

The industrial rise of the Third Italy: open window of locational opportunity?

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Abstract

The article aims to test a theoretical concept (the Window of Locational Opportunity concept) which provides a particular perspective with respect to the key problem in economic geography of how to explain the ability of regions to generate or apply new technology. In short, this WLO-concept holds the view that windows of locational opportunity tend to open up in the event of new techno-industrial development: these are likely to provide opportunities of industrial development for both leading and backward regions. This is because the impact of space may be unpredictable and rather weak for several reasons: there is likely to be a poor match with the new requirements of new techno-industrial activities, their creative ability may safeguard their development in unfavourable places, while local conditions favourable to their development are likely to be of a generic nature.

Following the principles behind this theoretical concept, we present a long-term spatial analysis of Italy, which aims to explain the industrial rise of the *Third Italy* region in the post-war period. It attempts to assess empirically the impact of spatial conditions (including culture) on the industrial rise of the so-called *Third Italy* region during its initial stage of development in the 1950s and 1960s. A regression technique has been used to determine which of many potential factors (for instance, culture, industrial specialization, low-cost, flexible labour) in the 1950s could be held responsible for the particular type of industrial development in the *Third Italy* area, which was based on dense networks of flexible, strongly related, small and medium-sized firms in craft-based industries (clothing, ceramics) in a number of specialized industrial districts. By doing so, we focus attention on the extent to which the industrial rise of the *Third Italy* region was a rather accidental event that could also have occurred in other regions such as the *First Italy* (the industrial heartland of the North) and the *Second Italy* (the backward South). The preliminary results at this stage of the analysis tend to point out that the cultural dimension makes the difference: this particular type of industrial development took place in the *Third Italy* region because of a local culture of entrepreneurship and cooperation which seems to be lacking to some degree in the other regions in Italy.

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1. Introduction

By presenting a study on the industrial rise of the Third Italy in the post-war period, this paper aims to test a theoretical concept, that is the Window of Locational Opportunity-concept (abbreviation: WLO-concept) which accounts for dynamic and accidental dimensions of new industrial development in space. This WLO-concept has been developed to explain the long-term ability of region to generate or apply new technology (Boschma 1997; Boschma and Van der Knaap 1997). In short, it holds the view that windows of locational opportunity tend to open up in the event of new techno-industrial developments; these are likely to provide opportunities of industrial growth for both leading and backward regions. This is because the impact of space may be unpredictable and rather weak for several reasons: there is likely to be a poor match with the new requirements of new techno-industrial activities, their creative ability may safeguard their development in unfavourable places, while local conditions beneficial to their development, are likely to be of a generic nature.

The main objective of this paper is to examine the extent to which the rise of the particular type of industrial development in the Third Italy (Bagnasco 1977) opened up a window of opportunity for all Italian regions to industrialise in the 1950s. In other words, this paper focuses attention on the problem whether the rise of the particular form of industrialisation in the Third Italy, characterised by dense networks of flexible, strongly related, mostly small and medium-sized firms in craft-based industries, could also have occurred in the First Italy (the industrial heartland of the Northwest) and the Second Italy (the backward South). Should the Third Italy area during its initial stage of development be considered an unique area in Italy where this particular type of industrial growth was destined to unfold? Or, does the industrial rise of the Third Italy in the post-war period reflect a period of “open window of locational opportunity” in the spatio-industrial history of Italy? In other words, this paper addresses important issues, such as how to put the industrial rise of the Third Italy into a nation-wide and spatio-historical perspective, which have, to some extent, been overlooked by the extensive literature on this subject.

To address these questions, this paper is divided in three main parts. To start with, Section 2 presents empirical data with respect to the industrial evolution of the Third Italy during the post-war period (as compared to the other Italian regions) and the main features of the particular type of industrial development in that particular area. In Section 3, some theoretical perspectives on the industrial growth of the Third Italy are briefly discussed. These theoretical insights are then incorporated in the WLO-model which, as set out above, provides a

particular perspective on how to explain the industrial rise of the Third Italy. In Section 4, we examine empirically which of the conditions (culture, among them) in the early 1950s that have been mentioned by a large body of (mainly Italian) literature, could be held responsible for the fact that this particular form of industrialisation took place in the Third Italy area in particular, and not elsewhere in Italy. Finally, Section 5 makes some concluding remarks.

2. **Third Italy:** *main characteristics*

We briefly describe the main characteristics of the Third Italy region (or North-East-Centre, or NEC), as compared to other Italian regions. In Section 2.1, we put the industrial rise of the Third Italy into a historical perspective. We not only discuss briefly the spatio-industrial history of Italy since Unification (1870), but also present empirical outcomes of the industrial growth rates by region in the post-war period. In Section 2.2 the main features of the particular type of industrial development in the Third Italy, that is, small-scale industrialisation, predominance of craft-based and engineering industries, and Marshallian industrial districts, have been empirically measured by region, in order to determine whether the Third Italy area (as compared to other regions) may indeed be regarded as a particular case in this respect.

2.1 The industrial evolution of the Third Italy.

If we consider the level of economic development in the three main areas of Italy (North, Center, South) at the time of Italian Unification, we get a rather complicated picture. When analysing data on the occupational distribution of the active population in Italy by region in the late nineteenth century, the three areas occupied more or less equal economic positions. Fuà (1981), among them, concluded that in 1871 and 1881 the South had an even higher percentage of the labour force employed in the manufacturing industry than in the North and Center of Italy. However, other indicators seem to be at odds with this conclusion. For example, the North had already acquired a superior position not only in many industrial sectors, but also in terms of social overhead capital (roads, railways, education, etc.) (Eckhaus, 1961). Zamagni (1993) came to the conclusion that the "... divide between certain Italian regions and others, with the three regions of Piedmont, Liguria and Lombardy at the top, Sardinia and the Kingdom of the Two Sicilies right at the bottom, and the other regions somewhere in between" (p.25) could already be observed in those days.

From then onwards, the North-western part of Italy (the regions of Lombardy, Piedmont and Liguria) manifested itself as the industrial heartland, known as the “Old Industrial Triangle Turin-Milan-Genoa” (Bianchi, Casini-Benvenuti and Maltinti 1987). By 1911 the Northwest had taken a considerable industrial lead: Lombardy, Piedmont and Liguria could be regarded as the core industrial regions of Italy (Zamagni, 1987). Whatever explanation is put forward (we won't go into this debate here) two observations are worth while to mention in this respect. The local availability of natural resources (coal fields) has not played any role in the process of industrialisation in Italy, in contrast to industrial forerunners like Great Britain, Belgium and Germany. Further, the pattern of industrial development in the late nineteenth/early twentieth century in the First Italy (Northwest) did not seem to differ much from the particular type of industrial development in the Third Italy in the post-war period. It was initially based on small-scale industrial developments with rather simple technology (textiles, machine-tools, automobiles, etc.), which only became large-scale industries at a much later stage.

From 1911 onwards, the Northwest continued to widen its gap with the rest of the country. For example, in terms of GDP per capita, the Northwest increased its level from 136 to 152 (Italy = 100) in the period 1911-1938, whereas the level of the Northeast and the Center (that is, the Third Italy area, including Lazio) decreased from 100 to 95, and the level of the South declined from 75 to 67 (Zamagni 1993). These figures demonstrate that the Center of Italy had already acquired an average position with respect to the North and South long before the Second World War. For example, in 1911 regions like Tuscany and Friuli-Venezia-Giulia had already a higher percentage of the work force in the manufacturing sector than the national average. The Center had already given evidence of a stable and modest economic growth rate in the first part of the twentieth century that was much higher than the South and more or less equalled the growth rate of the North (though in absolute terms, it lagged behind) (Zamagni, 1987). As a consequence, the rapid economic growth of the Center in the post-war period was a consolidation of a process that had already been going on for a much longer time, and which accelerated after the 1950s by the rapid increase of domestic demand and the growth of real income in Italy (Zamagni 1993).

