

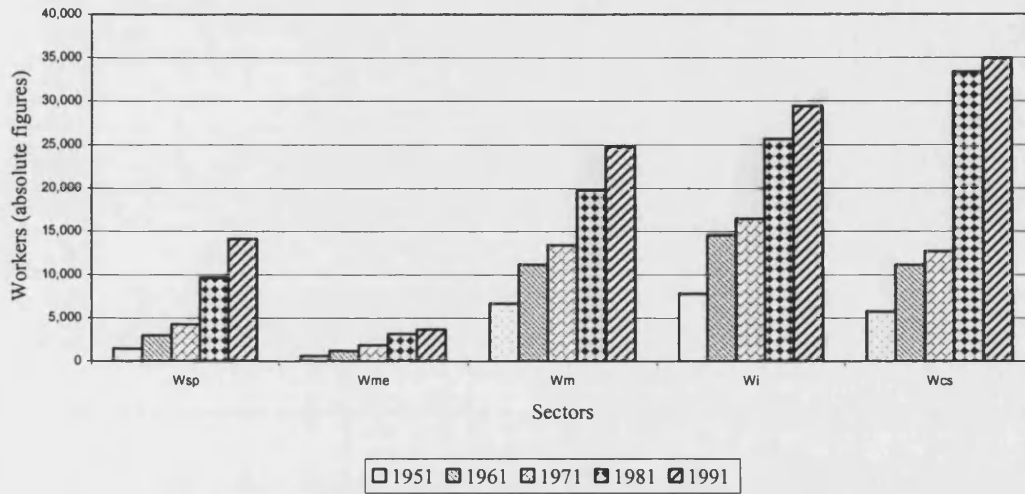
Graphs V.1 and V.2 below compare the size and development of the two IDs in terms of labour force since 1951. In addition to the industries of specialization the graphs include the engineering industry, as from 1981 this employed more workers than the footwear and clothing industries in the SMP ID.

²¹ Unioncamere, *Imprese ed istituzioni nei distretti industriali che cambiano* (Milan, 1995), p. 287.

²² Calistri, Garavini and Ciona, *La quarta*, p. 354.

²³ *Ibid.*, p. 240.

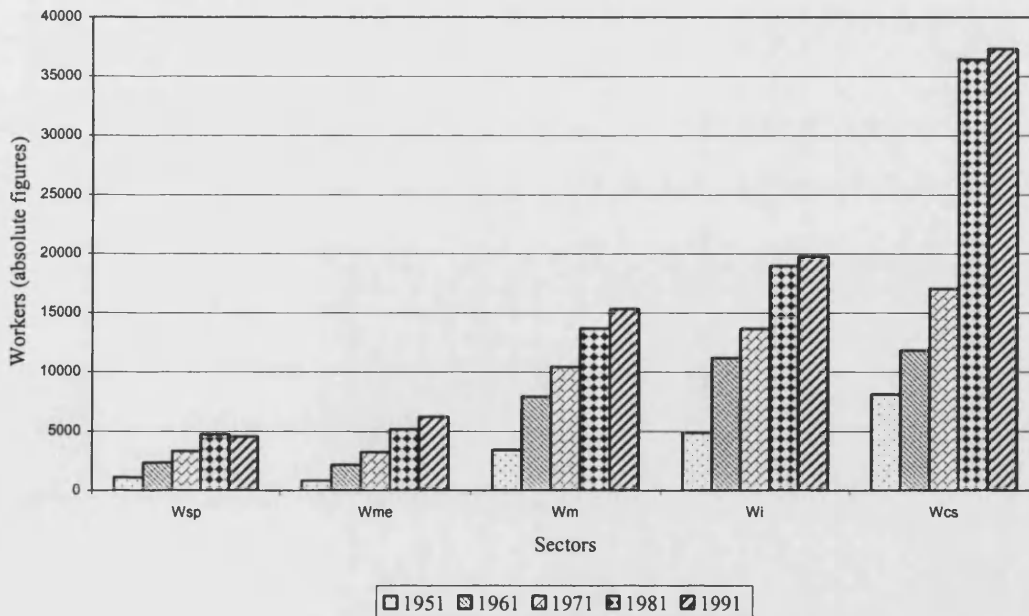
Graph V.1 Workers by sectors, Barletta ID, 1951-1991.



Keys : Ws = sectors of specialization 43) textiles, 44) leather, 45) shoes and clothing and 48) rubber, absolute figures; Wme = workers in the engineering industry; Wm = workers in manufacturing, absolute figures; Wi = workers in industry; absolute figures; Wcs = workers in commerce and services, absolute figures.

Source: Istat, *I censimenti delle attività produttive dal 1951 al 1991. Dati comunali*. CD-ROM (Rome, 1998).

Graph V.2 Workers by sectors in the SMP ID, 1951-1991



Keys and source as for graph V.1

Consistently with the figures presented in table V.3, graphs V.1 and V.2 show that the Barletta ID has a higher number of workers in industry, manufacturing and industries of specialization, whereas the SMP ID has since 1951, a higher number of workers in services, mainly in the city of Rimini. In the industries of specialization, the SMP ID presented since 1951 a smaller number of workers - 1,116 as compared to 1,465 in the Barletta ID. Employment in the two IDs increased at a similar rate in the 1950s and 1960s - in Barletta, it grew by 104% in the 1950s and 44% in the 1960s, while the corresponding figures for the SMP ID were 111% and 41%. On the contrary, a very dissimilar growth took place in the 1970s and 1980s, when a restructuring of the footwear sector took place in the SMP ID, which also coincided with an increasing growth rate in the engineering during the 1970s. Moreover, while the former lost employment in the 1980s the latter kept increasing the number of workers.

The development of the SMP ID reflects the crisis that affected the Italian footwear and clothing sectors. This had its roots in the increased cost of labour since the Hot Autumn in 1969 and the fourfold increase of the oil price and raw materials in 1973.²⁵ To these factors, others soon followed, such as the decrease in the European growth rate of consumption and the competition with the cheaper products of Far-Eastern countries, which in the 1980s moved towards the higher segments of the market by improving the quality of the raw material and manufacturing. In the EU, imports from the Far East in textiles, footwear and clothes represented 15% of total consumption in 1982, but rose to 30% by 1991.²⁶ Moreover, from 1979, when Italy joined the EMS, exporting companies could no longer rely on the devaluation of the lira to make their exports more competitive.²⁷

In the second half of the 1970s and in the 1980s, a restructuring of the footwear and clothing industries took place in the SMP ID. Firms involved in the production of low-medium quality shoes either failed or reduced their labour force, whereas firms

²⁵ Segreto, 'La storia', p. 388.

²⁶ P. Crestanello, 'La trasformazione in 10 distretti industriali durante gli anni '80', in: R. Varaldo and L. Ferrucci, *Il distretto industriale tra logiche di impresa e logiche di sistema* (Milan, 1997), p. 246; data from CEE, *Panorama dell'industria comunitaria Europea* (Bruxells, 1993).

²⁷ Rinaldi, *Distretti*, p. 176.

involved in the production of medium-high products emerged as the leaders in the sector. The crisis in the industries of specialization was such that from a situation of full employment until the early 1970s, the area witnessed unemployment in the late 1970s and 1980s, which particularly hit mature unskilled workers.²⁸

Other works have noticed the loss of employment in the specialization industries within IDs located throughout the country during the 1980s, and pointed out that this does not imply a deterioration of the performance of these IDs in terms of production.²⁹ Various explanations have been proposed for the general decreasing trend in the 1980s. In those IDs where the fragmentation of the production process had already taken place in the 1960s and 1970s, the establishment of new firms decreased in the following decade. In other cases, like Sassuolo (producing ceramic tiles in Emilia Romagna) and Montebelluna (producing sky boots in the Dolomites) technological innovation led to a rationalization of the production process and to a decrease in employment growth.³⁰ In particular, the loss of employment was experienced by older IDs that sub-contracted the less complex stages of the production process outside the area where the cost of labour was lower. Mainly, Southern IDs in footwear and clothing are held to have benefited from this process, which might also help explaining the growth of labour force in the Barletta ID in the 1980s.³¹ The labour force dynamics in the SMP ID, particularly the decreasing trend in footwear and clothing and the increasing trend in the engineering industry seem to confirm that IDs might develop more than one specialization, as observed by other works. An appropriate point in case is the Vigevano ID (footwear and engineering, in Lombardy), where alongside the original production of footwear, engineering firms developed in the 1970s, specializing in the production of equipment for the footwear industry.³²

The crisis of the footwear and clothing sectors had repercussions also in the Barletta ID. It was in this period that the largest firms of the area emerged as leaders and spearheaded a general increase in the quality of the local output. This was made

²⁸ Garavini, Calistri and Ciona, *La quarta*, pp. 240, 242.

²⁹ Brusco and Paba, 'Per una storia', pp. 288-290; Crestanello, 'La trasformazione', pp. 247-250.

³⁰ Crestanello, 'La trasformazione', pp. 250-258.

³¹ Brusco and Paba, 'Per una storia', p. 290.

³² Crestanello, 'La trasformazione', p. 253.

possible also by the introduction of new materials and equipment in the production process, such as the polyurethane and the 'giostra' (merry-go-around).³³ The largest expansion of the Barletta ID took place from the second half of the 1970s to the end of the 1980s, when leading companies expanded their range of products from sport shoes (mainly tennis and training shoes) to shoes for trekking and a broader range of casual footwear. Moreover, at the end of the 1970s and beginning of the 1980s, the ID experienced a period of high entrepreneurial spin-offs, with members of the family or former employees starting their own companies. The proliferation of firms in those years was also related to the progressive fragmentation of the production process, due not only to considerations of increasing productivity and cutting costs, but also to the limited managerial skills of entrepreneurs in Barletta, who were badly equipped to deal with a centralised production process and high volumes of production.³⁴

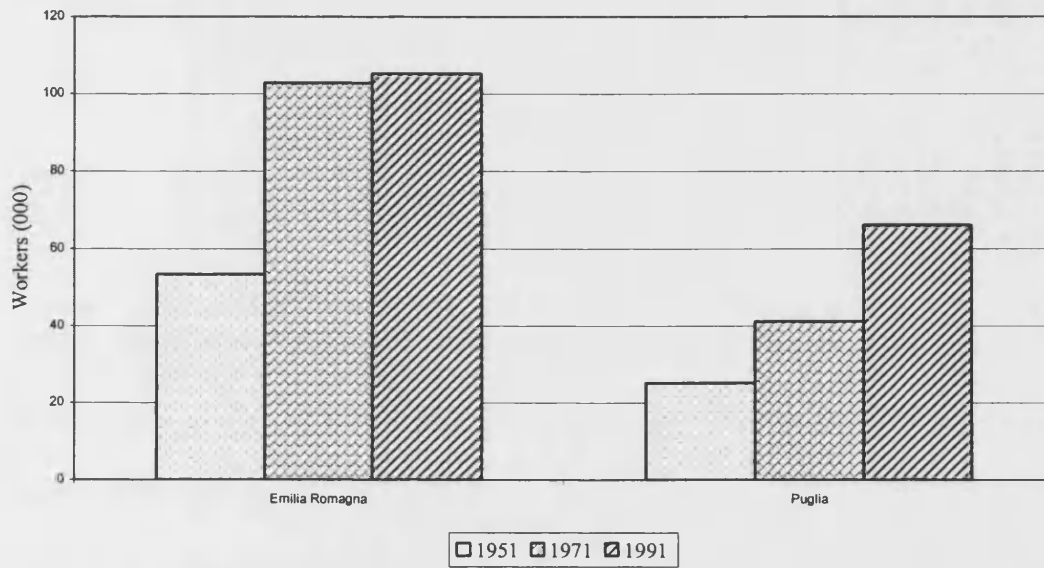
Moreover, the growth of employment in the Barletta ID reflects a much wider trend. A study has concentrated on the geographical location of the production of 'Made in Italy' including in this definition textiles, leather, footwear and clothing, and furniture.³⁵ The study shows that in the 1980s, employment in these sectors decreased throughout the country with the exception of the South, where there were fewer workers in these sectors, in absolute numbers, but where the sectors kept expanding in the 1980s. Moreover, a more geographically detailed analysis shows that the region where the increase in the 1980s was by far larger than everywhere else is Puglia, where the Barletta ID is located.³⁶ Graph V.3 below shows the size of the 'Made in Italy' in Emilia Romagna and Puglia.

³³ Garavini, Calistri and Cilona, *La quarta*, p. 356.

³⁴ Unioncamere, *Imprese ed istituzioni nei distretti*, pp. 288-290.

³⁵ Viesti, *Come nascono*.

Graph V.3 Workers in 'Made in Italy', Emilia Romagna and Puglia, 1951, 1971 and 1991



Source: Viesti, *Come nascono*, p. 51, data source Istat.

Graph V.3 does not show the employment trend in the 1980s, but it seems clear that the trend observed in the two IDs in the specialization industries is similar to the one taking place in their regions.

The table below compares the industrial development of the Barletta and SMP IDs with their respective macro-regions - the South and North-East.

³⁶ *Ibid.*, pp. 49-55.

Table V.4 Degree of industrialization of the Barletta and San Mauro Pascoli IDs, 1951-1991.

	Barletta ID	South	SMP ID	North-East	Italy
I51	0.21	0.20	0.34	0.30	0.33
I61	0.37	0.27	0.54	0.48	0.46
I71	0.40	0.34	0.60	0.61	0.55
I81	0.51	0.39	0.69	0.69	0.59
I91	0.45	0.37	0.62	0.69	0.56
M51	0.10	0.08	0.09	0.14	0.17
M61	0.16	0.09	0.19	0.22	0.22
M71	0.19	0.12	0.20	0.30	0.27
M81	0.23	0.14	0.21	0.33	0.27
M91	0.24	0.13	0.22	0.32	0.24

Keys: I= total industrial workforce/active population; M= workforce in manufacturing/active population; North-Eastern Italy includes the following regions: Trentino Alto Adige, Veneto, Friuli Venezia Giulia, Emilia Romagna; Southern Italy: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna.

Source : Istat, *Censimento dell'Industria*, 1951, 1961, 1971, 1981, 1991 and *Censimento della Popolazione*, 1951, 1961, 1971, 1981, 1991.

Throughout the whole period, the Barletta ID is less industrialized than its North-Eastern counterpart. However, when placed in the Southern economic context, the Barletta ID emerges as an area of higher industrialization, despite starting from the general level of industrialization in 1951. However, throughout the whole period it remained below the national average, reaching the national value of industrialization only in manufacturing in 1991.

On the contrary, the SMP ID does not stand out from the North-Eastern economic context. The ID shows a degree of industrialization very close to the regional average, which in turn means above the national average from 1961. The picture changes when looking at the manufacturing sector, where the SMP ID is below the North-Eastern and national average, indicating that other industrial sectors have greater weight in the SMP ID than in the North-East.

Conclusions

This chapter introduced the Barletta ID as the case study of the thesis, with a further consideration of the SMP ID for comparative purposes.

The first issue that needed to be addressed was the identification of the territorial extent of the two IDs. This exercise also offered a test for the two methodologies available and showed that the concept and indicator of specialization, if used by itself might be misleading in the identification of IDs. The combination of the indicator of specialization with that of concentration of the labour force in manufacturing, seems to be more effective and based on a theoretical solid ground. However, also the more recent methodology seems to be of limited use, as it does not capture exactly the municipalities that contribute to a greater extent to the economies of the SMP ID.

Although the emergence of the two IDs dates to the same period, the 1950s, throughout the period of analysis they attained diverse sizes, particularly in the industries of specialization. The development of the two IDs, in terms of labour force, differed considerably in the 1970s and 1980s, when a combination of factors made Italian exports in textiles, clothing and footwear less competitive. This situation led to a rationalization in the sectors of specialization in the SMP ID which also meant a lower growth of the labour force in those sectors in the 1970s and a net decrease in the 1980s. A similar process did not take place in the Barletta ID, where the second half of the 1970s and the 1980s are considered the years of fastest growth in terms of labour force.

The different development of the two IDs in the 1970s and 1980s reflects the varying geography of their industries of specialization, meaning the increasing employment in those industries in the South and the decreasing trend in the rest of the country. Although the growth of employment in these traditional industries is surely to be welcomed in an area heavily affected by unemployment like Southern Italy, it is possible that the expansion of labour force in the 'Made in Italy' and its contraction in the rest of the country, is yet another indicator of the Southern backwardness. The decrease in the labour force in these sectors might indicate a more efficient

organization of the production process, as suggested by those North-Eastern IDs that reduced their labour force without reducing their production.³⁷ Moreover, the competition from the Far East might have made the footwear and clothing sectors less profitable, particularly for those firms that were not able to rebuild their profit margins by reducing costs. These firms might have preferred moving to more profitable sectors rather than lowering their profits, which seems a possible rationale behind the faster growth of the engineering industry in the SMP ID. Therefore, the fiercer competition in the sectors of specialization and the wider choice of business opportunities might be behind the decrease of employment in the industries of specialization in the SMP ID, and in the North and Centre of the country.

In the South, the lower cost of labour and fewer alternative business opportunities might determine a situation whereby even companies facing declining profits prefer to remain in the same sector. In other words, entrepreneurs in the Barletta ID, and in the South, might not abandon traditional sectors even when facing declining profits because their opportunity costs are lower than for their colleagues located in the North and Centre of Italy.

The following chapters will focus on the sources of finance of companies within IDs, but the analysis of the companies in the two IDs might also offer insights into the different pattern of development of the two areas. In particular, the comparison of the performance of the companies in the two samples, on the basis of other information than mere employment, might provide a more accurate interpretation of the expansion of these traditional sectors within the Southern ID.

³⁷ Crestanello, 'La trasformazione', pp. 250-258.

CHAPTER VI

The Importance of the National and Regional Industrial Policies for the Barletta and San Mauro Pascoli Industrial Districts: an empirical analysis, 1951-1991.

Introduction

This chapter investigates the role of public sources of finance for the Southern ID of Barletta and the North-Eastern ID of San Mauro Pascoli (henceforth SMP). In particular, it assesses the quantitative importance of subsidies (soft loans, grants and fiscal subsidies) as compared with market finance and internal funds (internally generated funds and finance provided by partners). The study of the capital structure of companies within the two IDs seeks to disprove the general assumption that sources of finance alone were significant for the growth of small and medium-sized firms within IDs.¹

The hypothesis - that IDs can develop against the background of state subsidies as well as private sources of finance - has so far been analysed from the institutional perspective (chapters III and IV). The regional distribution of subsidies and market capital has shown that in the South, subsidies were a far larger source of finance than the market, whereas the opposite was the case in the North-East. This area consistently benefited least from subsidies to firms of any size, though not for soft loan schemes specifically targeting small and medium-sized firms.

After introducing the two case studies in chapter V, the present and the following chapters add the recipient perspective to the analysis conducted so far. The chapters are based on two samples of companies located in the Southern ID of Barletta and the North-Eastern ID of San Mauro Pascoli and seek to ascertain whether firms in the two areas developed through different sources of finance, i.e. public in the South and private in the Northeast.

¹ As already pointed out in the survey of the literature in chapter I, the importance of self-financing is often implicit in the mainstream literature on the emergence of IDs, such as Fuà and Zacchia, *Industrializzazione*; Bagnasco, *Tre Italie*; and is explained in full in Paci, *La struttura*, p. 118; Saba, *Il*

This distinction is not only indicated by the regional distribution of state and market finance but is supported by historical and contemporary studies on finance and industrialization, discussed in the first chapter.² These studies show that in backward areas the low levels of savings and the high risk might render private banking unviable. In this situation, the supply of capital requires the intervention of the State. On the contrary, in moderately backward areas where capital is scarce and diffused, market financial institutions that collect this capital and make it available to industry are of crucial importance to industrialization.

The chapter is structured in the following way. The first section presents the two samples, the size of the companies and the size of subsidies received by the companies. Within this context, particular attention is devoted to estimating the value of implicit subsidies within soft loans. The second section analyses the capital structure of the companies in the two samples thus addressing the key issue of the thesis, namely the importance of the public sources of finance as compared to private and internally generated finance.

Although the analysis developed in this chapter is based on a relatively small sample of companies (54 overall), it is, nevertheless, worthwhile. In the first place, it is a necessary complement to the macro analysis of the sources of finance, based on data published by the Bank of Italy and provided by the Ministry of Industry, which do not offer information on the size of recipient companies. The study of these two samples aims at focusing on the sources of finance of small and medium-sized firms. In the second place, the records of these companies enable us to address issues that other works³ based on much larger samples cannot tackle, thus making useful and interesting observations, never done before.

modello, p. 132.

² Gerschenkron, *Economic Backwardness*; Goldsmith, *Financial Structure*; Cameron, *Banking and Economic Development*; C.W. Calomiris and C.P. Himmelberg, 'Directed Credit Programs for Agriculture and Industry. Arguments from Theory and Facts', in: *Proceedings of the World Bank Annual Conference on Development Economics, 1993* (Washington, 1994), pp. 113-137; Calomiris and Himmelberg, 'Government Credit Policy'.

³ F. Siracusano and C. Tresoldi, 'Le piccole imprese manifatturiere nel Mezzogiorno: diseconomie esterne, incentivi, equilibri gestionali e finanziari', in: Banca d'Italia, *Il sistema finanziario nel Mezzogiorno, Contributi all'Analisi Economica* (Rome, 1990), pp. 103-143; Bagella and Caggese, 'Struttura', Bagella, Becchetti and Caggese, 'Financial constraints'.

The analysis presented in this chapter is based on companies' raw balance sheets, reclassified on purpose. Therefore, it has been possible to single out soft loans, and the implicit subsidy within those, from long-term borrowed finance as well as grants and fiscal subsidies from reserves. These distinctions are not possible for scholars working on reclassified balance sheets, made available by the institutions, because these do not provide such details. Moreover, the precise identification of subsidies allows the unveiling of new aspects such as the size of subsidies received and the frequency with which such subsidies were received.

Due to the limited number of companies in the sample, the results of the analysis are to be interpreted as indicative only. However, the comparison of the two ID samples with a larger sample analysed by a Bank of Italy study validates the main features and the differences born out by the two ID samples. This demonstrates that the two ID samples reveal - and enable the analysis of - important aspects of the Italian North-South divide.

6.1 Company samples

At various points in time, the first sample includes 32 manufacturing companies located in the Barletta ID in the South of Italy and the second sample includes 21 manufacturing companies located in the SMP ID in the North-East. The two samples provide a total of 680 observations – annual balance sheets – over time. 460 refer to Southern companies, with 221 for the North-Eastern sample. The Southern sample includes 12 companies involved in footwear production, nine in clothing, four in textiles, three in wood processing and production of parquet floors and furniture, three in food processing, particularly wine and flour and one in plastic and resins. The North-Eastern sample includes 10 companies involved in the production of footwear, three in clothing, two in leather items such as handbags, belts, wallets etc., one in the production of equipment for footwear plants, one producing paper and card boxes, one in the production of packaging and heels and one in the production of metallic chairs and furniture. For a detailed description of the samples see Appendix B.

The initial intention was to collect a random sample of at least 30 companies for each ID, starting with companies in the sectors in which the two areas are specialised namely footwear and leather goods, clothing and textiles (henceforth sp=sectors of specialisation), and within this group moving from the oldest companies and progressively expanding to the youngest. If 30 companies such could not be found, the samples would have been expanded to include companies in other manufacturing sectors (henceforth man1)⁴, starting with companies established at the earliest time and expanding to younger companies, to reach a number of 30 companies at least.

However, the scantiness of data was such that it was possible to collect the balance sheets of only 32 companies in the Barletta ID, held at the Chamber of Commerce in Bari, and only 21 companies in the SMP ID, held at the Chamber of Commerce in Forlì. The main problem is that these companies did not have public status or were not trading during the whole 1951-1991 period, as most were established as public or went public in the second half of the 1970s (in the Barletta sample) and in the 1980s in the SMP sample. The two samples were compiled collecting all available records of companies in the manufacturing sectors mentioned, the records of which started before 1984 in the case of Barletta, and before 1988 for SMP, as companies with records available after that date would offer too short a period of analysis.⁵

The North-Eastern sample is smaller because the SMP ID is smaller than its Southern counterpart, as table VI.1 below demonstrates. Moreover, it was not possible to collect data on companies located in the city of Rimini, as when these data were collected, Rimini had become an independent province and thus the records were moved from Forlì to Rimini itself.

Data referring to companies located in Rimini have been sought from the Centrale dei Bilanci, which provided data from four more companies (the maximum for

⁴ Including food processing, wood, furniture, paper, publishing, photography and rubber. Sectors such as metal and mineral processing, oil refining and construction have not been included.

⁵ The different closing dates for the collection of data are due to the availability of records. Having collected records of 32 companies in the Barletta ID it seemed unnecessary to collect records starting after 1984, which would offer only seven years of analysis. The smaller number of records available for the San Mauro Pascoli ID suggested the extension of the closing date to 1988.

external users), from 1984, when their database starts. However, these records have limited use. These balance sheets are not raw, having been reclassified by the Centrale dei Bilanci. Many details are thus not available, such as the distinction between subsidised and market long-term loans, between grants and fiscal subsidies and other reserves. Furthermore, the Centrale dei Bilanci does not collect the reports to the balance sheets, material that is important for the interpretation of the quantitative records. In addition, the Mediobanca was contacted in an attempt to expand the samples and in particular to cover the city of Rimini. Their database includes medium-sized and large companies with records starting from the 1960s. However, external users do not have access to their data.

Fewer observations are available for the Barletta ID in the 1950s and 1960s because fewer companies were trading in the ID in those years, but also because of technical reasons. The records of some companies that ended their trading activity before the mid-1970s are placed in an old repository closed for administrative reasons. This limitation could have been overcome by using the so-called 'Foglio Annunci Legali' (Fal), in which companies' balance sheets were published before 1973. After that date, public companies' balance sheets were published in the 'Bollettino Ufficiale Società per Azioni e Responsabilità Limitata'. The Fal was a quarterly publication, held at provincial and regional offices of the Ministry of Interior. The Bari office had a very scanty collection of the Fal for the 1950s and 1960s, so it was impossible to collect continuous records of any company. The same attempt for records in the San Mauro Pascoli area has not been done, as there was no problem in accessing old material at the Chamber of Commerce in Forlì'.

When companies are set up, they are entered into the so-called Register of Companies (Registro Società), which records their date of establishment, sector and legal status. Each company receives a unique archive number at the time of registration. These books were used to identify and locate the companies. At the Chamber of Commerce in Forlì the Register of Companies had been computerised thus making the identification faster and less prone to mistakes.

Table VI.1 compares the number of the companies in the two samples with the number of companies in the two IDs.

Table VI.1 Number of observations by periods of analysis, as compared to the total number of companies within the two IDs (average number of employees by plant in brackets).

	Barletta				San Mauro Pascoli			
	Sample	Census ^a	Sample	Census ^a	Sample	Census ^a	Sample	Census ^a
	Sp	Sp	Man1 ^b	Man 1 ^b	Sp	Sp	Man 1 ^b	Man 1 ^b
1951-56		830 (1.8)	1	1,727(2.6)	1 ^c	564 (2)		944 (2.3)
1957-65	1	1,044 (2.9)	2	2021 (3.7)	2	472 (5)		1016 (5)
1966-70	1		5		1 ^d			
1971-75	11	1,182 (3.6)	17	2090 (4.1)	1	436 (8)	3	948 (6.8)
1976-80	19		25		5		7	
1981-86	24	1,469 (6.5)	30	2552 (5.8)	15	693 (7)	17	1408 (5.9)
1987-91	21	2,039 (6.9)	25	6,393 (3)	14	657 (7)	16	1595 (5.4)

Keys: Sp= sectors of specialization= footwear and leather goods, clothing and textiles; Man 1= including food processing, wood, furniture, paper, publishing, photography and rubber. Sectors such as metal and mineral processing, oil refining and construction have not been included; a= Census data has been included where the census year falls within the relevant sub-period; b= including companies in sp; c= company NLa started its activity in 1956; d= 1966-67 only, as after that date company NDe went bankrupt.

Source: Company records and Istat, *Censimento dell' Industria*, 1951, 1961, 1971, 1981, 1991.

Table VI.1 shows that the two IDs contain a large number of companies, most of which are very small. A precise comparison based on the number of employees is not feasible, as companies in the sample give only occasional information about their workforce.

The paucity of available records is due to the small number of public companies (limited liability and public share), the only ones bound by law to deposit their balance sheets at the local Chamber of Commerce. The censuses of industry provide details of the legal status of companies only by province, not by towns. Therefore tables VI.2 and VI.3 display public companies in the province as a percentage of all companies and companies in the two IDs as a percentage of the provincial total.

Table VI.2 Public companies in Bari province and the Barletta ID

	% of public companies in the province				ID % province			
	Sp		Man 1		Sp		Man 1	
	Firms ^a	Employees ^b	Firms ^a	Employees ^b	Firms ^c	Employees ^d	Firms ^c	Employees ^d
1951			0.60 ^e	10.4 ^e	17.2	17	16.8	16.1
1961	0.2	7.4	0.53	9.8	19.1	22.5	18	20.5
1971	0.44	19.1	1	19.2	18.3	21.9	18.2	20.3
1981	2.8	14.45	3.3	21.2	29.2	38.5	25	28.1
1991	8.9	29.6	7.7	29.9	43.4	46.7	56.2	31.3

Keys: a= Public companies as % of total companies in the sector; b= Workforce employed in public companies as % of total workforce in the sector; c= Firms in the Barletta ID as % of firms in the province; d= Workforce employed in the Barletta ID as % percentage of provincial workforce; e= Manufacturing as a whole. Other keys as for table 6.1.1.

Source: Istat, *Censimento dell'Industria*, 1951, 1961, 1971, 1981, 1991.

Table VI.3 Public companies in Forlì province and the San Mauro Pascoli ID

	% of public companies in the province				ID % province			
	Sp		Man 1		Sp		Man 1	
	Comp ^a	Employees ^b	Comp ^a	Employees ^b	Comp ^c	Employees ^d	Comp ^c	Employees ^d
1951			1.2 ^e	13.9 ^e	20.5	20.9	19.8	17.9
1961	0.33	15.3	1.1	19.5	19.1	26.6	19.2	20.9
1971	0.98	20.2	2.2	20.5	22.2	30.9	19.4	23.4
1981	2.7	30.7	3.1	25.4	28	33	23.1	23.5
1991	6.2	39.3	5.9	31.1	30.5	34.7	23.9	23.2

Source and keys as for table VI.2.

Tables VI.2 and VI.3 demonstrate that public companies were a minority in the two provinces particularly until 1971, but are clearly very important in terms of employment. Thus, the samples should also capture a larger portion of the ID workforce than the sheer number of companies suggests.

