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GEOGRAPHIES OF GROWTH, DECLINE AND RESTRUCTURING THE RISE AND FALL (PRIVATIZATION) OF THE STATE-OWNED STEEL SECTOR AND THE TRAJECTORIES OF STEEL LOCALITIES IN THE ITALIAN MEZZOGIORNO



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Abstract

This article deals with the recent evolution of the Italian steel industry and of steel-making activities in two localities in the Mezzogiorno. After providing an account of the rise and fall of the public steel sector in Italy and its role in shifting the industry's centre of gravity to the South, it concentrates on a conceptually informed discussion of the remarkable rise of northern mini-mill operations and the subsequent acquisition by a few of these companies of the privatized public enterprises in the 1990s. Most attention is paid to two of the leading new companies (Lucchini and Riva) and to the trajectories of some of their steel-making activities in two localities in Basilicata and Apulia. The trajectories of these companies and localized steel-making activities are themselves explained in the light of the resources and strategies of corporate actors and the context in which these actors operate. Actors' strategies are driven by a quest for profits and a

struggle to accumulate in the face of competition from rival producers, and are examined in relation to the economics of steel production in the Italian South, the processes of workforce recomposition in Taranto and the tensions between profitability and environmental protection. The context includes cyclical and secular trends in the consumption and production of steel, some of the aid and restructuring actions of the ECSC, some of the specific characteristics of accumulation and competition in the steel sector and the legacies of earlier phases of local development that helped shape actors' strategies.

KEY WORDS ★ commodity and value chains ★ geographical economics ★ Italy ★ Lucchini ★ Mezzogiorno ★ mini-mills ★ profit and accumulation strategies ★ Riva ★ state holding companies ★ steel industry restructuring upgrading

Introduction

Steel is a strategic industry (Figure 1), yet its producers have experienced major changes in their fortunes. At a global scale the steel industry saw rapid expansion between 1950 and 1973. The next 20 years saw slow average output growth. Since the late 1990s extremely rapid international output growth has returned. These temporal changes in the growth of the industry were associated with major changes in technologies and productivity on the one hand and in the geographies of consumption and output on the other hand. Together these two developments saw corporate crises and major job losses in areas dependent on steel employment in

economically developed countries and a relocation of steel sector growth in rapidly growing, economically less developed parts of the world (most strikingly in China).

These trends in steel sector development saw the existing social science literature concentrate on three main sets of issues. The first relates to the nature and drivers of steel industry restructuring. This research concentrates on the remarkable changes in technologies and industrial relations, the decline of state entrepreneurship, the entry of foreign capital into domestic industries via mergers and acquisitions, the rise of new entrepreneurs and the growth of giant global companies. Conceptually, it seeks to explain these developments through analyses

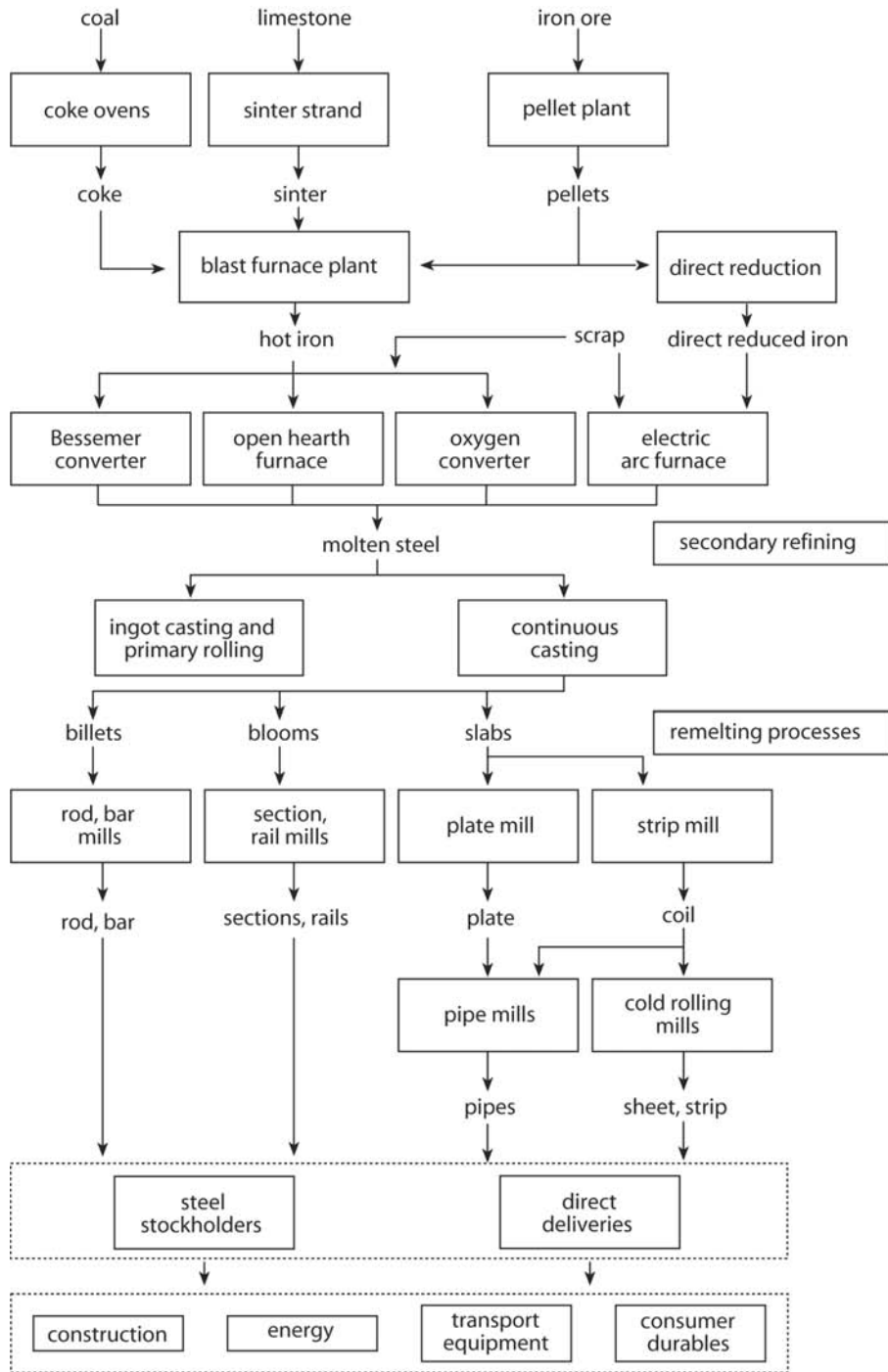


Figure 1 The steel production chain

of the changing market and institutional context of steel industry development, corporate strategies and the actions of states whether to protect, develop or assist the sector (D'Costa, 1999; Fine et al., 2005; Hudson, 1994; 2002; Sadler, 2002). The second concentrates on the consequences of the contraction of the steel sector in developed countries and more recently in transition economies for the regional economies of which they were a part. These studies deal, for example, with the impacts on supplier industries (Sadler, 2004; Welsh Economy Research Unit, 1994), the regionally and nationally differentiated effects on employment and unemployment (Houseman, 1991) and the impact on the distribution of earnings associated with the loss of steel jobs and the subsequent growth of part-time and low-wage jobs in steel localities (Beeson and Tannery, 2004). The third set dwells on the regeneration policies put in place to deal with some of the physical and social consequences of steel sector decline. Entailed are the reclamation of derelict sites, the management of employment decline and the quest for alternative sources of employment and income (Ferner et al., 1997). More recently these measures, fashioned in the more advanced countries, were extended to other areas such as Central and Eastern Europe where steel sector contraction occurred later (CEC, 1998).