We now take a more detailed look at the post-war industrial development by region in Italy. In Figure 1, we present the industrial growth rates of the regions which are part of the Third Italy area (here defined as the Center, which consists of the Northeast and the Central region of Italy) as compared to other regions of Italy after the Second World War. The data have been taken from the Manufacturing Census of Italy of 1951, 1971 and 1991 (final results published in spring 1996). As shown in Figure 1 (column 2), many of the regions of the Third

Italy area (in particular Emilia Romagna, Marche, Veneto and Tuscany) enjoyed above average industrial growth in the period 1951-1971, though the Northwest (Piedmont and Lombardy) and the South (notable exceptions are Calabria, Basilicata and Sicilia) also performed well. In the Center (as well as in the South), a strong development of the so-called traditional industry (defined as craft-based industries and mechanical engineering, see column 1) has mainly contributed to this. Some of the Third Italy regions, notably Veneto, Emilia Romagna and Marche had reached levels of industrialisation in the early 1990s, that are more or less equal to the positions of the core industrial regions of Piedmont and Lombardy. However, in the 1980s all regions (with the exception of Veneto and Abruzzi-Molise) including the ones of the Third Italy, have gone through a period of industrial decline (see also Bianchi 1994).

Table 1. The development of the traditional industry and the industrial sector in Italy by region 1951-1991, measured as growth rates of traditional industry and the industrial sector 1951-1971, and number of workers in industrial sector per 100 inhabitants 1971-1981-1991

	growth rate trad.industry 1951-1971	growth rate ind. sector 1951-1971	workers ind. sector p. 100 inhab. 1971	workers ind. sector per 100 inhab. 1981	workers ind. sector p. 100 inhab. 1991
North					
Piedmont	15,9%	43,7%	20,38	19,42	16,53
Lombardy	33,2%	45,1%	21,72	20,75	18,12
Liguria	-6,7%	1,1%	10,90	10,23	7,91
Aosta	23,4%	-10,0%	14,68	14,29	13,04
Center					
Veneto	98,7%	87,2%	15,06	17,31	17,49
Friuli-Venezia-G	68,0%	48,5%	14,51	15,56	13,32
Trentino AA	41,0%	42,8%	11,77	12,60	12,29
Emilia Romagna	145,2%	123,2%	15,67	17,41	16,52
Tuscany	102,1%	81,1%	15,23	16,45	13,76
Marche	157,9%	113,7%	12,57	17,28	15,69
Umbria	89,3%	52,5%	11,74	14,36	11,94
South					
Lazio	102,0%	84,1%	7,53	7,28	6,54
Abruzzi-Molise	60,5%	35,9%	6,21	9,3	9,67
Campania	42,3%	36,8%	5,79	6,63	5,15
Puglia	84,7%	49,0%	6,28	6,92	6,07
Basilicata	-4,4%	16,8%	4,98	7,38	6,93
Calabria	-17,1%	-23,0%	3,17	3,83	2,99
Sicilia	22,4%	19,7%	4,42	4,63	3,83
Sardegna	44,6%	53,8%	6,04	6,84	6,04
Italia	52,6%	53,6%	12,25	12,77	11,27

Sources: Censimento Generale dell'Industria 1951 & 1971; Bianchi 1994

2.2 The particular type of industrial development in the Third Italy

Till so far, we examined the industrial evolution of the Third Italy as compared to the other parts of Italy since the unification of Italy. We concluded that the Third Italy area had experienced the highest industrial growth in Italy in the post-war period. However, this is only a part of its story. The industrial development of the Third Italy has been associated with a particular form of industrial development, described as “flexible specialisation”, “neo-Fordism”, or “new industrial space” (Piore and Sabel, 1984; Scott 1988). In short, it was based on dense networks of flexible, strongly related, mostly small and medium-sized firms in mainly craft-based industries that are concentrated in specialised industrial districts. The theoretical logic behind these spatial production systems is discussed in Section 3.

Here, we confine ourselves to three main features of this particular type of industrial development in the Third Italy, that is the small size of the industrial firms, the industrial specialisation involved (traditional, craft-based industries and machine-tools), and the spatially concentrated form of industrial production (industrial districts). It was a surprise to many that such a particular form of industrialisation could be ever associated with high industrial growth. With respect to the small-scale dimension of the Third Italy, the importance of small and medium-sized firms for industrial growth was something quite unexpected. In the 1970s, these were either regarded as marginal (pre-capitalist) activities (large firms were seen as superior in terms of technology, scale economies, access to capital, capability to export, etc.), or as highly dependent on large firms (see Bianchi and Gualteri 1990; Becattini 1989).

With respect to industrial specialisation, the traditional artisanal industries (that is, craft-based), in which these small-sized firms mainly manifested themselves, had often been predicted a poor future. These sectors were conceived to be most vulnerable to competition from low-wage countries because these were characterised by low rates of value-added, a low intensity of technology, and largely operated in saturated markets. As far as the spatial dimension of the Third Italy is concerned, these small industrial firms were often located in relatively small areas where they formed highly dynamic and efficient local production systems which sometimes succeeded to conquer world export markets. This was in contrast with the quite common view that the competitiveness of localities could only be defined in terms of costs of transport and location, rather than in terms of organisational and cultural dimensions. What is more, few would have predicted the industrial rise of the Third Italy which had not experienced any major industrial development in the past (Pyke and Sengenberger 1991). We now present empirical results with respect to these three features, in order to determine whether

the Third Italy was indeed a particular and unique case in this respect.

As shown in Table 2a, the size of the industrial firm has been split into three categories: small firms (< 50 employees), medium-sized firms (50-500 employees) and large-scale firms (> 500 employees). These categories have been measured by region in 1951 and 1971 with the aid of simple location quotients, defined as the proportion of all workers in the region employed in the particular size category, divided by the proportion of all workers in the whole country employed in the same size category. The outcomes of Table 2a show clearly that small firms are predominant in the Third Italy (with the exception of Friuli-Venezia-Giulia) and (even more so) in the South, whereas large-scale firms are over-represented in the Northwest.