The inclusion of public companies alone introduces some biases into the sample, particularly as regards capital structure. As figures in tables VI.2 and VI.3 imply, public companies are larger than the average, in terms of employment, in both provinces. Their larger size and their legal status might give them easier access to market capital and access to a wider range of types of finance, such as bonds, which can only be issued by public companies. Thus, market finance is likely to be higher for the sample companies than it would be for small and medium-sized companies as

a whole in the two IDs. This bias can be magnified by the computation of weighted averages, rather than a simple average. Nevertheless, weighted averages have been preferred in the analysis of the capital structure (tables VI.8 – V.10 and VI.13 – VI.15) as the purpose of the capital structure analysis is to offer a broader picture of the IDs. It thus seemed correct to allocate greater weight to the sources of finance of larger companies than, for instance, to those of a small start-up company.

The samples contain a further bias. Far more records in the Southern sample refer to the 1970s than in the North-Eastern counterpart, where more records refer to the 1980s. Considering that the 1980s saw more stable economic growth than the 1970s, the different extent to which the two decades are represented by the samples might affect the differences emerging from the comparison of the two samples. This is likely to happen when the comparison is not broken into sub-periods, as in table VI.4, which compares size and turnover of the two samples, and in the analysis presented in the following chapter. This bias does not affect the comparison of the capital structure and performance of the two samples in tables VI.9 – VI.10 and VI.13 – VI.15, as in those tables the overall period of analysis is broken into sub-periods reflecting changes in the regional policy, e.g. 1971-75, 1976-80, 1981-86, etc.

The table below shows the size, in terms of net capital stock, and the turnover of the companies in the two samples.

Table VI.4 Net capital stock and turnover of all firms in the samples, 1951-91 (m 1980 lire)

	Net Capital Stock		Turnover	
	Barletta	SMP	Barletta	SMP
Range	12-1,849	8-1,646	55-13,680	49-11,058
Average	464	307	1,788	3,101
Median	285	155	580	1,967
St deviation	478	418	2,895	3,350

Source: Company balance sheets.

Capital stock has been transformed into constant prices by using the index of annual gross investment in R. Golinelli and M. Monterastelli, *Un Metodo per la Ricostruzione di Serie Storiche Compatibili con la Nuova Contabilità Nazionale*, (Rome, 1990); for 1990 and 1991, the index of annual gross investment Istat, *Conti Economici Nazionali, Anni 1970-97*, (Rome, 1998); turnover deflated by using consumer price index, Istat, *Indice dei Prezzi al Consumo* (Rome, 1999).

Despite the larger dimension of the Southern companies in terms of fixed net capital, they are considerably smaller in terms of turnover. The largest Southern company, in terms of assets, also determines the upper limit of turnover. Without this company, the upper limit of turnover for Southern companies would amount to 8.5 bn. The lower limit of turnover in the SMP sample derives from one company that traded for 4 years, after which it went bankrupt. Excluding this company, the lower limit would be 236m lire.

Table VI.4 indicates issues that will be studied in detail in the following of the chapter, such as fixed assets representing a larger share of total assets in Southern companies. Furthermore, the smaller turnover values of the Southern companies also suggest lower productivity of capital, which is analysed with the appropriate indicators in the third section.

Table VI.5 Amount and Frequency of Subsidies, Barletta sample, 1959-91 (m 1980 lire)

	SL	IS ^a	Gr	FS
Range	535.5 - 0.7	255.5 - 0.4	616.2 - 1.5	28.3 - 0.04
Average	156.6	83.1	105.2	3.6
Median	110.9	62	50.5	2
St dev	129.2	69.8	127.8	5.5
Frequency ^b	10.3	10.3	6.5	10.9

Keys: SL= subsidised loans; IS= implicit subsidy; Gr= grants; FS= fiscal subsidy; a= approximate value of implicit subsidies in subsidised loans, computed applying Faini's formula, $S = L \{1 - [r_A(1+r_A)^N / (1+r_A)^N - 1] [(1+r_M)^N - 1 / r_M(1+r_M)^N]\}$, where: L= loan; r_M = market long-term interest rate; r_A = subsidised interest rate; N= length of the loan, see chapter II, p. 19; b= years of activity of companies divided by number of new subsidies received

Source: Company balance sheets.

Table VI.6 Amount and Frequency of Subsidies, SMP sample, 1974-91 (m 1980 lire).

	SL	IS ^a	Gr	FS
Range	250-7.3	138.3-2.4	20.3- 0.9	5.1- 0.2
Average	60.7	30.5	8.4	1.7
Median	39.6	15.5	9.3	1.1
St dev	62.6	35.1	7.1	1.7
Frequency ^b	16.3	16.3	42.4	35.3

Keys and source as for table VI.5.

Tables VI.5 and VI.6 display the total amount of subsidised loans and the approximate value of implicit subsidies, grants and fiscal subsidies received by the companies in the two samples. The starting dates are different and are dictated by the year in which companies in the two samples began reporting subsidies in their balance sheets.

The tables clearly show the considerable difference between subsidies received by firms in the Southern and North-Eastern sample during their trading life as public companies, not only in terms of size but also of the frequency with which such subsidies were extended, particularly in the case of grants. Grant schemes channelled far more funds to the South than to other areas of the country in the entire period of analysis, as shown in chapter IV.

The calculation of implicit subsidies, displayed in table VI.5 and VI.6, as well as in other tables below, entails a certain degree of approximation. In Faini's formula the implicit subsidy in soft loans is a function of the loan size, the redemption period and the market and subsidised interest rates. The size of the soft loan was clearly specified in the balance sheets, and the redemption period throughout the whole period of analysis remained constant, 15 years in the South and 10 years in the rest of the country (see Chapter III, section 3.2). The approximation arises from the values of market and subsidised interest rates used in the computation.

Various soft loan schemes carried different interest rates as shown in chapter IV, section 4.1, but company balance sheets rarely specify under which scheme they were receiving subsidised loans. Therefore, the subsidised interest rate used in the computation was calculated as an average subsidised interest rate for the region in each year.

In Chapter IV, section 4.1, three indicators of the market cost of long-term capital have been used: the interest rate on market medium-term credit, published by the OECD and available from 1966 to 1980;⁶ the reference rate, published by the Bank of Italy from 1976 to 1991;⁷ and yields on long-term government bonds published by the IMF for the whole period of analysis.⁸ The approximation in the calculation of the implicit subsidy arises from the fact that none of these indicators is available at the regional level, for it is likely that the market interest rate on medium-term credit was higher in the South, as in the case of short-term credit. Therefore, the use of any of the three indicators above is likely to underestimate the value of the implicit subsidy in soft loans to the Southern sample. Due to the continuous availability of the data, yields on long-term government bonds have been used in the computation of the implicit subsidy. Graph VI.3 below displays the trend of yields on long-term government bonds and the average subsidised interest rates of schemes available to Southern firms and firms in the North and Centre, for the overall period.

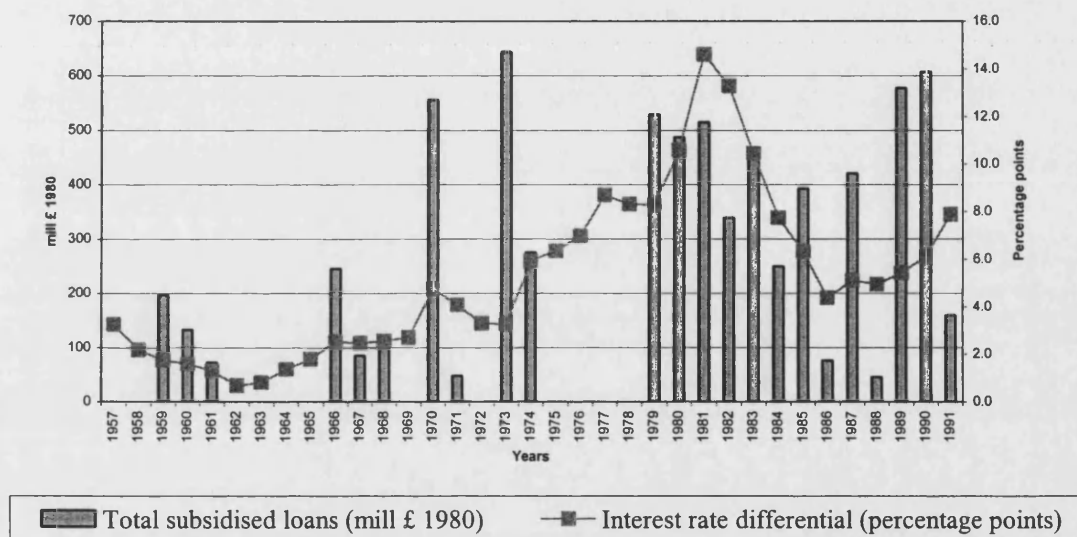
⁶ OECD, *Financial Statistics*, various years.

⁷ Banca d'Italia, *Bollettino*, various years. For the definition of the reference rate see section 3.2, I.

⁸ IMF, *International Financial Statistics*, various years.

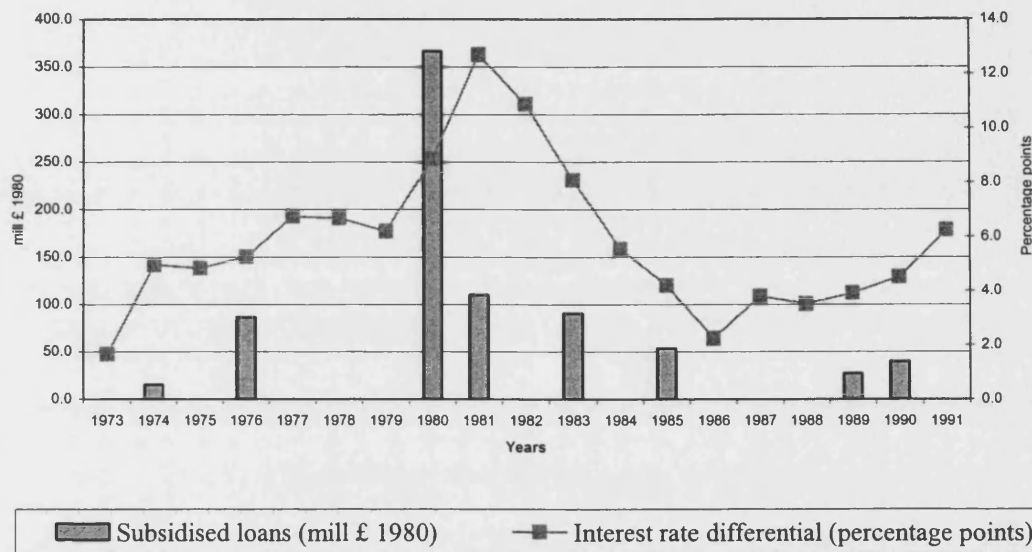
The percentage of implicit subsidies (the average implicit subsidy as a percentage of average subsidised loans in tables VI.5 and VI.6) in the two samples is very similar, amounting to 53% of the average subsidised loan in the South and 50% in the North-Eastern counterpart. The difference might be reduced by the use of yields on long-term government bonds, as mentioned above. However, it is also due to the distribution across time of subsidies in the two samples, displayed in the graphs VI.1 and VI.2 below.

Graph VI.1 Subsidised loans and interest rate differential, Barletta sample, 1957-91.



Key: interest rate differential = difference between national market interest rate on medium-term credit and average subsidised interest rate in the South, as displayed in graph VI.3 below.
 Source: Company balance sheets and tables IV.1-IV.15.

Graph VI.2 Subsidised loans and interest rate differential, SMP sample, 1974-91



Key: interest rate differential = difference between national market interest rate on medium-term credit and average subsidised interest rate in the Centre and North, as displayed in graph VI.3 below.

Source as for graph VI.1.

Graphs V.1 and VI.2 show that while subsidised loans to the Southern sample are more spread across time, subsidised loans in the North-Eastern sample are particularly concentrated in 1980, a year in which the differential between the market interest rate and the subsidised interest rate in the North and Centre was very high. Therefore, when calculating the implicit subsidy within total subsidised loans received by the companies over the whole period of analysis, the percentage is high in the North-Eastern sample due to the relative weight of soft loans and the implicit subsidy in 1980. The effect of the concentration of soft loans in 1980 is instead annulled when studying implicit subsidies by sub-periods, as in tables VI.9, VI.13 and VI.14.

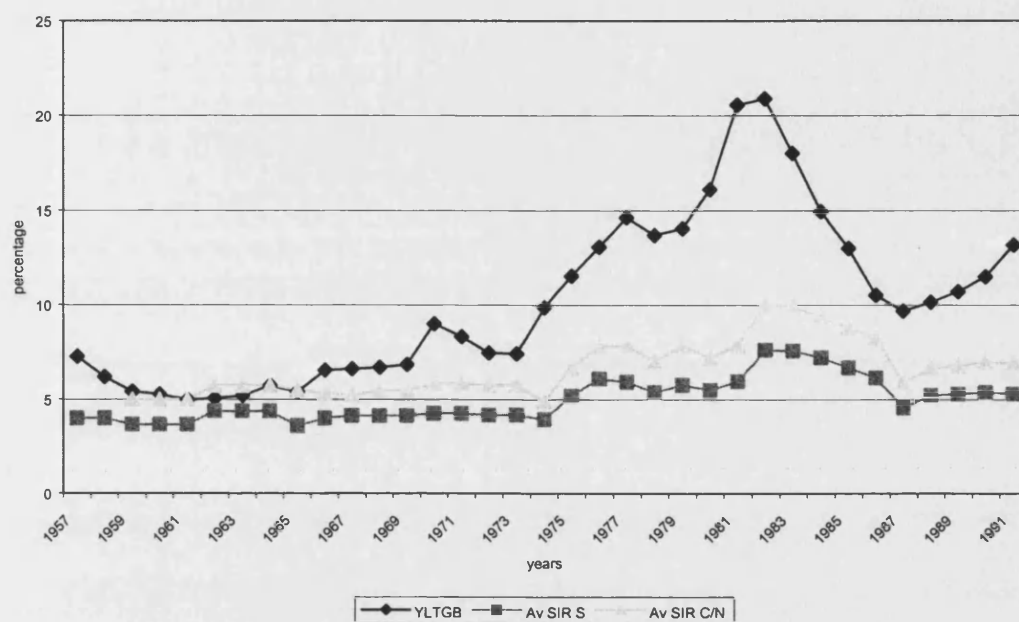
Table VI.7 Amount and Frequency of Subsidies, Barletta sample, 1976-91 (m 1980 lire)

	SL	IS ^a	Gr	FS
Range	423.6 – 0.7	248.8 – 0.5	616.2 – 1.5	28.3 – 0.04
Average	147	84.2	98.2	3.7
Median	111	68.1	42.3	1.8
St dev	114	65.2	126.4	5.6
Frequency ^b	11.1	11.1	5.5	8

Keys and sources as for table VI.5.

Comparing the overall period figures for the Southern sample with those referring to the 1976-91 period, in table VI.7 it is clear that the amount and frequency of subsidised loans slightly decreased, thus reflecting the 1976 turning point in the regional distribution of soft loans analysed in Chapter IV. However, when looking at the approximate value of the implicit subsidy it is clear that the percentage of implicit subsidy (the average implicit subsidy as a percentage of average subsidised loans in table VI.7) increased in the South, reaching 57%, due to the higher differential between market and subsidised interest rates after 1976 (see graphs VI.1 and VI.3). A similar comparison for the North-Eastern sample was not considered necessary as companies in that sample began receiving subsidies only in 1974.

Graph VI.3: Average subsidised interest rates and yields on long-term government bonds, 1957-1991.



Keys: YLYGB = yields on long-term government bonds; Av SIRS = average subsidised interest rate in Southern Italy; Av SIRC/N = average subsidised interest rate in the Centre and North.

Source: Tables IV.1 – IV.15.

The size of grants extended to Southern companies decreased in the 1976-91 period, but they become more frequent. Fiscal subsidies remain of equal size but they are more frequently extended to companies in the later period, clearly indicating that these subsidies were entirely or mainly concentrated in the 1976-91 period.

6.2 Analysis of the capital structure.

This section assesses the relative importance of the various sources of finance for companies in the two samples. In particular it compares the importance of subsidies and private sources of finance (market finance and internally generated funds). The section is divided into three sub-sections. The first describes the balance sheet indicators used in the analysis. The second provides an overview of the capital structure of the two ID samples and compares it with the capital structure of a sample of small manufacturing companies analysed by the Bank of Italy. The last sub-

section focuses on the difference in the capital structure of subsidised, non-subsidised and failed companies in the two ID samples.

6.2.1 Balance sheet indicators.

The analysis of the capital structure presented in tables VI.8, VI.9 and VI.10 aims to establish how the existing capital stock was financed.⁹ These tables include only those components of the balance sheets (tables VI.8 and VI.9) and financial ratios (table VI.10) that are important for the analysis conducted in the chapter. A more detailed capital structure analysis and description of the various sources of finance is included in Appendix B.3.

Long-term borrowed capital (including subsidised loans, long-term bank loans, bonds, leasing and long-term loans from partners, but not including contingency reserves, as explained in the Appendix) and equity are key elements of the analysis of the capital structure. These are the types of finance (long-term finance) that, according to conventional financial criteria, should be used to finance the purchase of fixed assets. Assets and liabilities should be kept in equilibrium according to their duration, as it would be risky to finance a long-term investment by a bank overdraft, which might have to be repaid at short notice.¹⁰ Moreover, these are the components of the balance sheet directly affected by subsidies, as soft loans belong to long-term borrowed capital, and grants and fiscal subsidies are included in the reserves, which in turn belong to equity. These components of the balance sheets will allow the analysis of the shortage of long-term capital in the South from a micro perspective. The shortage of long-term capital is one of the characteristics of underdeveloped areas that the regional policy, via incentives, intended to tackle, as it caused low investment in the South and represented one of the disadvantages of investing in the South.¹¹

⁹ S. Bond and T. Jenkinson, 'The Assessment: Investment Performance and Policy', *Oxford Review of Economic Policy*, 12/2 (1996), p. 12.

¹⁰ J. Harnold, T. Hope and A. Southworth, *Financial Accounting* (1985), p. 200.

¹¹ Siracusano and Tresoldi, 'Le piccole', p. 137.

Among current liabilities, short-term debts to banks and commercial debts have been taken into account. Short-term debts to banks should be used to finance assets with short-term life, according to conventional financial criteria, nevertheless they are of particular interest to this analysis as the literature points out that small companies are more reliant on short-term bank loans and overdrafts than large companies.¹² Moreover, due to the above-mentioned lack of long-term capital in underdeveloped areas, companies in the Southern sample might show an even higher reliance on short-term capital. For instance, some companies in the Barletta ID sample clearly state in their reports that short-term bank capital was used to finance investment, which happened particularly when their application for subsidies had already been approved but the subsidised loans and/or grants had not yet been extended. Thus, short-term bank capital was used to bridge the gap.¹³

Commercial debts, or accounts payable, are debts towards suppliers of goods and services. The transaction between a firm and its suppliers generates commercial debts, as services and goods purchased are paid after a certain period - an average 61 days in the EU, and 83 days in Italy. Thus, the size of commercial debts reflects the suppliers' credit policy and firms' business operations.¹⁴ In market practice, commercial debts are not considered proper debts as they do not bear any interest, but they have been included in the following tables as they represent a large share of the companies' liabilities in the samples.

In tables VI.8 and VI.9 equity capital has been broken down into its components - reserves and paid-up capital - as reserves are internally generated funds and represent a company's ability to self-finance, whereas paid-up capital includes finance provided by partners.

¹² *Ibid.*, p. 136; A. Cosh and A. Hughes, 'Size, Financial Structure and Profitability: UK Companies in the 1980s', in: A. Hughes and D.J. Storey (eds), *Finance and the Small Firms* (1994), p. 36.

¹³ Chamber of Commerce in Bari (henceforth CCB), company SRO, Report 1984; company SBI, Report 1974 and 1979.

¹⁴ L.M. Fraser and A. Ormiston, *Understanding Financial Statements* (5th ed., Upper Saddle River, 1998), p. 62; Astolfi and Negri, *Ragioneria applicata e professionale* (Milan, 1998) p. 150.

In the following tables, finance provided by partners (apart from paid-up capital) such as loans from partners and funds from partners (see Appendix B.3) have been reported as aggregated, for purely presentational reasons. As a key point in this analysis is to separate the various types of finance according to their origins (e.g. government, internally generated funds, market, etc.) it has been preferred to present loans and funds provided by partners in this way. However, loans from partners belong to long-term borrowed capital and funds to equity, which is where they have been included when computing long-term borrowed capital and equity. Detail on loans and funds separately are provided in the more detailed capital structure presented in the Appendix (tables B.3.1-B.3.7)

The analysis of the capital structure includes some ratios: equity capital divided by fixed net assets (E/FNA, where FNA is computed as total fixed assets minus total depreciation funds) and long-term capital divided by fixed net assets (LTC/FNA), to assess whether the company is in financial equilibrium. These ratios indicate the ability of companies to cover their fixed assets with owned capital and long-term capital respectively.¹⁵ Ideally, E/FNA - expressed as a percentage - should be well above 100%, as this would indicate that the company has financed its fixed assets with its own capital and more owned capital is available to finance further investment or to cover losses should these occur. The same applies to LTC/FNA, which should also be well above 100%, as if it was below this it would mean that the company has taken risks in financing its investment with short-term capital.¹⁶ Moreover, as these ratios are used in other empirical works¹⁷ they allow for ready comparisons.

The analysis also presents the ratio of fixed net assets to total net assets (FNA/TNA where TNA is defined as total assets minus total depreciation funds), used here as a proxy for capital intensity. The standard definition of capital intensity is the ratio of the amount of capital to the amount of labour, but as the records of companies in the

¹⁵ Siracusano, Tresoldi, 'Le piccole', p. 133.

¹⁶ E. Astolfi and L. Negri, *Ragioneria applicata*, pp. 242-243; Harnold, Hope and Southworth, *Financial Accounting*, p. 200.

¹⁷ Siracusano and Tresoldi, 'Le piccole'; Bagella, Becchetti and Caggese, 'Financial constraints'.

two ID samples provide scanty information about employment the ratio FNA/TNA has been adopted. This ratio is used together with the standard definition in other studies as measure of capital intensity¹⁸ and has been included in the analysis of the capital structure in order to address the controversial issue of the impact of subsidies on the capital intensity of Southern industry.

The relative importance of the various types of finance analysed in this chapter is assessed on the basis of company balance sheets. The use of such sources requires caution. Information disclosed in balance sheets and annual reports is directed to various parties such as shareholders, investors, government regulatory agencies and many others including employees and managers whose contracts might include incentives. Balance sheets as well as other information that companies might disclose are not necessarily unbiased and impartial as compared to information available to internal parties.¹⁹

Working on balance sheets of 54 companies spanning from 1951 to 1991 brought problems of standardisation of the records across companies and across time. The major change in the compilation of balance sheets occurred in 1975, when companies were given the legal possibility of revaluing their assets, until then recorded at their historical cost in the assets account.²⁰ The difference between the historical value of assets and their re-estimated value was to be recorded in a specific fund included in the depreciation funds. All companies in the samples adopted this new accounting method, but while the new accounting method affected the value of gross fixed assets, which is not used in the tables, it does not affect the computation of fixed net assets used in the analysis, as fixed net assets are defined as gross fixed assets (as recorded in the assets statement) minus depreciation funds, and investment as an annual increase in fixed net assets.

¹⁸ Siracusano and Tresoldi, 'Le piccole', pp. 121-124.

¹⁹ G. Foster, *Financial Statement Analysis* (2nd ed., Englewood Cliffs, 1986), pp. 2, 24.

²⁰ The re-estimated value was equal to the historical cost of the capital multiplied by 1.2, 1.3 and 1.4 depending on the year of the purchase of the equipment. Law 576/1975.

The reclassification of the balance sheets according to financial criteria was a fundamental stage in the process of rendering records comparable and examples are reported in Appendix B.2. The main problem in the standardisation of records across companies was represented by the accounting treatment of grants and government contributions towards the cost of equipment leased, which were simply another type of grants.²¹

There are two different approaches to the accounting treatment of government grants. According to the first, grants should be included in the profit and loss account as revenue, to match those expenditures to which they contribute. The second approach maintains that grants should be considered as a source of finance provided by the government, hence they should be included in the balance sheet as a non-distributable reserve.²² In Italy, both types of accounting treatment are allowed once the company has received the official approval of its grant application, but grants are taken into account for fiscal purposes only once they are actually received.²³ The majority of companies included in the samples retained their grants in the shareholders' equity as reserve, with a few cases (5 companies in one or two years each) in which they are credited to the profit account. In these cases they have been moved from the profit account and included in the equities as grant reserves. This choice seems to be more methodologically correct as grants represent capital invested in long-term assets and thus belong to long-term capital and more precisely to reserves as there is no obligation of repayment.

A similar problem of accounting treatment occurs with contributions on leasing, although these were a far less significant source of finance than grants (see Appendix, table B.3.7). Contributions on leasing are generally credited to profits and in a few cases considered as reserves. Like grants, these represent capital invested in

²¹ Contributions towards leasing were extended under scheme 1329/65 (see section 3.2, I). Grants together with subsidised loans were the main instruments of the regional policy for Southern Italy, and the various schemes that made them available are reviewed in Chapter III.

²² R. Lewis and D. Pendrill, *Advanced Financial Accounting*, (4th ed., 1994), pp. 89-90.

²³ Astolfi and Negri, *Ragioneria applicata*, pp. 166-167. This clear distinction between the accounting and fiscal treatment of grants clearly suggests that the delay between the approval of the application and the extension of the grant of it was well known and official.

fixed assets, and have therefore been included under reserves and designated as 'estimated reserves'.

The choice of including grants and contributions on leasing in profits rather than constituting reserves might seem difficult to explain considering that profit is taxed, whereas reserves constituted by subsidies are taxed only if distributed to partners, because in this case they would represent an income. However, the inclusion of subsidies in profits can be explained because if those companies had not done so, they would have incurred losses or much smaller profits, which could endanger their image as reliable and well performing companies, particularly with banks, but also with clients and suppliers.

6.2.2 Capital structure and capital intensity: an overview

The analysis of the capital structure covers the overall period 1951-91. It has been broken into sub-periods dictated by the changes in the industrial policy for the South, analysed in chapter III. The reason of this fragmentation lies in the attempt to identify possible changes in the capital structure of these companies, and particularly in the relative importance of subsidies, in relation to changes in the policy. Moreover, as not all 54 companies in the two samples traded or remained public from 1951 to 1991, this choice allows a clear identification of the number of observations available in each sub-period.

The analysis of the capital structure presents the weighted average of the various sources of finance. As explained above, calculating a weighted average has been preferred in order to give a broad picture of the overall capital structure of the two ID samples. The share in total liability of each source of finance (short-term bank loans, commercial debts, long-term borrowed capital, equity, loans and contributions by partners, paid-up capital) has been computed for each district in each sub-period using the following formula:²⁴

²⁴ J. Edwards and K. Fisher, *Banks, Finance and Investment in Germany* (Cambridge, 1994), p. 60. The authors use constant prices by adopting the capital goods price index, as their analysis covers the years 1950 to 1989 and is broken down into decades. As in this case the analysis is broken down into

$$\text{e.g. } 1951-56: \frac{\sum_{t=1951}^{t=1956} i_t^j}{\sum_{t=1951}^{t=1956} I_t}$$

Where i_t^j denotes the amount of finance of type j in year t , $I_t = \sum_{j=1}^n i_t^j$
(there are n different types of finance).

As mentioned above, data for the first two decades are very scant, particularly for the North-Eastern ID. The following table shows some data from the companies in the Barletta sample from 1951 to 1970, as they display features that are confirmed by the analysis of the following years.

Table VI.8 Barletta sample, balance sheet indicators, 1951-70 (%)

	Companies		STB	CD	LTBC ^c	IS ^d	E/FNA	LTC/FNA
	Subs ^a	NS ^b						
1951-56		1	58.1	1.7	0		24.5	24.5
1957-65	1	1	56.4	12.8	8.1 (8.07)	1.90 (23.5)	47.1	70.9
1966-70	4	1	43.1	8.4	12.6 (12.63)	5.42 (43)	75	103.9

Keys: a= Number of subsidised companies; b= Number of unsubsidised companies; c= of which subsidised loans in brackets; d= as a percentage of subsidised loans in brackets; E/FNA= Equities as a percentage of fixed net assets; LTC/FNA= Long-term capital (E+LTBC) as a percentage of fixed net assets, all other indicators as a percentage of total liabilities; STB= short-term bank loans; CD= commercial debts; LTBC= long-term borrowed capital; IS= implicit subsidy, approximate value computed as explained in keys to table VI.5.

Source: Company balance sheets

These selected data show that firms were highly indebted on the short-term credit market and considerably undercapitalized in financial terms. Their coverage of fixed net assets with internally generated funds (E/FNA) is very poor and they only manage to cover fixed net assets with long-term capital (LTC/FNA) in the last sub-period, with the substantial help of subsidised loans. Clearly, these firms were accessing the system of incentives, as four companies out of five received subsidised loans in the 1966-70 period. However, not one received grants in this period, for table IV.25 shows that from 1957 to 1965 regional grants were not as important as

shorter periods, the use of constant prices was not considered necessary, moreover the deflation of some components of the balance sheet such as long-term loans seemed far from straightforward.

they later became. Similarly, regional subsidised loans were not yet extensive, but there were national schemes alongside the regional one and it has already been shown that a very high share of Southern applications was accepted in these years (table IV.24). Table VI.8 shows that the implicit subsidy as a percentage of subsidised loans was much lower in the 1957-65 sub-period (when it amounted to 23.5% of subsidised loans) as compared to the 1966-70 sub-period (43%). This is because the differential between subsidised and market interest rate in the South was lower in the 1957-65 than in the 1966-70 sub-period (see graph VI.3 above). Moreover, the largest amount of subsidised loans was received in 1970, the year of highest interest rate differential in the two sub-periods (see graph VI.1).

The two companies available for the San Mauro Pascoli ID for those years were not subsidised.

Table VI.9 Barletta and SMP samples, balance sheet indicators, 1970-1991 (%).