The aim of this article is to contribute to the first of these three themes. More specifically, the aim is to provide conceptually informed accounts of the trajectory of the Italian steel industry and of two specific regional experiences of steel industry development in Basilicata and Apulia in the Italian Mezzogiorno. The importance of the Italian case lies in part in the fact that between 1945 and 1965 Italy increased its share of the world and the European Coal and Steel Community (ECSC) markets (increasing, for example, from 8.7 percent of ECSC output in 1952 to 17.5 percent in 1972) and subsequently surpassed Britain and France to emerge as the second largest European producer after Germany, in spite of, and in part because of, its lack of indigenous raw materials. At the start of this period, Italy did already have a significant yet geographically dispersed private steel-making tradition. The relatively fast growth of its steel sector stemmed, however, not from private initiatives but from early public sector development of modern large-scale plants in coastal locations, at first in the

North but subsequently in the South. The last 30 years have conversely witnessed a withdrawal of the state from steel manufacturing and the remarkable growth and internationalization of a number of formerly small private steel producers. Below we shall outline and explain the rise and fall of the public steel sector in Italy and its role in shifting the industry's centre of gravity to the South. In addition, we shall outline the rise of northern mini-mill operations, and the subsequent acquisition by a few of these companies of privatized public enterprises in the 1990s. In later sections we shall deal with the trajectories of two companies (Lucchini and Riva) and of two steel-producing localities in which these new private leaders of the Italian steel sector have played a significant role.

Conceptually, the argument is underpinned by a framework which seeks to explain corporate, regional and national industrial trajectories in the light of the resources and strategies of corporate actors and the context in which these corporate entities operate. Actors' strategies are driven by a quest for profits and a struggle to accumulate in the face of competition from rival producers. As we shall emphasize below, the steel sector faces particular difficulties due to the cyclical character of demand and output, and the difficulty of adapting quickly to sharp changes in consumption: steel consumption outstrips production in phases of growth, while in phases of contraction it is difficult to reduce output to defend price levels, as producers prefer to sell at any price, while governments wish to protect employment. A consequence in downturns is profitability, crises and a destruction of shareholder value, which drive in the direction of government-sponsored concentration of production in fewer hands to dampen cycles and increase producer power vis-a-vis suppliers and customers. These underlying cyclical and secular trends in the consumption and production of steel are one part of the context we shall examine alongside some of the aid and restructuring actions of the ECSC, and, in the case of Taranto, some of the social and political legacies of earlier phases of development. In the last two sections we shall pay attention to ideas from the new geographical economics and the profit/upgrading strategies of individual companies. To explain development tendencies we shall examine the roles of four upgrading mechanisms: (a) cost reduction whether through sourcing or technological and

organizational change; (b) market entry and product development; (c) specialization in high value-added functions; and (d) diversifying and changing to new commodity and value chains (Dunford and Greco, 2006). To set the scene, the next section outlines the contemporary geography of the Italian steel sector.

The contemporary geography of the Italian steel sector

In 2001 Italian iron and steel manufacturing employment, as defined by the ECSC, stood at 38,333 compared with 110,573 in 1981 (excluding workers temporarily laid off). Of these jobs, 83 percent were in just ten provinces including Taranto (32 percent), Brescia (13 percent), Terni (8 percent), Livorno (7 percent) and Genoa (7 percent). This geography of employment reflects the concentration of steel employment in a small and declining number of establishments: 132 in 2001 compared with 299 in 1981. Of these establishments, 42 were involved in steel making (Figure 2) compared with 54 in 1995 and 68 in 1990. A particularly large share (62.3 percent) of Italian steel making relies on electric arc technologies (Table 1) where costs are minimized with batch sizes of hundreds of thousands rather than millions of tonnes per year. Conversely, mills which convert refined iron into steel in a basic oxygen converter (BOC) account for a relatively small share of output. Many of these electric furnace (EF) establishments are mini-mills. Traditionally mini-mills produced long products. The introduction of continuous casting changed this situation, making the rolling of flat products accessible to mini-mills. In Italy the predominance of mini-mills is a reflection of the important role of initially small private producers, of whom, as we shall see, some assumed a leading role as a result of the recent privatization of the public steel sector.

The genealogy of the Italian steel industry

At the time of the Second World War the Italian steel industry involved a heterogeneous group of companies and technologies. Of particular

importance was ILVA. ILVA was an operating company controlled by the Istituto per la Ricostruzione Industriale (IRI) state holding company's iron and steel financial holding company, Finsider. ILVA owned integrated open hearth steelworks at Piombino, Bagnoli and Servola (Trieste). Also controlled by Finsider were Società Italiana Acciaierie di Cornigliano (SIAC), and the Dalmine, Terni and Cogne (Aosta) special steels facilities.¹ On the privately owned side of the industry there was a large number of companies of which the most important were Falck, FIAT Ferriere (which produced steel to satisfy the internal demand of the FIAT Group) and Breda of Sesto San Giovanni (transferred to Finsider in 1959). In addition there was a large number of small and medium-sized foundries and metal workshops which in the 1950s established mini-mills mainly in the Brescia area (the so-called 'Bresciani'). Of the latter, some of the most important were Lucchini, Leali, Pasini, Radaelli, Stefana, Pietra and Ori Martin; and outside the province, Riva, Ferrero, Pittini, Banzato and Beltrame. As we shall see, Lucchini and Riva emerged as global players in the 1990s.

During the war, output peaked at 2.4m tonnes (Figure 3), although the industry was relatively uncompetitive (Castronovo, 1995), and dependent for its profits on the exploitation of price-setting mechanisms, while the war itself saw the destruction/removal of almost all the state-owned capacity. Immediately after the war a major controversy pitted a small number of steel sector industrial families (especially Falck) against a number of charismatic leaders of the state holding companies (in particular Oscar Sinigaglia who was appointed Chairman of Finsider in 1945). The traditional families saw Italy as occupying a subsidiary role in the international economy, manufacturing small lots of specialized, high-cost products. Their justification for this position was the claim that the domestic market was small, the mechanical engineering industries would never make a transition to mass production, and the country lacked raw materials and a sufficiently robust financial system. The public industrialists' ambition was to modernize Italy's family model of capitalism through the introduction of modern technologies and modern management. Although wary of its capital intensive nature, Sinigaglia

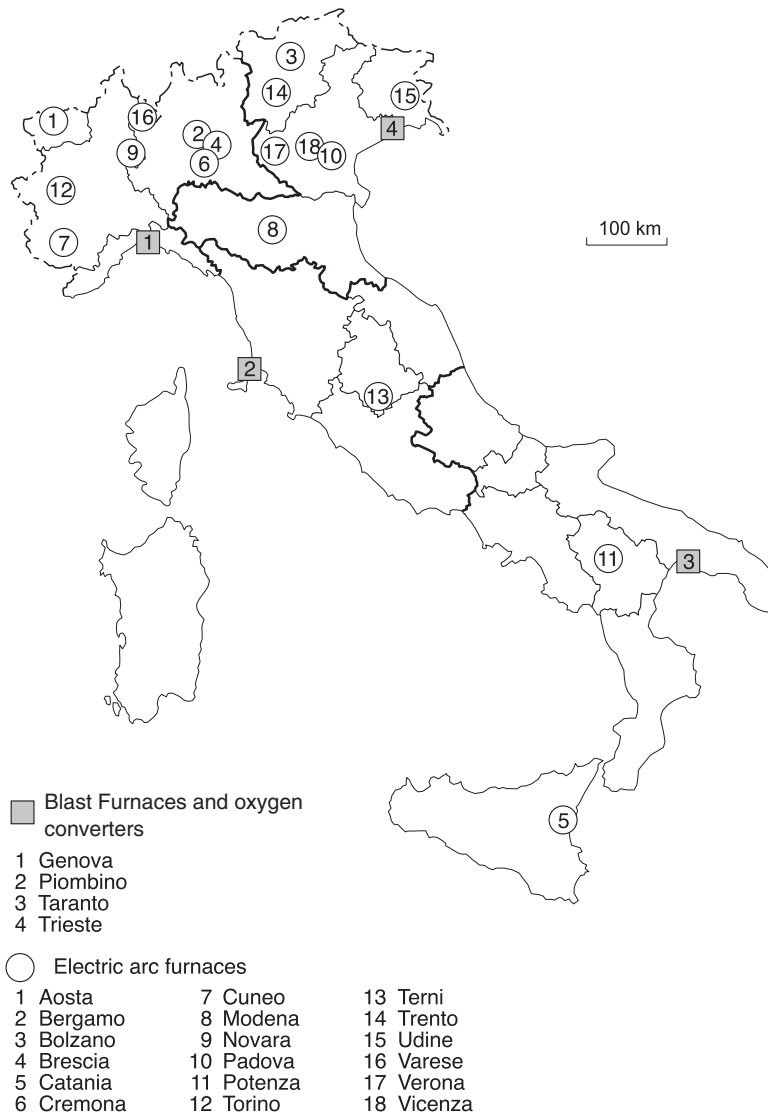


Figure 2 Geography of Italian steel making in 2001

argued that the steel sector was strategically important and would in particular permit the development of mass production mechanical engineering industries which in turn would ease the unemployment problem of the time. (The steel division of the United Nation's Economic Commission for Europe considered that the absorption of the high levels of unemployment was