Table 2a. The size of industrial firms (<50, 50-500, >500 workers) by region in Italy in terms of the number of people employed in 1951 and 1971, measured as location quotients

	<50 1951	<50 1971	50-500 1951	50-500 1971	>500 1951	>500 1971
North						
Piedmont	0.67	0.64	1.06	0.92	1.53	1.81
Lombardy	0.73	0.84	1.31	1.21	1.15	1.02
Liguria	0.71	0.87	0.78	0.88	1.76	1.42
Aosta	0.38	0.62	0.36	0.24	2.85	2.80
Center						
Veneto	0.99	1.05	1.12	1.14	0.90	0.71
Friuli-Ven	0.89	0.86	0.94	0.94	1.27	1.36
Trentino A	1.29	1.14	0.72	0.98	0.79	0.76
Emilia Ro	1.33	1.18	1.04	1.12	0.36	0.48
Tuscany	1.12	1.33	0.90	0.80	0.90	0.64
Marche	1.50	1.41	0.76	0.93	0.35	0.30
Umbria	0.97	1.03	0.81	0.84	1.27	1.17
South						
Lazio	1.34	1.15	0.82	0.94	0.58	0.80
Abruzzi	1.78	1.38	0.40	0.63	0.24	0.80
Campania	1.27	1.05	0.74	0.84	0.81	1.12
Puglia	1.65	1.37	0.56	0.58	0.32	0.88
Basilicata	2.07	1.36	1.60	0.70	0.00	0.74
Calabria	1.92	1.83	0.29	0.41	0.11	0.24
Sicilia	1.89	1.50	0.31	0.58	0.15	0.63
Sardegna	1.88	1.44	0.32	0.80	0.15	0.45
Italia	1,00	1.00	1.00	1.00	1.00	1.00

The industrial specialisation of each region has been measured by counting the number of people employed in traditional, artisanal industries in 1951 and 1971. Following Bellandi (1989), the following traditional industries have been selected: craft-based industries like textiles, footwear and clothing, leather goods, wood and furniture and non-metallic mineral products (including ceramics), and metallic engineering. Once again, the regional figures are presented in Table 2b as location quotients, in which the share of workers in a particular sector in a region is compared with the national average. Table 2b shows that traditional industries are somewhat over-represented in the Center in 1971 (in contrast to 1951), but other Italian regions, especially in the South, are not far behind. Craft-based industries predominate in the Center and the South, while there is a significant development of metallic engineering in the Northwest, as opposed to the South and the Center (exceptions are Emilia Romagna and Friuli-Venezia-Giulia).

Table 2b. The importance of traditional industry (divided by craft-based industries and engineering industries) by region in Italy in terms of the number of people employed in 1951 and 1971, measured as location quotients

	craft-b. ind. 1951	craft-b. ind. 1971	engineering 1951	engineering 1971	tradit. ind. 1951	tradit. ind. 1971
North						
Piedmont	0.98	0.69	1.12	0.99	1.02	0.83
Lombardy	1.02	0.84	1.22	1.19	1.08	1.00
Liguria	0.59	0.55	1.44	1.08	0.85	0.79
Aosta	0.30	0.33	0.17	0.41	0.27	0.37
Center						
Veneto	1.18	1.32	0.85	0.94	1.08	1.15
Friuli-Ven	0.99	1.06	0.85	1.10	0.95	1.08
Trentino A	1.10	0.94	0.64	0.96	0.96	0.95
Emilia Ro	0.90	1.06	1.20	1.15	0.99	1.10
Tuscany	1.17	1.59	0.73	0.65	1.04	1.16
Marche	1.07	1.59	0.68	0.64	0.95	1.16
Umbria	0.80	1.12	0.58	0.67	0.73	0.91
South						
Lazio	0.85	0.84	0.88	1.07	0.86	0.95
Abruzzi	1.12	1.47	0.60	0.76	0.96	1.14
Campania	1.01	0.99	0.60	0.85	0.89	0.93
Puglia	0.81	1.13	0.58	0.68	0.74	0.93
Basilicata	1.26	1.00	0.68	0.75	1.08	0.89
Calabria	1.15	1.27	0.45	0.70	0.93	1.01
Sicilia	1.03	1.01	0.71	0.90	0.93	0.96
Sardegna	1.17	1.21	0.71	0.68	1.03	0.97
Italia	1.00	1.00	1.00	1.00	1.00	1.00

As set out before, the spatially concentrated form of industrial production in the Third Italy has been defined by Becattini (1988), among other, as “Marshallian industrial district”, which is one out of many possible types of local production systems (Garofoli 1983). Bianchi (1994) describes it as “... territorial agglomeration of small firms, normally specialised by product type, product components or process phases, held together by interpersonal links, by a common “social culture” amongst the workers, entrepreneurs and politicians and enveloped by an ‘industrial atmosphere’, which circulates information, favours professional training facilitates the diffusion of innovation, thereby generating important flows of external-internal economies” (p. 4). Becattini (1989) claims that there exist about 60 to 100 industrial districts in Italy, depending on the criteria used.

Though other attempts have been made (AA.W 1992), we present the main results of a well-known study of Sforzi (1989;1991) who put much effort to identify industrial districts across the Italian regions. He makes use of three indicators, which are of a geographical (local labour markets), social (for instance, entrepreneurs, active population in small firms) and economic nature (sectoral specialisation). As shown in Table 2c, a total amount of 60 Marshallian industrial districts has been counted by Sforzi (1989), which employed about 906.000 people in 1981 (about 5.4% of all jobs in Italy). As expected, most of the districts involved (46) are located in the Third Italy area, of which the regions of Marche and Veneto stand out in particular. Only one of them is found in the South, whereas the Northwest has developed 13 of them (see also Garofoli 1983). Table 2c also shows that all of the industrial districts are specialised in those industries which have been described as “traditional” in Table 2b.

Table 2c. The number of Marshallian industrial districts (including principal economic activity) by region in Italy

	number of industrial districts	principal economic activity
North		
Piedmont	2	metal goods (1), clothing (1)
Lombardy	11	textiles (3), clothing (4)
Liguria		
Aosta		
Center		
Veneto	14	clothing (4), wooden furniture (6)
Friuli-Venezia	1	wooden furniture
Trentino AA		
Emilia Romagna	8	mech. eng. (3), ceramic goods (2)
Tuscany	8	cloth. (2), footw. (2), wooden f. (2)
Marche	15	cloth. (4), footw. (7), music. ins. (2)
Umbria		
South		
Lazio		
Abruzzi-Molise	1	clothing
Campania		
Puglia		
Basilicata		
Calabria		
Sicilia		
Sardegna		
Italia	60	

Source: Sforzi (1989)

The main conclusion which may be drawn from Section 2 is that the nature of industrial development of the Third Italy area is to some degree distinct from the two other main areas in Italy (the Northwest and the South). Despite the fact that the Third Italy and the South are characterised by the predominance of small-sized firms and craft-based industries, the South (in contrast to the Center) has not experienced to any degree the development of industrial districts. The Third Italy differs from the Northwest in terms of the importance of small-scale industrialisation and craft-based industries, though the Northwest has generated quite a number of industrial districts.

3. **Third Italy:** *theoretical framework*

In the previous section, we have described the particular nature of industrial development in the Third Italy area. This second part of the paper concerns the question of how to explain the rise of this particular form of industrial development in the Third Italy. In Section 3.1, we briefly present and discuss several theoretical frameworks which have been put forward in this respect. In Section 3.2, the most powerful theoretical insights are then integrated in the so-called WLO-model which provides a particular perspective on how to explain the industrial rise of relatively unindustrialised regions like the Third Italy area. From such a theoretical perspective, it is possible to assess the impact of space on the initial stage of industrial development in the Third Italy, which will be done in Section 4.

3.1 Theoretical perspectives on the industrial rise of the Third Italy

Since the 1970s, there have been several attempts to explain the industrial size of the Third Italy (Becattini 1987). In a nutshell, we discuss the most influential ones, without pretending to be exhaustive in this respect.