Barletta sample	Companies		STB	CD	LTBC ^c	IS ^d	Reserves ^e	Partners	Paid-up
	Subs ^a	NS ^b							
1971-75	7	11	28.0	19.9	7.7 (7.74)	3.90 (50.4)	4.5 (3.3) ^f	6.2	22.3
1976-80	21	3	22.7	22.1	6.3 (3.16)	1.94 (61.4)	13.2 (7.9) ^f (0.1) ^g	6.0	20.1
1981-86	23	6	15.4	33.4	5.6 (4.26)	2.30 (54)	17.3 (6.3) ^f (0.4) ^g	5.7	12.2
1987-91	19	6	14.4	37.3	7.8 (3.95)	2.12 (53.7)	20.5 (8.3) ^f (0.7) ^g (0.1) ^h	2.2	8.1
SMP sample									
	Subs	NS							
1971-75	1	2	15.8	24.4	1.8 (0.62)	0.30 (48.4)	3.3	3.1	24.78
1976-80	3	4	13.5	27.5	2.1 (1.61)	0.84 (52.2)	4.6 (0.01) ^g	2.2	17.72
1981-86	9	8	6.3	25	5.7 (0.87)	0.38 (43.7)	14.6 (0.015) ^f (0.01) ^g	3	17.43
1987-91	5	12	6.3	23.5	5.8 (0.18)	0.07 (38.9)	24 (0.1) ^f (0.02) ^g	3.2	14.72

Keys: e= of which reserves built with subsidies in brackets; f= grants; g= fiscal subsidies; h= contribution on leasing (estimated reserve); other keys as for table VI.8.
Source as for table VI.8.

Table VI.9 demonstrates the greater reliance of companies in the Barletta sample on subsidies. Grants appear for the first time during 1971-75, a period when the Cassa doubled its expenditure on grants. It is also clear that subsidised loans decreased from 1976 whereas grants became increasingly important, broadly in line with the relative share of Cassa subsidies analysed in previous chapters (see table IV.25).

Southern firms display higher shares of long-term debts, mostly consisting of subsidised loans, whereas market long-term credit is a more important source of finance for companies in the North-Eastern sample. Therefore, it seems clear that companies in the Southern sample reach shares of long-term capital comparable to the North-Eastern sample only with the substantial help of subsidies, consistently with the regional policy's aim of increasing the availability of long-term capital in the South.

Throughout the 1971-91 period, the approximate value of the implicit subsidy within subsidised loans is, in percentage terms, higher in the South than in the North-East. This reflects the higher differential between the medium-term market interest rate and the average subsidised interest rate in the South, than in the Centre and North, (see Graph VI.3) and the longer redemption period.

The variation in the implicit subsidy percentage within each sample and across sub-periods is not affected by the redemption period, which remained constant throughout the whole period of analysis. The variations in the percentage closely reflect the fluctuations in the differential between market and average subsidised interest rates in the South and in the Centre and North, and the distribution across time of soft loans. For instance, the highest interest rate differential fell in the 1981-86 both in the South, and Centre and North of the country (see graphs VI.1 and VI.2), therefore 1981-86 should be the period characterized by the highest percentage of implicit subsidy. However, only a portion of soft loans was received by the companies in the two ID samples, in 1981 and 1982 when the differential peaked. A large part of soft loans was concentrated in the years between 1983 and 1985, when the differential was far smaller than in the 1976-80 period. Thus, the percentage of implicit subsidy in table VI.9 is lower in 1981-86 than in the 1976-80 sub-period.

Reserves are a key element in this analysis for two reasons. Firstly, reserves include grants, and secondly, they are built up with undistributed profits, hence reserves represent the company's ability to self-finance that is so strongly stressed in the literature about the emergence and development of industrial districts. For the 1971-75 and 1976-80 periods, companies in the North-Eastern sample show a low weight of reserves. This is due to the presence of start-up companies in these periods (two in 1971-75 and two in 1976-80). Moreover, the reserves of the largest company in each period were sharply decreasing while their fixed net assets were increasing, indicating that both were using reserves to finance investment. For the later periods, the higher percentage of reserves and the higher rates of return in the North-Eastern sample demonstrate a greater ability to self-finance by reinvesting profits, whereas Southern companies reached comparable percentages of reserves only with the considerable help of grants.

As mentioned previously in this chapter, commercial debts represent the single largest component of companies' liabilities. This is not surprising considering the long period over which companies can pay their suppliers. Between 1985 and 1987 Southern firms paid their suppliers after a period varying from a minimum of 60 days for the food processing sector, to 150 and 200 days respectively in clothing/textiles and the engineering sectors. In the same years, firms in the same sectors in the Centre and North paid their suppliers after 62, 130 and 190 days.²⁵ Therefore, the balance sheets of companies in the clothing/textile sector, which are relatively numerous in the Southern sample, include goods and services bought in the last five months.

²⁵ Siracusano and Tresoldi, 'Le piccole', p. 136.

Table VI.10 Barletta and SMP samples, balance sheet ratios (%)

Barletta sample	Companies		FNA/TNA	E/FNA	LTC/FNA	RR
	Subs ^a	NS ^b				
1971-75	7	11	53.0	63.0	80.9	-0.7
1976-80	21	3	39.5	95.1	114.3	5.5
1981-86	23	6	31.3	105.7	129.7	2.8
1987-91	19	6	29.8	100.4	130.0	3.6

SMP sample	Subs ^a	NS ^b	FNA/TNA	E/FNA	LTC/FNA	RR
1971-75	1	2	49.6	104.55	122.79	7.8
1976-80	3	4	19.0	140.02	158.76	5.6
1981-86	9	8	13.7	227.15	282.46	12.8
1987-91	5	12	18.2	203.86	251.36	9.3

Keys: FNA/TNA= fixed net assets divided by total net assets; RR= rate of return on long-term capital calculated dividing net profit by long-term capital, where long-term capital include long-term borrowed capital and equity. Other keys as for table VI.8.

Source: Company balance sheets.

The rate of return on long-term capital clearly shows the lower profitability of Southern companies in the sample (particularly low during 1971-75, mainly due to a large number of start-up companies), which can be explained in both micro- and macroeconomic terms. Southern small firms (20-100 employees) show a slower turnover of inventories (for the textile and footwear sectors -108 days in the South and 68 in the rest of the country) and a lower utilization of production capacity - a consequence of the more limited market in the South and smaller export opportunities.²⁶ Southern industry was thus unable to exploit scale economies internal and external to the firm, whereas firms located in more developed areas of the country enjoyed a better potential to exploit such economies.²⁷ In addition, Southern companies did not exploit economies of specialization, as the Southern manufacturing sector relied far less on the division of the production process between various firms.²⁸ This makes firms less profitable as the various stages of a

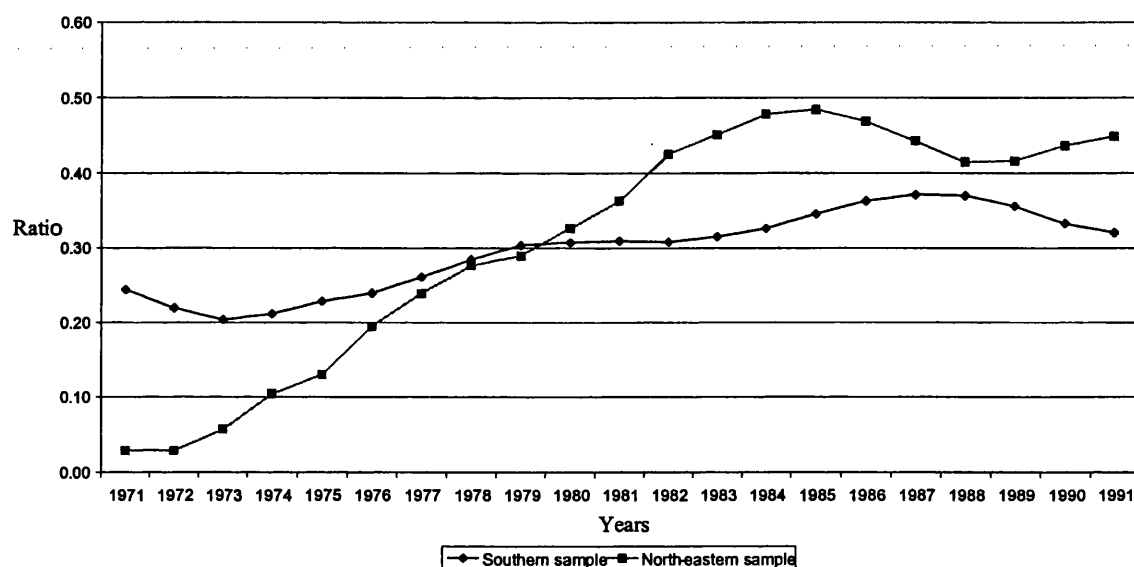
²⁶ *Ibid.*, pp. 113-119 and 125-127.

²⁷ Rossi and Toniolo, 'Italy', p. 430.

²⁸ A. Giannola, 'Mezzogiorno, Industrializzazione e Imprese', in: Banca d'Italia, 'Il Sistema Finanziario nel Mezzogiorno', special issue of the *Contributi all'Analisi Economica* (Rome, 1990), p. 181.

production process are unlikely to be uniformly efficient.²⁹ Furthermore, the possibility that the lower productivity of Southern companies could be due also to the use of more obsolete equipment cannot be ruled out, contrary to the claims of some authors.³⁰ Graph VI.4 below clearly shows that in the 1980s, North-Eastern companies in the sample -which were then enjoying particularly high rates of return - were replacing their equipment more quickly than their Southern counterparts.

Graph VI.4 Depreciation rate, 1970-1991 (weighted average, moving average 3 years).



Source: Company balance sheets.

The comparison between the two IDs in table VI.9 demonstrates that Southern companies have a high share of short-term debts and a much lower share of long-term debts, represented mainly by subsidised credit. Considering the lower ratio of long-term capital to fixed net assets in table VI.10, and considering the lower interest rate on long-term loans (see section 4.1), the heavier reliance on short-term credit seems to indicate an 'unsatisfactory' availability of long-term credit.

²⁹ The theoretical foundations of this argument are in Stigler, 'Division of Labour'; and A. Leijonhufvud, 'Capital and the Factory System' in: R.N. Langlois and P.L. Robertson, *Firms, Markets and Economic Change. A Dynamic Theory of Business Institutions* (1995), pp. 203-223.

³⁰ Siracusano and Tresoldi, 'Le piccole', p. 110.

If the level of savings in the South represented the main constraint to the availability of credit, there should be shortages of both short-term and long-term credit. From the mid-1950s levels of savings increased considerably in the South, due to public transfers and remittances from migrants, to the extent that from 1965 the Southern balance of payments was close to equilibrium (from 1951 to 1964 the deficit reached 10% of the Southern GDP).³¹

Studies of the 1962-1980 period have shown that on the long-term market there were periods of both capital outflow from and inflow to the South between 1962 and 1972, whereas from 1974 to 1980 (with the sole exception of 1977), there was a growing outflow of long-term capital from the South towards other areas of the country.³² The Southern economy is riskier for the banking system and even though the Italian banking system is fragmented in both geographical and market terms,³³ there are no limitations to the circulation of capital, therefore savings collected in the South can be more safely invested in the rest of the country.³⁴ This phenomenon is less pronounced on the short-term credit market, as local banks possess a much better knowledge of local companies. The entrepreneur is also a depositor at the local bank and has a continuing business relationship with it. Instead the contact between small or medium-sized firms and medium-term credit institutions (henceforth MTCIs) is occasional, with the institution assessing the project having little knowledge of the company.³⁵ Moreover, the higher level of fixed assets might make the long-term lending institutions sceptical as to the profitability of new investment in fixed assets. On the other hand, despite the difference in interest rate small companies might

³¹ A. Fazio, 'Credito ed attività produttiva nel Mezzogiorno', Banca d'Italia, *Bollettino Economico*, n. 5 (1985), p. 28.

³² F. Marzano and A. Murolo, 'The Role of the Credit System in the Development of Southern Italy: a Few Critical Observations', *Journal of Regional Policy*, 5/1 (1985), pp. 52-53.

³³ As explained in section 3.1.1 and Appendix A, from the Bank Reform Law of 1936 until the wave of privatisation started in 1992-93, the Italian banking system was fragmented geographically, meaning that banks could operate on a smaller or wider territory according to the size of their deposits. It was also fragmented in market terms as banks could collect and lend money on the short-term market only (less than 1 year) and MTCIs, could collect and lend money on the medium/long-term market only (more than 5 years). The two markets are closely connected, as banks are among the establishing partners of the MTCIs and finance them by purchasing MTCIs bonds.

³⁴ D'Amico, Parigi and Trifilidis, 'I tassi'.

³⁵ Faini, Galli and Giannini, 'Finance', pp. 199-200.

prefer an overdraft from the local banks rather than a medium-term loan from institutions as the second option involves collaterals and bureaucratic procedures.

The balance sheet ratios of the two samples highlight a key issue: fixed net assets represent a higher percentage of total net assets for companies in the Southern sample (FNA/TNA). Therefore, although they reach a comparable level of long-term capital, their 'need' for long-term capital is not satisfied, and companies in the Southern sample remain in an extremely fragile financial equilibrium (1980s) or even undercapitalised (1970s). This is shown by the equities and long-term capital as a percentage of fixed net assets (E/FNA and LTC/FNA).

These results can be compared with those of a 1987 Bank of Italy study of a sample of 9,000 small manufacturing companies.³⁶ This sample includes 650 companies located in the South of Italy and 8,350 in the rest of the country. As the Bank of Italy study presents simple averages the figures of the two IDs samples have been recalculated in the same way. It is possible to compare only some figures because the Bank of Italy study presents a less detailed capital structure of companies. In particular, it does not separate grants from reserves and paid-up capital, therefore only the total figure of equities could be compared, and it does not separate subsidised loans from market medium-term credit. Therefore, the same figure (LT loans = subsidised + market long-term loan) has been calculated for the two samples.

³⁶ *Ibid.*, pp. 103-167.

Table VI.11 Comparison between the Barletta and San Mauro Pascoli samples (1987-91) and Bank of Italy sample, 1987 (simple average)

	Barletta sample		SMP sample		Bank of Italy	
	Average	Median	Average	Median	South	North/Centre
FNA/TNA	33.2	33.5	21.7	15.1	35.7	25.5
STB	17.1	14.4	10.6	6.2	16.3	15.5
Bonds	0.45	0	1.5	0	0.8	2.5
LT loans	4.73		3.06		9.6	5.6
LTBC	10.4	6.4	10.4	3.3	13.3	10.5
E	35.2	32.6	32.3	27.4	34.7	27.3
LTC/FNA	218	135	234	270	163.4	200.7

Keys: a= Includes Bonds, LT loans, leasing and loans from partners, other keys as above.

Source: Company balance sheets and Siracusano and Tresoldi, 'Le piccole imprese', pp. 155-156.

The Bank of Italy study confirms the overall picture presented by the two ID samples. In particular, two key issues consistently displayed by the small samples are validated: the higher percentage of fixed net assets to total net assets and the smaller coverage of fixed net assets with long-term capital displayed by the Barletta sample. The values presented by the ID samples obviously differ from those of the national study, but what seems to be more important is that differences between the ID samples are confirmed by the Bank of Italy sample. This demonstrates that such differences are not accidental, and that the two ID samples, though small, highlight key issues in the study of the North-South divide.

If the percentage of fixed net assets to total assets is considered as a proxy for capital intensity, both the two ID samples and the Bank of Italy sample indicate that Southern small firms are more capital intensive. The Bank of Italy data allows the verification of this point on the basis of the appropriate indicator, i.e. fixed assets divided by number of employees.

Table VI.12 Capital Intensity in Small Firms, 1985 and 1987.

	South		North/Centre	
	1985	1987	1985	1987
Basic industry (metal processing and chemicals)	108.7	136.3	81	100.6
Mineral processing	105.8	128.6	81.6	95.7
Mechanic industry	61.4	72.3	48.6	58.7
Automotive vehicles	59.7	95.6	53	61.4
Food processing	107.2	138.2	94.1	109.4
Textile	77.4	97.8	58.8	73.8
Clothing, leather and footwear	29.7	32.8	25	31.6
Wood and wooden furniture	72.6	75.2	50	60.8
Paper and publishing	80	87.4	67	83.2
Rubber and plastic material	93.4	116.4	66.7	85.3
Total	71.9	85.4	54.5	66.6

Note: Capital intensity defined as gross fixed assets divided by number of employees; small firms defined as those employing 20 to 100 workers.

Source: Siracusano and Tresoldi, 'Le piccole imprese', pp.127, 159; data from Centrale dei Bilanci.

The higher capital intensity is a well known feature of Southern industry and is usually interpreted as a result of the dominance of capital-intensive industry, determined by private large companies and state-owned enterprises in sectors such as steel, chemical and oil refining.³⁷ In turn, this interpretation maintains that subsidies to capital (financial incentives) were beneficial to large companies rather than to small firms.³⁸ The higher capital intensity of small, traditional firms, suggested by the two ID samples and demonstrated by the Bank of Italy sample (table VI.11), belies the common perception and casts doubts on the allegedly minor impact of subsidies on the capital of small firms.

The higher percentage of fixed net assets displayed by Southern small firms is interpreted by supporters of the regional policy as a consequence of underdevelopment, as more resources are needed to produce the same amount of

³⁷ See for instance V. Castronovo, *Storia Economica d'Italia* (Turin, 1995), p. 433.

³⁸ Siracusano and Tresoldi, 'Le Piccole', p. 125.

output.³⁹ Therefore, incentives to invest have allowed Southern companies to endow themselves with the required level of fixed assets, beyond the level that their own capital would have allowed, which is in line with the purpose of the policy.

Critics of the regional policy interpret the higher level of fixed assets as a distortion caused by financial incentives, which lowered the relative cost of capital.⁴⁰ Supporters claim that this distortion has been mitigated by subsidies aiming to reduce the cost of labour, introduced from 1968,⁴¹ and estimate that labour subsidies reduced the cost of labour by 15%-20%, compared with a reduction of 40% caused by subsidies to capital.⁴² This estimate is very general, with no specific reference to period, sector or size of recipient firms. Moreover, it does not seem to strengthen the supporters' point as the difference in the reduction of the cost of factors seems considerably in favour of capital.

The overview presented in tables VI.9, VI.10 and VI.11 has pointed to some important differences in the capital structure of companies within the Southern and North-Eastern samples. Firstly, subsidies represent a more important source of finance for the former, both in relative and absolute terms. Secondly, companies in the Southern sample have a larger share of their total assets frozen in fixed assets. Thirdly, companies in the Southern sample have a lower coverage of their fixed assets with long-term capital.

6.2.3 Subsidised, non-subsidised and failed companies: differences in the capital structure.

The previous section provided a broad view of the capital structure of the two samples. In this section, each sample has been divided into three groups - subsidised, non-subsidised and failed companies. This is in order to analyse whether the capital structure of subsidised companies differs in any significant way from the

³⁹ Del Monte and Giannola, *Istituzioni Economiche*, p. 286.

⁴⁰ Siracusano and Tresoldi, 'Le piccole', p. 112.

⁴¹ Subsidies to labour consisted of relief from social security taxes, for details see Leccisotti, Pace and Sica, 'Incentives'.

other two groups, and whether subsidised firms attain higher levels of capitalization in financial terms, not only because of the direct effect of subsidies but also because these might have a crowding in effect on market capital.

Whether or not subsidies facilitate the access to market capital is an important issue not only for companies located in underdeveloped areas, where the shortage of capital is a factor hampering growth, but also for firms located in developed areas, where due to capital market imperfections firms might be experiencing difficulties in accessing it. Due to asymmetric information - meaning when borrowers have better information than lenders - it might be difficult for investors to identify good projects as well as control lenders' deceptive behaviour, therefore bad investments might receive financing and good ones might not, or credit could be mispriced and rationed. In this environment the wealth of the borrower, i.e. the firms' ability to self-finance makes a considerable difference. If a company finances its own investment project it increases the confidence of outside borrowers and reduces the cost of external finance.⁴³

As briefly mentioned in section 2.1, government credit can be an effective mechanism for correcting capital market failures. In developing countries or regions, tax-financed banks can address the problem of insufficient concentration of capital, which renders private sector banking unviable.⁴⁴ In industrialised countries or regions, the government can work as an 'initial lender', which could crowd in private funds as the government would assume the cost of monitoring, and the longer redemption period of government credit would provide a 'senior' status to private

⁴² Del Monte and Giannola, *Istituzioni Economiche*, p. 285.

⁴³ Calomiris and Himmelberg, 'Directed Credit Programs', p. 114.

⁴⁴ *Ibid.*, pp. 122-123.

credit.⁴⁵ On the other hand, soft loan schemes may crowd out private credit if they target the best borrowers thus simply underbidding market credit.⁴⁶

⁴⁵ Calomiris and Himmelberg, 'Government Credit Policy', p. 4.

⁴⁶ *Ibid.*, p. 24.

Table VI.13 Barletta sample, 1971 -91: balance sheet indicators

	Comp	STB	Cd	LTBC ^a	IS ^b	Reserves ^c	Partners	Paid-up
Subsidised								
1971-75	7	24.9	16.0	12.4 (12.39)	6.25 (50.4)	6.2 (5.3) ^d	7.7	21.8
1976-80	19	22.7	21.1	7.2 (3.64)	2.24 (61.5)	14.3 (9) ^d (0.2) ^e	4.7	21
1981-86	22	14.9	34.7	6.1 (4.58)	2.47 (53.9)	18 (6.9) ^d (0.4) ^e	5.4	12.1
1987-91	17	14.3	37.5	8.4 (4.41)	2.37 (53.7)	22.2 (9.4) ^d (0.8) ^e (0.2) ^f	2.2	7.2
Non- subs								
1971-75	13	35.1	26.2	0.1		1.6	3.8	22.6
1976-80	12	24.6	27	0		5.2	12.6	15.6
1981-86	8	15	29.6	0		11.6	3.3	13.3
1987-91	6	13.2	37.9	3.1		8.3	2	14.7
Failed								
1971-75	1	14.2	27.2	0		3.6	0	27.5
1976-80	4 (1B)	10.5	39.3	0		13 (7.6) ^d	21.3	10.1
1981-86	7(3B)	22	20.4	3.5 (3.35)	1.78 (53.1)	12.3 (2.2) ^d	11.7	12.7
1987-91	4 (1B)	31.8	13.3	6.9 (6.87)	3.48 (50.6)	4.5	10.9	16.6

Keys: a= of which subsidised loans in brackets; b= as a percentage of subsidised loans in brackets; c= of which reserves built with subsidies in brackets; d= grants; e= fiscal subsidies; f= contribution on leasing (estimated reserve); STB= short-term bank loans; CD= commercial debts; LTBC= long-term borrowed capital; IS= approximate value of implicit subsidy computed as explained in keys to table VI.6; Failed: includes figures referring to the last five years of activity of bankrupt and liquidated companies. The number of bankrupt companies is given in brackets.

Source: Company balance sheets

Table VI.14 San Mauro Pascoli sample, 1971-91: balance sheet indicators.

	Comp	STB	Cd	LTBC ^a	IS	Reserves ^b	Partners	Paid-up
Subsidised								
1971-75	1	28.4	27	1.9 (1.92)	0.93 (48.4)	8.7	----	2.2
1976-80	4	13.2	32.2	2.8 (2.14)	1.12 (52.3)	3.4 (0.01) ^d	1.7	21.7
1981-86	8	3.9	24.2	7.9 (1.25)	0.54 (43.2)	11.2 (0.02) ^c (0.02) ^d	2.9	22.1
1987-91	5	2.8	27.5	9.8 (0.60)	0.24 (40)	19.8 (0.3) ^c (0.07) ^d	----	17.9
Non- subs								
1971-75	3	9.8	23.2	1.8		0.7	4.5	35.5
1976-80	4	13.6	30.1	0		13.6	9.2	12.2
1981-86	10	7.6	25.9	2.3		20.9	2.5	11.5
1987-91	10	7.9	21.7	4.1		26.1	4.7	13.2
Failed								
1971-75	----	----		----		-----	----	----
1976-80	1 (B)	14.8	60.1	0		0	0	0.5
1981-86	4 (2B)	21.7	29.0	1.3 (1.33)	0.53 (39.8)	17.5	5.2	10.1
1987-91	3 (1B)	6.9	27.2	0		17.6	3.9	34.2

Keys and source as for table VI.13

In the present case, subsidies appear to have a crowding-in effect as both samples show that subsidised companies access long-term market finance to a greater extent than the non-subsidised ones (indicator LTBC). The more detailed analysis of the capital structure, presented in Appendix B, tables B.3.4-B.3.7, shows that long-term market capital is mainly represented by bonds and to a smaller degree by long-term bank credit.

As tables VI.13 and VI.14 show, failed companies in both samples display some subsidies. In particular two companies in the Southern sample (Ser and Sal) had received grants and two (Ser and Sil) had received soft loans, whereas only one company in the North-East (Nvi) has a soft loan in its liabilities. The lower percentage value of the implicit subsidy in the case of failed companies does not imply a selection against companies about to fail, as the lower value is simply due to the fluctuations of the interest rate differential. For example, the implicit subsidy of failed companies in the North-Eastern sample in the sub-period 1981-86 represents only 39.8% of the subsidised loans whereas the percentage displayed by the subsidised group is 43.2%. The difference is due to the fact that failed companies were subsidised only in the years 1983 and 1985, whereas firms in the subsidised group received soft loans also in 1981, when the interest rate differential was considerably higher than in 1983 and 1985 (see graph VI.2). A similar explanation applies to the differences in the percentage of implicit subsidies between failed and subsidised companies in the Barletta sample.

It is surprising that companies about to close their activity could still benefit from soft loans and grants. In the case of the North-Eastern company it is not possible to assess whether such soft loans were old loans or whether they had been extended a few years before the bankruptcy as the records available for the subsidised company Nvi only cover the last five years of its activity.⁴⁷ In the case of Southern companies it has been possible to assess that soft loans and grants had been received before the last five years of activity, nevertheless this raises some questions. The three

⁴⁷ Chamber of Commerce in Forlì (henceforth CCF), Company Nvi, Sentenza di Fallimento del Tribunale di Forlì, 28/5/87; the company became public in 1983 and went bankrupt in 1987. For full

companies that benefited from soft loans and grants (Ser, Sil and Sal) had been performing extremely poorly long before than their last five years of activity. Ser traded from 1969 until 1985 and made modest profits in three years only: in 1969 (0.3m lire), 1973 (2m) and 1978 (2m), while in the remaining years it made equally modest losses, with the exception of 1982-85 when it made considerable losses that led to bankruptcy in 1986. This story is very similar to that of the other two subsidised companies. The three companies cannot be said to have received subsidies when they were performing well and their liquidation or bankruptcy would have been unpredictable.

Of course, examples like these cast serious doubts on the management of the subsidies, particularly as to whether they were used to bail out troubled firms, which was not the official purpose of the policy. On the companies' side the possibility of accessing subsidies even when performing badly might have encouraged the choice of keeping the company trading even though it was no longer profitable, particularly if this option was coupled with low opportunity costs, meaning a scarcity of job alternatives and business opportunities.

Failed companies also present a high percentage of short-term bank capital, particularly in the Southern sample. This is not surprising considering that failed companies generally present higher levels of leverage⁴⁸ and the inability to meet their financial commitments is one of the causes of failure. This situation on the borrower's side corresponds to a high-risk situation on the lender's side. Research has shown that in 1988, Southern short-term banks, which lent 80% of their credit in

archival reference to all company records quoted in this thesis see the list of primary sources in the bibliography.

⁴⁸ W.H. Beaver, 'Financial Ratios as Predictors of Failure', *Journal of Accounting Research*, 4: Supplement, *Empirical Research in Accounting: Selected Studies in 1966* (1966), p. 82.

the region, faced a risk (bad loans as a percentage of total loans) as high as 11.3%, whereas banks in the Centre and North of the country faced a risk of only 6.6%.⁴⁹

⁴⁹ D'Amico, Parigi and Trifilidis, 'I tassi', p. 331.

Table VI.15 Barletta and SMP samples, 1971-91: balance sheet ratios.

	Barletta sample					SMP sample				
	Comp	FNA/TNA	E/FNA	LTC/FNA	RR	Comp	FNA/TNA	E/FNA	LTC/FNA	RR
Subsidised										
1971-75	7	62.2	57.8	81.2	-0.9	1	37.2	62.6	73.6	18.1
1976-80	19	40.6	95	113.7	5.8	4	20.3	128.9	142.2	7.3
1981-86	22	30.1	111	136.3	4.3	8	16.2	196.2	253.3	11.1
1987-91	17	30	102.3	133.1	4.2	5	18.8	194.6	245.3	6.6
Non- subs										
1971-75	13	36.2	75.8	79.1	0.04	3	54.4	115.7	135.8	6.2
1976-80	12	28.5	113.4	117	6.6	4	8.2	355.8	483.6	-4.12
1981-86	8	33.1	85.5	85.7	1.1	10	9.9	306.7	352.2	19.5
1987-91	6	27.2	86.3	103.5	3	10	18	208.1	254.5	10.6
Failed										
1971-75	1	56	89.3	89.3	-72 (-9.9)*	-----	-----	-----	-----	-----
1976-80	4 (1B)	49.6	49.6	95.4	-9.4 (-1.4)*	1 (B)	0.8	91.7	91.7	-5,713.6 (-390.6)*
1981-86	7(3B)	46.1	69.7	95.1	-15 (-13.8)*	4 (2B)	7.8	358.9	438.2	0.33 (1)*
1987-91	4 (1B)	42.2	67.8	113	-43.2 (-43.2)*	3 (1B)	27.7	201.4	201.9	5.8 (10.7)*

Keys: FNA/TNA= Fixed net assets as a percentage of total net assets; E/FNA=Equities as a percentage of fixed net assets; LTC/FNA=Long-term capital (E+LTBC) as a percentage of fixed net assets; RR= Rate of return on long-term capital, calculated as profit or loss divided by long-term capital; * = RR calculated considering the whole trading life of failed companies.

Source as for table VI.13

Despite receiving subsidies, which by definition increase a company's long-term capital, subsidised companies in the two samples do not reach values of capitalization, in financial terms, consistently higher than non-subsidised companies (indicators E/FNA and LTC/FNA in table VI.15). The higher value of capitalization reached by North-Eastern non-subsidised companies is due to the high percentage of reserves and contribution by partners. In the Southern sample, the relationship between subsidies and financial capitalization is less clear. Overall, subsidised firms are more capitalized than non-subsidised, with the exception of the second half of the 1970s, in which considerable contributions were provided by partners, and the first half of the 1970s when neither subsidised nor non-subsidised companies managed to cover their fixed assets with long-term capital. However, although it could be argued that the Southern sample suggests that subsidies made firms more financially capitalised, it is evident that even subsidised companies in the Southern sample are considerably distant from the degree of capitalisation reached by their North-Eastern counterparts.

In both samples subsidised companies present higher values of fixed net assets as a percentage of total net assets, thus indicating that in both areas subsidies are associated with a higher level of fixed capital, even though this is much more pronounced in the Southern sample. The key difference is that a higher percentage of fixed net assets coupled with shortage of long-term capital determine undercapitalization in the Southern sample, whereas due to the availability of long-term capital for companies, particularly reserves, in the North-Eastern sample, this does not generate undercapitalization.