the primary goal for Italy and was concerned that the creation of national European steel industries would create conditions of excess capacity). Within the steel sector, Sinigaglia advocated a quest for scale economies from the production of flat products in integrated coastal iron and steel works, the use of imported raw materials and scientific management rather than a craft division of labour.

Table 1 Crude steel production by process in 2001

	BOC (000 tonnes)	EF	Total	BOC (%)	EF
Belgium	8,020	2,740	13,485	59.5	20.3
France	11,112	8,231	19,343	57.4	42.6
Germany	31,654	13,149	44,803	70.7	29.3
Italy	10,010	16,535	26,545	37.7	62.3
Netherlands	5,902	135	6,037	97.8	2.2
Spain	4,221	12,283	16,504	25.6	74.4
United Kingdom	10,271	3,272	13,543	75.8	24.2
EU15	93,302	65,193	158,495	58.9	41.1

Source: IISI (2004).

The proposals that prevailed were Sinigaglia's, the reason being that effective lobbying secured the political support of the Democrazia Cristiana (Christian Democratic Party – DC) government and Marshall Plan financial support. A rationalization plan saw the closure of technologically backward plants, and the concentration of production at fewer sites. Bagnoli near Naples specialized in hot-rolled coils along with the new Cornigliano plant, opened in 1954. Piombino specialized in long products. However, the growth of consumption exceeded expectations. Under pressure from politicians such as Vanoni (Ministro del Bilancio) and scholars such as Pasquale Saraceno (research director of IRI), it was decided in 1957 to construct a fourth integrated complex in the South. According to Saraceno, increased consumption in the Mezzogiorno would minimize the costs associated with the choice of a peripheral location, while steel and other basic industries were deemed to have a propulsive effect on the development of complementary industries. In 1959 Taranto was chosen (Dunford, 1988; Kipping et al., 2001).

In 1961 the Cornigliano group, SIAC and ILVA were merged to create Italsider. Italsider's product range was widened and capacity was increased. Capacity reached almost 11m tonnes in 1966. Taranto was originally meant to produce 2.3m tonnes per year. In 1966 its capacity was increased to 4.5m tonnes. In 1970 a doubling of capacity to 10m tonnes per year was envisaged. A strategy of upstream integration saw Italsider either acquire stakes in iron-mining companies in India, Liberia, Mauritania, Canada and Spain or establish long-term contracts with producers in Brazil, Venezuela,

and elsewhere. To add value to its hot-rolled products, Italsider moved downstream into the manufacture of cold-rolled steel and coated steel pipes. Cosider (later called Italimpianti) was established to provide specialized engineering services, and steel group research activities were entrusted to the newly established Centro Sperimentale Metallurgico. Italsider established two companies to distribute its products: Sidercomit was responsible for the domestic market, and Siderexport for overseas markets. As market expansion was so rapid, sales posed few difficulties, and commercial and distribution policies received relatively little attention. As a result, distribution was not closely integrated with production, and space was left for a large number of dynamic private stockholders to link the public producer to private consumers (Balconi, 1991).

Alongside the public industry specialized mainly in the integrated production of hot-rolled steel, there grew privately owned mini-mills requiring relatively limited financial investments, relatively simple technology and relatively small plants (Balconi, 1991). The original metal-working industries arose in part as a result of the presence of iron ore and the availability of hydroelectric power. Much more important was a long tradition of skills in the manufacture of agricultural implements (hoes, shovels, picks, etc.). After the Second World War, these skills and the related industrial tradition were used to manufacture hot-rolled concrete reinforcement bars from scrap iron in electric arc furnaces for the rapidly expanding construction industry (Pedrocco, 2000). The flexibility of the local workforce was another important determinant

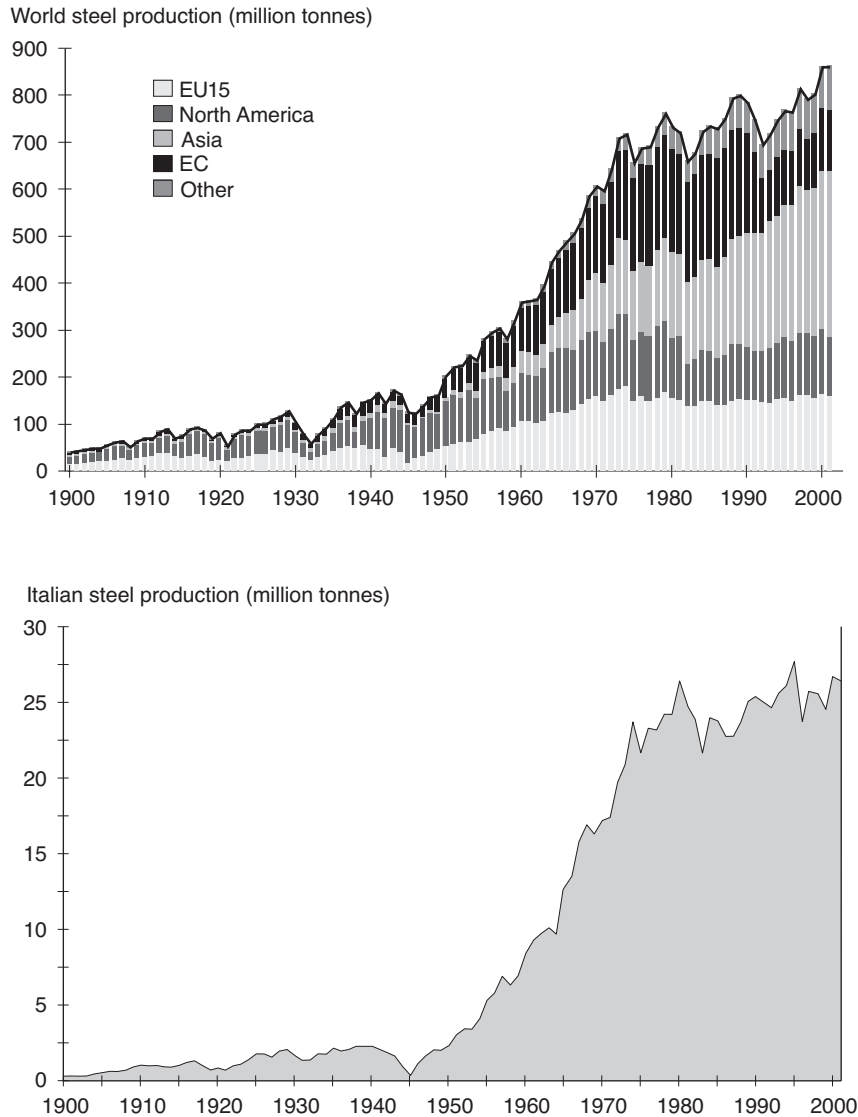


Figure 3 World and Italian steel production (1900–2001)

Source: Elaborated from Federacciai (2004a; 2004b; and various earlier years).

of the development of mini-mills. As a result of the cyclical nature of the industry's orders, labour demand could be fully satisfied through the temporary employment of farmers. Alongside labour flexibility, a lean production system and product specialization were additional sources of competitive advantage. Over time, a division of

labour emerged between medium-sized and small mini-mills: the former would subcontract the most labour-intensive phases of production to the latter. More importantly, during the 1970s medium-sized companies invested heavily in new technologies (such as continuous casting) which allowed them to enter new segments of the market and helped

overcome the relative technological backwardness of the mini-mill sector. As a result, the mini-mills' share of crude steel production rose from some 5 percent in 1959 to 22 percent in 1970, 36 percent in 1980, 33 percent in 1986 and 40 percent in 1990 (Balconi, 2000).