It was quite common in the 1970s to reduce this form of industrial development in the Third Italy to external factors (Paci 1973; Graziani 1975; Goglio 1982). According to this view, the strategy of large corporations in the Northwest to decentralise their production in order to circumvent restrictions imposed by the trade unions (as a result, labour costs were reduced and the flexibility of the labour force was re-established) led to the development of small and medium-sized firms which depended heavily on these large firms (Goglio 1982). This dependency relationship or “division of labour” was mainly expressed in two ways (Brusco 1991): either the small and medium-sized firms absorbed the (temporary) high peaks of demand which exceeded the capacity of production of the large corporations (in the case of the same product) (Paci 1973), or the small and medium-sized firms operated as major suppliers of components, etc. to the large corporation (Graziani 1975). However, this explanation is not very persuasive for several reasons. For one thing, it is hard to reconcile the high industrial growth rates in both the Northwest and the Center since the early 1950s (as Table 1 demonstrated) with this tendency of large firms to decentralise their production from the late 1960s onwards. Further, this explanation is not consistent with the fact that trade and capital flows between the Northwest and the Center have hardly been registered. Last but not least, it ignores the importance of endogenous (that is, autonomous) growth based on the dynamics of local

production systems with an extreme division of labour among local firms. Nevertheless, this approach may still be relevant to some extent. For example, it remains plausible that the Northwest, in contrast to the Center, failed to adjust to market changes requiring (labour) flexibility in some traditional industries. This may, for instance, provide an explanation for why Lombardy witnessed a decline in footwear production of about 29% in the period 1951-1981, whereas the Center demonstrated an increase of production in the same period (Bruni 1986).

The so-called Florentine school (Becattini 1979;1987) has interpreted the industrial rise of the Third Italy as an endogenous growth process (or “un circolo virtuoso” as Becattini (1991) puts it), which is built on interaction and co-operation based on (economic, geographical and cultural) localness in highly dynamic local production systems. In short, the efficiency of these local networks is mainly the result of a combination of competition (stimulating dynamics and innovations), specialisation (social division of labour) and co-operation (which minimises uncertainty and opportunism, stimulates exchange of knowledge and information, and lowers transaction costs) between the local authors (Bertini 1994). As a result, competitive advantage is achieved through “a system of intangible assets pertaining to the production system as a whole” (Bianchi and Gualteri 1990, p.86). These local, vertically disintegrated areas benefit from both (external) scale economies and flexibility which do not coexist in large, vertically integrated firms where internal scale economies goes at the expense of flexibility.

Some have claimed that such an endogenous growth process necessitated several pre-conditions which were typical for the Third Italy area. Fuà (1983) talks about “condizioni di partenza” which constituted a propitious environment for this particular type of industrial development. Pyke and Sengenberger (1991) called them “condizioni necessarie”, while Trigilia (1994) referred to “risorse istituzionali favorevoli”. Most, if not all of them have mentioned the particular social structure in the Third Italy (in terms of common background of employers and employees, absence of class polarisation, strong family ties, common values and norms, etc.) which provided a basis on which this form of industrial development could emerge. In fact, this not only stimulates interaction and facilitates co-ordination between local actors, but it also enhances flexibility in many respects (Becattini 1989).

The same is true for industrial specialisation (in terms of tradition of small-scale production in traditional, artisanal sectors) which encourages flexibility and adaptation (Pyke and Sengenberger 1991). Further, a supply of flexible, low-cost labour has often been mentioned (in relation to the outflow of labour from the agricultural sector), which is believed to have contributed to the flexibility and intensity of interaction of these local production systems as well.

In sum, we conclude that a combination of factors provides a plausible explanation for why the Third Italy experienced the particular type of industrial development described in Section 2. First, this development has been triggered by (a) the increase of real income since the 1950s in Italy which boosted the demand for consumer goods, and by (b) the differentiation of demand (that is, demand for more varied and customised goods, produced in short series) since the 1970s. It was especially the Third Italy which was particularly suited to respond to this challenge and to seize the opportunity provided by this latter trigger. However, it was the endogenous growth process in the local production systems, on which the Third Italy has advanced to a situation of industrial dynamics. Nevertheless, this emerged on the basis of a set of necessary conditions, of which culture, industrial specialisation and labour are the most important ones. We turn to these necessary conditions in Section 4 in order to determine to what extent these were only confined to the Third Italy area during its initial stage of development. However, before doing this, we set out the main features of the WLO-concept and incorporate the theoretical insights discussed in this section into the WLO-concept. In Section 3.2, we extend these theoretical insights to the factors of creativity and chance which are key notions of the WLO-concept

3.2 The WLO-concept and Third Italy

First, we outline the main features of the WLO-concept which was originally constructed to provide a particular explanation for the (changing) ability of regions to generate or apply new technology (see Boschma 1996; 1997; Boschma and Van der Knaap 1997). Then, we examine the extent to which this WLO-concept may also provide an useful framework for explaining the industrial rise of the Third Italy while taking into account the theoretical remarks made in section 3.1.

In short, this WLO-concept holds the view that windows of locational opportunity tend to open up in the event of new techno-industrial developments: newly emerging industries, such as the computer industry, are likely to provide opportunities of industrial development for both leading and backward regions. In other words, it provides an explanation for why it is rather uncertain and unpredictable where new industries emerge and develop in space.

According to this approach, their spatial formation during the initial stage of growth takes place rather independently of spatial structures laid down in the past. This is because the impact of space may be unpredictable and rather weak for several reasons. Firstly, there is likely to be a poor match with the new requirements of new industries: spatial practices and

conditions accumulated in the past are unlikely to provide stimuli to the development of new industries and, therefore, are unlikely to predetermine their place of emergence. Secondly, their creative ability may safeguard their development in unfavourable places: when it is almost impossible for newly emerging industries to build on locally available conditions to support their development, they have to create their own mechanisms to satisfy their needs. Examples of these mechanisms are the recruitment of new skilled labour through on-the-job-training and the establishment of new educational facilities, the formation of new technological knowledge through practical experience and the set-up of new R&D centres, etc. (Boschma and Van der Knaap 1997). As a result, favourable production environments are more likely results of, rather than preconditions for their own dynamic growth. Thirdly, local conditions favourable to their development are likely to be of a generic nature and, thus, likely to be widely available in space. The needs of new industries are often not given beforehand but come into being as their growth proceeds. As a result, their creative ability turns these generic resources (e.g. basic knowledge) into specific ones (e.g. specialised knowledge).

The outcomes of a long-term spatial analysis of Belgium are largely in line with these theoretical statements (Boschma 1997). The industrial history of Belgium in the last two centuries shows that newly emerging industries do not require a particular type of region in order to develop. A more in-depth analysis of a few selected new industries underlined the fact that their rise could not, or could only to a limited extent, be related to location-specific conditions carried over from the past. Their spatial formation went along with a well-developed ability to generate or attract the resources needed. Although this creative capacity might have been influenced by particular conditions in the region(s) concerned, these conditions could often be considered to be widely available in space.

Now attention is devoted to the problem of how to make use of this WLO-notion in the case of the Third Italy. The relevance of this WLO-concept for this particular case may be questioned because, as set out above, this theoretical framework has originally been developed to deal with the spatial implications of newly emerging industries. This certainly applies to the discontinuous feature of new industries, which appears to be of less relevance when studying the industrial rise of the Third Italy. In fact, the industrial districts experienced a strong development in mainly craft-based industries (as demonstrated in Section 2.2.), in which major technological breakthroughs played no role whatsoever (Bertini 1994). As a consequence, no complex technologies and no sharp breaks with the past were involved in the case of the industrial rise of the Third Italy, which has been characterised by Fuà and Zacchia (1983) as “*industrializzazione senza fratture*”: the particular nature of industrial development in Third

Italy evolved rather smoothly from structures laid down in the past (in section 3.1., we called these “necessary conditions”), such as a tradition of artisanal production.