Failed companies in the Southern sample differ strikingly from their North-Eastern counterparts. The former are financially distressed, as they present very high losses and very high levels of undercapitalization. This is not the case for North-Eastern failed companies, with the only exception of the 1976-80 sub-period, for these were still overcapitalized and making profits.

Clearly, Southern companies cease their activity only after a long period of losses, as shown by the rate of return on long-term capital calculated for the whole trading life.

They find themselves in this situation for various reasons, either because of an excessive number of employees that cannot be reduced because of the opposition of trade unions to the restructuring plan,⁵⁰ or because their use of fixed assets is inefficient, and thus their production cost is so high that they cannot achieve good profit margins. In order to achieve a good margin of profits they should sell their goods at a price that would be too high for the market.⁵¹

At the opposite end, North-Eastern companies decide to close as soon as their turnover and profits are decreasing and the footwear market does not seem to be offering better opportunities in the foreseeable future.⁵² The rate of return on long-term capital calculated for the whole trading life of failed companies supports the qualitative evidence, with the sole exception of the 1976-80 period in which the records available refer to only one company, which was declared bankrupt in 1981.⁵³

The comparison of the Barletta and SMP IDs in chapter V pointed out the very dissimilar growth of the two IDs in the 1980s, when the Barletta ID kept expanding its labour force in the industries of specialization whereas the SMP contracted it. It was argued that one possible explanation might be that Southern companies would not abandon the sector even when experiencing decreasing profits due to the lack of business alternatives, whereas firms in the SMP might be facing higher opportunity costs, and would shift to more profitable industries. The difference between the distressed conditions in which firms in the Southern sample cease their activity, as opposite to the profitability, although low, displayed by their North-Eastern counterparts seems to support this interpretation.

This key difference should be reflected in a higher number of companies going bankrupt in the Southern sample, which does not happen. Out of the nine Southern companies ceasing their activity, only three went bankrupt and six liquidated their activity deliberately, whereas out of the six companies ceasing their activity in the

⁵⁰ CCB, Company Ser, Report to the balance sheet 1984 and 1985.

⁵¹ CCB, Company Smo, Report to the balance sheet 1979 and 1980.

⁵² CCF, Company Nro, Report to the balance sheet 1986; Company Nel, Report to the balance sheet 1992.

North-Eastern sample three went bankrupt. It seems plausible that in order to avoid the legal procedure of bankruptcy, which would lead to financial and possibly legal consequences, partners refinanced the company with 'contributions' immediately before starting the procedure of liquidation, as the considerable share of funds provided by partners in table VI.13 suggests. The 'apparent' exception of the 1971-75 sub-period is due to one company (Sma). This started the liquidation procedure in 1977 and as late as 1976, partners had financed the company (the contribution by partners was 95m current lire, representing 20% of the total liabilities of the company and equal to 70% of the company's equities).

Conclusions

The empirical analysis conducted in this chapter has pointed out the considerable number of small and medium-sized companies that benefited from subsidies both in the Southern and North-Eastern sample: 26 out of 32 in the South, and 11 out of 21 in the North-East. These figures contrast with studies claiming that the raising of the size limit for eligibility for incentives in the South in 1962 diverted the system of incentives from its original purpose of developing small and medium-sized companies in the South.⁵⁴ Consistently with this claim, other works maintain that Southern small and medium-sized companies developed independently from the system of incentives.⁵⁵ On the contrary, the high number of subsidised companies in the Southern sample is consistent with studies supporting that there is no evidence that small and medium-sized firms in the South were disadvantaged in accessing the system of incentives.⁵⁶

The capital structure of the two ID sample clearly indicate that the established understanding of the sources of finance within IDs is severely limited and state subsidies cannot be neglected in explaining the development of IDs in the whole country. Consistently with the regional distribution of subsidies (Chapter IV) these

⁵³ CCF, *Sentenza di Fallimento del Tribunale di Forlì*, 9/4/1981.

⁵⁴ Dunford, *Capital*, p. 149; Conti, 'Industrialization', p. 126.

⁵⁵ Lizzeri, *Mezzogiorno*.

⁵⁶ Faini, 'Incentivi', pp. 321-326.

represent a far larger source of finance for companies in the Southern ID than for their North-Eastern counterparts, which is due to various factors. Subsidised loans, grants and fiscal subsidies extended to companies in the Southern sample were not only extended more frequently, but were also larger in absolute terms, for the various subsidised schemes, reviewed in Chapter III, consistently gave more generous subsidies to Southern firms. Moreover, subsidies have a larger relative weight in the Southern companies' capital structure as the other components are smaller, as compared to the North-Eastern counterparts.

The capital structure of companies in the North-Eastern ID confirms only partly the received wisdom that such companies finance themselves exclusively with private finance. Internally generated funds and finance provided by partners represent a larger source of finance in the 1980s, but North-Eastern companies made also use of market finance and subsidies, although to a smaller extent.

The comparison of the two ID samples highlighted interesting differences between Southern and North-Eastern companies, and these differences are confirmed by the larger Bank of Italy sample. In particular, the two ID samples and the Bank of Italy sample reveal that Southern small firms in traditional sectors, are more capital intensive than similar firms located elsewhere in the country. The higher capital intensity of Southern small firms has passed unnoticed in the general literature on the Italian economic history, which highlights the higher capital intensity of Southern industry as a whole, interpreting it as due to the greater relative weight of large state-owned plants in capital-intensive sectors.

The higher capital intensity of Southern small companies, interpreted in specialized works either as an achievement of, or a distortion caused by, subsidies, indicates a non-negligible impact of subsidies on the capital of small firms. However, the two ID samples show that the higher endowment with fixed capital generates greater financial requirements for Southern firms, requirements that are not met. This means lower levels of capitalization in financial terms. Subsidised companies in the North-Eastern sample present a larger share of fixed assets as compared to non-subsidised, but they are not undercapitalized due in particular to the availability of reserves.

Further achievements and failures of the system of incentives were indicated by the two ID samples, where subsidised firms display larger shares of market credit in their liabilities. If the suggested crowding-in effect can be accredited to the successes of the policies, that is not the case for subsidies extended to companies on the verge of failure, which cast doubts on the management of subsidies, particularly in the South.

CHAPTER VII

The effectiveness of the national and regional industrial policies for the Barletta and San Mauro Pascoli Industrial Districts, 1951-1991.

Introduction

This chapter investigates the role of public subsidies in the investment activity and overall performance of the recipient companies. The previous chapter showed the greater importance of subsidies, as a source of finance for the companies in the Southern sample. However, nothing has been said so far on the effectiveness of subsidies on the overall performance of recipient companies and on their investment activity, for promoting investment was the direct aim of the subsidies in the framework of the regional and national industrial policy.

The analysis conducted so far has highlighted positive effects of the subsidies and casts doubts on their management, but offers no firm ground to make inferences about the effectiveness of the policy. The possibility that the policy was ineffective cannot be ruled out. If subsidised firms seem to enjoy no particular benefits in comparison with non-subsidised firms, it could be inferred that the policy was ineffective. In the case of better financial indicators displayed by subsidised firms, it might be argued that the policy generated dependency and that firms could perform well only when subsidised. This would be an undesirable outcome, resulting from subsidies breaking the nexus between the firms' performance and efficiency, which in turn entails the permanent capture of government funds and in extreme cases the bailing out of troubled firms.¹ Moreover, dividing the companies into just two groups - subsidised and non-subsidised - can hide some interesting differences. After all, the non-subsidised group includes companies that were not subsidised in the specific sub-period but were subsidised a few years later, companies that had been subsidised in previous years, and companies that were never subsidised.

¹ Calomiris and Himmelberg, 'Government Credit', p. 5.

In this chapter, the effectiveness of subsidies is assessed by analysing companies at various stages of their life cycle, i.e. before receiving subsidies, while being subsidised and after receiving subsidies, and comparing them to companies that were never subsidised. This analysis, although suggested in the literature, has never been undertaken as published studies are based on large number of records referring to two or three years only, and the only information available about subsidies is whether or not any individual company was subsidised in those two or three years.² Therefore, it is not possible to compare companies' performance at various stages of their life. The two ID samples have been constructed with companies' raw records across time, therefore it has been possible to identify the precise time when subsidies were received and divide the trading life of recipient companies accordingly, thus revealing new insights in the effects of subsidies on recipient companies.

The chapter is structured in the following way: the first section ascertains whether there is a correspondence between subsidies on one side and investment and performance of the firms on the other side, by looking at various indicators. The second section assesses whether government subsidies were 'crucial' to these firms, i.e. whether they made profitable investment/companies that otherwise would have been unprofitable, by looking at the rate of return of such companies.

7.1 The effectiveness of subsidies

This section examines the effectiveness of subsidies for the development of firms in the two samples. The first sub-section presents three studies that have addressed similar issues, using two different methodologies. Two studies adopt econometric techniques, but their analysis has not yielded clear results.³ The second methodology focuses on the effects of subsidies on the profitability of recipient companies.⁴ This methodology is more appropriate to the quality of the data used in this chapter, and allows the analysis of not only whether subsidised firms were more profitable but also whether the profitability of recipient firms depended upon such subsidies.

² Bagella and Caggese, 'Struttura'.

³ Faini, 'Incentivi'; Faini, Galli and Giannini, 'Finance'.

⁴ Bagella and Caggese, 'Struttura', pp. 813-837.

The second sub-section deals with the assessment of the effectiveness of the subsidies on companies in the two ID samples. It applies the second methodology and broadens the focus of the analysis to include the investment activity of the firms, their profitability (as subsidies lowering the investment cost should increase companies' profits), and two other issues highlighted by the analysis of the capital structure, namely capital intensity and financial capitalisation.

7.1.1 The literature on the effectiveness of subsidies.

Previous works have addressed the issue of the effectiveness of subsidies in stimulating investment in Southern Italy by using econometric tools. A work by Faini uses data provided by the Cassa per il Mezzogiorno, referring to subsidies extended to and investment undertaken by Southern Italian companies employing more than 20 employees, between 1970 and 1979. The number of observations in the data set is not specified and data deals only with investment projects involving the establishment of new plants, excluding those involving the expansion of existing plants.⁵

The model used to estimate the impact of subsidies on investment decisions is based on the assumption that companies operate in a regime of imperfect competition, i.e. monopolistic competition and oligopoly⁶ and using a putty-clay technology.⁷ The approach adopted by the study, assuming that the desired level of capital depends on the output, cost of capital and the user's cost of capital, stems from the neo-classical tradition.⁸ The equation estimated is based on the Cobb-Douglas production function, where output is determined by inputs of labour and capital:

⁵ Faini, 'Incentivi', pp. 320-321.

⁶ R.G. Lipsey, *An Introduction to Positive Economics* (7th ed, 1989), pp. 234, 237.

⁷ Putty-clay technology means that the ratio of capital to labour is determined by the initial investment and cannot be significantly varied. Lipsey, *Introduction*, p. 620.

⁸ D.W. Jorgenson and C.D. Siebert, 'Comparison of Alternative Theories of Investment Behaviour', *American Economic Review*, 58 (1968), pp. 696-697.

$$\ln I(t) = a_0 + a_1 [\ln Y(t-1, t) - \ln Y(t-2, t-1)] + a_2 \ln Y(t-2, t-1) + a_3 \ln (Q_E(t-1)/W(t-1)) + a_4 [\rho(t-1) - \gamma(t-1)] + a_5 t + u_1(t)$$

where $[\ln Y(t-1, t) - \ln Y(t-2, t-1)]$ is the desired output at time t based on the expectations at time $t-1$ $[Y(t-1, t)]$ minus the output capacity already existing at time $t-1$ $[Y(t-2, t-1)]$, which was in turn based on the expectations at time $t-2$. The desired level of output has been previously estimated as the function of the expected cost of factors and demand, as expected in the previous year. The one-year lag is consistently taken into account in the estimations to allow for the time gap between the investment decision and the beginning of production with the new equipment. $(Q_E(t-1)/W(t-1))$ is the cost of capital discounted by subsidies divided by the cost of labour; $\rho(t-1) - \gamma(t-1)$ is the real interest rate obtained as difference between ρ , nominal interest rate, and γ wage inflation. t is the time trend.⁹ The cost of capital has been discounted by subsidies dividing the cost of the investment by the coefficient of subsidies. In turn, the coefficient of subsidies was computed by summing up the implicit subsidy in subsidised loans and grants received by the companies, and dividing the sum by the amount of the investment approved by the Cassa, as explained in chapter IV. The equation was estimated using the fixed effect model and gave the results displayed in table VII.1 below.

Table VII.1 Output, relative cost of factors and investment, 1970-1979.

Fixed effect, dependent variable: $\ln \text{Inv}_t$

	$\ln Y(t-1, t) - \ln Y(t-2, t-1)$	$\ln Y(t-2, t-1)$	$\ln (Q_E(t-1)/W(t-1))$	t	cons
Coefficient	.50	.60	-.39	-.10	-.55
T statistics	(4.3)	(1.6)	(1.6)	(3.7)	(1.9)

$R_2 = .15$

Note: The author does not specify the number of observations and discarded the real interest rate as not statistically significant. Faini controlled for variations between industries with the use of industrial sectors dummies. Therefore, for each industrial sector Faini's model estimated separate intercept terms. Because the author does not specify the definition of each dummy, i.e. which dummy relates to which industry, the intercept terms have not been reported here.

Source: Faini, 'Incentivi', p. 330; dataset provided by the Cassa per il Mezzogiorno.

Clearly the explanatory power of the equation is extremely limited and the key variable - the relative cost of capital, discounted by subsidies, and labour - displays

the correct sign but is not significant at the 5% confidence interval. Therefore, this analysis indicates that the reduction in the cost of capital caused by the subsidies has a very weak effect on companies' investment decisions, and there is insufficient evidence to infer either a positive or a negative effect as regards the issue of the effectiveness of subsidies in promoting investment.¹⁰

Another recent work concentrated on the relationship between sources of finance, cash flow in particular, and investment in small firms located in Southern Italy.¹¹ These firms being riskier than their counterparts located elsewhere in the country are supposed to be at a disadvantage for long-term and short-term credits, therefore their investment depends on their ability to self-finance. Moreover, the risk-taking attitudes of Southern firms may be exacerbated by the availability of subsidies bringing about a cautious attitude by local banks.¹²

The work is based on a sample of 149 small Southern firms (where firms are defined as small if their sales amounted to 1-10 billion lire in 1982), a subset of a sample of 2,132 located in the whole country and covering the years 1982-1987. It estimates an equation based on an unrestricted investment function using as explanatory variables output growth, the real cost of capital, the availability of cash-flow and debts.¹³ Clearly, this study is merging the neo-classical approach with the liquidity approach to investment, in which the desired level of capital is a proportion of the flow of internal funds.¹⁴ It wants to test whether cash-flow effects on investment are more significant for riskier firms, meaning Southern firms, thus applying the recent stream of works on financial constraints, cash flow and their effects on investment to the study of the Italian regional issue.¹⁵

⁹ Faini, 'Incentivi', p. 327.

¹⁰ *Ibid.*, p. 335.

¹¹ Faini, Galli and Giannini, 'Finance', pp. 158-214.

¹² *Ibid.*, p. 194.

¹³ *Ibid.*, p. 195.

¹⁴ Jorgenson and Siebert, 'A comparison', pp. 694-695.

¹⁵ The milestone work of such approach is S.M. Fazzari, R.G. Hubbard and B.C. Petersen, 'Financing Constraints and Corporate Investment', *Brookings Papers on Economic Activity* (1988), no. 1, pp. 141-195.

Table VII.2 Cash flow and Investment (149 Southern small firms), 1982-1987.

Dependent variable I/Y	$(I/Y)_{t-1}$	Ccap	Y'	$(B/Y)_{t-1}$	$(K/Y)_{t-1}$	$(CF/Y)_{t-1}$
Coefficients	0.5	-0.2	0.2	-0.007	-0.334	0.5
T statistics	2.5	-1.3	3.4	-1.8	-4.3	1.8

Wald $X^2 = 30.82$ (6)Sargan $X^2 = 11.1$ (11)

Keys: I= investment; B= financial debts; Y (Y')= sales (growth rate); CF= cash flow*DUMR; ccap= cost of capital; DUMR= dummy variable for high-risk firms; K= capital stock. Number in parenthesis after X^2 tests are degrees of freedom.

Source: Faini, Galli, Giovannini, 'Finance and Development', p. 195. Data source: Company Accounts Data Service.

From this evidence, the authors conclude that cash flow affects riskier firms' investment to a greater extent. Such projects should be characterised by high returns, otherwise the firm would not be willing to finance them internally, and therefore it is likely that despite having profitable investment projects, Southern firms cannot undertake them for the lack of self-financing capability.¹⁶

This conclusion is puzzling, as it is not clear whether by 'riskier' firms they mean Southern firms as a whole as compared to those located elsewhere in the country, or 'riskier' firms within their Southern sample. If the first were true, the work would fall short of a comparison with companies located elsewhere in the country. In the second case, the table does not display the variables necessary to assess such a point: the dummy variable for high-risk firms, and cash flow not multiplied by the dummy. The impact of cash flow for high-risk firms should be read as the difference in the coefficient of cash flow multiplied by the dummy (CF*DUMR) and the coefficient of cash flow for all firms (meaning CF not multiplied by DUMR).¹⁷ The conclusions that the authors draw could stand if both the dummy variable for high-risk firms, and cash flow not multiplied by the dummy were not statistically significant and had been discarded by the authors, which should have been made clear. However, even in this case, their conclusion does not seem well supported as the t value of the $(CF/Y)_{t-1}$ variable (where CF is defined as CF*DUMR) is not significant at the 5% confidence interval.

¹⁶ Faini, Galli and Giannini, 'Finance', p. 195.

The interesting point of the analysis is that financial debts, in which subsidised loans are included, do not appear to be significant. However, not much weight can be attached to this result, because the definition of the variables raises some scepticism in so far as they are normalised by sales, which is a very volatile component of the balance sheet, and the authors do not provide any explanation for this choice. It seems more appropriate to normalise the variables using capital stock.¹⁸ Moreover, while the Wald and Sargan tests allow the readers to assess whether the regression is statistically significant, no information is provided on its explanatory power.

The two econometric studies presented above have not provided an answer to the issue. However, the model used by Faini, Galli and Giovannini seemed to be adaptable to the issue of this thesis. Therefore, it has been applied in order to assess the impact of state subsidies and other sources of company finance on investment undertaken by the two ID samples and the results are presented in Appendix C. As explained in the Appendix, the econometric analysis could only be performed on a limited number of companies and only from 1981 to 1991, thus leaving out a considerable number of company records.

The analysis conducted in this chapter takes a different approach and follows a new methodology presented but not undertaken by Bagella and Caggese,¹⁹ which allows the full usage of the sources collected. Their study compares the profitability and risk of subsidised and non-subsidised companies in the country as a whole and by regions, but admittedly leaves open another issue, namely whether subsidies had a positive affect on the recipient firms' ability to stay on the market, once they were no longer subsidised.

Subsidies should increase the profitability of the recipient firms, meaning moving the recipient company from position (1) in the graph below, characterised by low and highly variable profit, to position (2), with higher and less variable profit. Subsidised

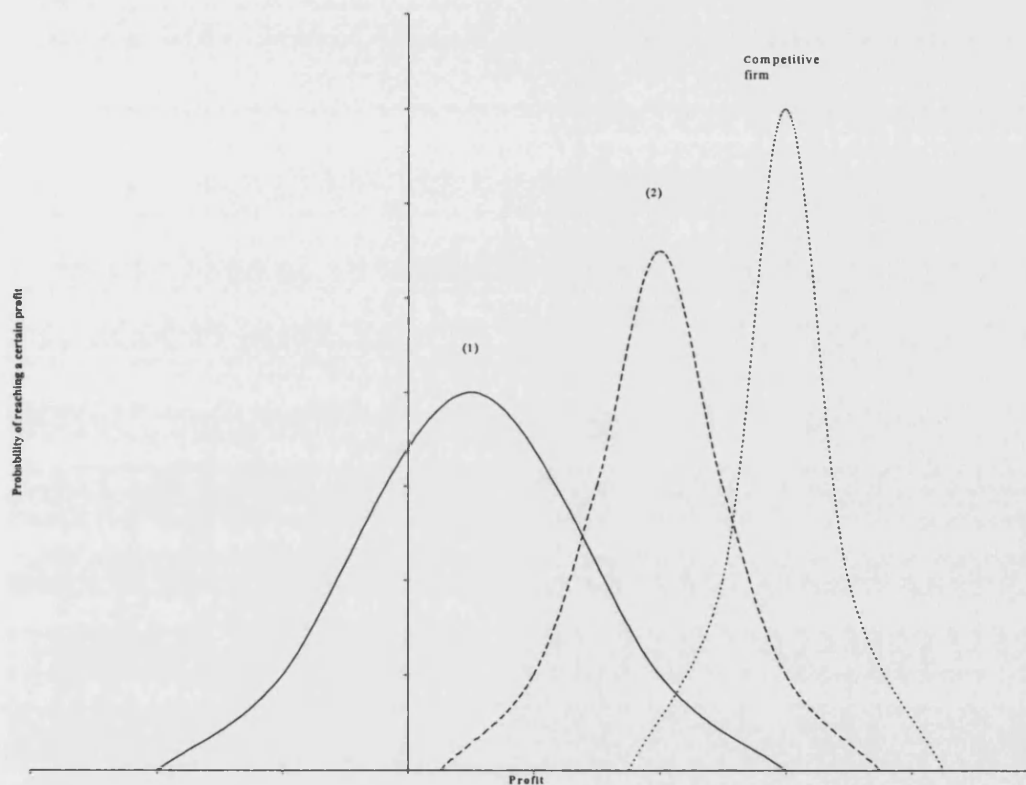
¹⁷ C. Dougherty, *Introduction to Econometrics* (New York, 1992), pp. 261-278.

¹⁸ As for instance in A. Cristini, 'Real and Financial Aspects of the Firms' Investment Decisions. A Study Using a Panel of Italian Firms', *Giornale degli Economisti e Annali di Economia*, Nuova Serie, 52/1-3 (1993), p. 98; and Fazzari, Hubbard and Petersen, 'Financing constraints', *passim*.

¹⁹ Bagella and Caggese, 'Struttura', pp. 813-837.

companies should move from positions (1) to position (2) in the graph as subsidies increase the recipient companies' profits and decrease the variability of profits, by providing an additional fixed component to their profits. However, in order to assess the effectiveness of subsidies it is crucial to study the position occupied by the company in the post-subsidy stage.²⁰

Graph VII.1 Profitability and risk of subsidised and non-subsidised firms: the ideal scenario.



Source: Bagella, Caggese, 'Struttura del Capitale', p. 836.

For companies in the post-subsidy stage to return to position 1 would mean all the undesired outcomes mentioned in the introduction. Their profitability could be improved only by constant subsidies, which would entail a permanent capture of funds, the breaking of the link between firms' performance and their efficiency, and in extreme cases the bailing out of troubled firms. Therefore, for subsidies to be considered effective, it is crucial that companies not only move from position 1 to position 2 when subsidised, but also that companies in the post-subsidy stage at least

²⁰ *Ibid.*, p. 836.

remain in position 2, or preferably, move even further to the right on the graph, closer to the ideal position of 'competitive firm'. This should happen because as the firm is a learning organization,²¹ the recipient company should learn how to conduct its business better while in the subsidised stage. Moreover, focusing on the financial constraint issue as Bagella and Caggese do, if the profitability of a company in the post-subsidy stage goes back to position 1, the company will be perceived by banks as a 'bad company' and therefore will be credit rationed, whereas if it remains in position 2 or moves to the 'competitive firm' position it should not experience credit rationing again.²²

The authors were unable to perform that analysis. Although their source includes balance sheet indicators and qualitative information on 3,852 manufacturing firms, trading between 1989 and 1991, the only information about subsidies is whether or not the company has been subsidised in the period, and from which scheme it benefited.²³ Thus on the basis of that source it is not possible to isolate companies that had been subsidised in the years prior to the survey.

The two authors have compared profitability and risk of subsidised and non-subsidised companies located in the various regions of the country. The overall results are displayed in table VII.3 below. This shows that overall, subsidised firms are less profitable (lower values of ROE and ROI) than non-subsidised ones, despite having more access to credit (indicated by a higher degree of leverage) and lower costs of credit, due to the lower interest rate on subsidised credit. On the basis of the standard deviation of the ROE, the researchers conclude that overall, subsidised companies are not only less profitable but also riskier, which is not consistent with the capital asset pricing model.²⁴ The key concept of the CAPM is that expected return on investment varies in direct proportion with its risk, in other words that the

²¹ This aspect of a firm is captured by works on learning by doing. See for instance N.R. Lamoureaux, D. M.G. Raff and P. Temin (eds), *Learning by Doing in Markets, Firms and Countries* (Chicago, 1999).

²² Bagella and Caggese, 'Struttura', p. 836.

²³ Mediocredito Centrale Osservatorio sulle Piccole e Medie Imprese, *Indagine sulle Imprese Manifatturiere* (Rome, 1995).

²⁴ Bagella and Caggese, 'Struttura', pp. 825, 834.

expected risk premium varies in proportion with its β , which is the standard deviation of the investment's return.²⁵

Table VII.3 Profitability and standard deviation of subsidised (S) and non-subsidised (NS) companies, 1989-1991.

	Sample	North-West		North-East		Centre		South	
		S	NS	S	NS	S	NS	S	NS
Observations	3275	830	665	607	465	222	209	166	111
Size	319	564	375	271	119	365	108	210	89
Leverage (%)	18.5	18	15.7	21.6	19.6	18.5	18.9	19.1	15.9
CD (%)	7	6.5	6.2	6.6	6.7	6.9	7.4	6.2	6.8
ROE (%)	10	8.6	10.3	9.4	15.3	7.7	8.6	7.2	14.4
ROI (%)	10.1	9.5	10.9	9.7	11	11	10.3	8.5	9.4
St dev (%)	45	32	51	51	45	50	43	44	35

Keys: Observations= number of companies; Size= average size of the companies in terms of employees; Leverage= average leverage, defined as (short term debts+ long term debts+ bonds)/total assets; CD= average cost of debt, defined as total cost of debt divided by total debts; ROE= Net income divided by equities; ROI= Income before tax and interest divided by equities plus total debt; St dev. = standard deviation of ROE.

Source: Bagella and Caggese, 'Struttura', p. 825; data source: Mediocredito Centrale, *Indagine sulle Imprese*.

However, their analysis raises some scepticism. The standard deviation of the ROE does not seem an appropriate indicator to make inferences about the degree of risk of the companies in the various sub-samples. The average ROE differs in the various sub-samples, and therefore a measure of dispersion in units is not appropriate to compare the dispersion of the various distributions around their respective mean. The coefficient of variation, being a relative measure of dispersion (standard deviation divided by the mean) is a better indicator to compare the dispersion of various distributions – in this case sub-samples -around their respective means.²⁶

²⁵ R.A. Brealey and S.C. Myers, *Principles of Corporate Finance* (5th ed., New York, 1996), p. 180.

²⁶ P. Hudson, *History by Numbers* (2000), p. 96.

Table VII.4 Companies' profitability and risk, 1989-91 (percentages)

	Companies	ROE	ROI	ROE st deviation
North-West				
Subs High Tech	430	8.4	9.3	30
NS High Tec	331	9.9	10.9	46
Subs Traditional	400	8.7	9.6	34
NS Traditional	334	10.7	11	55
North-East				
Subs High Tech	310	8.8	10.1	66
NS High Tec	190	17.1	12.1	44
Subs Traditional	297	10.1	9.4	30
NS Traditional	275	14.1	10.3	45
Centre				
Subs High Tech	93	4.5	11.6	70
NS High Tec	63	5.4	9	31
Subs Traditional	129	10.1	10.5	27
NS Traditional	146	9.9	10.8	48
South				
Subs High Tech	60	7.1	8.2	15
NS High Tec	40	8.2	10.9	16
Subs Traditional	106	7.3	8.7	54
NS Traditional	71	17.8	8.6	42

Keys as above.

Source: Bagella and Caggese, 'Struttura del Capitale', p. 829, data source as above.

On the basis of the results displayed in table VII.4 the authors conclude that subsidies to the North did not increase the profitability of recipient companies (as the ROE and ROI of subsidised companies are consistently lower than those of non-subsidised ones), but at least subsidised companies were less risky. As before, they inappropriately interpret the standard deviation of the ROE as an indicator of risk. In the South, subsidies lowered the risk and profitability of hi-tech companies and made traditional companies much less profitable (by 10%) and riskier.²⁷ Therefore, schemes such as those managed by the RMTICs, which mainly benefited Northern

firms, have yielded good results, as they have reduced the risk of recipient companies. On the contrary, schemes like the one for Southern Italy managed by the Cassa have produced disappointing results, due to a poorer performance of the recipient companies and the inadequate selective criteria used by the scheme.²⁸

However, figures referring to the profitability of traditional non-subsidised firms located in the South do not seem plausible, as there is a huge difference between ROI and ROE, for which the articles offers no explanation. Surely the ROE, rather than the ROI, is more likely to be incorrect. If the ROE were to be taken entirely as correct, it would mean that non-subsidised traditional companies in the South are the most profitable group in the whole country, comparable only to non-subsidised hi-tech companies in the North-east. With such a result it would be more appropriate to study why the regional policy was implemented rather than whether it has been effective!

Bagella and Caggese conclude that subsidies can generate two types of effects: the first encouraging companies to undertake high-profit and high-risk investment because it decreases their probability of failure; and the second encouraging companies to undertake low-profit and low-risk investment to maximize 'the probability of continuing activity in the future, and to receive other subsidies'. The prevailing effect depends upon the characteristics of the subsidies, the industrial sector and area in which companies are located.²⁹ However, these conclusions do not seem well supported by their analysis. In the first place, they cannot make any inference about risk on the basis of the standard deviation of the ROE, and in the second place neither tables VII.3 and VII.4, nor other evidence presented in the article show that subsidised companies undertook high-profit, high-risk investment, regardless of their location.

²⁷ Bagella and Caggese, 'Struttura', pp. 828, 830.

²⁸ *Ibid.*, pp. 827, 834.

²⁹ *Ibid.*, p. 813.

7.2 The effectiveness of subsidies for the Barletta and San Mauro Pascoli samples.

The two small samples used in this analysis allow not only the replication of the Bagella and Caggese comparison of subsidised and non-subsidised companies over a longer period of time, but also to address the issue of the positions occupied by companies in the post-subsidy stage in the graph above. The samples have been constructed with companies' raw records, therefore it has been possible to identify the subsidies and their timing, and divide accordingly the companies' life into stages, i.e. before receiving subsidies, while subsidised and after receiving subsidies, and separate them from companies that were never subsidised. This subdivision reduces considerably the number of observations available for each group, and therefore the division of observations into sub-periods, applied in the previous chapter, has been abandoned and the observations have been aggregated for the overall period 1951-91. However, in the interpretation of the results it should be kept in mind that these data refer mainly to the 1970s and 1980s for the Southern sample and 1980s for the North-Eastern sample.³⁰ Due to the small size of the samples, the results of this analysis should be considered as merely indicative, nevertheless it seemed worthwhile to throw some light on a hitherto unexplored issue.