Although the remarkable growth of demand, output and productivity vindicated Sinigaglia's original claims, 1975 marked a turning point. As deeply indebted European producers were bringing new capacity on stream to meet anticipated further increases in demand, and as new competitors were emerging in newly industrializing and centrally planned economies, demand declined sharply, marking the start of a long phase of slower output growth. The most important trends are recorded in Figure 4 which plots the cyclical and secular evolution of apparent consumption, production and trade for Italy, and Table 2 which records EU trends. Apparent consumption rose from 4,190m tonnes in 1952 to 24,627m in 1973 and 31,863m in 2002, while output increased from 3,635m to 20,995m and 26,066m, making Italy the second largest steel producer in the EU15.

Aggregate steel consumption has followed trends in GDP and in industrial production but with a much more pronounced cyclical movement (Figure 4). Steel consumption generally grows more rapidly than production in phases of growth, leading to increasing prices and profits and possibly trade deficits. One reason why is the derivative nature of the demand for steel and its dependence on investments, especially in three sectors: construction; motor vehicles; and domestic appliances. Another is the price sensitivity of the steel market. As Sadler (2002) has pointed out, this sensitivity is due to the fact that some 75 percent of world steel deliveries are based on spot market prices rather than on long-term contracts. A third factor affecting the cycle is the lumpiness of steel investment.

A second important feature of the steel cycle is that, in situations where excess capacity exists, market mechanisms cannot ensure that schemes of rationalization are governed by efficiency criteria. The reason why is that capital costs comprise a very high proportion of total costs. Companies which have recently carried out large-scale investments are likely to be heavily indebted. Conversely, companies with less efficient installations, whose plant and

equipment costs have been recovered, can find themselves in a comparatively strong financial position, can sell at variable costs and can have a significant impact on volumes and prices.

One result of the 1975 decline and subsequent slower and more irregular growth in demand was the creation of substantial excess capacity. Steel prices fell sharply. Companies were forced to sell as long as prices covered variable costs, and in the face of contracting domestic markets competition on international markets verged on economic warfare. Between 1978 and 1988 the ECSC adopted strong measures to limit disruptive competition and reduce capacity. Quotas were established for each company and minimum prices for each product. A system of Voluntary Restraint Agreements with non-EU countries provided trade protection, while rules governing state aids were used largely to confine state aids to cases of capacity reduction.

In the 1970s Italy had some of the most modern steel plants and one of the highest levels of overall productivity in the ECSC. By the 1980s it had lost this edge, while the crisis of its public steel sector proved particularly deep and enduring, as Finsider's large and sustained operating losses suggest (Table 3). Several factors explain this situation: a high degree of indebtedness, particularly low rates of capacity utilization, political interference and adverse industrial relations. As restructuring plans involving extensive rationalization and job cuts failed to wipe out debts and restore profitability, in 1988 EU approval was sought and was secured for a new plan involving further state aids. The ambition of this dramatic new plan was to consolidate Finsider's most viable assets (including all the capacity of the Taranto steelworks) in a new company called ILVA, sell some operations (Servola and Marghera plants) to the private sector, close others (including steel making in Bagnoli) and wind up Finsider itself.

Conversely, the private mini-mills were in a far stronger position. In the 1970s the availability and cost of scrap-iron, the low cost of electricity in Italy, the adoption of continuous casting technologies, a lean system of production and employment flexibility gave them a competitive advantage which saw them increase output and erode their competitors' market shares. In the late 1980s state-sector retreat, market expansion and weaker ECSC regulation created further

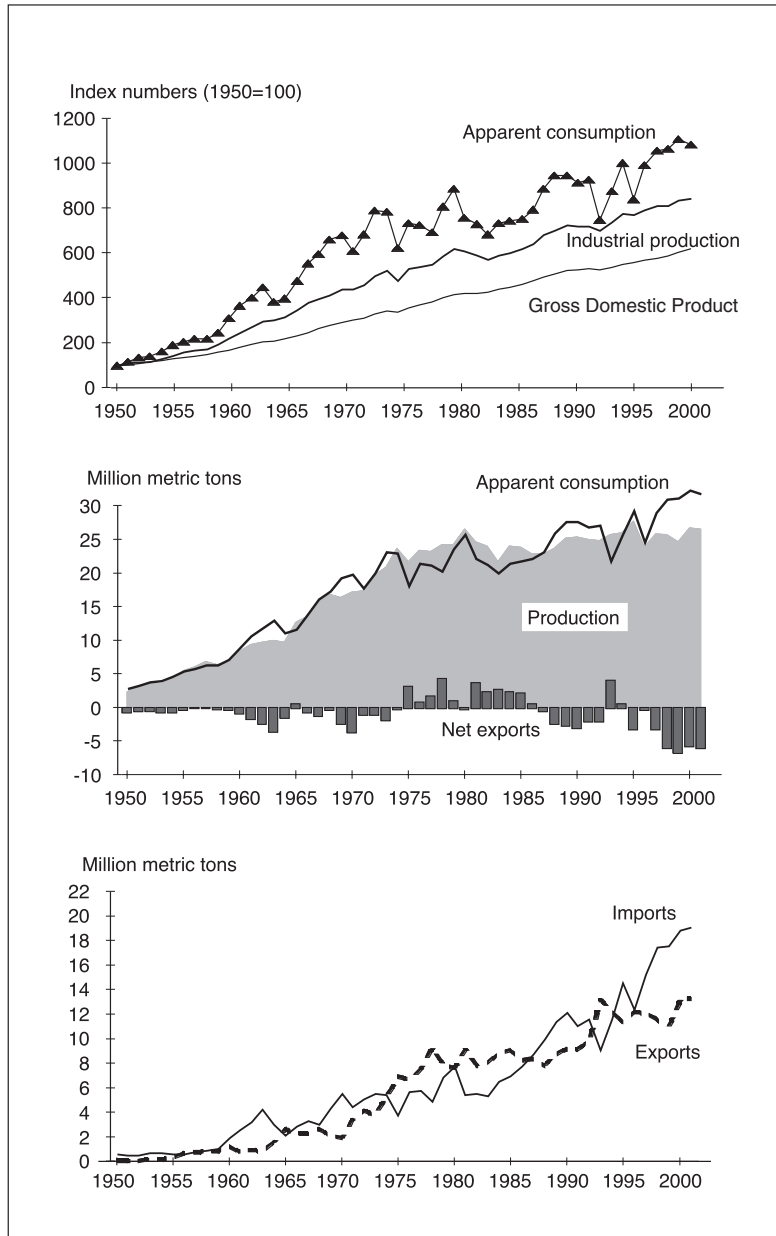


Figure 4 Evolution of the Italian steel sector (1950–2001)

Source: Elaborated from Federacciai (2004b).

opportunities which private steel entrepreneurs were eager to exploit. Riva, Lucchini, Pittini and others moved selectively into integrated cycle

production. The attraction of integrated as opposed to mini-mill technologies was that they possessed certain advantages in the 1980s when the market for

Table 2 EU steel industry trends (1952–2002)