However, two other key notions of the WLO-concept, that is creativity and chance, are applicable in this particular study. As far as creativity is concerned, the creative feature of the WLO-notion described previously is relevant here though of a slightly different nature: the creative ability of firms to generate or attract their own conditions of growth in situ could not so much be associated with a complete lack of stimuli, as defined in the WLO-concept but could be related to favourable conditions (or “necessary conditions”) present in the Third Italy. Nevertheless, the ability of small and medium sized firms to organise their own conditions of development was crucial in those situations where these were either lacking in the area concerned, or where these became only important after some period of time. To give an example of the latter, production may become more capital-intensive and more technology-based after a while and, therefore, local accesses to capital and technological skills is of increasing importance at a later stage of development. This creativity may well be related to the endogenous growth process described in section 3.1 because interaction and co-operation between local actors, which bring about efficiency and dynamics in local production systems, only come about in the course of their development. In section 4.1, attention is drawn to the question whether the industrial rise of the Third Italy went along with the creation of resources which sustained its further development.

As far as the accidental nature of the WLO-concept is concerned, this may be highly relevant in the case of the Third Italy. Most, if not all necessary conditions mentioned in Section 3.1 are likely to be of a generic nature, that is, likely to be widely available in space. For example, artisanal production and flexible labour markets are expected to be widespread in Italy. In other words, the Third Italy provides an excellent case to analyse whether the so-called “necessary conditions” during its initial stage of development were also available in regions outside the Third Italy, that is, in the Northwest and the South of Italy. If the industrial districts did not develop rather spontaneously or independently of space, to what extent should these spatial conditions be regarded as sufficient for the industrial rise of the Third Italy area? If its industrial development was strongly rooted in local conditions, is it possible to identify Italian regions outside the Third Italy area which were well-endowed with similar conditions? These research questions are addressed in section 4.

4. **Third Italy**: *creativity and chance*

In section 3, we have developed a theoretical framework which provides an particular perspective on how to explain the industrial rise of the Third Italy. This framework focused explicit attention on the dynamic (creative) and rather accidental features of industrial development in the Third Italy area. Section 4 examines empirically whether creativity and chance have been major characteristics of the Third Italy during its initial stage of development. Section 4.1 draws attention to the importance of creativity, that is, it examines which conditions of growth may be considered anything but important during the initial stage of development of the Third Italy, though were created (and therefore became crucial factors) at a much later stage of its industrial development. Then, we examine whether the industrial rise of the Third Italy was a rather accidental event which could have occurred in other (less successful) regions in Italy as well. We focus attention on three main indicators, that is, culture (section 4.2), industrial specialisation (section 4.3), and flexible, low-cost, experienced labour (section 4.4.), because these conditions have largely been held responsible for the industrial rise of the Third Italy since the 1950's by a large body of (Italian) literature (see also Section 3.1). For each of these three indicators, we examined empirically which of these in the 1950's can explain why the particular form of industrialisation described in section 2.2 emerged in the Third Italy area, and not elsewhere in Italy.

4.1 Factors of creativity

We briefly concentrate here on five factors, that is, capital, technology, market, suppliers and the (local) government, which, we believe, did not have any impact whatsoever on the initial stage of industrial development of the Third Italy in the early 1950's, though, at a later stage of development, became crucial factors that contributed to its competitive advantage. In short, this is because the industrial districts in those days needed little capital for investment (capital cumulated locally as a result of ploughing-back of profits), they used relatively simple technology (tacit knowledge gradually became a major asset through the process of learning), they served mainly national (not local) markets in the 1950's and 1960's (the establishment of private and non-profit marketing organisations allowed them to supply export markets from the 1970's onwards), dynamic networks of supplier-user relationships only developed in the course of time, while the local government only became active much later (for instance, it assisted in setting up all kinds of new services). We briefly explain more in detail each of these statements.

As far as capital is concerned, the innovative firms in the Third Italy relied heavily on their capacity to supply their own capital needs themselves through the provision of family capital (Fuà 1983) and the ploughing-back of profits. This was possible because of the small capital requirements in these traditional, small-scale sectors. This self-financing attitude was further encouraged by good prospects for high profits (and thus relatively low risks) in the short term (Bertini 1991). Therefore, a general reluctance of existing capital suppliers to provide the necessary capital could not have played a major role despite the fact that some have suggested that this was the case (Fuà 1983). Becattini (1991) has claimed that local banking facilities (in Italy, the local banking sector is still very important) were important for the functioning of the industrial districts. However, it seems that only at a later stage of their development, new financial institutions (for instance, Mediocredito) were established which exclusively focused on satisfying the particular capital needs of these districts (Zamagni 1993). NOMISMA (1993) states that even today, self-financing remains the most important source of capital for highly innovative firms in the region of Emilia Romagna.

With respect to technology, broadly speaking, it was “tacit knowledge” rather than complex technology (see discussion section 3.2), which is hard to copy or imitate in other places that contributed to a considerable degree to the international competitiveness of the Third Italy area. What is important to acknowledge is that this pool of knowledge and skills only became a major asset in the industrial districts after some period of time through the process of learning and institution-building. In fact, the innovative firms showed a well-developed capacity to develop and improve new technology through “trial-and-error”, and to absorb and integrate new knowledge into their traditional knowledge base. However, basic knowledge and skills, especially in the field of mechanical engineering in the region of Emilia-Romagna (Brusco 1991) were now and then present in the Third Italy area, whereas technical schools (once again, especially in Emilia-Romagna) seem to have contributed to some extent to the diffusion of technological knowledge and skills. It is because of this reason that these aspects have been incorporated in the empirical analysis in sections 4.3 and 4.4.

As far as the market is concerned, the industrial districts in the Third Italy area have largely produced for the national market right from the beginning. In other words, local markets did not act as major impetus for the development of the Third Italy and, therefore, can not provide an answer for why the Third Italy area in particular managed to generate the particular type industrial development described in section 2. Moreover, private and non-profit marketing organisations were created in the course of time as a means of supplying export markets which became important from the 1970’s onwards. It was only through this creative strategy that “...

the myriad small producers have been able to dispose of their output on national and international markets” (Scott 1988, p. 56).

With respect to supplier networks, the extreme division of labour which is believed to generate dynamic efficiency in the industrial districts, hardly existed in most of these local production systems during their initial stage of development in the early 1950's. In fact, these supportive networks of supplier-user relationships came largely into being as a result of their own growth and development which enabled an Smithian-like widening of the local social division of labour (Scott 1988).

As far as the role of the (local) government is concerned, the (local) government has not directly been involved in the industrial rise and development of the Italian districts in the 1950's. Only recently, the (local) government has become more active in this respect. For example, by setting up new services which account for the particular needs of the small and medium-sized firms in the districts (for instance, telematica, export promotion) (Brusco 1991). Nevertheless, more indirectly, local traditions and political institutions made possible this particular type of industrial development in the Third Italy, mainly because these were able to regulate potential social conflicts and to achieve political and social cohesion (Triglia 1986; 1994). In fact, the existence of these political sub-cultures boosted the flexibility of labour in particular. These local sub-cultures are believed to be deeply rooted into a common culture and closely linked with a tradition of co-operation in these areas. As a consequence, we accounted for the importance of this cultural dimension in the empirical analysis (Section 4.2).