Table VII.5 below replicates the Bagella and Caggese analysis. The sub-period 1989-91 has been isolated in order to compare the results of the two ID samples with those of their sample displayed in table VII.4. Only the ROE could be calculated for the two ID samples, as many companies do not provide the information required to calculate the ROI in the same way as Bagella and Caggese do - profit before tax and interest divided by equities plus total debts (see keys to table VII.3). In particular, some companies include interest rates within the wider category of bank expenditure (*oneri bancari*), which also includes bank commissions. Other companies do not separate taxes from contributions to social insurance. Considering that both ROI and

³⁰ The analysis has been replicated for the 1976-1991 period, in order to observe possible variations in response to the 1976 institutional change. The results for the shorter period confirm the results for the whole 1951-1991 period. This is not surprising considering that the main bulk of observations refers to the 1970s and 1980s.

ROE are indicators of profitability and that the ROI could not be calculated precisely, the following table VII.5 presents only the ROE.

The particularly low value of the ROE simple average of subsidised companies in the Barletta sample is due mainly to one company (Sec), which in the years between 1989 and 1991 was consistently making losses. Excluding those years the values of the ROE would be those displayed in brackets. The considerable differences between weighted and simple averages clearly indicate that in both groups of the Southern sample, small companies have much lower profitability than large companies, whereas the opposite applies to non-subsidised North-Eastern companies.

Table VII.5 Profitability and risk, Barletta and San Mauro Pascoli samples, 1989-91.

	N comp	ROE wa	ROE Simp aver	ROE st dev ^a	ROE coeff of var ^b
Barletta					
Subs	15	4.7 (6.45)	-9.2 (2.3)	20.6 (8.6)	1.7 (1.7)
NS	7	2.8	1.3	7.6	1.1
San Mauro Pascoli					
Subs	5	9	7.8	6.3	0.9
NS	10	7.8	15.7	11.3	0.55

Keys: a= average value of companies' standard deviation; b= average value of companies' coefficient of variation defined as |st dev| /mean.

Source: company balance sheets.

Table VII.5 shows that the Barletta sample includes a larger number of subsidised companies than non-subsidised ones, which is consistent with the results of the Bagella and Caggese sample displayed in table VII.4. The large Bagella and Caggese sample shows that also in the North-East there were more subsidised companies than non-subsidised ones. This is not reflected by the SMP sample, which shows that in 1989-91, there was twice as many non-subsidised as subsidised companies. However, when considering the overall period 1951-1991, there are 11 subsidised companies in the North-eastern ID sample against 10 non-subsidised.

By looking at the ROE simple average and the standard deviation of the ROE, the two ID samples reflect the Bagella and Caggese results for traditional companies in the South and the North-East. The comparison with traditional Southern companies

in the large sample is irksome due to the doubts cast by the high value of the ROE of non-subsidised companies. However, Bagella and Caggese interpret their results by saying that traditional subsidised companies in the South are less profitable and riskier than non-subsidised. The Barletta sample confirms these results also on the basis of the appropriate indicator of risk, the coefficient of variation of the ROE.

The SMP sample confirms the results for traditional North-Eastern companies in the large sample only to some extent. Bagella and Caggese found that subsidised companies are less profitable and less risky than non-subsidised ones. Subsidised companies in the SMP sample display a lower value of the ROE simple average and a lower standard deviation. However, the calculation of the coefficient of variation of the ROE reveals that subsidised companies in the North-Eastern ID sample are riskier, despite displaying a lower standard deviation. Similarly, the Bagella and Caggese claim that subsidised companies in the North-east are less risky, which is interpreted as an achievement of the national policy, might be disproved by the use of the appropriate indicator of risk.

Therefore, the two ID samples suggest that both Southern and North-Eastern firms performed better when non-subsidised. However, the application of the untested part of the Bagella and Caggese methodology will clarify these results and the apparent ineffectiveness of the policies in both samples.

Table VII.6 below provides general information about the sub-samples into which the two ID samples have been divided.

Table VII.6 Sub-samples, 1951-91

	Pre-subsidy	Subsidised	Post-subsidy	Never subsidised ^c
Barletta				
N comp	16	26	6	6
Failed		3	2	4
BS av siz ^a	985	1,658.1	767.2	318.9
BS st dev ^b	806.5	1,800	827.4	243.1
Age	7.2	12.6	16.7	7.8
San Mauro Pascoli				
N comp	4	11	4	9
Failed		2		4
BS siz ^a	255.8	2,472.9	4,843.2	555.8
BS st dev ^b	280.3	2,269.4	2,718.5	529.3
Age	6.7	17.7	19.6	7.5

a= balance sheet average size (m 1980 lire); b= balance sheet size (m 1980 lire) standard deviation; c= 'never subsidised' companies excluding the last year of activity of failed companies;
Source: company balance sheets.

The three sub-samples - pre-subsidy, subsidised and post-subsidy - portray a hypothetical life cycle of companies in the two samples, from smaller and younger when unsubsidised to larger and older in the subsidised stage. However, while companies in the North-Eastern sample continue to grow, as measured by the balance sheet size, in the post-subsidy stage, companies in the Southern samples become smaller. As table VII.7 below shows, this is due to two factors: Southern companies in the post-subsidy stage were only slightly larger than the average while in the subsidised group, in terms of balance sheet size. In addition to this, the size of their balance sheets decreases considerably in the post-subsidy stage also due to the rapid decrease in size of the two companies that are failing while in this stage. In contrast, three³¹ out of the four North-Eastern companies in the post-subsidy stage were not only well above the average for the subsidy-stage companies, but also the size of their balance sheet kept increasing in the post-subsidy stage. The fourth North-Eastern company³² follows a pattern closer to that described for the Southern post-subsidy companies.

³¹ CCF, Companies Nros, Nca and Npo.

³² CCF, Company Nrot.

Table VII.7 Balance sheet size of companies in the post-subsidy stage (simple average, bn 1980 lire)

	Last 5 years subsidy	Post-subsidy
Barletta	1.8	0.77
SMP	4.4 (5)	4.8 (5.9)

Key: numbers in brackets show the averages obtained after excluding the fourth North-Eastern company (Nrot).

Source: company balance sheets.

The three North-eastern companies that saw continued balance-sheet growth left the subsidised stage because they exceeded the upper limit of eligibility for subsidies (2bn lire, see section 3.2, IV) 1976-80 and 1981-86). Two of these (Nros and Nca) started issuing bonds immediately after leaving the subsidy stage. In 1981, Nros issued bonds worth 0.5bn lire at an interest rate of 20%,³³ and in 1982, Nca issued bonds worth 1.5bn lire at a interest rate of 18%.³⁴ Considering that the interest rate on soft loans from the Regional Medium-term Credit Institutions was between 7.1% and 10.7% in 1981 and 10.2% and 15.3% in 1982, and the rate on market medium-term credit was 17.8% in 1981 and 21.3% in 1982 (see table IV.10), these companies managed to secure sums far larger than the soft loans received by companies in the same sample (see table VI.6) at an interest rate slightly cheaper than the market one.

As for explaining the reason why other companies in the sample abandoned the system of subsidies or never entered it, it was not possible to make inferences in specific cases. Therefore, it is only possible to refer to the explanation provided in the macro-analysis, which shows that a certain percentage of applications was rejected (see section 4.3). Moreover, according to a 1989-91 survey of 5,000 manufacturing companies in the whole country, 35% did not apply for subsidies despite being aware of them. Firms were discouraged by the delays in the extension of subsidies, the limited availability of funds and the complexity of the application procedure, with the last reason being particularly discouraging for small firms.³⁵

³³ CCF, Company Nros, Annual Report 1981.

³⁴ CCF, Company Nca, Verbale Assemblea Straordinaria 13/12/1982.

The younger age of companies in the pre-subsidy stage is supported by previous research. Using interviews and questionnaires, this demonstrated that out of 124 enterprises located in the South only 34 received subsidies in the start-up stage, whereas nearly all were subsidised during their trading life.³⁶ The difficulty of securing subsidies in the early stage has been explained by the involvement of the credit institutions, which are much more cautious in extending loans to new businesses rather than to companies with a proven track record.³⁷ Therefore, subsidies in which credit institutions were involved, such as the soft loans should have been granted later than other subsidies. This is confirmed by the sample under analysis, where the age at which companies receive the first subsidy is 3.7 years in the case of fiscal subsidies, 4.6 in the case of grants and 6.6 for subsidised loans.

'Never subsidised' companies are the smallest group within the Southern sample and in both samples, they are the group with the highest rate of failures, thus suggesting that subsidies may have reduced the probability of failure.

Table VII.8 Investment ratio, 1951-91

	Pre-subsidy	Subsidised	Post-subsidy	Never subsidised
Barletta				
WA	0.35	0.23	0.14	0.29
St dev	0.42	1.2	3.6	0.6
Abs ^a	116.3	145	32.1	42.9
San Mauro Pascoli				
WA	0.36	0.19	0.16	0.25
St dev	0.41	0.35	0.31	1.1
Abs ^a	36.9	81.7	148	22.7

Keys: Investment ratio= annual net investment divided by fixed net assets; a= simple average, absolute value, m 1980 lire.

Source: company balance sheets.

³⁵ Ministero dell'Industria and Mediocredito Centrale, *Indagine sulle Imprese Manifatturiere* (Milan, 1994), pp. 53-54.

³⁶ A. Del Monte, 'The Effects of Regional Policy on the Industrial Development of the South of Italy', *Mezzogiorno d'Europa*, 4/4 (1984), pp. 578-579.

³⁷ *Ibid.*, p. 580; A. Del Monte and R. De Luzenberger, 'The Effect of Regional Policy on New Firm Formation in Southern Italy', *Regional Studies*, 23/3 (1989), p. 225.

Table VII.8 shows that Southern companies reach the highest level of investment when they are subsidised, particularly when looking at investment in absolute terms. The investment activity declines sharply in the post-subsidy period. This can be due either to the high level of fixed assets reached in the previous stage (as shown in table VII.15), which would reduce the scope for further profitable investment, or else to the sharp decline of the companies' profitability (table VII.10) and increasing financial constraints (table VII.14). North-eastern companies behave in the 'ideal' way, as their investment activity increases in the post-subsidy period.

In a graph similar to graph VII.1 above, with investment instead of profits on the X axis, both Southern and North-eastern companies move from position 1 to position 2 when they receive subsidies. However, when Southern companies are no longer subsidised they return to position 1, whereas North-eastern companies would move further to the right towards the 'competitive firm' position. This implies that in order to promote the investment activity of Southern firms these should be constantly subsidised, which in turn indicates a 'dependence'³⁸ of recipient firms on subsidies and a permanent capture of government funds.

In order to investigate whether there is an association between increases in subsidies and increases in investment, the coefficient of correlation between these two variables has been calculated. These calculations rely on a limited number of observations particularly for grants and fiscal subsidies in the North-eastern sample. As shown in table VI.6, these two types of subsidies were much less frequent in the San Mauro Pascoli sample than in the Barletta sample.

As table VII.9 displays, the observations available for the pre-1976 period are very scant for any type of subsidy except for subsidised loans in the Southern sample, therefore the coefficient of correlation has been calculated over the whole period for this type of subsidy alone.

³⁸ The concept of 'dependence' of Southern Italian industry is generally used with a different meaning, i.e. it indicates the non-Southern Italian ownership of modern industry in the South, while local capital remains concentrated in traditional and small scale sectors. See F. Martinelli, 'Public Policy and Industrial Development in Southern Italy: Anatomy of a Dependent Industry', *International Journal of Urban and Regional Research*, 9/1 (1985), p. 48.

Table VII.9 Coefficients of correlation between investment ratios and subsidy ratios, 1951-91 and 1976-91, number of observations in brackets.

	Inv-Is (SI)		Inv-Gr		Inv-Fs	
	1951-91	1976-91	1951-91	1976-91	1951-91	1976-91
Barletta sample	0.27 (45)	0.23 ⁱ² (33)	--- (86)	0.5 (78)	--- (50)	0.73 (50)
SMP sample	---- (12)	0.2 ^{s1} (11)	----(5)	0.66 ⁱ¹ (5)	--- (5)	0.6 ⁱ² (5)

Note: the number of observations is given by the number of years in which the companies received new subsidies.

Keys: Inv= Investment ratio, annual net investment divided by fixed net assets; Subsidy ratio= net subsidy (Is, Gr, Fs) received in a year divided by existing long term capital; Is (SI)= Implicit subsidies within subsidised loans; Gr= grants; Fs= fiscal subsidies; superscripts indicate the time lag given to the variables, ⁱ¹ and ⁱ²= investment lagged by one and two years; ^{s1}=subsidy concerned lagged by one year.

Source: company balance sheets.

The results clearly indicate that there is a positive correlation between subsidies and investment. The strength of the correlation varies with the types of subsidy, but can be considered satisfactorily strong, particularly when taking into account that these coefficients of correlation focus on one specific type of long-term capital, whereas there is a multiplicity of factors influencing the investment decision of the firms. These include changes in the level of output pointed out by the accelerator principle,³⁹ the expected output discounted by the price of capital services in the neoclassical theory,⁴⁰ the market value of the firm in the Tobin's q theory,⁴¹ and financial factors, and internal finance in particular, in the cash flow approach.⁴²

The lower coefficient presented by subsidised loans can be attributed to the difficulty of pointing out the exact time lag between the receipt of such subsidies and investment or vice versa. As mentioned in Chapter III, the Cassa was legally permitted to undertake financial commitment in excess to its current financial means, which entailed the possibility that firms would receive the secured grant or subsidised loan after undertaking the investment. The Barletta sample displays positive coefficients between implicit subsidies and investment when lagging both investment and subsidies (with values between 0.15 and 0.21), indicating that

³⁹ G. Ackely, *Macroeconomics: Theory and Policy* (New York, 1978), pp. 254-255.

⁴⁰ Jorgenson and Siebert, 'A comparison', p. 695.

⁴¹ Ackely, *Macroeconomics*, p. 655.

⁴² Fazzari, Hubbard and Petersen, 'Financing Constraints', pp. 141-206.

companies undertook investment both before and after receiving the subsidy. Therefore, any type of time lag will capture only part of the investment.

The explanation of the low coefficient displayed by the North-Eastern samples lies in two observations, the exclusion of which would change the coefficient to 0.88, keeping the same time lag. In both cases, considerable investment was undertaken in the same year in which the subsidised loan was received, therefore the correlation between subsidies and investment in these two cases is not captured by lagging subsidies by one year.

Table VII.10 Profitability, Barletta and SMP samples, 1951-91 (percentages)

	Pre-subsidy	Subsidised	Post-subsidy	Never subsidised
Barletta				
ROE wa	-0.01	3.4	-9.7	11.2
ROE cv	3.7	2.7	1.3	7.7
R/fna wa	0.00	0.03	-0.08	0.1
R/fna cv	5.9	7.3	3.4	7.8
S Mauro Pascoli				
ROE wa	4.2	11.3	14.3	12.8
ROE cv	1.6	1.3	0.6	1.6
R/fna wa	0.05	0.2	0.3	0.2
R/fna cv	12.4	2	0.7	4

Keys: ROE wa= ROE weighted average; ROEcv= ROE coefficient of variation.

Source: company balance sheets.

Table VII.10 presents two measures of profitability: return on equity and return on fixed net assets, the latter indicating the efficiency with which fixed assets are employed.⁴³

Southern companies shift from low profitability and high risk before subsidies to higher profitability and slightly higher risk when subsidised. In the post-subsidy stage they become much less profitable and less risky, therefore they do not remain

in position 2. Return on equities and return on fixed net assets reach negative values in the post-subsidy stage, for two out of the six companies are in the process of failing (see table VII.6) and are consistently making losses. Out of the remaining four, only one made profits during every year of its post-subsidy stage whereas all other companies are making occasional losses.

North-eastern companies display the 'ideal' behaviour, as far as their profitability is concerned. They move from position 1 before subsidies to position 2 when subsidised, and in the post-subsidy stage they move closer to the 'competitive firm' position. Companies never subsidised in both samples seem to opt for a high-profit and high-risk strategy, which entails a higher probability of failures, as shown in table VII.6.

Southern companies with access to subsidies seem to pursue a 'survival' strategy, whereas unsubsidised ones pursue a 'profit maximising' strategy, or in the words of the sociological literature subsidised entrepreneurs prefer to reap benefits from institutions and abandon the economic rationale.⁴⁴ However, this might not be the case and Southern subsidised firms might also be pursuing an economic rationale.

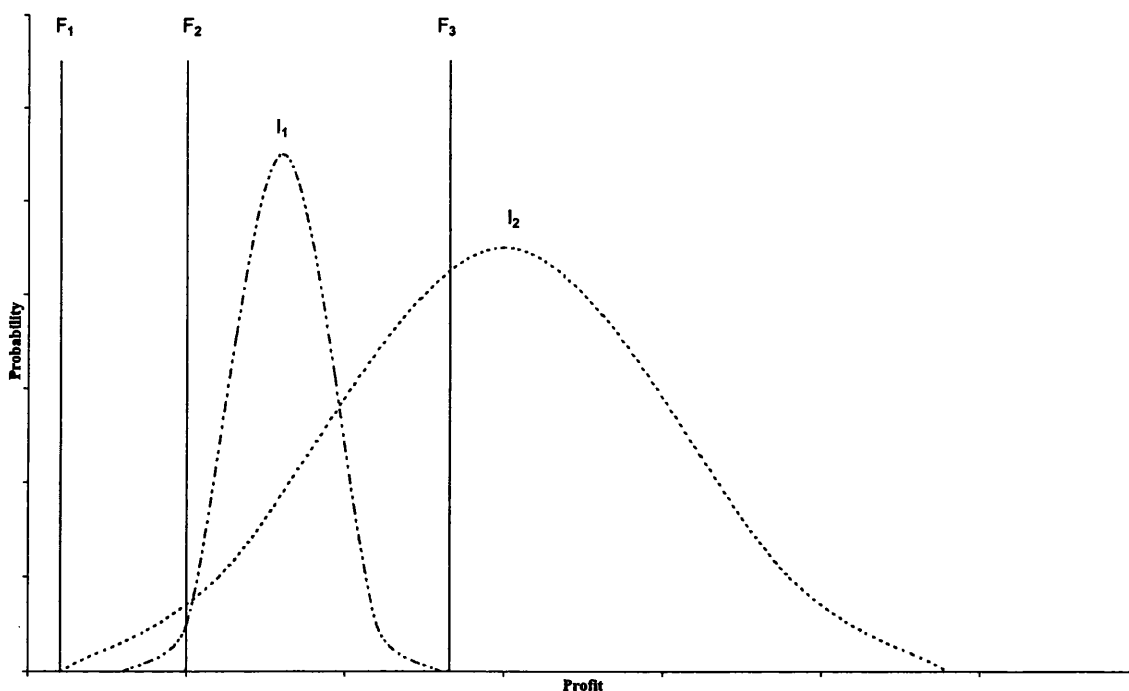
The analysis of failed companies presented in tables VI.13, VI.14 and VI.15 has indicated the different conditions in which companies in the two ID samples cease their activity. Southern firms fold after a long period of losses and when they are financially distressed, while North-Eastern firms close down as soon as their turnover and profits are decreasing and their level of capitalisation (in term of finance) is very high. This indicates that the priority of Southern firms is to continue trading, whereas the priority of the North-Eastern firms is making profits. Moreover, the low capitalisation of Southern companies, particularly the scarcity of company-owned capital (see indicator E/FNA, in table VI.15) suggests that Southern companies would have very little capital, if any, to cover possible losses, which is not the case for their North-Eastern counterparts.

⁴³ Foster, *Financial Statement*, p. 67. The ratio presented by Foster is net income divided by total assets, as this analysis is concerned with fixed assets in particular, the ratio has been adapted as in the text.

With the obvious historical differences, the low-profit low-risk strategy of Southern subsidised firms can be compared to the behaviour of medieval English peasants as explained by McCloskey.⁴⁵ Before the enclosures (consolidated holdings) of the seventeenth and eighteenth centuries, farmers opted for scattered plots, despite the fact that the former provided them with a higher average income. McCloskey explains that this happened because the farmers' priority was avoiding disaster, where disaster means falling below the subsistence level. Scattered plots produced a lower but less variable income than consolidated land, therefore by choosing the former peasants reduced their chances of incurring disaster.

The scenario in which companies in the two ID samples operate, as far profitability is concerned, is represented in the following graph, where net profit is defined as total revenues minus total costs.

Graph VII.2 Profitability, risk and failure threat in the two ID samples



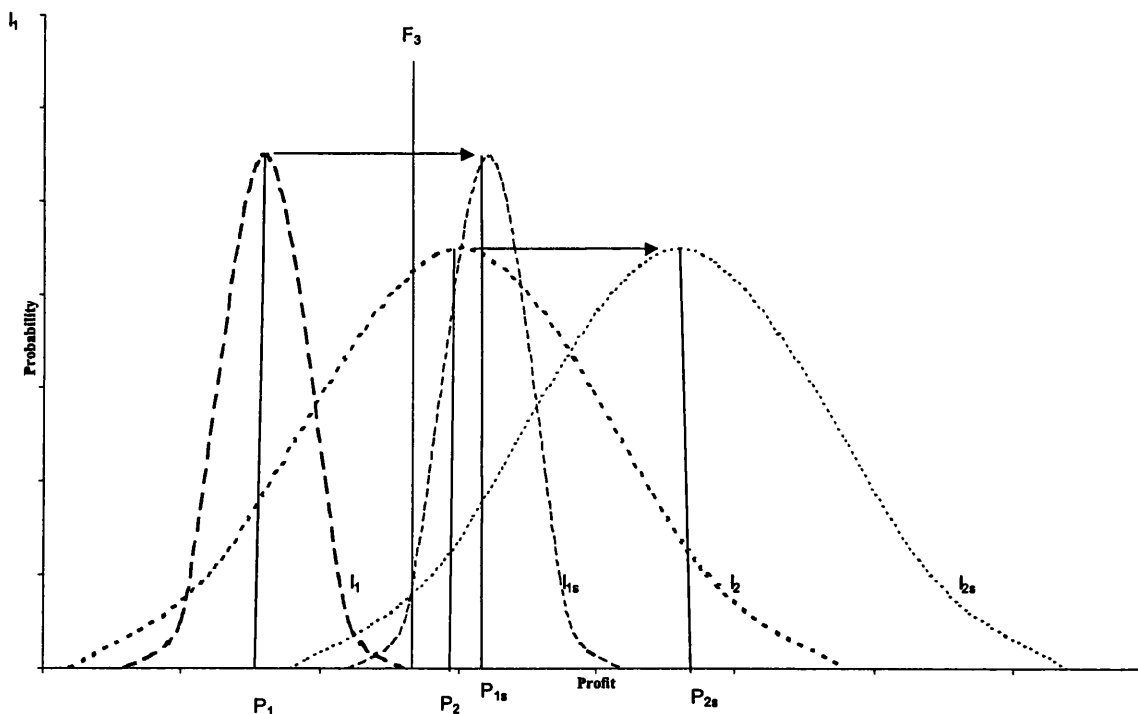
Source: adapted from McCloskey, 'English Open Fields', p. 131.

⁴⁴ C. Trigilia, *Sviluppo senza Autonomia* (Bologna, 1992), pp. 93-94;

In this case the disaster is the failure of the firm and the decision rule is minimising the probability of failure. If the failure threat were in position F_1 neither high-profit high-risk (I_2) nor low-profit low-risk (I_1) investment endanger the company, therefore an economically rational company would choose I_2 . If the failure threat were in position F_2 , it would choose I_1 , as this would minimise its possibility of failure. If the failure threat were in position F_3 the company has no choice, it needs high profits to continue trading, and has to undertake I_2 .

Therefore, if F_1 represents the failure threat for North-eastern companies and F_3 for Southern companies, both groups should choose I_2 , North-eastern companies to maximise their profits, and Southern companies to survive. However, there is another element to be taken into account, namely subsidies. The following graph shows what happens when subsidies are introduced in this scenario.

Graph VII.3 The effect of subsidies on profitability and risk.



Source: see text.

⁴⁵ D.N., McCloskey, 'English Open Fields as a Behaviour towards Risk', *Research in Economic History*, 1976/1 (1976), pp. 124-170.

Subsidies decrease the cost of the investment and therefore increase the net profit, moving it from P_1 to P_{1s} . Similarly, subsidies move P_2 to P_{2s} but I_{2s} entails a higher probability of falling behind F_3 , therefore the subsidised company will choose I_{1s} .

However, in the long term, choosing I_{1s} is economically rational only if the scenario in graph VII.3 is permanent - after all, English peasants chose scattered plots for centuries - meaning if there is the possibility of receiving subsidies frequently. If a company knew that after its current subsidy ended it had to undertake a high-risk high-profit investment to survive, it would perceive that undertaking this investment while still being subsidised would reduce the risk of such investment. In graph VII.3, the area behind F_3 in the case of I_{2s} is smaller than in the case of I_2 . In this case, the company would reap higher profits, which would make its financial situation sounder (for instance increasing its reserves and thus increasing its credit worthiness) and therefore push its own F_3 to the left. Moreover, Southern subsidised companies will keep undertaking I_{1s} because frequent subsidies increase the potential loss that partners would face in case of the company failure, as it would mean losing the company income plus frequent and considerable subsidies. In other words, the access to frequent subsidies increases the opportunity cost of a company's failure.

Therefore, the different levels of the failure threat and the frequency of the subsidies can explain the differences in the behaviour of companies in the two ID samples. Companies in the North-eastern sample have a failure threat level so low (see for instance their level of overcapitalisation in terms of finance in table VII.14) that whether non-subsidised or subsidised they choose a high-profit and high-risk investment. The only exception is the younger, pre-subsidy group for which the failure threat level might be higher, as suggested by their undercapitalization in table VII.14. They thus choose a low-profit and low-risk investment. Companies in the Southern ID sample, having a higher level of failure threat (see for instance their financial capitalization) choose a high-profit and high-risk strategy if that is the only possibility to survive, i.e. if they belong to the unsubsidised group.

Although the higher level of risk faced by companies located in Southern Italy does not emerge from the Bagella and Caggese analysis (see tables VII.3 and VII.4), the

literature focusing on the banking system and finance in the South stresses that Southern companies are particularly risky. The risk of the borrowers determines higher risk for the banks, which in turn is a major cause for higher interest rates in the South. Southern firms are considered riskier because of their higher mortality rates,⁴⁶ and their lower and more variable profitability.⁴⁷

Table VII.11 Mortality rate, selected sectors, 1978-81

	Zone A	Zone B	Zone C	Zone D
Metal products	.083	.078	.096	.131
Food processing	.078	.082	.101	.096
Textile	.079	.098	.101	.086
Leather	.119	.099	.137	.108
Clothing	.113	.112	.101	.123
Wood and furniture	.071	.086	.094	.112
Paper	.063	0.61	.079	.088

Note: Mortality rate= defunct firms (in some cases plants) divided by registered firms. Zones A, B, C, and D do not correspond exactly to the Istat divisions of North-West, North-East, Centre and South. Zone A= Piedmont, Valle d'Aosta, Lombardy and Liguria, and corresponds exactly with the North-West; Zone B= Veneto, Trentino, Friuli, Emilia Romagna, Tuscany, Umbria and Marche, of these regions the first four belong to the Istat classification of the North-East, the remaining three belong to the Centre; Zone C= Latium, Abruzzi, Molise, Puglia e Campania, of these regions Latium belongs to the Centre and the remainder to the South. Zone D= Basilicata, Calabria, Sicilia and Sardegna, all these regions belong to the South.

Source: B. Contini and R. Revelli, 'Natalità e Mortalità delle Imprese Italiane: Risultati Preliminari e Nuove Prospettive di Ricerca', *L'Industria: Rivista di Economia e Politica Industriale*, Nuova Serie 7/2 (1986), p. 104. Data from the National Institute for Social Security (INPS).

Table VII.11 displays the mortality rate only for those sectors containing companies in the two ID samples. For later years, only aggregate estimates are available. Tables VII.11 and VII.12 (below) clearly show that the mortality rate is greater in the South. However, this indicator seems too broad to assess the risk of failure in Southern Italy, as it includes companies that change their legal status, mergers and acquisitions, and also closures of plants rather than firms.⁴⁸

⁴⁶ Banca d'Italia, *Annual Report*, 1988, abridged English version (Rome, 1989), p. 183; Faini, Galli and Giannini, 'Finance', pp. 174-179.

⁴⁷ D'Amico, Parigi and Trifilidis, 'I Tassi', pp. 328-329.

⁴⁸ Contini and Revelli, 'Natalità e Mortalità', pp. 201-203.

Table VII.12 Mortality rates of firms (%), 1984-89

North-West	3.8
North-East	3.5
Centre excluding Latium	4.3
Latium	4.6
Southern mainland	4.8
Sicily and Sardinia	4.6

Note: Mortality rate calculated as the percentage of the number of employees belonging to firms that disappeared from social security files and the total initial number of employees in each year, averaged for 1984-89. Source: Faini, Galli, Giovannini, 'Finance and Development', p. 179. Data from the National Institute for Social Security (INPS).

Attempts to calculate the number of failures as a percentage of industrial firms have been made for census years, but without any clear result. Records of bankruptcies by regions are available in the *Annuario di Statistiche Giudiziarie* published by Istat, but these statistics present a high level of sectoral aggregation for manufacturing as a whole, with no disaggregation by size of bankrupt firms. Moreover, considering the presence of non-Southern-owned companies and the greater weight of state-owned enterprises in the Southern industrial sector, a comparison of the number of bankruptcies in the South and other regions of the country should also isolate Southern-owned companies. This task is clearly beyond the scope of this thesis.

Focusing on the coefficient of variation of the ROI (table VII.13 below) the higher risk of Southern companies is clear. Not only are the returns of Southern companies lower and more variable, but also the firms' equities are completely absorbed by their own fixed capital. Equities as a percentage of fixed net assets amount to 97.2% for Southern small manufacturing firms in 1987, thus leaving no reserves to cover possible losses. The corresponding value for firms in the Centre and North was 107.1%.⁴⁹

⁴⁹ Siracusano and Tresoldi, 'Le piccole', pp. 155-156.

Table VII.13 ROI, coefficient of variation (%), selected sectors.