	EU6 1952	1957	1962	1967	EU9 1973	1977	EU10 1981	EU12 1986	1990	EU15 1995	1998	2000	2002
<i>Apparent consumption of ECSC steel in crude steel equivalent (000 tonnes)</i>													
EU	33,462	48,330	63,759	72,907	135,204	118,338	118,327	111,655	125,732	143,991	157,631	163,717	151,221
Germany	15,578	22,971	29,598	30,583	45,821	39,793	41,771	34,560	36,801	39,894	41,187	42,614	37,355
France	9,469	13,201	15,181	17,962	26,064	21,953	21,085	15,149	16,916	16,595	18,716	20,133	18,202
Italy	4,190	6,738	12,720	16,992	24,627	24,561	27,034	24,756	29,130	31,410	33,839	34,893	31,863
Netherlands	1,737	2,418	2,846	3,308	4,466	3,862	3,639	3,645	4,004	5,284	6,250	6,060	4,500
Belgium and Luxembourg	2,488	3,002	3,414	4,062	5,949	5,159	4,950	4,513	4,870	4,274	4,980	5,020	3,645
UK					25,895	21,058	16,203	14,444	16,048	15,805	16,101	14,860	14,220
<i>Production of crude steel (000 tonnes)</i>													
EU	41,996	59,997	73,011	89,886	150,073	126,121	126,053	126,899	136,854	155,745	159,525	163,410	158,689
Germany	18,629	27,973	32,563	36,744	49,521	38,985	41,610	37,134	38,434	42,051	44,046	46,376	45,015
France	10,867	14,100	17,234	19,658	25,270	22,089	21,245	17,865	19,016	18,107	20,153	21,001	20,258
Italy	3,635	6,979	9,757	15,890	20,995	23,333	24,778	22,985	25,467	27,766	25,642	26,728	26,066
Netherlands	693	1,185	2,096	3,401	5,623	4,923	5,472	5,286	5,412	6,409	6,377	5,666	6,117
Belgium and Luxembourg	8,172	9,760	11,361	14,193	21,446	15,585	16,073	13,418	15,013	14,171	13,903	14,208	14,062
UK					26,649	20,474	15,321	15,766	17,895	17,655	17,034	15,252	11,665
<i>Total employees in the iron and steel industry – situation at end of year</i>													
EU	546,700	580,336	536,349	546,700	774,885	721,619	548,717	456,901	376,838	314,059	286,482	276,667	263,808
Germany					228,402	209,465	186,685	142,713	125,194	89,138	79,651	77,311	74,299
France					151,740	142,992	97,305	68,400	46,431	38,578	37,957	37,316	37,316
Italy					89,666	96,593	95,651	66,368	55,955	40,979	38,542	39,325	36,617
Netherlands					23,299	23,293	20,911	18,933	16,993	12,508	11,898	11,440	11,440
Belgium and Luxembourg					85,620	67,189	57,525	42,809	35,588	29,250	24,527	24,833	22,774
UK					196,158	178,874	88,247	55,872	50,675	37,948	32,487	25,465	20,749
<i>Maximum capacity of crude steel production plants (000 tonnes)</i>													
EU	63,550	83,400	112,000	112,000	174,500	200,800	198,000	189,018	197,904	205,084	200,218	200,535	
Germany	29,320	38,100	47,700	47,700	58,800	67,700	67,800	47,496	56,416	51,298	52,366	52,559	
France	14,800	19,800	23,900	23,900	28,100	33,300	29,700	28,191	25,361	22,961	24,935	23,883	
Italy	7,440	10,400	18,800	18,800	28,100	34,000	41,000	35,388	40,015	42,220	35,506	36,337	
Netherlands	1,260	2,500	3,500	3,500	6,100	8,200	8,600	7,965	7,600	6,790	6,890	6,600	
Belgium and Luxembourg	10,730	12,600	18,100	18,100	23,800	27,400	24,300	19,006	18,930	18,895	18,507	17,705	
UK					28,900	28,900	25,400	22,591	23,925	21,097	21,051	20,526	

Source: elaborated from CEC (2002a, 2002b) and IISI (2004).

Table 3 Cumulative losses/profits of IRI, 1971–92 (in billions of current LIT)

	1971–78	1980–84	1985–89	1990–92
STET (telecommunications)	318.3	463.9	4,945.5	4,205.0
Fimmeccanica	-1,164.4	463.9	-706.8	-219.0
Finsider	-1,382.4	-8,836.6	-4,187.3	-2,652.7
IRI	-3,216.1	13,604.2	2,518.1	-3,895.2

Source: Elaborated from Brusoni and Orsenigo (1997).

scrap-iron tightened and scrap prices increased. At this stage, for example, Riva acquired 51 percent of the former Cogea (Acciaierie di Cornigliano). The next step in the development of firms originating from the private mini-mill sector occurred in the first of two phases of compulsory privatization when the Servola (Pittini), Lovere (Lucchini), Marghera and other small steel-making plants were sold off. These acquisitions increased the size and extended the geographical reach of leading mini-mill sector firms, contributing further to differential growth in this sector. Companies that grew sought to increase yet further their competitive edge by developing strategies to upgrade their technologies, to improve product quality through greater control over the composition and structure of steel, and to widen their product mix by entering the higher value-added segments of the market: Lucchini, for example, started a move from ordinary to special steels.

After two years of good economic and financial results, in 1992 ILVA made large losses, as did most EU15 steel companies due to the combination of a sharp economic slowdown and the arrival of cheap steel from Central and East European Countries (CEECs). Taking advantage of low energy and labour costs, CEEC exports increased by 65.8 percent between 1989 and 1992, reaching 2.6m tonnes (as CEEC output declined). The result of increased imports and slower growth was the reappearance of excess capacity and sharp price reductions. Estimates suggested that in the ECSC there were 30m tonnes of excess crude steel capacity and 25m tonnes of excess hot-rolled steel capacity. Between 1989 and 1992, 55,000 steel jobs were lost (Affinito et al., 2000: 18–20; see Figure 5). Between 1992 and 1996, crisis measures were agreed by the ECSC permitting subsidies in return for capacity cuts and restricting CEEC imports.²

In Italy, the combination of ILVA's large operating losses, high financial costs and mounting debts led to the decision to put in place a new restructuring plan and to privatize the economically viable parts of the public steel industry. In 1993, the Piombino plant was sold to Lucchini. Also in 1993, ILVA was split into three entities: ILP, which produced hot-rolled coil and plate in Taranto, Novi Ligure, Genoa and Torino; Acciai Speciali Terni (AST), which acquired hot-rolled and cold-rolled specialty and carbon sheet operations; and ILVA in Liquidazione, which was given non-steel assets and steel-related plants, and which assumed responsibility for all ILVA's outstanding debt. Subsequently, the European Commission approved debt write-offs of €1.65b, a capital injection of €336m, and restructuring and redundancy aid of €84m for the new companies. ILP closed capacity, reduced employment by 2,522, and was sold in 1996 to the Riva Group. AST was sold to a group of investors led by the German group Thyssen-Krupp. ILVA in Liquidazione made most of the required 11,500 redundancies, closing, selling or restructuring and selling its assets. As a result, a consortium involving the Rocca Group and Mannesmann took control of Dalmine in 1996, while Bagnoli was fully closed. Overall, privatization substantially changed a number of qualitative features of the geography of the steel sector (Table 4).

The privatization of the Italian steel sector (and of other EU15 steel companies) coincided with a wave of mergers and acquisitions designed to create large international groups with the critical mass required to be world-class players. In 1997, Arbed of Luxembourg purchased a 35 percent stake in Aceralia (the former Spanish state-owned CSI Corporation Siderurgica). In 1999, the merger between British Steel and the Dutch Hoogovens created Corus. The reorganization of the German

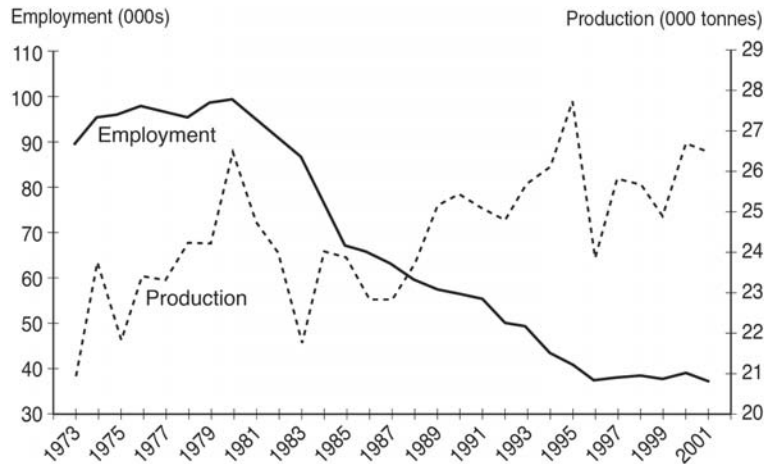


Figure 5 Italian steel employment and production (1973–2001)

steel industry involved a two-stage solution (Sadler, 2002) which resulted in the Thyssen-Krupp joint venture. The French company Usinor (a result of the merger between Usinor and Sacilor) purchased a 53 percent stake in the Belgian state-owned firm Cockerill Sambre in 1998. In 2001, a joint venture between Aceralia, Arbed and Usinor led to the creation of Arcelor. In 2002, 58 percent of EU15 production was accounted for by four companies, and there were four EU companies in the top ten global producers: Arcelor, Corus, Thyssen-Krupp and the Italian Riva Group.