In sum, creativity seems to have been a major feature of the industrial development of the Third Italy since the post-war period. This is because a set of factors (capital, technology, market, supplier networks, (local) government) could be identified which had a major impact on the industrial development of the Third Italy but not so during its initial stage of development in the 1950s. In other words, these factors were not a precondition for the industrial rise of the Third Italy. On the contrary, these factors came gradually into being (for instance, tacit knowledge and capital accumulated) as a result of the industrial growth in the Third Italy area and, therefore, may be considered part of the endogenous growth process described in Section 3.1. However, we already mentioned a number of necessary conditions in Section 3.1 which might have constituted a basis for the industrial rise of the Third Italy during its initial stage of development. Therefore, we now devote attention to the problem of which of these indicators, that is, culture (Section 4.2), industrial specialisation (Section 4.3) and labour (Section 4.4), may be considered decisive for why the particular type of industrial development set out in Section 2.2 emerged in the Third Italy area, and not elsewhere in Italy.

4.2 Culture

In Section 3.1, we stated that the particular form of industrialisation in the Third Italy area emerged on the basis of a distinctive social structure which encourages interaction and co-ordination between local actors, and enhances flexibility (Becattini 1987). On the one hand, this cultural feature of the Third Italy has been associated with a tradition of entrepreneurship which is reflected in both an artisanal-urban tradition (Fuà 1983) and the significance of the share cropping system in the agriculture sector (Bagnasco and Pini 1981; Brusco 1986). This latter aspect is often contrasted with the South of Italy where the agricultural sector is largely organised around a system of “latifundia” which discourages local initiative and creates bonds of dependency and exploitation (with many day labourers). On the other hand, this socio-cultural dimension is often linked to relations of trust, or “social capital” which stimulate and facilitate economic co-operation by overcoming the so-called “dilemma of collective action” (Harrison 1992; Putnam 1993; Fukuyama 1995). As Putnam (1993) puts it, “... a group whose members manifest trustworthiness and place extensive trust in one another will be able to accomplish much more than a comparable group lacking that trustworthiness and trust” (p. 167). In economic terms, this type of social network is more efficient and, thus, less costly than explicit contracting and monitoring, and much more effective than enforcement by the state. Moreover, it favours transmission and exchange of knowledge involved at the local level, which cuts across social cleavages, as reflected by a high rate of social mobility (Scott 1988) and socio-political co-ordination (Trigilia 1986). In fact, the mechanisms of co-operation and co-ordination between local actors are believed to be based on so-called horizontal relations rather than vertical relation of authority and dependency (Putnam 1993).

We made an attempt to measure these dimensions of culture which have been related to the particular type of industrial development in the Third Italy area. As shown in Table 3, we made use of five indicators for which data were available by region in the early 1950s. A culture of small-scale entrepreneurship has been assessed by two indicators. The first one is entrepreneurial activity in the agricultural sector, measured as the share of self-employed (as opposed to day labourers) (Vitali 1968). The second one is the importance of the share cropping system (measured as the total surface of area farmed by share tenants) as a form of agriculture in which the landowner and the farmer divided the output, and the peasant farmer had some incentive to produce efficiently while enjoying a considerable degree of freedom to make its own decisions. A culture of co-operation has been gauged by three indicators. The first

concerns the number of economic co-operative organisations (consumer-oriented as well as producer-based) (Fornasari and Zamagni, forthcoming), which may be regarded as “forms of organised but voluntary social solidarity” (Putnam 1993, p. 140). Following Putnam (1993) the second indicator included in our analysis is the number of recreational and cultural associations (such as soccer clubs, choral society, etc.) in 1982 though founded before 1960, as a proxy for civic sociability (or intensity of horizontal co-operation) in the 1950s (Mortara 1985). A major drawback of this indicator taken from the 1982 associational census is, however, that it excludes associations that exist in the 1950s but did not exist anymore in 1982. Once again, following Putnam (1993), the third indicator is the number of preferential votes per 100 voters during the national elections of 1953. In this respect, we follow the interpretation of Putnam (1993), among others (Katz and Bardi 1980) who claim that “preference voting can be taken as an indicator for the absence of civic community” (p. 94), because it is likely to reflect vertical bonds of patronage and clientelism. However, it should be taken into consideration that this indicator may be criticised for several reasons.

Table 3. The cultural dimension in Italian regions early 1950: (1) entrepreneurial activity in the agricultural sector in 1951 (location quotients: LQ), (2) total surface of area farmed by share tenants (classical mezzadria) in 1950 (LQ), (3) number of economic cooperatives as percentage of total in 1951, (4) number of associations in 1982 founded before 1960, as percentage of total, (5) preferential votes per 100 voters in 1953 elections

	LQ agri-cultural entrepren.	LQ share-cropping surface	% econ. Coopera- tives	% associations before 1960	preferential votes per 100 voters 1953
North					
Piedmont	1.48	0.37	3,8%	6,1%	23.6
Lombard.	1.20	0.38	12,7%	14,2%	18.0
Liguria	1.67	0.50	3,9%	9,1%	19.8
Aosta	1.73	-	0,0%	0,2%	-
Center					
Veneto	1.00	0.89	6,5%	6,6%	20.2
Friuli-Ve	1.34	-	1,7%	3,1%	22.9
Trentino	1.44	0.11	0,5%	1,4%	30,7
Emilia Ro	0.75	2.13	18,3%	7,5%	22.4
Tuscany	1.02	3.32	7,6%	9,3%	21.7
Marche	0.89	3.78	2,7%	2,8%	24.0
Umbria	0.94	3.30	1,0%	1,6%	25.6
South					
Lazio	1.15	0.91	17,2%	24,7%	37.1
Abruzzi	1.24	0.87	1,8%	1,9%	34.4
Campania	1.00	0.24	7,2%	2,8%	51.8
Puglia	0.61	0.14	5,1%	1,9%	42.6
Basilicata	0.90	0.20	0,9%	0,5%	38.3
Calabria	0.71	0.24	1,3%	1,1%	46.3
Sicilia	0.92	0.13	5,4%	3,7%	49.0
Sardegna	1.08	0.08	2,5%	1,6%	39.4
Italia	1.00	1.00	100,1%	100,1%	30.7

Sources: ISTAT (1958), 9o Censimento Generale della Popolazione, volume VII, Dati Generali Riassuntivi, 4 novembre 1951, Table 33, Roma: Istituto Centrale di Statistica; INEA, Annuario dell'Agricoltura Italiana (1951), volume IV, 1950, Table 98, Roma: INEA; SVIMEZ (1961), Table 382; Mortara (1985), Table 6; Scaramozzino (1979), elaborations on Table 1.2; Annuario Statistiche Italiano (1954), Table 137; Galli (1968), Table 3 and 7 4.4 industrial specialisation

The empirical outcomes presented in Table 3 may be summarised as follows. As far as entrepreneurial activity in the early 1950s is concerned, the Northwest scores relatively high, the Center occupies only a modest position whereas the South does relatively poor (with the exception of the regions of Abruzzi-Molise and Lazio). As expected, the sharecropping system is quite predominant in the Center (with the exception of the Northeast), in contrast to the Northwest and the South. The outcomes with respect to the co-operative form of economic organisation are hard to describe in terms of North-Center-South differences: it is well-

developed in the regions of Emilia Romagna, Lazio and Lombardy. However, there is a sharp division between the Northwest and the Center on the one hand, and the South on the other hand, as far as the importance of preferential voting is concerned.

In sum, culture seems to provide a poor explanation for why only the Third Italy area, and not elsewhere in Italy, experienced the particular type of industrial development described in Section 2. The only indicator which is in accordance with this is the unique predominance of sharecropping in the Third Italy. Nevertheless, the empirical results give much evidence of why the South of Italy largely failed to develop: it scores particularly poor on entrepreneurial activity in agriculture, association and preferential voting.