	South 1984		South 1987		C-N 1984		C-N 1987	
	ROI	CV	ROI	CV	ROI	CV	ROI	CV
Food processing	9.5	88.8	10	110.5	13.05	76.7	14.5	78.4
Tex., cloth., leather	9.7	100.5	8.5	105.2	15.9	67.5	13.7	74.7
Wood and furniture	8.3	102.1	8.5	108.9	12.8	74.4	12	77.2
Paper	6.4	117	10.5	88.8	12.3	72	12.7	73.7
Rubber	5.2	108.1	7.25	113.3	13.5	69.6	12.8	69.4
Mechanic industry	10.9	94.7	8.9	102.8	15.8	68.4	12.9	72.8

Source: D'Amico, Parigi and Trifilidis, 'I tassi d'interesse e la rischiosità', p.328; data source: company balance sheets provided by Centrale dei Bilanci

Therefore, the higher risk faced by companies in the Southern ID sample - indicated by the low values of the financial ratios (E/FNA and LTC/FNA in tables VI.10 and VI.15) and by the coefficient of variation of the ROE (table VII.10) - is not accidental or due to the size of the sample.

Table VII.14 Financial capitalisation, Barletta and SMP samples, 1951-91

	Pre-subsidy	Subsidised	Post-subsidy	Never subsidised
Barletta				
LTC%FNA wa	66.1	114.2	95.8	131.2
LTC%FNA st dev	161.9	114.7	153.6	532.8
CA%CL wa	88.8	115.2	92.9	123.5
CA%CL st dev	93.7	118.5	138.3	76.7
S Mauro Pascoli				
LTC%FNA wa	124.8	234.8	275	224
LTC%FNA st dev	1,652.7	490.2	296.6	290.7
CA%CL wa	140.2	180.3	241.2	146
CA%CL st dev	166.9	80.7	143.2	188.9

Keys: LTC = long term capital; FNA = fixed net assets; CA = current assets; CL = current liabilities; wa = weighted average; st dev = standard deviation.

Source: company balance sheets

Considering the sharp decrease in the profitability of Southern companies in the post-subsidy stage (table VII.10), it is not surprising that these companies return to a situation of financial constraint, both in the long and short term. In contrast, North-

Eastern companies, the profitability of which increases further in the post-subsidy stage, become even less financially constrained, thus endorsing the results expected by Bagella and Caggese. As already mentioned, the authors would expect that if the post-subsidy companies go back to position 1 in graph VII.1 they would be perceived as 'bad companies' by the financial structure and therefore would be credit rationed again.⁵⁰ Low profits do not allow Southern companies, whether in the subsidised or in the post-subsidy stage to build high levels of reserves and their financial undercapitalization does not make these companies creditworthy. The situation is exacerbated in the case of 'post-subsidy' companies, by the lack of subsidies themselves and their crowding-in effect shown in tables VI.13 and VI.14.

Table VII.15 Capital intensity, Barletta and SMP samples, 1951-91 (percentage)

	Pre-subsidy	Subsidised	Post-subsidy	Never subsidised
Barletta				
FNA%TA wa	32.2	37.3	37.9	26.8
FNA%TA st dev	25.6	24.1	31.2	19.6
S Mauro Pascoli				
FNA%TA wa	37.4	17.1	17.5	15.5
FNA%TA st dev	31.6	16.9	9.3	27.8

Keys: FNA = fixed net assets; TA = total assets.
Source company balance sheets.

The indicator presented in table VII.15 clearly shows that higher capital intensity coincides with subsidies in the Southern sample. In both samples, companies in the pre-subsidy stage present high percentages of fixed net assets. However, this might be due to the young age of those companies, particularly in the 1976-91 period, as these might be in the process of endowing themselves with the equipment required.

The application of the Bagella and Caggese methodology to the ID samples has clearly pointed out that subsidies were more effective for companies in the North-Eastern sample, than for their Southern counterparts. North-eastern companies not only invest more and are more profitable during their subsidised period than in the pre-subsidy period, but also their investment activity and profitability increases in

⁵⁰ Bagella and Caggese, 'Struttura', p. 836.

their post-subsidy period. Moreover, they become increasingly less risky through the various stages. Therefore, the lower ROE and higher risk displayed by subsidised companies in the North-eastern sample, table VII.5, which suggested the failure of the subsidies, conceals their real effectiveness. The misleading results of the North-eastern sample in table VII.5 are therefore due to the aggregation of pre-subsidy, post-subsidy and never subsidised firms in the non-subsidised group, among which the post-subsidy group presents the highest return and lowest risk.

The results displayed by companies in the Barletta sample in table VII.5 conceal the limited effectiveness of the regional subsidies. Southern companies' investment activity and profitability increase during the subsidy stage, but profitability in particular fell in the post-subsidy stage, thus indicating a 'dependence' on subsidies. Moreover, it is clear that subsidised and post-subsidy companies opt for low-profit and low-risk investment, as opposed to the high-profit and high-risk strategy followed by 'never subsidised' companies. It seems plausible that this behaviour is due to the high risk faced by companies in the Southern sample and to the frequent and high subsidies, which make the safer low-profit and low-risk strategy viable.

The worse performance of companies in the post-subsidy stage coincides with a deterioration of their long- and short-term finance. Furthermore, the higher capital intensity of subsidised firms, which some works interpret as a distorting effect of the policy, is much more pronounced in the Southern sample than in the North-Eastern counterpart.

7.3 Financial incentives and the profitability of investment.

This section intends to assess whether financial incentives made profitable investment that would not otherwise been profitable, or subsidised investment that would have been profitable in any case. This is analysed by comparing the rates of return on capital employed with subsidised interest rates and yields on long-term government bonds.

The rationale lies in the classical theory of investment. In the Keynesian formulation of the rational decision rule for investment, an investment is profitable if its marginal return exceeds the interest rate, because interest is a cost incurred in financing the investment, if the firm borrows money to invest. If an investment is financed internally, the interest rate represents the opportunity cost of the investment.⁵¹

There are various ways of expressing the return on capital employed: returns on net assets, which are equal to profits before interest on long-term loans and taxation divided by long-term capital employed,⁵² or also the return on shareholders' equity calculated as profit after interest and tax divided by shareholders' equity. The first ratio measures the efficiency (i.e. the optimal relationship between inputs and outputs) with which long-term capital is being employed. The second ratio indicates the residual return (where return is the income or profit) to the owners on their investment in the business.⁵³ In finance, returns on long-term capital are measured using profit before interest and taxation, because the aim is to measure the returns earned on investment, and the opportunity cost of capital is considered as part of profits in accounting. In economics, profits after interest rate and taxation are used, as the aim is to study the role played in the allocation of resources by the returns that firms make over and above the opportunity cost of their capital, which is defined as part of the total cost.⁵⁴ In this section, the economic definition of profit, i.e. after interest and tax, has been applied and divided by long-term capital, where long-term capital includes long-term borrowed capital and equity capital.

Using a notion such as profit lends itself to criticisms, considering that as profits are taxed,⁵⁵ companies are interested in declaring lower profits than their real ones. Moreover, part of the companies in the two samples are in textiles, a sector regarded

⁵¹ Ackley, *Macroeconomics*, p. 248.

⁵² Lewis and Pendrill, *Advanced Financial*, p. 365.

⁵³ M.W.E. Glautier and B. Underdown, *Accounting Theory and Practice* (4th ed., 1991), p. 259; definitions in brackets from C.T. Horngren, *Introduction to Management Accounting* (6th ed., Englewood Cliffs, 1984), pp. 686, 693.

⁵⁴ R.G. Lipsey and K.A. Chrystal, *An Introduction to Positive Economics* (8th ed., Oxford, 1995), pp. 187-188.

⁵⁵ Until 1974, the Italian profit tax had two components, the *Ricchezza Mobile* and *Imposta sulla Società*. In 1974 the tax system was modified and was based on two flat rate taxes: IRPEG (national tax) and ILOR (local tax). While the rate of ILOR was supposed to vary according to location, it was generally set at 14.2%. Faini and Schiantarelli, 'Regional Implications', pp. 113, 116.

as particularly affected by undeclared work, because of its opportunities for home working.⁵⁶ To correct the companies' profit figures to account for hidden profits is not a simple task. The Italian bureau of statistics (Istat) has recently addressed the issue of estimating the black economy.⁵⁷ However, their estimates concentrate on the labour force. By multiplying the estimated undeclared employment by per capita values of income and value added, an estimated GNP that includes the black economy is obtained.⁵⁸ Therefore, the Istat estimations cannot readily be used to estimate hidden profits of the companies in the two samples. Alternative sources such as the Ministry of Finance proved very secretive - it was not possible to access their library - and therefore the attempt to adjust profit figures to account for undeclared profits had to be abandoned. However, elements emerged from the previous analysis suggesting that not all companies in the two samples try to lower profit figures in their balance sheets.

Companies in the whole country are allowed by law to apply either a straight-line depreciation or accelerated rate depreciation.⁵⁹ The first method consists of writing off a constant percentage of the asset cost, in each year of the asset's economic life. The latter enables companies to write off a higher percentage of the asset cost in earlier years. The accelerated depreciation method enables firms to increase their operating costs, in the initial years, and thus lawfully decrease their profits, to the extent that in countries like Greece and Germany, the accelerated method is a regional subsidy, and only companies in less developed regions can adopt it. If companies in the two samples were trying to lower their profits, they would frequently adopt the accelerated depreciation method, which instead does not occur. Only the two best performing companies in the Barletta sample (Sro and Sco) use it, together with six companies in the North-Eastern sample. Moreover, as mentioned in section 6.2.1, few companies in the Southern sample credit subsidies to their profit account rather than to reserves, thus increasing their profit figures. These examples of accounting practice adopted by companies in the two samples suggest that

⁵⁶ Commission of the European Communities, *Communication from the Commission on Undeclared Work* (Brussels, 1998); COM (1998) 219, p. 8.

⁵⁷ Istat, 'Nuova Contabilità Nazionale', in *Annali di Statistica*, serie IX, vol. 9 (1990); Istat, 'The Underground Economy in Italian Economic Accounts', *Annali di Statistica*, serie X, vol. 2 (1993).

⁵⁸ P. Busetta and E. Giovannini, *Capire il Sommerso* (Naples, 1998), p. 44.

companies are not willing to close their balance sheets with a very small profit, and even less with a loss, as this would undermine their image of credit worthiness and reliability with banks, suppliers and clients.

The following table displays the results obtained comparing the rates of return on long-term capital for each company in each year with the subsidised interest rate and the return on long-term government bonds. Rates of return for each company in each year have been classified either as 'lower' than subsidised interest rates, 'between' subsidised interest rates and yields on long-term government bonds, or 'higher' than yields on long-term government bonds. The total number of each rate of return has been expressed as a percentage of the total observations.

Table VII.16 Rates of return, subsidised companies, 1957-91

	Lower	Between	Higher
Barletta sample	49.65	36.17	14.18
SMP sample	28.92	42.16	28.92

Keys= Lower than the subsidised interest rates; Between subsidised interest rate and yields on long-term government bonds; Higher than yields on long-term government bonds.

Source: Company balance sheets

Table VII.16 shows that the largest percentage of observations falls in the 'between' group in the North-Eastern sample. Therefore, applying an *ex-post* analysis, subsidies can be considered as 'crucial' for the profitability of capital employed, for the largest group of observations. Moreover, the larger percentage in the 'higher' group indicates a better performance of companies in the North-Eastern sample. The large percentage of annual rates of return lower than the subsidised interest rate in the South is striking.

Table VII.17 Rates of return, non-subsidised companies, 1957-91

	Lower	Between	Higher
Barletta sample	46.20	32.75	21.05
SMP sample	42.62	22.13	35.25

Keys and source as for table VII.16.

⁵⁹Astolfi and Negri, *Ragioneria applicata*, p. 136.

In the Barletta sample, non-subsidised companies or companies in those years when they did not receive any subsidy, display slightly higher returns than subsidised companies, as shown by the smaller percentage of observations in the 'lower' group and the larger percentage of observations falling in the 'higher' group. The sample also displays a considerable share of observations in the middle range. As table VII.17 refers to non-subsidised companies, all rates of return below yields on long-term government bonds indicate that capital employed in a given company-year was unprofitable, however observations in the middle range indicate that capital employed in those companies-years would have been made profitable by incentives.

The corresponding figures for the SMP sample in table VII.17 suggest that incentives were more effective in this area, as non-subsidised companies display a larger share of observations in the 'lower' and 'higher' groups, as compared to subsidised companies in table VII.16. Moreover, the share of observations for which incentives would have been 'crucial' (the middle group) is considerably smaller than the corresponding figure for subsidised companies in the same area.

In order to investigate in detail the results presented above the analysis has been broken down into sub-periods, and companies have been classified in four groups according to their performance. Their performance has been studied by looking at the frequency of their losses. This choice was based on the observation that in the Southern sample a number of companies received subsidies although they were often making losses. Secondly, profits and losses seem to be a reliable benchmark: companies would try to lower their profit figures not to incur a heavy tax burden, but might be reluctant to display losses in their balance sheets, as this would affect their reputation with banks, suppliers and clients. This idea is suggested by the fact that some companies credited part of their grants to the profit account: in the second section of this chapter it was mentioned that without the grants the companies would have made in some cases only a very small profit and in others a loss.

Companies have been divided into two broad categories: subsidised and non-subsidised. Companies in each category have been classified into groups according to the frequency of their losses, by sub-periods. Group A includes companies with

no loss in the sub-period under consideration; group B companies with losses for half (or less) the sub-period; group C companies with losses for the majority of years in the sub-period; and group D, companies with losses in every year of the sub-period.

Table VII.18 Barletta Sample: Average Rate of Return, 1951-1991, (number of companies in brackets)

	1951-6	1957-65	1966-70	1971-75	1976-80	1981-86	1987-91
S/A				4.40 (1)	12.28 (10)	15.15 (8)	5.20 (8)
S/B				-8.16 (1)	-217.31 (4)	2.34 (6)	5.23 (5)
S/C		-6.90 (1)	-5.79 (3)	-3.41 (2)	-4.38 (3)	-15.26 (3)	-53.19 (2)
S/D				-31.02 (2)		-22.15 (1)	
NS/A	19.79 (1)			118.42 (4)		9.04 (4)	7.11 (4)
NS/B		-127.22 (1)	-2.23 (1)	-37.24 (3)	-2.03 (4)	7.62 (6)	3.19 (2)
NS/C			-5.44 (1)	0.70 (1)	-1.64 (1)	-30.18 (1)	-10.27 (1)
NS/D				-55.01 (4)	-1.59 (3)	-0.65 (1)	-48.17 (2)
SIRS		3-5	3-4	3-7.5	2.3-8.8	2.6-10.1	1.8-8.9
YLTGB		5-7.4	6.5-9	7.4-11.5	13.1-16.1	10.5-20.9	9.68-10.1

Keys: S= subsidised; NS= non-subsidised; A, B, C, D= groups; SIR= subsidised interest rate in Southern Italy (range); YLTGB= yields on long-term government bonds (range).

Source: company balance sheets; tables IV.1-IV.15.

Table VII.19 San Mauro Pascoli Sample: Average Rate of Return, 1951-1991 (number of companies in brackets)

S	1951-56	1957-65	1966-70	1971-75	1976-80	1981-86	1987-91
S/A					7.35 (2)	19.77 (6)	6.62 (4)
S/B				25.78 (1)	16.76 (1)	1.70 (1)	2.05 (1)
NS/A		95.88 (1)	0.35 (1)	17.03 (2)	118.71 (1)	19.28 (6)	32.37 (9)
NS/B	-2.76 (1)	3.78 (1)			-16.13 (1)	15.93 (2)	1.42 (2)
NS/C					-54.62 (1)	-13.94 (2)	
NS/D							-4.78 (2)
SIRC/N		5.0-6.0	4.7-6.9	4-10.1	3.1-9.7	3.4-15.35	2.5-8.9
YLTGB		5-7.4	6.5-9.01	7.4-11.5	13.1-16.1	10.5-20.9	9.7-11.5

Note: very high and very low values of returns are due to 1) start-up companies having little long-term capital; 2) companies in the last years before bankruptcy; 3) companies presenting considerable losses in one year and considerable profits in the following, this happens often to companies in group B.

Keys and source as above.

The above tables show that in the San Mauro Pascoli sample, only companies belonging to groups A and B benefited from subsidies, despite the existence of companies belonging to groups C and D. In the Barletta sample companies belonging to group C had access to subsidies in each sub-period, as did companies from group D between 1971-75 and 1981-86. Moreover, between 1957 and 1970 in the Barletta sample, companies making losses for half or less the sub-period (group B) were not subsidised whereas companies making more frequent losses (group C) had access to subsidies. This happens also in the San Mauro Pascoli sample, but only from 1971 to 1975.

The consistent access to subsidies by companies in groups C and D in the Barletta sample suggests the bailing out of troubled firms. The following table displays the type of subsidies received by companies, according to groups. It is sensible to investigate this point only from 1971, as until 1970 the only type of subsidy received by the companies in the Barletta sample was subsidised loans.

Table VII.20 Subsidies by groups, Barletta sample 1971-91 (% of observations in brackets)

	Observations	SL	Gr	FS
A	27	12 (44.4)	22 (81.5)	13 (48.1)
B	16	6 (37.5)	13 (81.3)	5 (31.2)
C	10	2 (20)	8 (80)	3 (30)
D	3	0	2 (66.7)	1 (33.3)

Key: Observations= number of companies in each group, in each sub-period from 1971 to 1991, in table VII.18. The number of observations does not coincide with the number of companies in the sample, as one observation corresponds to one company in one sub-period. For instance, the same company trading from 1971 to 1991 provides four observations, one for each sub-period in table VII.18.

Source: company balance sheets

The allocation of grants does not seem to be affected by performance, with as similar percentage in all four groups. However, the allocation of subsidised loans seemed much more dependent on company performance.

Table VII.21 Access to subsidised loans by groups, Barletta sample 1971-91.

	Observations	Recipients	R % O	R % TR
A	27	12	44.4	60
B	16	6	37.5	30
C	10	2	20	10
D	3	0		

Keys: Recipients= number of observations (company by period) recipient of subsidised loans; R%O= recipients as % of observations; R%TR= recipient in each group as a percentage of total recipients. Source as above.

Table VII.21 clearly displays that companies in groups C and D had very little access to subsidised loans. Subsidised loans can be less appealing to poorly performing companies as they involve costs and the obligation of repayment. Moreover, the credit institutions involved in the policy would not be willing to lend to companies consistently making losses. As explained in chapter III, subsidised loans were extended by the MTCIs at their own risk, the Cassa covering only the difference between the subsidised and the market interest rate. Instead, grants were provided entirely by the Cassa with no financial involvement of credit institutions. Moreover, as grants involve no obligations of repayment, they might have been particularly attractive to companies consistently making losses.

As in the San Mauro Pascoli sample, loans were the main type of subsidy, with only two companies receiving also grants, the absence of subsidised companies from groups C and D is more understandable.

Table VII.22 Rate of returns of subsidised companies, excluding observations in groups C and D, Barletta sample, 1957-91

Lower	Between	Higher
34.16	47.52	18.32

Keys= Lower than the subsidised interest rates; Between subsidised interest rate and yields on long-term government bonds; Higher than yields on long-term government bonds. Source: company balance sheets.

Table VII.22 shows how the rates of return of companies in the Barletta sample would compare to the subsidised interest rate and yields from government bonds, excluding observations in groups C and D. A far smaller share of observations now falls into the 'lower' group, as compared to table VII.16, and almost half would fall

in the middle group - the group for which subsidies are 'crucial' in order to make capital employed profitable. However, the number of investments lower than the subsidised interest rate remains higher than the North-eastern corresponding figure in table VII.16, indicating a poorer performance of the companies in the Southern sample.

The comparison between tables VII.16 and VII.22 suggests that a more selective management of subsidies would have rendered subsidies more effective. In the first place, fewer subsidies, in percentage terms, would have been extended to companies with rates of return so low that their capital employed remained unprofitable even after lowering the cost of capital. In the second place, a more selective management of subsidies would have captured a higher percentage of companies, for which lowering the cost of capital was 'crucial' in order to make their capital employed profitable. Moreover, tables VII.20 and VII.21, suggest that the type of subsidy more prone to this less selective management was grants. However, even if subsidies were not extended to companies making frequent losses, this would not prevent another type of ineffectiveness of the subsidies, i.e. the extending of subsidies to companies with rates of return so high that their capital employed would be profitable even in the absence of subsidies.

Conclusions

The analysis of the effectiveness of subsidies conducted in this chapter has pointed out achievements and failures of the regional and national policies. Subsidies to companies in the Southern sample might be considered effective in as much as they enhanced the investment activity and profitability of recipient firms, and increased their level of financial capitalization. However, the results clearly suggest that such positive effects were short lived and confined to the period in which companies in the Southern sample received subsidies.

Companies in the North-eastern sample reach their best performance in the post-subsidy stage, in terms of financial equilibrium, investment and profitability. This result together with the high percentage of investment made profitable by subsidies,

clearly indicates that although subsidies represented a smaller source of finance for North-eastern companies, they have been even more effective than for Southern firms.

The comparison between subsidised and 'never subsidised' firms casts further doubts on the effectiveness of subsidies on companies in the Southern sample. On the one hand, the higher percentage of failed companies among 'never subsidised' companies indicates that subsidies reduced the probability of companies' failure, on the other subsidies enabled recipient companies to pursue a low-risk low-profitability strategy.

The interpretation put forward in this chapter singles out three factors that determined such an outcome: the riskier economic environment in which Southern firms operate, the amount and frequency of subsidies, and their lack of selectivity, especially in the case of grants. Under these conditions, the choice of a low-profit and low-risk strategy of Southern firms in the sample becomes the most rational.

Therefore, the analysis does not support the sociological interpretation according to which Southern entrepreneurs abandon the economic rationale and reap benefit from institutions and/or political environment. Southern entrepreneurs in the sample indeed benefit from institutions but the rationale remains purely economic. The analysis of the two samples partly substantiates the conclusions reached by Bagella and Caggese, who argue, albeit on weak evidence, that the characteristics of the subsidies and the area in which companies are located determine whether recipient companies undertake high-profit and high-risk or low-profit and low-risk investment. However, while it seems plausible that subsidised companies in the Southern sample adopt a low-profit, low-risk strategy in order to maximize the probability of continuing trading, maximizing the possibility of receiving other subsidies seems to be a means rather than an end.

The analysis of the rates of return highlighted that the percentage of investment for which subsidies were 'crucial' is smaller for Southern companies than for their North-eastern counterparts, for a large percentage of non-profitable investment undertaken by Southern companies making frequent losses was subsidised,

particularly through grants. Excluding such companies, subsidies would have been as 'crucial' for the Southern sample as they were for the North-eastern firms. This indicates that the lower effectiveness of subsidies was due in particular to grants, which was a type of subsidy provided entirely by the Cassa and disconnected from market institutions. Such subsidies were rarely awarded to companies in the North-eastern sample.

The previous chapter pointed out that the established interpretative framework regarding the types of finance used by companies within IDs, fails to capture the importance of government subsidies for Southern IDs in particular. The analysis conducted in this chapter indicates that ignoring subsidies would limit the understanding not only of Southern IDs but also of the more prosperous North-eastern IDs, where companies benefited from subsidies to a much smaller extent, but where, nevertheless, subsidies turned out to be more effective.

CONCLUSIONS

This thesis has investigated the system of incentives available to small and medium-sized firms in Southern Italy after 1957, and compared it with the incentives available to small and medium-sized firms throughout the country. The subsidies for the Southern firms were part of the so-called 'Extraordinary Intervention for the South', and were managed by the Cassa. The 'Extraordinary Intervention' was the result of political and economic considerations, as well as pressure from Svimez and the IBRD. Officially, it was claimed that the policy would benefit the whole Italian economy. The availability of subsidies for small and medium-sized firms in the rest of the country was due to the widespread awareness of the importance of such firms to the Italian economy.

The complexity of the Cassa programme and the frequent shifts in its priorities have been shown in Chapter III. Particularly important for this thesis was the 1962 abandonment of the size criterion for eligibility for subsidies, which removed the emphasis on small and medium-sized firms. The other major turning point was 1976, which marked the end of the 'jungle of incentives'. This turning point is clearly reflected in the expenditure of the Cassa. Until 1975, its subsidised credit and grants increased, both in absolute and relative terms. From 1976, expenditure, subsidised credit and grants all decreased. The same changes are evident in the regional distribution of subsidised credit. The North-East benefited least from soft loans throughout the whole period, whereas the South received the largest share until 1975. However, from 1976 the North-West was consistently the biggest beneficiary. Even if Cassa grants are added, the total financial subsidies going to the South after that date were less than subsidised credit going to the North-West. This finding is in line with Padoa Schioppa Kostoris's figures for total government expenditure for the single year of 1988, however, by demonstrating a longer-term trend this thesis significantly enhances the understanding of the system of subsidies. Furthermore, the finding undermines the growing common assumption that subsidies to the South had become a burden on Northern resources, at least as far as grants and subsidised loans were concerned. As this assumption contributed to the end of the 'Extraordinary Intervention', the finding is even more significant.

The harmonisation of regional and national subsidy schemes reflected the obvious need to simplify the soft loan system. By 1976, subsidised credit was regarded as particularly important, as the BoI's tight monetary policy had made borrowing more expensive. However, the regional analysis of subsidised credit has shown that 1976 also marked the redirection of subsidies away from the South to the most productive area of the country, and a decreasing trend in the public resources devoted to the regional policy. It seems plausible that following the 1975 recession, stimulating the national economy by directing state resources into the most productive areas became the new priority. Thus, as other authors have already noted, resources were diverted from the South to the North-west.¹

Previous authors have acknowledged this change in the direction of subsidised loans but the timing is still controversial. Pergolesi identified it as starting from 1973-74. Del Monte and Giannola, using a different dataset, timed it in 1976 but do not place it in the context of the institutional change. Yuill et al. mention the institutional change but do not examine its consequences.² This thesis clarifies the issue by bringing together the institutional and economic sides and confirms the periodization identified by Del Monte and Giannola on the basis of three different datasets - the Cassa balance sheets, the BoI financial statistics and unpublished records of the Ministry of Industry.

Using the MI records, the thesis has investigated the degree to which the national institutions in charge of subsidised credit responded to applications for loans. The issue of to what extent applications for subsidies were satisfied is covered for the first time in this thesis, and it is clear that overall, the distribution of subsidies was driven by the applications rather than by their availability. The only exception was Southern Italy from 1976 onwards, the only region where the share of accepted applications decreased from 83.1% to 75.3%. The issue is important, not only because it adds to the understanding of subsidies as a whole, but also because it points out that with the exception of Southern Italy after 1976, those areas where fewer subsidies were

¹ See section 4.2, III.

² See section 4.2, III for the debate.

received were those where fewer subsidies were sought, which is important background information for the micro-analysis.

The importance of subsidies for the Barletta and San Mauro Pascoli samples

The importance of subsidies as a source of company finance has been analysed on the basis of two relatively small samples of companies, one located in the Southern ID of Barletta and the other in the North-Eastern ID of San Mauro Pascoli, specialized in the production of footwear, clothing and textiles.

The analysis of the companies' capital structure revealed that companies in the Southern samples relied much more heavily on subsidies than their North-Eastern counterparts, both before and after 1976. This finding is consistent with the regional analysis, which showed that the North-East, together with the Centre, benefited least from subsidies throughout the whole period of analysis. The greater relative weight of subsidies for the Southern companies reflects several factors: a) subsidies reported by Southern companies were larger in absolute terms, which is consistent with the higher subsidies to which Southern companies were entitled by the policy; b) Southern companies received subsidies - particularly grants - more frequently than the North-Eastern firms; c) the relative weight of such subsidies (subsidies as a percentage of total liabilities) is greater for Southern companies because the other components of liabilities are smaller than those of the North-Eastern companies.

However, if the relative weight of subsidies indicates that subsidies were a more important source of finance for companies in the Southern sample, an interesting twist is provided by the analysis of the effectiveness of subsidies on companies in the samples, a point analysed using the new methodology proposed by Bagella and Caggese. The results show that the North-Eastern sample displays the ideal behaviour, for the investment activity and profitability of firms increases in the subsidised stage, but increases even further in the post-subsidy stage, whereas the profitability and investment activity of Southern companies increase in the subsidised stage but decrease in the post-subsidy stage.

This new finding reveals a fresh insight into the issue of the effectiveness of subsidies. According to a study by the World Bank,³ subsidies should not generate dependence of recipient firms, meaning that recipient companies perform well only when subsidised. A dependence on subsidies indicates that the nexus between a firm's profitability and its efficiency has been broken, which in turn implies the permanent capture of government funds and in extreme cases the bailing out of troubled firms. Using this approach, the declining performance of 'post-subsidy' companies in the Southern sample can only indicate the failure of regional subsidies and the dependence of recipient firms. On the contrary, the improved performance of 'post-subsidy' companies in the North-Eastern sample indicates the effectiveness of subsidies, which did not generate dependence of recipient companies. On the one hand, this finding casts serious doubts on the implementation of the 'Extraordinary intervention' and the way in which some companies used its funds. On the other hand, it suggests that there might be other factors limiting the effectiveness of subsidies in the South.

The comparison between Southern subsidised and unsubsidised companies yields striking results. Unsubsidised companies achieve higher profits than subsidised companies, and in line with the Capital Asset Pricing Model, the former are more risky than the latter. Therefore, it could be inferred that subsidised companies pursue a 'survival' strategy, whereas unsubsidised companies pursue a 'profit maximising' strategy. It seems plausible that behind this survival strategy there is a rationale similar to McCloskey's concept of avoiding disaster - in this case the failure of the companies. Unsubsidised companies also pursue a survival strategy, but in order to survive they need to achieve high profits, as their low profits would not be increased by the subsidies, therefore they have no choice but undertake high-profit and high-risk investment.

Yet another point on which the effectiveness of a policy can be tested is whether it can be an effective mechanism for correcting capital market failures. Echoing the Gerschenkronian argument, the World Bank stresses that government credit can be an effective mechanism for correcting capital market failures in less developed regions

³ For details see Introduction to Chapter VII.

where the capital shortage renders private banking unviable.⁴ However, even in developed and industrialized regions, government credit can correct capital market imperfections, such as those due to asymmetric information, by assuming the cost of monitoring and providing a senior status to private credit. In this respect North-Eastern subsidies also seem to be more effective. Subsidised companies in both samples display a higher percentage of long-term market borrowed funds as compared to non-subsidised companies, therefore subsidies seem to have a crowding-in effect. However, while companies in the Southern sample return to a situation of financial constraints in the post-subsidy stage, similar to financial constraints already experienced in the pre-subsidy stage, North-Eastern companies enjoy higher levels of liquidity in their post-subsidy stage. This result is not surprising considering that the profitability of companies in the Southern sample decreases in the post-subsidy stage whereas it increases in the North-Eastern sample. Therefore, in the post-subsidy stage Southern companies might be perceived as 'bad companies' by banks and be credit rationed. On the contrary, 'post-subsidy' companies in the North-Eastern sample would be perceived as 'good companies' and would not experience credit rationing.