In this section we have documented the rise and fall of the state-owned steel sector and the emergence of powerful new private actors with roots in the mini-mill sector. In addition we have identified some of the important cyclical and secular trends in the consumption and production of steel, some of the aid and restructuring actions of the ECSC and some of the specific characteristics of accumulation and competition in the steel sector which shaped these developments. The structure and trajectory of the steel sector depends also on the resources and strategies of the actors themselves. In a capitalist market economy, the central drivers are the quest for profits and the struggle to accumulate in the face of competition from rival producers. A company's profits depend essentially on the interaction between value added (revenues less costs) and capital outlays. Costs depend on the costs

of equipment, materials and labour and the effectiveness of technologies and organizational arrangements, while revenues depend on the development of commercially relevant products and entry into new markets. To increase the gap between costs and revenues, companies can specialize in high value-added functions and activities, and can also seek to diversify or change chains (Dunford and Greco, 2006). The aim of the next two sections is to explore in more detail the development of two of the new private actors especially in relation to the trajectories of two southern production locations identifying the impact of the quest for profitability and growth.

The new private actors: the Lucchini Group, the Lucchini family and Siderpotenza

One steel manufacturer which gained a major position on the Italian and international scene after the privatization of the industry is Lucchini. Established after the Second World War to manufacture concrete reinforcement bars, in the 1980s and 1990s the Lucchini Group sought to improve profitability and accumulate in the steel sector in three main ways. As we shall show later, it also sought to diversify into new value chains.

Table 4 The geography of the Italian steel industry after privatization

Year of privatization	Buyer	Company	Head office	Registered capital (LIT million)	Plants	Surface (000 m ²)	Employment	Main activity
1992-97	Lucchini	Acciaterie e Ferrerie Piombino	Piombino (LI)	50,000	Piombino (LI)	11,057	2,366	Steel
		Vertek	Condove (TO)	25,520	Condove (TO)	150	180	Steel
		AFS-Servola	Trieste	32,546	Trieste	602	722	Steel
		La Magona d'Italia	Florence	15,964	Piombino (LI)	290	829	Metal manufacturing
1994	Marzorati	Cogne Acciai Speciali	Aosta	40,020	Aosta	1,491	940	Special steels
1995	Fried. Krupp	Acciai Speciali Terni	Terni	323,620	Terni	3,452	2,915	Stainless, magnetic and carbon coils
1995	Riva	Ilva Laminati Piani	Milan	700,000	Torino	188	509	Stainless steel manufacturing and finishing
					Taranto	10,300	10,140	Iron, steel, hot and cold rolled coils
					Novi Ligure	713		Cold rolled and galvanized coils
					Torino	170		Cold rolled and zinc-electroplated coils
1996	Rocca Techint	Dalmine	Dalmine (BG)	347,004	Genova Sestri Dalmine (BG)	440	2,087	Galvanized coils
					Arcore (MI)	231	300	Seamless pipes and crude steel
					Costa Volpino (BG)	154	251	Hot and cold-finished seamless tubes
					Piombino (LI)	676	200	Cold drawn seamless and welded carbon/alloy steel tubes
					Sabbio (BG)	13	136	Welded tubes for water and gas
								Gas cylinders

Source: Affinito et al. (2000).

In the steel sector, it first of all redefined its production strategy. New technologies were adopted. More importantly, investments and acquisitions enabled it to concentrate on special and high-quality long steel products, characterized by higher added value and less price competition than ordinary steels: 'When you make standard products the market controls you; when you make quality products you control the market' (interview data, Brescia, June 2001). At the same time, the product development strategy was tailored to their customers' needs. Automobile customers such as GM, for example, globalize, yet want to guarantee the quality of their steel inputs. Accordingly, in 2001 the Lucchini Group started research cooperation with the Japanese company Kobe Steel, aiming to produce products with the same metallurgical properties and the same standards over a 3–5-year span for the auto industry, especially as GM installs the same machines in all its plants in different parts of the world. The aim is for Kobe to supply GM in Asia and Lucchini in Europe. Second, Lucchini seized the opportunity of privatization to adopt the full-cycle technology, acquiring the Acciaierie di Piombino from the state sector in 1993, and the Servola plant in 1995. Third, acquisitions enabled it to extend its geographical reach and to switch from a national to an international arena. Included were the acquisition of Lovere Sidermeccanica in 1990; Huta Warszawa, the largest Polish producer of scrap-derived engineering steels, in 1992; Vertek of Condove in 1993; Ferriera e Altoforni di Servola in 1995; Ascométal in 1999; and two companies manufacturing equipment for railway rolling stock in England and Sweden respectively in 2000. 'Everything,' it was declared, 'can be acquired or sold' (interview data, Brescia, June 2001).

Table 5 and Figure 6 record the results. Table 5 demonstrates the remarkable growth in output, employment and turnover from 1975–2002. Turnover, for example, increased by a factor of nearly 150. Figure 6 indicates the current Europe-wide reach of the Lucchini Group. In Italy at the start of the new millennium, Lucchini had plants at: Piombino, producing 2.5m tonnes of steel per year for rails, bars and rods; Trieste, producing 1m tonnes per year, of which half is pig iron for the foundry market and half is for semis which are re-rolled at other plants of the group near Verona and at Brescia and Lecco; Sarezzo, producing 0.5m tonnes per year in an arc furnace plant for rolling into rods and bars; and Lovere and Bari, whose products are destined mainly for the railway and urban transport sectors. In France, Lucchini had capacity at Fos-sur-Mer, Hagondange, Le Cheylas and Les Dunes. All its French steel production relied on electric arc technologies where it could take advantage of electricity charges which were much cheaper than in Italy. Its French activities are closely related to the automotive sector. It also had plants in Sweden and Manchester producing rail equipment, and the Warsaw plant.

The 1992 decision to enter the Huta Warszawa–Lucchini joint venture made the Lucchini Group the first ECSC producer to enter the CEEC steel sector. The project involved installation of a modern steel-making and rolling plant. Assistance was provided in the shape of European Bank for Reconstruction and Development, Italian bank and International Finance Corporation loans, and Italian Export Agency, SACE, guarantees. Other ECSC companies hesitated, however. This hesitation was

Table 5 Evolution of the Lucchini Group, 1975–2002

Year	Hot-rolled products (tonnes)	Turnover (LIT billion)	Plants	Employees
1975	174,000	13	4	552
1980	310,000	52	4	822
1990	891,000	359	6	2,756
1999	3,127,000	1,568	21	10,600
2000	3,603,000	2,041	24	11,022
2001	3,171,000	2,087	24	10,035
2002	3,020,000	1,912	24	10,100

Source: [<http://www.lucchini.com>].