4.3 Industrial specialisation

In Section 3.1, we suggested that a local tradition of small-scale industry in traditional, artisanal sectors was a precondition for the particular form of industrialisation that took place in the Third Italy, because it encouraged flexibility and adaptation. This is because, for instance, this type of industrial specialisation had accumulated a local pool of skills and experience that provided a basis on which a similar type of industrial development could rapidly emerge.

Industrial specialisation has been measured here as the importance of small and medium-sized firms in traditional industrial sectors in the early 1950s. As a result, industrial specialisation is defined here as a particular type of industrial development (that is, small-scale, traditional) rather than sectoral specialisation (see Section 2.2 how traditional sectors have been selected). This is because, though industrial districts are often characterised by sectoral specialisation (for example, textiles), other complementary industrial activities in other sectoral categories also form an essential part of these local production systems (Becattini 1991). Another reason is that Table 2c has demonstrated that each region in Italy is characterised by a number of industrial districts with different kinds of sectoral specialisation. This latter statement is also in line with results showing that the regions with the highest number of industrial districts shown in Table 2c have a low rate of sectoral specialisation in Italy in 1981 (Bruni 1986).

As shown in Table 4, industrial specialisation defined as the share of traditional industry in the early 1950s, does not explain well which of the regions (with the exception of large parts of the South of Italy) developed the particular type of industrial development in the Third Italy. In the Northwest, the regions of Piedmont and Lombardy give evidence of a more than average score on this indicator, though we might have expected otherwise (that is, a high share of heavy

industry). In the Center of Italy, only two regions (Veneto, Tuscany) show a more than national average score, though we expected this would be the case for all of them. With respect to the share of small firms in traditional industry, we get, however, a different picture. As expected, the Center of Italy (in particular the regions of Marche, Trentino Alto-Adige, Emilia Romagna and Tuscany) shows a relatively high score on this indicator. The same applies for all the regions of the South of Italy, though this is in contrast to expectation (that is, this high score is at odds with its poor performance of small-scale industrial development in the post-war period described in Section 2). Finally, the Northwest of Italy scores below average, which is in line with expectation.

Table 4. The shares of traditional industry, heavy manufacturing, small firms (less than 50 employees), medium-sized firms (51-500 employees) and large firms (more than 500 employees) in all Italian regions in terms of the number of people employed in 1951

	trad.ind. <50	trad.ind. 51-500	trad.ind. >500	trad.ind. total	heavy in <50	heavy in 51-500	heavy in >500	heavy in total
North								
Piedmont	23,9%	21,5%	22,6%	68,0%	7,2%	8,5%	16,3%	32,0%
Lombardy	26,1%	28,1%	17,8%	71,9%	7,7%	9,0%	11,3%	28,1%
Liguria	23,3%	12,9%	20,1%	56,3%	9,7%	9,3%	24,7%	43,7%
Aosta	12,9%	4,7%	0,0%	17,6%	4,5%	5,5%	72,4%	82,4%
Center								
Veneto	35,1%	20,7%	15,6%	71,5%	10,4%	11,0%	7,1%	28,5%
Friuli-Ven	32,7%	15,6%	14,6%	63,0%	8,5%	11,0%	17,5%	37,0%
Trentino A	48,1%	11,2%	4,3%	63,6%	11,6%	9,2%	15,7%	36,4%
Emilia Ro	45,5%	16,5%	4,0%	66,0%	16,0%	12,9%	5,1%	34,0%
Tuscany	40,8%	18,7%	9,4%	68,8%	10,8%	6,8%	13,5%	31,2%
Marche	53,3%	10,1%	0,0%	63,4%	16,2%	11,5%	8,8%	36,6%
Umbria	33,6%	10,2%	4,8%	48,6%	11,4%	12,7%	27,3%	51,4%
South								
Lazio	44,8%	10,3%	1,9%	56,9%	17,3%	13,0%	12,8%	43,1%
Abruzzi	57,1%	6,8%	0,0%	64,0%	25,3%	4,6%	6,1%	36,0%
Campania	42,5%	9,9%	6,5%	58,9%	16,1%	11,0%	14,0%	41,1%
Puglia	46,2%	3,2%	0,0%	49,4%	30,0%	12,5%	8,1%	50,6%
Basilicata	69,6%	2,1%	0,0%	71,7%	25,8%	2,4%	0,0%	28,3%
Calabria	56,5%	4,6%	1,0%	62,0%	32,3%	3,8%	1,9%	38,0%
Sicilia	58,2%	2,6%	1,1%	61,9%	29,0%	6,4%	2,7%	38,1%
Sardegna	62,8%	5,4%	0,0%	68,2%	24,1%	3,8%	3,9%	31,8%
Italia	34,2%	19,0%	13,2%	66,5%	12,0%	9,4%	12,2%	33,5%

Source: elaborations on Censimento Generale dell'Industria 1951, volumes VIII and XVII, tables 2B and 3B

In sum, industrial specialisation, defined as the share of small-scale, traditional industry in the manufacturing sector, provides a plausible explanation for why the Northwest largely failed and the Center mainly succeeded to develop the particular form of industrialisation described in Section 2. However, it leaves unanswered the question why the South, *ceteris paribus*, failed to develop despite the predominance of small-scale traditional industry. One plausible explanation for this is that the particular social structure of the South did not provide a stimulus (as demonstrated in Section 4.2). This could be the reason why small and medium-sized firms in the Mezzogiorno often operate quite independently, whereas small and medium-sized firms in the Third Italy area mainly co-operate and form dynamic networks, as has been suggested by Fukuyama (1995).

4.4. Flexible, low-cost, experienced labour

Many authors (Fuà 1981; Trigilia 1986) have proposed a local supply of flexible, low-cost labour as an explanatory factor for why the Third Italy generated the particular form of industrialisation described in Section 2. With respect to flexibility, the dynamic functioning of industrial districts demands from labour a flexible attitude, which is believed to be enhanced in the Third Italy area by a lack of labour militance (common to core industrial regions in the Northwest), limited class polarisation (high rate of social mobility), the importance of family business (close ties between family members stimulate solidarity and flexibility, and keep labour costs down) and the significance of part-time work, home-work and job-sharing (Brusco 1982). Further, this high flux of labour market activity can only be maintained without major frictions in the Third Italy because social networks guarantee a rapid flow of information about new job opportunities, and because a “social compromise” between local interest groups (government, entrepreneurs, unions) does not impose any rigidity on the flexibility of the work force (Trigilia 1991). With respect to labour costs, Trigilia (1994) among others, has pointed out the importance of low-cost labour during the initial stage of development in the Third Italy area: “... il basso costo del lavoro era stato un risorsa cruciale” (p. 63). This has often been associated with the presence of a large pool of surplus labour available from the agricultural sector. Many workers are often still involved in agricultural activities in order to supplement their income, which also contribute to the flexibility of labour mentioned above (Fuà 1983). With respect to experienced labour, the industrial growth of the Third Italy area has often been linked to the existence of a large reservoir of artisanal skills (see Section 4.3), though the level of required skills was rather low (as mentioned in Section 4.1). Most of the required expertise

could be acquired and transmitted through experience (learning-by-doing), family ties, co-operation networks and labour mobility between firms (which is enhanced by the flexible nature of the labour market). In some cases, technical schools have been mentioned in this respect (Zamagni 1987).