Contributions of the thesis

This research shows that the established interpretative framework regarding sources of finance in IDs is limited and needs considerable revision. The new evidence offered by the study of a Southern ID clearly suggests that state finance should be taken into account in order to reach a deeper understanding of IDs throughout the country. State subsidies were clearly important for Southern IDs. However, the analysis of the sources of finance of the North-eastern sample shows that companies there also benefited from subsidies, if to a much smaller extent. Nevertheless, subsidies in the North-East turned out to be more effective than in the South.

These findings are important also for the international literature on IDs. Italian IDs are considered a prominent feature of the country's economy, and a particularly successful one. However, when explaining the existence of this pattern of business

⁴ For details see section 6.2.3.

organization, it is overlooked that in Italy special attention had been paid to the financial requirements of small and medium-sized firms since the early 1950s, by creating *ad hoc* financial institutions (RMTICs) and by providing subsidised credit for such firms. The institutional contribution to the development of North-eastern IDs is acknowledged by Piore and Sabel, but only as far as local government is concerned, in that it provided infrastructures that the firms required but could not themselves provide.⁵

This research offers a further contribution to the historiography on IDs by focusing on an ID located in Southern Italy and by comparing it with a classical North-eastern example. Southern IDs are much less studied, their existence not even being acknowledged. Only very recently have some scholars begun paying attention to IDs in the South, looking mainly at their contribution to the Southern economy in terms of employment and exports.⁶ No study has yet compared a Southern ID with a North-eastern one, which implies placing the IDs within the wider contexts of the North-South economic divide - the major structural problem of the Italian economy - and the regional and national industrial policy. Therefore, in this thesis the IDs of Barletta and SMP have been used also as cases to study, at the micro-level, important issues and policies of the last fifty years of Italian economic history.

There is wide agreement that the main achievement of the 'Extraordinary intervention for the South' lay in preventing the widening of the gap between North and South. This is considered a great achievement by some scholars, as the South kept pace with the North when the latter experienced its fastest ever growth, but disappointing by others stressing that convergence has not been achieved.⁷ Regional values for GDP per capita and the ratio of investment to output confirm the lack of convergence. However, given the regional distribution of subsidised credit and grants shown in this thesis, the common perception should be refined, by saying that the subsidised South failed to reduce the gap between it and other subsidised parts of the country, in particular the North-West, which in terms of subsidies to industry from 1976, was even more subsidised than the South. This was significant, and it was bound to affect

⁵ For details see section 1.1.2.

⁶ For details see section 1.2.2.

the comparative performance of the South. Furthermore, the subsidies aimed at increasing the profitability of investing in the South in order to attract capital from other areas of the country, an effect that might have been greatly reduced by the availability of subsidies elsewhere.

The policy for the South has been criticized on several accounts. In particular, subsidised credit and capital grants have been criticized as affected by an inefficient bureaucracy, in turn affected by bribery; it is also claimed that financial subsidies did not always translate into productive investment but may have been used to fuel liquidity or undertake financial speculation. Various works stress that large investments in capital-intensive sectors were the main beneficiary of subsidies and that since the lifting of the size limit of eligible companies, in 1962, the system of subsidies in the South was diverted from its original purpose of developing an organic network of small and medium-sized firms. Conversely, subsidies did not favour the development of small local firms and the industrial policy for the South has failed to promote a self-sustaining industrial development similar to that which took place in the North-East. However, a study by Faini, based on subsidies extended by the Cassa by company size between 1970 and 1983, found no evidence of small firms having less access to subsidies than large firms.⁸

This thesis offers a different approach to test the effectiveness and shortcomings of the 'Extraordinary intervention' as far as financial subsidies are concerned. The literature on the regional policy is extensive, but the studies of the outcomes are based largely on regional data and very few have attempted to assess their effectiveness on the basis of company records.⁹ The findings based on the two ID samples remain in line with previous analysis based on company records, while providing a more accurate analysis bringing to light new elements. Companies in the Barletta sample display a higher percentage of fixed net assets to total assets, and considering this percentage as a proxy for capital intensity, the comparison of the two ID samples indicates that Southern small firms trading in traditional sectors are also

⁷ For the debate see section 2.3.1.

⁸ For details see section 2.3.2.

more capital intensive, a result confirmed by the 1987 BoI study of a sample of 9,000 small manufacturing companies.¹⁰

The higher capital intensity of the Southern industry as a whole is well known to the general literature and has been interpreted as determined by the investment by state-owned enterprises in sectors such as steel, chemical and oil-refining.¹¹ The higher percentage of fixed net assets displayed by Southern small firms is interpreted by supporters of the regional policy as a consequence of underdevelopment, as more resources are needed to produce the same amount of output. Therefore the system of incentives to investment, consistently with its aim, has allowed Southern companies to endow themselves with the required level of fixed assets, beyond the level that their own capital would have allowed. However, the higher level of fixed assets could also be interpreted as a distortion caused by financial incentives, which lowered the relative cost of capital.

Moreover, Bagella and Caggese maintain that subsidised Southern companies in traditional sectors are less profitable and less risky than non-subsidised ones, based on a comparison between profitability of subsidised and non-subsidised companies. They found that also in the North subsidised companies are less profitable than non-subsidised, but at least subsidised companies are less risky. The overall picture from the two ID samples reflect the findings by Bagella and Caggese, but only when the ID samples are divided into subsidised and non-subsidised. When dividing the non-subsidised companies in the two ID samples into pre-subsidy, post-subsidy and 'never subsidised' groups, a method that Bagella and Caggese were unable to test for themselves, new interesting results were brought to light. These challenge the findings of the two authors. By dividing non-subsidised companies in the two ID samples into smaller groups, it emerges that regional subsidies in the South were effective to a larger extent than Bagella and Caggese admit, but were even more effective in the North-East.

⁹ Bagella and Caggese, 'Struttura del capitale'; Bagella, Becchetti and Caggese, 'Financial Constraints'; Faini, Galli and Giovannini, 'Finance and Development'; Siracusano and Tresoldi, 'Piccole Imprese'.

¹⁰ See section 6.2.2

The more accurate analysis presented in this thesis was made possible by the quality of the data collected. The two ID samples have been compiled on the basis of raw company data collected at local Chambers of Commerce, and following the same companies for as long a period of time as permitted by the availability of data. This made it possible to separate subsidies from other types of long-term finance and studying various issues at different points in time and at various stages of the companies' trading lives. On the contrary, all the other micro-economic studies are based on previously reclassified company records from institutions such as Centrale dei Bilanci or Mediocredito Centrale, which do not allow a separation between subsidies and other types of long-term finance. Although their samples are very large, they cover very short periods.

The analysis of the two ID samples supports only part of the criticisms mentioned above. Consistently with the Faini study, the large number of subsidised companies in the Southern sample (26 out of 32, the corresponding figure for the North-Eastern sample being 11 out of 21) does not indicate that small firms were at a disadvantage in accessing subsidies. As for the way Southern companies used subsidies, both the Bagella and Caggese method and the panel data analysis indicate an association between subsidies and investment. Moreover, subsidies were extremely important for the capitalization, in financial terms, of such firms. Only when companies in the Southern sample were subsidised did they cover their fixed assets with long-term capital. Therefore, it seems unlikely that companies in the Southern sample were using subsidies for purposes other than financing investment. Some companies did use subsidies for a different purpose, namely to consolidate short-term bank loans, but such loans had been obtained to bridge the delay between the approval of the application for subsidies and the extension of subsidies.

However, some of the criticisms are confirmed by the analysis of the two samples. Dividing the trading life of Southern companies into pre-subsidy, subsidised and post-subsidy stages, it emerged that these firms undertook the highest investment, enjoyed the highest rates of return and the highest level of capitalization, in financial terms, only when they were subsidised, whereas in the post-subsidy stage all

¹¹ See for instance V. Castronovo, *Storia economica d'Italia* (Turin, 1995) p.433.

indicators display lower values. On the contrary, according to the same indicators, North-Eastern companies improved their performance when subsidised but reached their best performance in the post-subsidy stage. These results clearly indicate the dependence of companies in the Southern sample on subsidies, whereas the North-Eastern firms show autonomy from subsidies, as their performance improves even in the absence of subsidies. Therefore, although Southern firms in the sample indicate an association between subsidies and investment, the growth promoted by subsidies cannot be considered 'self-sustaining' as in the North-East.

There are various factors behind the dependence displayed by the Southern firms. One of the reasons why investment decreases in the post-subsidy stage is likely to be the high endowment of fixed assets (fixed net assets as a proportion of total net assets is as high as 37.6% in Southern subsidised companies, compared to 17.6% for the North-Eastern counterparts) reached by Southern companies in the subsidised stage, which reduces the scope for further profitable investment in the post-subsidy stage. Moreover, the sharp decline of companies' profitability and capitalization, in financial terms, in the post-subsidy stage, suggests that financial means to undertake further investment are severely limited.

There are several reasons why the profitability of companies within the Southern sample decreases in the post-subsidy stage, in contrast to the North-Eastern experience. Out of the 6 Southern post-subsidy companies only two performed well while subsidised (i.e. having rates of return above the average of the Southern subsidised group), but the rates of return of the other 4 were below the average for the subsidised group. Out of the 4 North-Eastern companies in the post-subsidy stage, three are the best performing of the entire sample and they leave the subsidised stage when they have reached the size limit for eligible companies. With the absence of any size limit in the South, the best performing companies in the sample never left the subsidised stage during the period of analysis. Such companies were not only larger in terms of fixed net assets than the best performing North-Eastern sample firms, but were also enjoying rates of return higher than the market interest rate, which demonstrates *ex post* that subsidies were not necessary to make their investment profitable.

The example above clearly points out the inefficient use of subsidies in the South. Even worse, the analysis of the capital structure of failed companies in the last five years of their trading life has revealed that much higher subsidies were received by Southern companies about to fail as compared to the North-eastern companies. Moreover, the comparison of the rates of return of subsidised companies with yields on long-term government bonds shows that a larger share of *ex-post* unprofitable investment was subsidised in the Southern sample than in the North-eastern sample, thus suggesting that subsidies in the South were less selective than in the North-East.

However, while inefficiencies in the management of subsidies are clear, these alone cannot explain the poorer performance of companies in the Southern sample. The profitability of these companies remains lower than for their North-Eastern counterparts regardless of whether they are in the pre-subsidy, subsidised or post-subsidy stage, which has both micro- and macroeconomic explanations.

The introduction mentioned the great attention devoted in economic history to the role of financial institutions in economic growth. From the two small samples it is clear that the institutions managing state subsidies did contribute to the growth of the two IDs. Subsidies were a vital source of finance for many firms in the Southern sample and were not insignificant for the majority of firms in the North-Eastern sample. However, the effects of the subsidies seem short-lived for the South companies. This was partly because of poor decisions by the institutions, which frequently poured money into inappropriate companies. The inefficiency of many of the Southern companies also reduced the effectiveness of subsidies. Finally, the subsidies could not compensate for the riskier environment in the South. The situation looks very different for the North-Eastern sample. There, companies relied to a much smaller extent on subsidies but these seem to be much more effective.

Appendix A: The 'short-term' branch of the Italian banking system.

Ordinary banks were divided into six groups:

a) The 'banks of national interest' (*banche di interesse nazionale*). These were the Banca Commerciale Italiana, Credito Italiano, Banco di Roma, the three mixed banks that survived the banking crisis of the early 1930s. They were joint stock companies, and their capital was owned by the state through the holding company IRI until the privatisation of the 1990s. Banks of national interest operated in the whole country, but were not allowed to open branches in small municipalities or towns that were not provincial capitals. Exceptions were possible in case of industrial and commercial towns.¹

b) The six Public Law banks were public corporations: Banca Nazionale del Lavoro, Banco di Napoli, Banco di Sicilia, Banco di Sardegna, Monte dei Paschi di Siena and Istituto Bancario San Paolo di Torino. Among those only the Banca Nazionale del Lavoro operated throughout the whole country, maintaining a national network of branches until the 1980s. The Banco di Napoli has most of its branches in the South of Italy, though it has a certain number in other parts of the country. The others, namely Banco di Sicilia, Monte dei Paschi di Siena and Istituto Bancario San Paolo di Torino are regional or at most interregional banks.²

c) Ordinary Credit banks. These are Joint Stock Companies. The 138 Ordinary banks, by virtue of their status are the only ones that are allowed to be, and indeed are, controlled by private industrial and financial groups. The group displays great variations in size from some banks with a few offices to others that possess more than a hundred branches spread over many regions. This group as well as the following ones is more developed in the North than in the South.³

d) Co-operative banks. The size variations in this group are still greater than in the preceding one. This type of banks can not be taken over, because the individual

¹ Carnevali, 'British and Italian banks', p. 195; Cassese, *E' ancora*, pp. 138-140.

² Ceriani, 'Italy', p. 132.

³ *Ibid.*, pp. 134-135.

shareholders are permitted to hold only a limited number of shares and have the right to only one vote.⁴

e) Savings banks are public bodies. They have several features distinguishing them from other banks, notably a “very high ratio of savings deposits to current accounts (4 to 1)”. In addition, “medium and long-term loans made to special classes of borrowers and against special guarantees” played an important role in their activities.⁵

Although the majority of banks is state owned this does not mean that they have public aims. The co-existence of public ownership and private aims is very much stressed in the legal literature on the topic, which also makes it clear that the state limits its involvement to appointing bank presidents or chairmen rather than executive managers. However, public banks are under the same control and discipline as private institutions and ultimately under the control of the BoI.⁶

The table below displays the relative size of each group in terms of balance sheet deposits as a percentage of total deposits for all types of banks.

Table A.1 Deposits share by group (%), 1930s - 1980s.

	1938	1948	1956	1966	1977	1988
BNI	12	24.6	21.1	18.1	13.7	10.4
PL	20.5	21.6	22.9	18.7	19.6	17.2
OC	13.3	21.4	22.6	21.8	25	22.5
Co	11.1	11	10.9	11	14	16.4
SB	41.6	21.4	22.4	26.2	27.6	27.3
Others	1.5				0.2	6.1

Keys: BNI= Banks of national interest; PL= Public law banks; OC= Ordinary credit banks; CO = co-operative banks; SB= Saving banks; Others = ‘Ditte’ and ‘Casse Rurali ed Artigiane’.

Source: Barca and Manghetti, *L’Italia*, p. 223. and Banca d’Italia, *Bollettino*, various years.

The presence of such a large number of banks does not necessarily imply competition, as markets are highly territorially fragmented. Until 1974 the territorial limitations were articulated as follows:

a) banks of national interest could operate throughout the whole country;

⁴ *Ibid*, p. 135.

⁵ *Ibid*, p. 137.

⁶ Cassese, *E’ ancora*, pp. 89-95.

- b) banks with deposits amounting to more than 300 bn lire could operate in the regions where their head office was established;
- c) other banks could operate in the whole province if their head office was located in the provincial capital;
- d) banks operating only in the municipalities where their branches were located.⁷

From 1975 the territorial limitations were more strictly defined and connected to the deposit size.

Table A.2 Territorial limits of banks by deposit size, from 1975.

Bank size (deposits, bn lire)	Geographical extent of operations
<15	municipalities ^a
>15	province ^b
>150	region ^c
>500	regions ^d
>1500	whole country

Keys: a=location of head office + adjacent towns.

b= province containing branches + adjacent provinces.

c= region containing head office + adjacent provinces + provinces containing branches.

d= region containing head office + adjacent regions + any region containing at least one branch in a provincial capital.

Source: Barca and Manghetti, *L'Italia*, pp. 215-216.

In their lending activity banks have to respect the limit of advances which amounts to 20% of the paid-up capital and reserves of the bank. Exceptions to this rule are still possible with the approval of the ICCS. However, advances can not exceed 30% of bank deposits.

⁷ Barca and Manghetti, *L'Italia*, p. 215; Carnevali, 'British and Italian banks', p. 191.

Appendix B: The companies in the two ID samples.

B.1 List of companies and records available

Companies are designated with three letters, of which the first refers to the area (North or South), while the following two are the initials of the company's name. The first date corresponds to the year of establishment, the following dates to the period for which records are available. When dates of establishment or change of public status specify the month, it means that the relevant record (i.e. deed of incorporation or the official document recording the change in the company's legal status) was available in the company's folder. When the month it is not specified it means that the relevant record was not available, but the year was mentioned in one of the reports available.

Table B.1.1 Records at the Chamber of Commerce in Bari

Company	Legal status	Established	Records available		Product
			From	To	
San	Pb/Ltd (1988)	1936	1951	1991	Food processing
Sma	Pb	1959	1959	1976	Clothing
Svr	Ltd	1967	1967	1991	Food processing
Sin	Ltd	1967	1968	1989	Food processing
Ser	Ltd	1/1967	1969	1985	Wood processing
Sfi	Ltd	1/1971	1971	1991	Textiles
Sbc	Ltd	1/1972	1972	1991	Textiles
Stu	Pv/Ltd (12/1977)	3/1972	1978	1991	Wood processing
Svc	Ltd	11/ 1972	1973	1991	Food processing
Sfs	Ltd	11/1972	1973	1985	Textiles
Sab	Ltd /Pv (1986)	2/1973	1973	1986	Footwear
San	Ltd	3/1973	1973	1983	Clothing
Sbia	Pb	1973	1973	1991	Clothing
Sal	Ltd	1973	1973	1979	Clothing
Sar	Ltd	1973	1973	1988	Footwear
Sri	Pb	10/ 1973	1974	1991	Footwear
Sst	Pb	11/ 1973	1974	1990	Plastic
Spl	Pv/Ltd (4/1984)	12/1973	1984	1991	Footwear
Sca	Ltd	3/1974	1974	1987	Footwear
Sil	Ltd	6/1974	1975	1989	Wood processing
Smo	Ltd	11/1975	1976	1981	Clothing
Sga	Ltd	3/1977	1979	1991	Footwear
Sto	Ltd	10/ 1977	1978	1991	Footwear
Sbim	Ltd	11/1977	1978	1991	Clothing
Ste	Ltd	12/1977	1978	1991	Footwear
Sec	Ltd	1/1980	1980	1991	Footwear
Sja	Ltd	9/1980	1980	1991	Clothing

Company	Legal status	Established	Records from	available to	Product
Sli	Ltd	6/1981	1981	1991	Footwear
Spo	Pv/Ltd (1983)	1979	1983	1988	Footwear
Sro	Ltd	1983	1983	1991	Footwear
Ssa	Ltd	2/1983	1983	1991	Footwear
Sco	Pv/Ltd (6/1984)	3/1981	1984	1991	Footwear

Keys: Pv= Private partnership; Ltd = Limited liabilities; Pb= Public share.

Table B.1.2 Records at the Chamber of Commerce in Forli

Company	Legal status	Established	Records available from	to	Product
Nla	Ltd/Pv (1966-71)	1955	1956	1991*	Footwear
Nde	Pb	1962	1963	1967	Footwear
Nci	Pv/Ltd (10/1974)	7/1968	1974	1991	Metal chairs
Neu	Ltd	3/1974	1974	1991	Footwear equipment
Nrs	Pv/Pb (12/1975)	4/1967	1976	1991	Footwear
Nwi	Ltd	12/1973	1974	1979	Footwear
Nma	Ltd	2/1978	1978	1987	Footwear
Nal	Pb	9/1979	1979	1991	Clothing
Nca	Pv/Pb (2/ 1980)	9/1966	1981	1991	Footwear
Npo	Pv/Pb (12/1980)	2/1972	1981	1991	Footwear
Nfa	Pv/Pb (4/ 1981)	1/1961	1981	1991	Footwear
Nfr	Pv/Pb (6/ 1982)	2/1970	1982	1991	Clothing
Nri	Ltd	6/1982	1982	1991	Footwear
Nrf	Ltd	5/1982	1982	1991	Leather items
Nvi	Pv/Ltd (11/1982)	8/1967	1983	1985	Footwear
Nrm	Pv/Ltd (2/1983)	6/1969	1983	1987	Clothing
Npn	Ltd	4/1984	1984	1991	Footwear
Nrt	Pv/Ltd (9/1985)	4/1973	1985	1991	Paper/card boxes
Nti	Ltd	4/1985	1985	1991	Footwear
Nip	Pv/Ltd (5/1989)	9/1983	1989	1991	Packaging
Npl	Pv/Ltd (7/1989)	12/1985	1989	1991	Leather items

Keys as above; * excluding 1966-71 and 1973.

B.2 Reclassification and standardisation of records.

Tables B.2.1 and B.2.2 are two examples of how the company records have been reclassified. The records refer to companies San (1951-52) and Nip (1990-91). The two companies traded respectively in the food processing and footwear sectors. The tables below show that raw records with different levels of details were rendered comparable across sectors, periods and geographical areas, by applying a standard balance sheet reclassification according to financial criteria. The principle governing the reclassification by financial criteria is the aggregation of assets according to their liquidity (the ease of transferability into cash) and liabilities according to maturity. The aggregated components of assets and liabilities are then ordered by decreasing liquidity and increasing maturity.⁸

Table B.2.1 Company San, sector: food processing (current lire)

Assets	1951	1952
Cash on hand	2,961,673	18,479,860
Total Cash funds	2,961,673	18,479,860
Credit to clients	26,878,629	10,263,542
Bills	7,627,382	4,288,290
Total commercial credits	34,506,011	14,551,832
Credits on various expenditure	35,640,413	21,991,492
Company's income tax credit	1,972,380	963,160
Credit to National Institute of Social Sec.	224,220	224,220
Prepayments	158,983	
Others	258,960	119,360
Total various debts	38,254,956	23,298,232
Raw materials	182,738,520	233,595,323
Ancillaries	2,580,000	7,915,000
Semi-finished	31,767,950	21,408,500
Fuel		268,100
Total Inventory	217,086,470	263,186,923
Total Current assets	292,809,110	319,516,847
Equipment maintenance	532,235	276,474
Total fixed intangible assets	532,235	276,474
Office equipment	546,650	861,700
Plant and equipment (mill and stable)	40,002,849	73,139,080

⁸ Astolfi and Negri, *Ragioneria Applicata*, p. 227.

Total fixed tangible assets	40,549,499	74,000,780
Total fixed assets	41,081,734	74,277,254
Total Assets	333,890,844	393,794,101
Liabilities		
Debts to banks	108,307,766	209,816,224
Total short term bank loans	108,307,766	209,816,224
Debts to clients	10,645,880	9,432,420
Total commercial debts	10,645,880	9,432,420
Various debts not specified	186,473,735	135,083,469
Debts to administrators	100,000	100,000
Total various debts	186,573,735	135,183,469
Total short term liabilities	305,527,381	354,432,113
Total long term borrowed funds	0	0
Fund Employees' social insurance	3,555,018	7,921,301
Total provisions	3,555,018	7,921,301
DF equipment	7,325,351	11,207,623
Total depreciation funds	7,325,351	11,207,623
Paid-up Capital	1,200,000	1,200,000
Legal reserve	11,546,660	12,546,660
Total equities	12,746,660	13,746,660
Total Long term capital		
Net profit	4,736,434	6,486,404
Total liabilities	333,890,844	393,794,101

Keys: DF= Depreciation fund.

Table B.2.2 Company Nip, sector: footwear (current lire).

Assets	1990	1991
Cash on hand	130,097,567	80,562,157
Banks bills to be discounted	693,480,257	396,440,779
Total cash funds	823,577,824	477,002,936
Credit to clients	586,194,877	656,717,580
Others	3,780,000	
Total commercial credit	589,974,877	656,717,580
Various credits not specified	4,440,962	6,730,677
Credit on VAT	113,208,224	63,622,265
Others	2,600,000	2,421,236
Total various credits	120,249,186	72,774,178

Inventory	421,596,833	452,061,451
Total current assets	1,955,398,720	1,658,556,145
Costs to be depreciated	11,430,509	11,430,509
Total fixed intangible assets	11,430,509	11,430,509
Land and buildings	457,883,765	538,920,871
Plant	71,275,972	70,683,729
Machinery	488,784,708	538,239,108
Other equipment	25,228,702	25,228,702
car and lorry	181,801,317	133,478,572
Computers	29,423,950	30,279,450
Others	10,221,345	10,221,345
Total fixed tangible assets	1,264,619,759	1,347,051,777
Total fixed assets	1,276,050,268	1,358,482,286
Total assets	3,231,448,988	3,017,038,431
Liabilities		
Banks current account	155,309,892	132,888,567
Total short term bank loans	155,309,892	132,888,567
Debts to clients	55,796,735	58,680,607
Debts to suppliers	1,316,866,655	985,278,288
Total commercial debts	1,372,663,390	1,043,958,895
Bills	75,564,568	7,739,038
Short term payables	199,473,450	140,036,230
Unspecified various debts	145,468,536	225,782,329
Total various debts	420,506,554	373,557,597
Total short term liabilities	1,948,479,836	1,550,405,059
Long term subsidised debts Regional Mediocredito	53,034,056	27,435,288
Total Subsidised long term capital	53,034,056	27,435,288
Total long term debts	53,034,056	27,435,288
DF building	50,891,178	67,525,594
DF plant	47,794,798	56,446,193
DF equipment and machinery	262,045,352	367,063,769
DF other equipment	22,428,702	23,128,702
DF car and lorry	87,966,966	75,126,643
DF computers	19,583,322	23,455,050
Others	8,972,252	13,035,004
Total depreciation Funds	499,682,570	625,780,955
Golden hand-shake and pension fund	81,459,526	140,434,825
Fund for taxes	15,693,000	12,666,000
Provisions	97,152,526	153,100,825
Paid-up capital	90,000,000	90,000,000
Legal and extraordinary reserves	516,923,961	522,879,905
Equities	606,923,961	612,879,905

Long term capital	659,958,017	640,315,193
Net profit	26,176,039	47,436,399
Total liabilities	3,231,448,988	3,017,038,431

Keys as above.

B.3 Capital structure: description of the various sources of finance

Tables B.3.1-B.3.7 below present a detailed analysis of the capital structure of the companies in the two ID samples and separate failed companies in the last five years of their trading life. The analysis of the capital structure includes current and long-term liabilities. Current liabilities are those due within one year, while long-term liabilities are due beyond one year.

Current or short-term liabilities include short-term debts to banks, commercial debts and various debts. Commercial debts include debts to suppliers, clients, subsidiaries and parent companies. Firms in the two IDs do not own other companies and are not controlled by other companies therefore they do not owe debts to subsidiaries or parent companies. Various debts include debts to employees, administrators, partners and tax payments.

Long-term capital consists of long-term borrowed capital and equities. Long-term borrowed capital includes subsidised loans, loans by partners, long term borrowings from Medium-Term Credit Institutions (MTCIs), bonds and leasing. However, it has been possible to include capital leases in the analysis only when companies specified the total amount of the leasing contract in the liability account, as companies prefer not to record these items and design transactions in such a way as not to give rise to liabilities.⁹ Many companies' report only the annual rent paid in the profit and loss account. For these companies, it was not possible to include their total debt to the lending company in the analysis of the capital structure. Therefore, from these data it is not possible to estimate the importance of leasing as a way of financing the purchase of fixed capital.

The balance sheets examined present two types of loans by partners: 'financing by partners' (versamento soci in conto finanziamento) and 'debts to partners' (debiti verso soci). In accounting theory, 'financing by partners' is treated as a debt due back at a fixed or indeterminate date and it bears interest. It should be considered a short-term debt as it could be repaid at short notice. However, empirical observation

⁹ Foster, *Financial Statement*, pp. 65-66.

shows that such loans appear in the balance sheets for much longer than one year, therefore, they have been included in the long-term liabilities. Instead, 'debts to partners' mainly refer to interest on their loan. This type of debt is less common than the previous one and generally it disappears in the following year, and has therefore been included in the short-term liabilities.

Stakeholders' equity or net worth is the excess of total assets over total liabilities. Equity is composed of (1) subscribed or paid-in capital and (2) retained income. Paid-in capital is the capital that owners invest in the business.¹⁰ Retained profits build up reserves, therefore these are internally generated funds that a company has decided to reinvest.¹¹ Italian companies are bound by law to form a so-called 'legal reserve' in which 5% of the annual profit has to be deposited. Apart from this 'legal reserve', which represents a minimum level of self-financing, companies establish reserves according to their own will, the so-called extraordinary reserve (*riserva straordinaria o speciale*).¹²

A further type of reserve is 'contributions by partners towards the company's capital' (*versamento dei soci in conto capitale*). These are advances by partners without any obligation of repayment, bearing no interest and are to be considered as reserves. This way of increasing a company's equity is equivalent to increasing its paid-in capital. However, 'contributions by partners' can be preferred as a faster and more flexible means than increasing paid-in capital. The former does not require any formal procedure when partners' contributions are made nor when such sums are redistributed to the partners.¹³

Particularly interesting reserves for the purpose of this analysis are represented by subsidies such as 'grants', 'contributions on leasing' and 'exemption from Value Added Tax'. The accounting treatment of grants and contributions on leasing has already been explained (see section 6.2.1). Exemption from VAT is consistently reported by companies in the samples in a specific reserve named VAT exemption reserve (*riserva detrazione IVA*). Companies were exempted from the payment of

¹⁰ Horngren, *Introduction to Management*, p. 565.

¹¹ Fraser and Ormiston, *Understanding Financial Statements*, p. 54.

¹² Astolfi and Negri, *Ragioneria Applicata*, p. 31.

VAT on purchased equipment up to 6% of the value of the investment good. Even though this analysis deals with financial subsidies, this fiscal incentive has been taken into account, because it was clearly an incentive to invest.¹⁴

The analysis of the capital structure includes contingency reserves or provisions. These are funds set aside by companies to cover risk, uncertain liabilities and future expenses. For instance, funds set aside for 'golden handshakes' at the end of employees' working period, funds to cover the risk of devaluation of credits and funds for taxation belong to provisions.

The literature has different approaches to the interpretation of such funds, considering them either as liabilities or equities. Provisions are internally generated funds, because companies assign part of their profits to build up these funds, which imply an eventual liability. Although they remain at the enterprise's disposal until such liability occurs and might be used to finance its investment, they cannot be considered equivalent to other forms of internal finance.¹⁵ Provisions are not equivalent to other forms of borrowed funds either, as they are internally generated, do not bear interest and are not subject to any external monitoring.¹⁶ Given that the classification of provisions is not obvious, and their use as source of finance is considered improper in Italy, provisions are included in the analysis of the companies' capital structure but are not considered sources to finance investment.