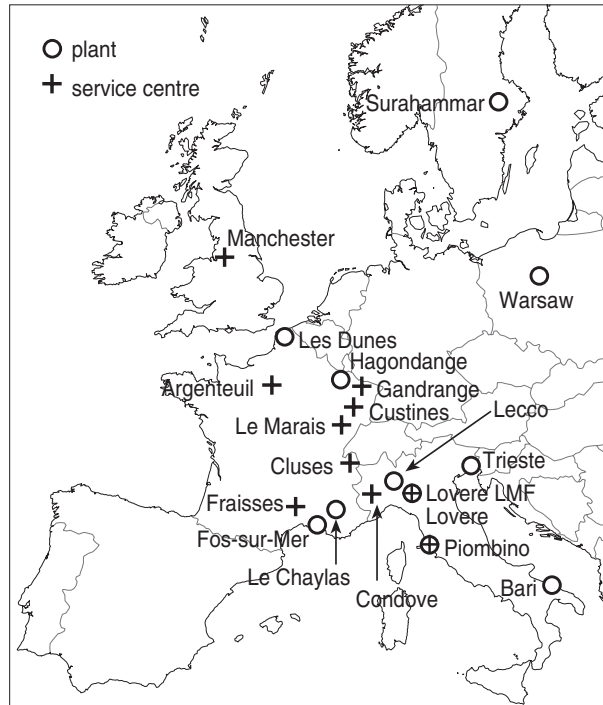


Figure 6 The geography of the Lucchini Group (2004)
 Source: Adapted from: [<http://www.lucchini.com>].

fundamentally due to the desire not to come into conflict with CEEC trade unions over the massive redundancies which would follow. To open the door for ECSC companies, the EU offered to help resolve 'social problems' by providing PHARE and ISPA (Instrument for pre-Accession Structural Policies) funding for 30 percent of the cost of social and regional measures accompanying CEEC government restructuring programmes, modelled on the programmes implemented in ECSC countries, and aimed at reducing employment (CEC, 1998; interview data, Brussels, 2000).

The Lucchini Group did not have a very good experience in Poland, not making profits until early in the new millennium, and subsequently took the view that it would have been better to wait to enter the CEECs. The reasons for its difficulties were cultural and political. The state was near and helpful in relation to the costs of keeping high staffing levels' (interview data, Brussels, 2000). At the outset, however, Lucchini found itself engaged

in years of litigation over property rights in the Polish courts (interview data, Brussels, 2000). At issue was the question of whether the vendors actually had the right to sell to Lucchini. In addition there were disagreements over investment and reorganization, while innovations introduced in the Warsaw plant were copied in other state-owned plants. The skills of the workforce were good but related to older technologies. Officials had mindsets which were legacies of the state socialist period rather than market mentalities. In addition, the plant is near the centre of Warsaw where living costs are high, where new generations of people are less interested in industrial work and where environmental protection is costly. (Similar difficulties occur in Italy: plants in Brescia are forced to draw on immigrants, and, while some immigrants come with their families and are well-integrated, others send a large share of their income home and retain too little to support themselves adequately.)

Among the acquisitions of the Lucchini family, as opposed to the Lucchini Group, was Siderpotenza in Basilicata (interview data, Potenza, August 2000). Siderpotenza was originally established in the mid-1960s. The plant's founder was from Potenza, had worked in a Brescia plant, had good connections with Emilio Colombo and the local DC and was able to draw on state aids. In 1978 the plant was closed. Technologically it was 10–15 years out of date. One reason why was that it was distant from the centre of the mini-mill sector in the North where owners met regularly and exchanged information, enabling northern mills to remain competitive. Another was a lack of financial resources. At that time, 517 staff produced 90,000 tonnes per year. Annual capacity stood at 120,000 tonnes. At the start of the 1980s GEPI (Società di Gestione delle Partecipazioni Industriali – Agency for the Management of Industrial Shareholdings), an agency which took responsibility for bankrupt firms, entered an agreement under which Lucchini and Leali SpA assumed responsibility for the operation of the plant, while GEPI retained responsibility for its debts. In 1989 the company was renamed Lucchini, and in 1990 the new owners modernized the steel plant and rolling mill. By 2000 the plant employed 235 staff, had a capacity of 520,000 tonnes per year and was producing 440,000.

The Potenza mini-mill used scrap and an EF to produce concrete reinforcement bars for the construction sector. At the root of the rescue and survival of this plant was its geographical position relative to the large markets for this low-grade

product in Bari, Naples and Calabria, combined with the fact that some other southern plants had closed. One reason for this decline in demand was the depressive impact of the Tangentopoli scandals on the size of the construction market. An added advantage of Basilicata was the absence of organized crime.

The underlying economic factors are reflected in the cost data in Table 6. Expressed relative to a sale price of 1,000, scrap and other raw materials cost 400, while manufacturing costs and profit accounted for a further 600. The cost of transport of one tonne from Brescia to Naples was 100, whereas transport costs from Potenza were 30–5. The possibility of saving 70 units on transport had an enormous impact on cost competitiveness, especially as the plant could also use southern scrap. Northern pressure on southern markets did, nonetheless, increase once Italy's exchange rate with other Eurozone countries was fixed, especially where relatively inexpensive sea transport was an option. This example is a striking illustration of the impact of geographical considerations on costs and profitability and helps explain the existence of the Potenza plant. The expectation was, however, that the days of production in the Italian South were numbered and that in the course of time the Mezzogiorno would be supplied from North Africa.

The underlying economics of this operation also involved another factor: the operation of a cartel by 11 manufacturers of concrete reinforcement bars (Alfa Acciai, Feralpi Siderurgica, Ferriere Nord, Industry Riunite Odolesi IRO, Leali and Acciaierie

Table 6 Siderpotenza: costs and location (2000)

Costs per tonne of	Currency units ^a
Scrap	400
Other raw materials	80
Transformation in steel plant (wages, energy, equipment and maintenance)	260
of which energy	100–10
Rolling mill operation	110
General expenses (administration and sales)	80
Profit	70
Sale price	1,000
Transport of 1 tonne from Brescia to Naples	110
Transport of 1 tonne from Potenza to Naples	30–5

Source: Interview data, Potenza, August 2000.

Note: ^a Sale price was expressed as 1,000. The actual sale price was LIT500,000 or €260.

e Ferriere Leali Luigi in liquidation, Lucchini and Siderpotenza, Riva Acciaio, Valsabbia Investimenti and Ferriera Valsabbia) which had concluded price-fixing and production agreements. In 2002 the European Commission forbade this cartel and fined the companies involved €85m (CEC, 2002a).

Alongside these technical, product and market upgrading strategies, the Lucchini Group also has a diversification strategy (changing chains). On the one hand there is a move away from steel into energy with the liberalization of the Italian energy market. Already involved in hydro-electric power and the re-use of coke oven and blast furnace gas for electricity generation, it is involved in a number of other energy initiatives. Included are the acquisition of privatized energy plants, a windfarm to help meet environmental requirements and the use of the energy-making capacity at the Settimo plant, where the production of low-quality merchant bars was stopped in favour of purchase from the CEECs. On the other hand, the establishment of Lutech permitted movement into the fields of information and communications technologies, telecommunications and data transmission. Created in 1996, Lutech was seen as part of Lucchini's move into the new economy (interview data, Brescia, June 2001).

The new private actors and regional economies and societies: the case of Riva and Taranto

A second company which grew dramatically with privatization was the family-controlled Riva Group. The Riva Group entered the steel sector in 1954,

subsequently pursuing a strategy of growth through acquisitions. At the moment of the purchase of ILP, the Riva Group was a medium-large industrial group, with a net turnover of LIT3,052b and net capital of more than LIT824b. ILP was much larger than the company which took it over in terms of turnover and production capacity (Table 7). The acquisition itself was therefore possible only as a result of the inclusion of other private investors in the financial operation, such as Essar (India), Amenduni (Acciaierie Valbruna, Italy) but especially of Italian public banks, such as San Paolo Torino, Monte dei Paschi di Siena and Cariplo which converted their loans into stock options.

The acquisition of ILP dramatically increased the Riva Group's production capacity, made it one of the world's major steel producers, although more than 70 percent of its steel is produced in Italy (Figure 7 plots the geography of its operations), and established a presence in southern Italy. The Taranto plant alone accounts for more than half the Group's workforce.