The following indicators have been used to measure the supply of flexible, low-cost, experienced labour by region in the early 1950s. First, artisanal skills have been defined as the number of artisans in 1951, which are presented in Table 5 as location quotients (that is, regional shares in the number of artisans as compared to the regional shares in the number of people employed in 1951). Second, the local surplus labour available from the agricultural sector in the early 1950s has been assessed by the regional share of the absolute decrease in employment in the agricultural sector in the period 1951-1961 (Vitali 1968). Third, the labour costs in the Italian regions have been measured as the average level of the average daily wage costs in Italian liras in the industrial sector for the period 1950-1952. Fourth, the intensity of labour conflicts has been defined as the average number of working hours lost monthly due to labour conflicts in the period 1950-1952. Fifth, the level of technical education by region has been measured as the amount of enrolments of students for the so-called "istituti tecnici" in 1951-1952. These technical institutes have been involved in educating students at superior level for all kinds of technical professions (Zamagni 1993b).

Table 5 presents the empirical results. If we consider the data on artisanal skills, one notices a gradual increase of the importance of artisanal experience from the Northwest to the Center and the South (with the exception of Lazio) in the early 1950s. The results with respect to the outflow of labour from agriculture are less univocal: the outflow is relatively large in the Northwest and Center (Friuli-Venezia-Viulia, Marche and Umbria are the exception) while the South gives evidence of a relatively modest decrease of labour in the agricultural sector. Further, Table 5 indicates that there is a clear division between the Northwest and the South, with the Center taking a middle position when industrial wage level and labour unrest is included in the analysis (with the exception of Emilia Romagna). With respect to enrolments at technical institutes, the pattern is not clear-cut though core industrial regions like Lombardy and Piedmont show the highest levels.

Table 5. The supply of flexible, low-cost, experienced labour in all Italian regions in the early 1950s, measured as (1) the number of artisans in 1951 (location quotients), (2) out-flow of labour from agriculture 1951-1961 (percents of national total), (3) the average level of daily wage costs in the industry 1950-1952 as compared to national level, (4) the average number of hours lost due to labour conflicts 1950-1952 (percents of national total), and (5) number of enrolments at the “istituti tecnici” in 1951-1952 (percents of national total)

	location quotient artisans	out-flow of labour from agriculture	average daily wage level industry	hours lost due to labour conflicts	enrolments at technical institutes
North					
Piedmont	0.78	7,0%	1,11	18,2%	9,9%
Lombardy	0.59	13,0%	1,11	23,4%	18,1%
Liguria	0.57	1,2%	1,23	9,0%	6,1%
Aosta	1.22	-	1,40	0,2%	0,1%
Center					
Veneto	1.18	12,8%	0,91	4,2%	6,2%
Friuli-Venezia-G	0.97	2,5%	0,93	0,9%	1,5%
Trentino AA	1.42	1,8%	1,09	0,3%	1,1%
Emilia Romagna	1.24	11,1%	0,89	16,4%	8,6%
Tuscany	1.21	8,6%	1,05	7,1%	6,1%
Marche	1.86	4,5%	0,85	0,9%	3,7%
Umbria	1.66	2,9%	0,91	0,8%	1,9%
South					
Lazio	0.50	6,0%	1,01	2,8%	9,0%
Abruzzi-Molise	2.36	5,8%	0,81	1,0%	3,1%
Campania	1.52	5,3%	0,82	4,4%	7,1%
Puglia	2.01	2,6%	0,75	2,2%	5,4%
Basilicata	2.93	2,0%	0,64	0,3%	0,5%
Calabria	2.34	5,7%	0,68	0,8%	2,9%
Sicilia	1.94	5,1%	0,74	6,6%	7,0%
Sardegna	1.58	1,9%	0,92	0,7%	1,6%
Italia	1.00	99,8%	1,00	100,2%	99,9%

Sources: Censimento Generale dell’Industria 1951, volume XVII, Table 2; Vitali (1968), tables p. 88 and p. 173; Rassegna di Statistiche del Lavoro, Anno VI, 1954; Annuario Statistiche Italiano 1953, Table 343; Annuario Statistiche Italiano 1954, Table 73.

In sum, labour does not provide a powerful explanation for why the Third Italy area, and not elsewhere in Italy (notably the South) gave evidence of strong industrial growth in the post-war period. In fact, the empirical results do not give much indication that the Center distinguishes itself from the Northwest and the South. This is not to say that the Center show scores that are contrary to expectation: this is not the case. However, the empirical results suggest that the Northwest of Italy was not a likely candidate to develop the type of industrial development described in Section 2. In fact, it performs rather poorly in terms of artisanal skills, industrial wage levels and labour unrest as compared to the other parts of Italy.

4.5 Conclusions

We examined in Section 4 whether creativity and chance, which are key notions of the WLO-concept, have been major features of the industrial rise of the Third Italy during its initial stage of development in the 1950s. We have put forward several reasons why creativity seems indeed to have been part of the industrial development of the Third Italy area since the post-war period. Many factors such as capital, technology, among others, could be considered a result of, rather than a precondition for the development of the particular form of industrialisation in the Third Italy area.

However, it is more difficult to answer whether this particular type of industrial development in the Third Italy was a rather accidental event which could have occurred in other regions in Italy as well. We noticed that the Center did not distinguish itself from the Northwest and the South of Italy on any of the three main indicators we analysed. However, the Center is the only part of Italy (as opposed to the Northwest and the South) which, broadly speaking, demonstrates relatively high scores on all three indicators. In fact, the Northwest was only a likely candidate to develop this type of industrial development in the 1950s when the cultural dimension is taken into account. However, it lacked a tradition of small-scale, traditional industry while it performed rather poorly in terms of flexible, low-cost labour. The South of Italy, however, did well on both of these latter dimensions, but its socio-cultural structure did not provide a stimulus for this particular form of industrialisation.

5. Conclusion

The main objective of this paper has been to examine the extent to which the rise of the particular type of industrial development in the Third Italy area, characterised by networks of flexible, small firms in craft-based industries, reflected in the 1950s a period of open window of opportunity for many Italian regions to industrialise. We presented a theoretical framework which provides a particular perspective on how to explain the industrial rise of the Third Italy. In short, this theoretical concept accounts for dynamic (creative) and accidental features of new industrial development in space.

We examined empirically whether creativity and chance have actually been major features of the Third Italy during its initial stage of development in the 1950s. The outcomes

demonstrated that the industrial development of the Third Italy has indeed shown many features of creativity during the post-war period. Many factors such as technology, capital, supplier networks, etc., which contributed to a considerable degree to the industrial development of the Third Italy in the post-war period, could be considered results of, rather than preconditions for the development of this particular form of industrialisation. At this stage of our research, there is, however, little evidence for the fact that the industrial development of the Third Italy was a rather accidental event. The Third Italy area appeared to be relatively well-endowed with conditions like a favourable socio-cultural structure, a tradition of small-scale, traditional industry and a supply of flexible, low-cost labour, which all constituted a favourable basis for the development of the particular form of industrialisation in the 1950s. The Northwest, however, was not a likely candidate for this because it did not have a tradition of small-scale industrialisation in traditional sectors and a large supply of flexible, low-cost labour, whereas the South of Italy mainly lacked a local culture of co-operation and trust.

In this paper, we have presented preliminary results of our research. There is still much research to be done before we can come to any final conclusions in this respect. We are about to make use of regression techniques in order to determine in more detail (and more accurately) the impacts of the major factors analysed in this paper on the industrial rise of the Third Italy. Moreover, part of our research concerns an in-depth-analysis of the industrial district of Sassuolo (ceramic tiles) which aims to reveal more thoroughly the creative and dynamic dimensions of the particular type of industrial growth that took place in the Third Italy.

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