The exclusion of contingency reserves from long-term finance does not seem to alter significantly the results of the analysis. These are consistently higher in companies within the North-eastern sample, from 1971 onwards (see tables B.3.4 to B.3.7), therefore including provisions in the sources of finance would magnify the differences in the capital structure already pointed out, i.e. the higher availability of internally generated funds or of long term non-subsidised borrowed funds in the North-eastern sample (see table VI.9); considering that provisions do not exceed the 3.8% of total liabilities of Southern firms, their inclusion in either internally

¹³ *Ibid.*, p. 148.

¹⁴ *Ibid.*, p. 167.

¹⁵ Edwards and Fisher, *Banks, Finance*, p. 58; and J. Corbett and T. Jenkinson, 'The Financing of Industry, 1970-1989: An International Comparison', *Journal of the Japanese and International Economies*, 10 (1996), p. 73.

generated funds or long term borrowed funds would improve the financial equilibrium of companies in the Southern sample only to a very small extent.

B.3.1 Capital structure, Barletta and San Mauro Pascoli samples, 1951-56

	Barletta		SMP *	
	NS	1	NS	1
FNA/TNA	17.5		33.35	
Stb	58.1		0	
Cd	1.7		27.3	
Vd	35.1		0	
St bor c	94.9		27.3	
Prov	0.75		0	
Paid-up	0.3		4.4	
Res	4		0	
P	0		68.35	
E	4.3		72.7	
LTC	4.3		72.7	
Total	100		100	
E/FNA	24.5		2.55	
LTC/FNA	24.5		2.55	
RR	18.45		-19.9	

Note: all components of the balance sheet expressed as a percentage of total liabilities; * Company N1a, 1956 only;

Keys: FNA/TNA = fixed net assets divided by total net assets; Stb = short term debts to banks; Cd= commerce debts; Vd= various debts; St bor c= short term borrowed capital; Prov=provision; Paid-up= paid-up capital; Res= reserves; P= contribution from partners; E= equities; LTC= long-term capital; RR= rate of return on long-term capital.

¹⁶ Edwards and Fisher, *Banks, Finance*, p. 58.

B.3.2 Capital structure, Barletta and San Mauro Pascoli samples, 1957-65

	Barletta			SMP	SMP
	Subs 1	NS 1	Tot 2	NS 1	Failed 1
FNA/TNA	60	22.7	35.2	71	100
Stb	39.5	65.1	56.4	9.7	0
St c/ns	0	0	0	0	14.8
Cd	9.1	14.75	12.8	30.05	0
Vd	2.7	7.8	6.1	0.1	8.1
St bor c	51.3	87.7	75.3	39.8	22.9
Prov	0.3	0.8	0.7	0	0
SI	23.7	0	8.1	0	0
Lt bor c	23.7	0	8.1	0	0
Paid-up	23.4	10.9	15.1	0.7	76.8
Res	1.3	0.6	0.8	0.1	0.3
P	0	0	0	59.4	0
E	24.7	11.4	15.95	60.2	77.1
LTC	48.4	11.4	24.0	60.2	77.1
Total	100	100	100	100	100
E/FNA	43.4	51.9	47.1	81.4	76.95
LTC/FNA	85.2	51.9	70.9	81.4	76.95
RR	-7.3	-7	-7.2	7	0.35

Note: No failed company in the Barletta sample during the 1957-65 period.

St c/ns= short-term debts to other companies or not specified; SI= subsidised loan; Lt bor c= long-term borrowed capital; other keys as above.

B.3.3 Capital structure Barletta and San Mauro Pascoli, samples, 1966-70

	Barletta		SMP	
	Subs 4	NS 2	Tot 5 ^a	Failed 1
FNA/TNA	48.5	40.4	46.7	98.3
Stb	40	54.95	43.1	0
St p	0.3	0	0.2	0
Cd	9.2	5.2	8.4	0
Vd	1.5	4.9	2.25	25
St bor c	51	65.1	54	25
Prov	0.7	0.1	0.55	0
Si	16	0	12.6	0
Lt bor c	16	0	12.6	0
Paid-up	30.4	33.6	31.1	74.5
Res	0.7	1.2	0.8	0.5
P	1.2	0	0.95	0
E	32.3	34.85	32.8	75
LTC	48.3	34.85	45.5	75
Total	100	100	100	100
E/FNA	71.9	88.1	75	76.3
LTC/FNA	107.6	88.1	103.9	76.3
RR	-6	-0.5	-0.05	0.03

Note: No failed companies in the Barletta sample during the 1966-70 period; records available for the SMP sample during the 1966-70 period refer to the failed company Nde. ^aInconsistency due to one company (Sma) changing from subsidised to non-subsidised during the 1966-70 period.

Keys: St p= short-term debts to partners; other keys as above

B.3.4 Capital structure, Barletta and San Mauro Pascoli samples, 1971-75.

	Barletta			SMP			Barletta
	Subs 7	NS 13	Tot 17 ^a	Subs 1	NS 3	Tot 3 ^b	Failed 1
FNA/TNA	62.2	36.2	52.9	37.2	54.4	49.6	55.95
Stb	24.95	35.1	28.5	28.4	9.8	15.8	14.2
Cd	16	26.2	19.6	27	23.2	24.4	27.2
Vd	4.25	8.9	5.9	26	18.7	21	27.1
St bor c	49.4*	70.2	56.7*	81	51.6	61.2	68.5
Prov	2.5	1.6	2.2	5.9	5.85	5.85	0.4
Lt p	1.45	1.1	1.3	0	4.5	3.1	0
M Leas	0	0.1	0.03	0	0	0	0
M lt d	0	0	0	0	1.8	1.2	0
SI	12.4	0	8	1.9	0	0.6	0
Lt bor c	13.8	1.2	9.4	1.9	6.3	4.9	0
Paid-up	21.8	22.6	22.1	2.2	35.5	24.8	27.5
Res	0.9	1.6	1.15	8.75	0.7	3.3	3.6
P	6.2	2.7	5	0	0	0	0
Gr	5.3	0	3.4	0	0	0	0
E	34.3	26.95	31.7	10.9	36.2	28.05	31.1
LTC	48.1	28.15	41.1	12.8	42.5	32.9	31.1
Total	100	100	100	100	100	100	100
E/FNA	57.8	75.7	62.2	62.6	115.7	104.55	89.3
LTC/FNA	81.15	79.1	80.7	73.6	135.8	122.8	89.3
RR	-0.9	0.04	-0.01	18.1	6.2	7.8	-72

Note : No failed companies in the SMP sample during the 1971-75 period; *short-term borrowed capital does not match with the total of its components because one company reports only the total short term borrowed capital and does not specify its components. ^a = inconsistency due to three companies (Sfi, Sal and Sfs) changing from non-subsidised to subsidised during the 1970-75 period. ^b = Inconsistency due to one company (Nla) changing from non-subsidised to subsidised in 1974.

Keys: Lt p= long-term debts to partners; M leas= market leasing; M lt d= market long-term debts; Gr= grants; other keys as above

B.3.5 Capital structure, Barletta and San Mauro Pascoli samples, 1976-80

	Barletta			SMP			Barletta	SMP
	Subs 19	NS 12	Tot 24 ^a	Subs 4	NS 4	Tot 6 ^b	Failed 4	Failed 1
FNA/TNA	40.6	28.5	39.3	20.3	8.2	19	49.6	0.8
Stb	22.7	24.6	22.9	13.2	13.6	13.2	10.5	14.8
St p	0.1	0	0.1	0	0	0	0	0
Cd	21.1	27	21.75	32.2	30.1	31.9	39.3	60.1
Vd	5.2	12.05	6	16.6	18.2	16.8	2.6	17.6
St bor c	49	63.6	50.7	61.9	61.9	61.9	52.45	92.5
Prov	3.8	2.95	3.7	8.6	3.1	7.9	3.1	7
Lt p	0.9	1	1	0	9.25	1.15	21.3	0
M lt d	0.3	0	0.3	0.6	0	0.55	0	0
B	3.3	0	2.9	0	0	0	0	0
Sl	3.6	0	3.2	2.1	0	1.9	0	0
Lt bor c	8.1	1	7.4	2.8	9.25	3.6	21.3	0
Paid-up	21	15.6	20.3	21.7	12.2	20.5	10.1	0.5
Res	5.1	5.2	5.1	3.4	13.6	4.6	5.4	0
P	3.9	11.6	4.7	1.7	0	1.45	0	0
Fs	0.2	0	0.1	0.01	0	0.01	0	0
Gr	9	0	7.9	0	0	0	7.6	0
E	39.1	32.4	38.25	26.7	25.8	26.6	23.1	0.5
LTC	47.2	33.4	45.3	29.5	35	30.2	44.4	0.5
Total	100	100	100	100	100	100	100	100
E/FNA	94.95	113.4	96.2	128.9	355.8	139.6	49.6	91.7
LTC/FNA	114.6	117	113.9	142.2	483.6	158.4	95.4	91.7
RR	5.8	6.6	5.8	7.3	-4.1	5.65	-9.4	-5713.6

Note: ^a = Inconsistency due to seven companies (Sbc, Sbia, Sri, San, Sab, Sin, Sto) changing from non-subsidised to subsidised during the period. ^b = Inconsistency due to two companies (Nci and Nal) changing from non-subsidised to subsidised during the period.

Keys: B= bonds; other keys as above.

B.3.6 Capital structure, Barletta and San Mauro Pascoli samples, 1981-86

	Barletta			SMP			Barletta	SMP
	Subs 22	NS 8	Tot 27 ^a	Subs 8	NS 10	Tot 15 ^b	Failed 7	Failed 4
FNA/TNA	30.1	33.15	30.25	16.2	9.9	14.1	46.1	7.8
Stb	14.9	15	15	3.9	7.6	5.1	22	21.7
St c/ns	0.1	0	0.1	0	0	0	0	0
St p	0.1	0	0.1	0	0	0	0	0
Cd	34.7	29.55	34.35	24.2	25.9	24.7	20.4	29
Vd	5.3	23.5	6.25	16.4	16.2	16.3	13.2	7.9
St bor c	55.1	68	55.8	44.5	49.7	46.2	55.7	58.6
Prov	3.3	3.8	3.3	12.4	13	12.6	4.1	7.3
Lt p	1.6	0.1	1.5	1.9	2.5	2.1	7.2	4.8
M Leas	0	0	0	0	0	0	0.2	0
M lt d	0.03	0	0.03	0.2	0	0.1	0	0
B	1.5	0	1.4	6.4	2.35	5.1	0	0
Sl	4.6	0	4.4	1.25	0	0.9	3.35	1.3
Lt bor c	7.7	0.1	7.3	9.7	4.8	8.1	10.75	6.2
Paid-up	12.1	13.3	12.1	21.1	11.5	17.95	12.7	10.15
Res	10.6	11.6	10.7	11.1	20.9	14.35	10	17.45
P	3.8	3.3	3.8	1.1	0.1	0.75	4.5	0.3
Fs	0.4	0	0.4	0.02	0	0	0.1	0
Gr	6.9	0	6.6	0.02	0	0	2.2	0
E	33.9	28.2	33.6	33.4	32.5	33.1	29.5	27.9
LTC	41.6	28.2	40.9	43.1	37.3	41.2	40.2	34.1
Total	100	100	100	100	100	100	100	100
E/FNA	111.05	85.5	109.6	196.2	306.7	222.15	69.7	358.9
LTC/FNA	136.3	85.7	133.45	253.35	352.2	276.55	95.1	438.2
RR	4.35	1.1	4.2	11.1	19.5	13.6	-15	0.3

Note: ^a = Inconsistency due to two companies (Sbia and Sin) changing from subsidised to non-subsidised and one (Sro) from non-subsidised to subsidised. ^b = Inconsistency due to three companies (Nrs, Nca and Npo) changing from subsidised to non-subsidised.

Keys: Fs= fiscal subsidies; other keys as above.

B.3.7 Capital structure, Barletta and San Mauro Pascoli samples, 1987-91.

	Barletta			SMP			Barletta	SMP
	Subs 17	NS 6	Tot 21 ^a	Subs 5	NS 10	Tot 15	Failed 4	Failed 3
FNA/TNA	30	27.2	29.7	18.8	18	18.2	42.2	27.7
Stb	14.3	13.2	14.2	2.8	7.9	6.3	31.85	6.9
St c/ns	0.1	0	0.1	0	0	0	0	0
Cd	37.5	37.9	37.5	27.5	21.7	23.5	13.3	27.2
Vd	3.7	16.05	5.1	10.05	9.1	9.4	15.6	7.4
St bor c	55.7	67.15	56.9	40.4	38.6	39.2	60.8	41.5
Prov	4.3	4.7	4.4	12.2	13.3	13	0.45	2.8
Lt p	0.8	1.6	0.9	0	4.7	3.25	8.6	0.1
S Leas	2	0	1.8	0	0	0	0	0
M lt d	0.9	3.1	1.1	0.2	0.7	0.5	0	0
B	1.1	0	1	9	3.4	5.1	0	0
Sl	4.4	0	3.9	0.6	0	0.2	6.9	0
Lt bor c	9.3	4.7	8.8	9.8	8.8	9.1	15.5	0.1
Paid-up	7.2	14.7	8.01	17.9	13.2	14.6	16.55	34.2
Res	11.85	8.3	11.5	19.4	26.1	24	4.45	17.55
P	1.4	0.4	1.25	0	0	0	2.3	3.8
Fs	0.8	0	0.7	0.1	0	0.02	0	0
Gr	9.4	0	8.3	0.3	0	0.1	0	0
C/leas	0.2	0	0.15	0	0	0	0	0
E	30.8	23.5	29.95	37.6	39.3	38.8	23.3	55.55
LTC	40	28.1	38.7	47.4	48.05	47.9	38.8	55.7
Total	100	100	100	100	100	100	100	100
E/FNA	102.3	86.3	100.7	194.6	208.1	203.9	67.8	201.4
LTC/FNA	133.1	103.5	130.1	245.3	254.5	251.65	113	201.9
RR	4.2	3	4.1	6.6	10.6	9.4	-43.2	5.8

Note: ^a= Inconsistency due to two firms: Ssa changing from non-subsidised shifted to subsidised and Sli from subsidised shifted to non- subsidised.

Keys: S leas= subsidised leasing; C/leas= contribution on leasing (estimated reserve); other keys as above.

Source: Company balance sheets.

Appendix C: The Panel data analysis, Barletta and San Mauro Pascoli IDs, 1981-1991

This section assesses the impact of the various sources of finance on the investment behaviour of firms within the two ID samples. Two works assessing the impact of subsidies on the investment activity of Southern firms were reviewed in section 7.1.¹⁷ This appendix adopts the model applied by Faini, Galli and Giovannini (table VII.2), focusing on financial explanatory variables, and adjusts it to include the sources of company finance concerning this thesis.

The application of econometric tools requires continuous data, and therefore the analysis could be conducted on a panel of eight companies in the Southern sample and seven in the North-Eastern one, from 1981 to 1991. The initial year of the analysis was dictated by the North-Eastern companies, for the Southern companies provided continuous data from 1974. The panel includes only subsidised companies, i.e. companies that received subsidies at least once in the period under analysis. This is the definition of subsidised companies applied throughout chapters VI and VII, with the only exception of section 7.2, where the Bagella and Caggese methodology was tested. Therefore companies in the panel are subsidised companies, but should not be confused with companies in the subsidised stage in section 7.2. For subsidised companies in the panel can cover two or three stages of the subsidised company's trading life, i.e. pre-subsidy, subsidised and post-subsidy.

The analysis adopts the Error Components Model to model differences in firm investment behaviour by permitting each firm to have a different intercept parameter. The model assumes that the intercept are random variables, and it is useful if the individual firms are randomly chosen and taken to be representative of a larger population of firms.¹⁸ However, in the analysis conducted in this chapter, companies' records have been randomly chosen but no assumption is made about them being representative.

Equation (1) is the general equation for pooling time-series and cross-sectional data.

¹⁷ Faini, 'Incentivi e Piccole'; Faini, Galli and Giannini, 'Finance and Development'.

¹⁸ C. Hill, W. Griffiths and G. Judge, *Undergraduate Econometrics*, (New York, 1997), pp. 272-273.

y_{it} is the value of the dependent variable, x_{2it} is the value of the explanatory variables, ε_{it} is the random error term, i is the number of groups or individuals and t is the time period.

$$y_{it} = \beta_{1i} + \beta_2 x_{2it} + \dots + \beta_{11} x_{11it} + \varepsilon_{it} \quad (1)$$

β_{1i} is taken to be random and modelled as

$$\beta_{1i} = \bar{\beta}_1 + v_i \quad i = 1, \dots, N \quad (2)$$

$\bar{\beta}_1$ is an unknown parameter that represents the population mean intercept, and v_i is an unobservable random error that accounts for individual differences in firms' behaviour. It varies across individuals, but is constant across time. ε_{it} is the usual residual. It is assumed that the v_i are independent from each other and ε_{it} and that

$$E(v_i) = 0 \quad \text{var}(v_i) = \sigma_v^2$$

Consequently, $E(\beta_{1i}) = \bar{\beta}_1$ and $\text{var}(\beta_{1i}) = \sigma_v^2$

Thus, substituting equation (2) into equation (1), it follows:

$$\begin{aligned} y_{it} &= (\bar{\beta}_1 + v_i) + \beta_2 x_{2it} + \dots + \beta_{11} x_{11it} + \varepsilon_{it} \\ &= \bar{\beta}_1 + \beta_2 x_{2it} + \dots + \beta_{11} x_{11it} + v_i + \varepsilon_{it} \end{aligned} \quad (3)$$

Equation (3) can be estimated in three ways, with the random effect estimator, the fixed effect and the between effect. In order to simplify the explanation, equation (3) is written taking into account only one explanatory variable.

$$y_{it} = \alpha + x_{it}\beta + v_i + \varepsilon_{it} \quad (3)$$

the aim is to estimate β .

If equation (3) is true, it is also true that

$$\bar{y}_i = \alpha + \bar{x}_i \beta + v_i + \bar{\varepsilon}_i \quad (4)$$

where $\bar{y}_i = \sum_t y_{it} / T_i$, $\bar{x}_i = \sum_t x_{it} / T_i$, $\bar{\varepsilon}_i = \sum_t \varepsilon_{it} / T_i$

where $\gamma_i = \sum_t \gamma_{it} / T_i$, $\chi_i = \sum_t \chi_{it} / T_i$, $\varepsilon_i = \sum_t \varepsilon_{it} / T_i$
Subtracting equation (4) from (3), it follows:

$$(\gamma_{it} - \bar{\gamma}_i) = (\chi_{it} - \bar{\chi}_i)\beta + (\varepsilon_{it} - \bar{\varepsilon}_i) \quad (5)$$

Equations (3), (4) and (5) provide the bases for estimating β . Particularly the fixed-effects estimator - also known as the within estimator - amounts to using Ordinary Least Squares to estimate the equation (5). The between estimator amounts to using OLS to estimate the equation (4), the between estimator is less efficient because it discards the over time information in the data in favour of simple means, and it is not much used. The random-effects estimator is a weighted average of the estimates produced by the between and within estimators, the random-effects estimator turns out to be equivalent to the estimation of:

$$(\gamma_{it} - \theta \bar{\gamma}_i) = (1 - \theta)\alpha + (\chi_{it} - \theta \bar{\chi}_i)\beta + [(1 - \theta)v_i + (\varepsilon_{it} + \theta \bar{\varepsilon}_i)] \quad (6)$$

where θ is a function of σ_v^2 and σ_ε^2 , if $\sigma_v^2 = 0$, meaning v_i is always 0, $\theta = 0$ and equation (3) should be estimated by OLS directly. Alternatively, if $\sigma_\varepsilon^2 = 0$, meaning that $\varepsilon_{it} = 0$, $\theta = 1$ and the within estimator returns all the information available (which would be an $R^2 = 1$ regression). Instead, with the fixed-effect estimator v_i are not assumed to have a distribution but are treated as fixed and estimable.

The random-effects estimator requires the assumption that v_i and $\bar{\chi}_i$ are uncorrelated. Were v_i and $\bar{\chi}_i$ correlated, the estimator could not determine how much of the change in $\bar{\gamma}_i$ associated with an increase in $\bar{\chi}_i$ to assign to β versus how much to attribute to the unknown correlation.¹⁹

The Hausman test assesses whether the assumption of uncorrelation between v_i and the regressor x_{it} is correct and therefore whether the random-effects estimator is appropriate. Formally, the Hausman test assesses the equality of the coefficients estimated by the fixed and random-effects estimators. Its null hypothesis is that the difference in the coefficients is not systematic. If the model is correctly specified and the test returns a significant result, then this can be interpreted as evidence that the

¹⁹ *Stata* Release 5, Reference P-Z (College Station, 1997), pp. 632-633.

random effects, v_i and the regressor x_{it} , are correlated, thus the random effect estimator should not be used and the fixed effect estimator should be chosen.²⁰

The Faini, Galli and Giovannini model focuses on two types of finance, financial debts and cash flow. For the purpose of this analysis a more detailed disaggregation of the types of finance is appropriate, so as to assess the impact of subsidies on firms' investment activity and compare it with the impact of private sources of finance. Therefore the estimated equation is:

$$\text{inv}_{it} = \alpha + \delta S_{it} + \beta_1 \text{priv}_{it} + \beta_2 b_{it} + \beta_3 \text{pu}_{it} + \beta_4 \text{res}_{it} + \beta_6 \text{is}_{it} + \beta_7 \text{gr}_{it} + \beta_8 \text{fs}_{it} + u_{it} \quad (\text{a})$$

where inv = investment ratio defined as net investment divided by net capital stock; S = dummy variable, where 1=South and 0=North-East; priv = growth rates of regional private consumption, all other variables defined as ratio to long-term capital, which includes long-term borrowed capital and equity; b = bonds; pu = paid-up capital; res = equity reserve; gr = grants; fs = fiscal subsidies.

Equation (a) above does not include all the various types of finance presented in chapter VI, as the inclusion of all types of finance would imply using too many explanatory variables (therefore too many degrees of freedom) as compared to the number of firms in the panel. The high number of degrees of freedom, as compared to firms, determined a statistical problem by which the random-effect estimator did not capture the standard deviation of the error term (v_i). As the assumption of the error component is that the error term (v_i) is uncorrelated with \bar{x}_i , the statistical package turned automatically to estimate an ordinary least square equation, losing the time series component of the panel. Therefore it was necessary to reduce the number of the explanatory variables.

The variables representing a small and less frequent source of finance in both subsamples, such as contributions on leasing (cl), loans by partners (pl), market long-term loans (mltl), market leasing (mleas) and contributions by partners (pc) were not included in equation (a). Secondly, OLS were run on each sample separately to assess whether any variable was not significant for both samples and so exclude

²⁰ *Ibid.*, pp. 631, 646.

them. Short-term debts to banks (bd) and grants (gr) turned out to be consistently not statistically significant, even allowing for time lags. However only short-term debts to banks (bd) were excluded from equation (a), grants (gr) were not excluded as they represent a particularly important source of finance to be investigated in the context of the thesis.

The inclusion of a dummy variable in equation (a) tests whether, *ceteris paribus*, there are differences in the investment behaviour of the Southern firms and the North-eastern counterpart, meaning that the dummy South controls only for shifts in the intercept of the regression line. When the dummy variable is multiplied by the various variables, called the interactive dummy variable, it estimates a new coefficient of the variables, therefore it tests whether there are differences in the slope of the regression line.²¹

Introducing an interactive dummy variable, equation (a) changes as follows:

$$\text{inv}_{it} = \alpha + (\beta_1 + \delta S) \text{priv}_{it} + \beta_2 \text{b}_{it} + \beta_3 \text{pu}_{it} + \beta_4 \text{res}_{it} + (\beta_6 + \delta S) \text{is}_{it} + (\beta_7 + \delta S) \text{gr}_{it} + (\beta_8 + \delta S) \text{fs}_{it} + u_{it}; \quad (\text{b})$$

where *inv* = investment ratio defined as net investment divided by net capital stock; *S* = dummy variable, where 1=South and 0=North-East; *priv* = growth rates of regional private consumption, all other variables defined as ratio to long-term capital, which includes long-term borrowed capital and equity; *b*= bonds; *pu*=paid-up capital; *res*= equity reserve; *gr* = grants; *fs*= fiscal subsidies.

Therefore when *S* is equal to 0, in the case of North-Eastern companies, the coefficient of the variables *priv*, *is*, *gr* and *fs*, are β_1 , β_2 , etc. When *S* is equal to 1, in the case of Southern companies, the coefficient of the same variables is equal to the coefficient for North-Eastern firms plus the coefficient of the interactive dummy.²²

The interactive dummy variable has not been introduced for all the variables not to incur the problem of excessive degrees of freedom as compared to firms. It has been introduced for the variables expressing the various types of subsidies, as these are particularly important for the analysis of this thesis. It has also been introduced for the indicator of demand (*priv*) as, when analyzing separately the two sub-panels, this variable turned out to be statistically significant for Southern companies but not for

²¹ Dougherty, *Introduction to Econometrics*, pp. 261-278.

their North-Eastern counterparts. The dummy was not multiplied by bonds (b), paid-up capital (pu) and equity reserves (res) as these variables were positively associated with investment and statistically significant in both sub-panels.

For equation (b) the Hausman test returns a result that is not significant (chi2 =2.67, and the critical chi2 value for 7 degrees of freedom at the 0.05 confidence interval is 14.07). Therefore, the random effect estimator has been adopted.

²² *Ibid*, p. 277.

Table C.1 Panel data, 1981-1991

Random effect model; dependent variable investment ratio (inv)

Number of groups 15, 8 Southern firms, 7 North-Eastern firms

	b	pu	res	S	priv	S*priv	is	S*is	gr	S*gr	fs	S*fs	c
Coef	.8	.8	.9	.02	-.003	.02	-.05	1.6	.7	-.3	14.7	-4.2	.002
z	2.7	8.9	5.8	1.2	-0.5	2.4	-0.08	2.2	0.2	-0.06	0.8	-0.2	0.05
P> z	0.01	0.0	0.0	0.2	0.5	0.01	0.9	0.03	0.9	0.9	0.4	0.8	0.9
R ₂	overall = .45												
Coef	.8	.8	1.0	-.07	-.002	0.14	.035	1.5					0.001
z	2.6	8.7	5.9	-1.0	-0.4	2.2	0.06	2					0.02
P> z	0.01	0.0	0.0	0.29	0.7	0.03	0.95	0.05					0.98
R ₂	overall = .46												

The random effect model returns the z value, the interpretation of which is similar to the t value. The third row displays the probability that the coefficient is not statistically different from zero. Therefore the $P > |z|$ for bonds (b) means that the null hypothesis can be excluded at 99%, whereas for grants both in the South (S*gr) and in the North-East (gr) the null hypothesis can be excluded only at 10% probability. According to common practice, those variables for which the null hypothesis can be excluded at 95%, or at the 0.05 confidence interval, are considered as significant.

The table above displays the results returned by the random effect estimator, the first equation is the estimation of equation (b), and the second is the estimation obtained when discarding the not significant variables. Bonds (b), paid-up capital (pu) and equity reserves (res) turn out to be significant in explaining investment in the panel as a whole consistently with the results obtained when analyzing the two sub-samples separately.

The dummy variable South does not turn out to be significant thus indicating that Southern firms in the sample do not display, *ceteris paribus*, a difference in their investment behaviour as compared to firms in the North-Eastern sample.

The growth rate of regional private consumption (priv) is used here as a proxy for demand. It turns out to be significant and positive only for Southern firms in the sample, thus suggesting Southern firms' higher dependence on demand. Other research points out that Southern firms are more oriented towards the national market, e.g. in 1980-1985 their exports represented only 10% of their turnover, as compared to 20% for firms in the Centre and North.²³ It is not possible to study this point on the two ID samples as only few companies separate domestic from foreign sales in their balance sheets. However, company reports provide examples of Southern firms' dependence on the market, such as investment projects postponed when the market is perceived as unstable, or resorting to subcontracting as the company's sales were decreasing.²⁴ On the contrary, firms in the North-eastern sample seem to respond to difficulties in selling their products by introducing new equipment that

²³ Siracusano and Tresoldi, 'Le piccole', pp. 106, 119.

would enable them to reduce the cost of labour in particular, and make their products more price competitive.²⁵

As far as subsidies are concerned, the only type of subsidy displaying a positive and significant coefficient are implicit subsidies within soft loans (is) and only for Southern firms. The lack of significance of grants and fiscal subsidies in the Southern sample can be interpreted as a result of the less selective criteria applied in the granting of such subsidies, as shown in section 7.3. The lack of significance of any type of subsidy for North-eastern firms is not surprising. As mentioned above, companies in the panel can cover two or three stages. It is then obvious that subsidies are significant and positively associated only for Southern firms, which undertook the highest investment in the subsidised stage, whereas they are not significant for North-eastern firms that undertook by far the highest investment in their post-subsidy stage.

The lack of significance of grants and fiscal subsidies for both samples and the significance of implicit subsidies only for the Southern sample, contrast strikingly with the values of the coefficients of correlation in table VII.9. Grants and fiscal subsidies display a positive and high coefficient of correlation with investment, both in the Southern and North-Eastern sample, whereas implicit subsidies within subsidised loans display a positive but much lower coefficient in both samples. The explanation might once again lie in the companies included in the analysis. The coefficients of correlation, in table VII.9, have been calculated on companies in the subsidised stage, whereas firms in the panel cover also other stages. Therefore, subsidies might show a high association when limiting investment to those undertaken during the subsidised stage, but not when including investment undertaken also in other stages.

²⁴ CCB, Company Sfi, Annual report, 1980 and 1981; Company Sbi, Annual report, 1982 and 1983.

²⁵ CCF, Company Nal, Annual report, 1982 and 1983; Company Nros, Annual report, 1983.

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Ser	2,169
Sfi	2,442
Sbc	2,564
Svc	2,635
Sfs	2,614
Sab	2,674
San	2,690
Sbia	2,645
Sal	2,632
Sar	2,586
Sri	2,749
Sst	2,769
Spl	2,788
Sca	2,840
Sil	2,888
Smo	3,094
Sga	3,400
Sto	3,479
Sbim	3,546
Ste	3,593
Stu	3,603
Sec	4,165
Sja	4,427
Sli	4,790
Spo	4,110
Sro	5,491
Ssa	5,475
Sco	4,600

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Nla	2996
Nde	3,751
Nci	4,442
Neu	5,676
Nrs	5,212
Nwi	5,581
Nma	7,280

Nal	8, 146
Nca	8,367
Npo	4,935
Nfa	3,484
Nfr	4,662
Nri	10,471
Nrf	10,417
Nvi	4,351
Nrm	6,934
Npn	11,850
Nrt	5,325
Nti	12,904
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