The plant Riva acquired in Taranto and the city itself had a problematic past and posed a set of problems which Riva found difficult to manage. The Taranto plant was Italsider's fourth integrated coastal steel plant (Figure 8). The plant was developed in an area with an engineering tradition and spatially concentrated unemployment after the rundown of Taranto's military arsenals and shipyards (Pizzigallo, 1989). Geographically it enjoyed good sea access to countries with which commercial raw material agreements had been signed. The choice of Taranto was, however, strongly influenced by electoral and political considerations of importance to the national and local DC (Piattoni, 1996).³

Table 7 The Riva Group and ILP before the privatization of ILP in 1994

	Riva Group	ILP
Net turnover (LIT billion)	3,052	5,340
Value added	740	1,745
Gross operating income	213	727
Labour cost	360	903
Income before taxes	156	696
Income after tax	112	681
Net capital	824	1,994

Source: Adapted from Affinito et al. (2000).

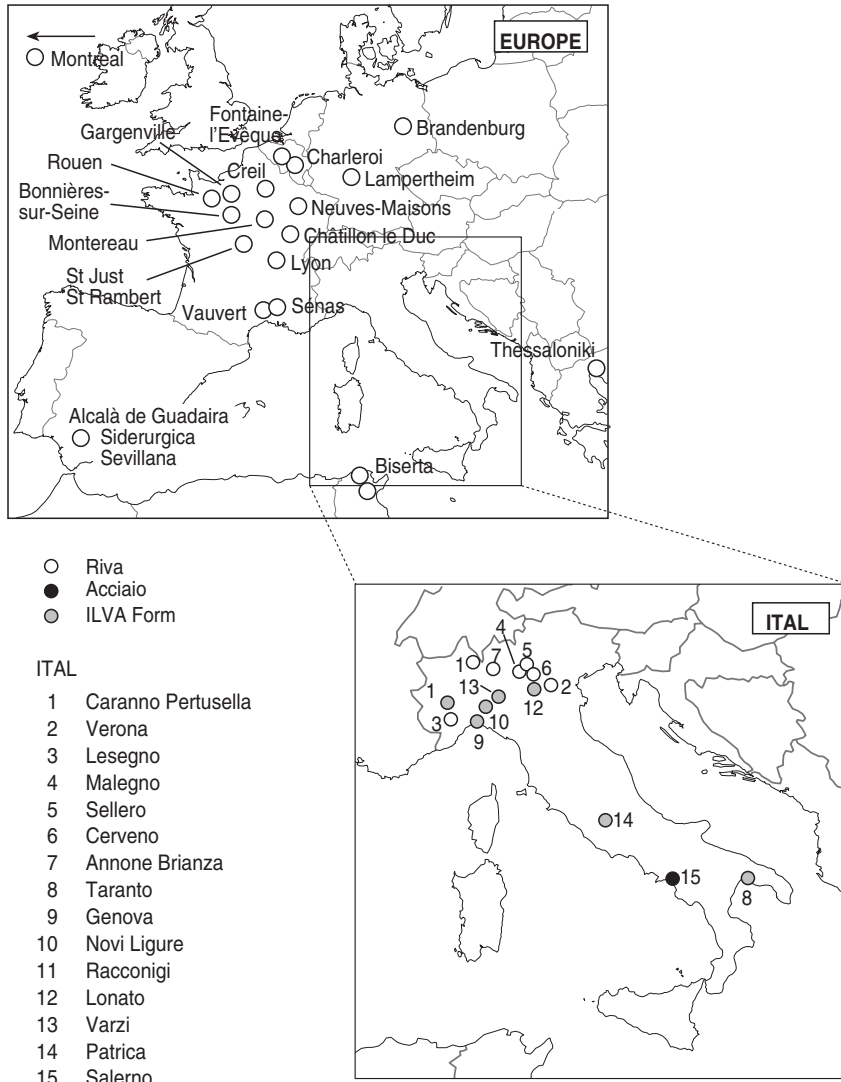


Figure 7 The Riva Group

Source: Adapted from: [<http://www.rivagroup.com>].

The earliest difficulties stemmed from the fact that the construction of the plant mainly in two main phases in 1960–64 and 1968–74 created large numbers of short-term jobs, drawing skilled workers, especially metal-welders and carpenters, away from many local firms. Early studies also showed that spin-off and enterprise-creation effects would be small due to the plant's

peripheral location and the absence of external economies (Teckne, 1962). Of course the plant itself did provide a large number of direct and indirect subcontract jobs (Figure 9). The widespread use of subcontracting was, however, in violation of Law 1369/1960 on subcontracting.⁴ A consequence was trade union pressure to reform the subcontracting system and to protect

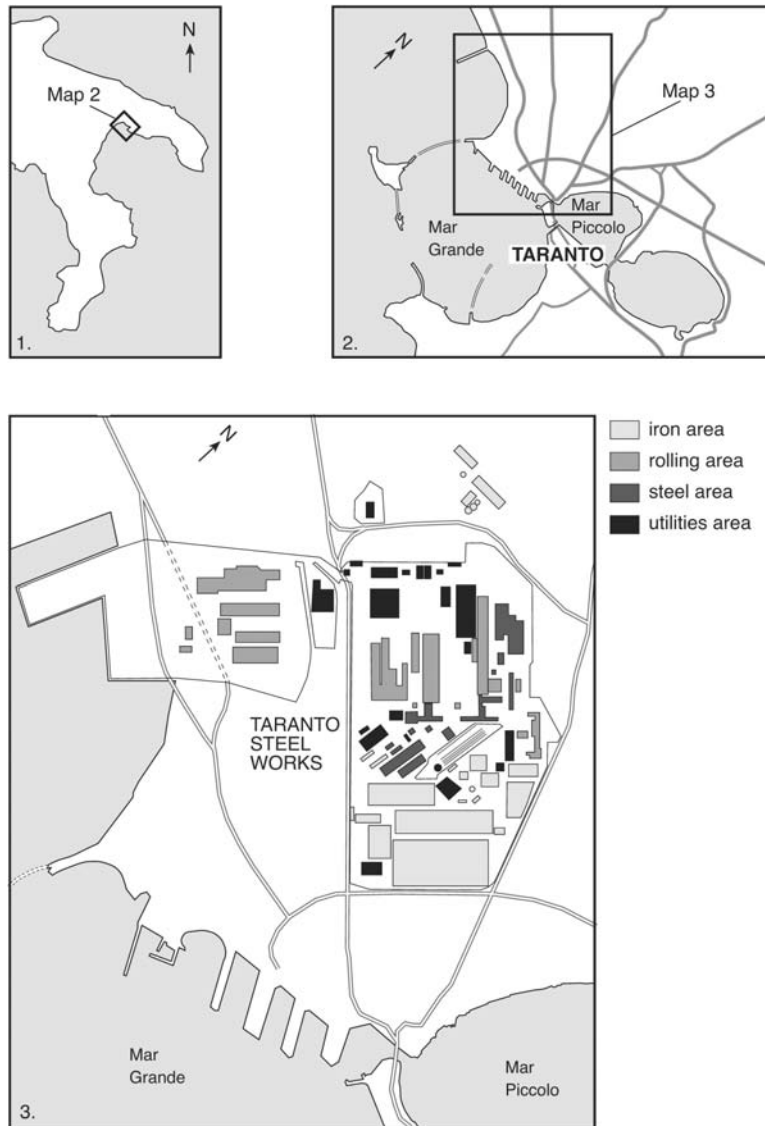


Figure 8 Taranto

employment, which itself produced rigidities and inefficiencies in one of the most technologically advanced steel plants in Europe.⁵ In subsequent years, there were several disputes between the city and the company. As Piattoni noted, ‘the city government invariably sided with the workers and, in particular, with the construction workers’

(1996: 221). Often they ended up legitimizing disruptive behaviour, contributing to conflicting industrial relations, while doing almost nothing to provide land, infrastructure and the services which would help to ease tension and support diversification. At the same time, Italsider’s managers became extremely sensitive to ‘political’

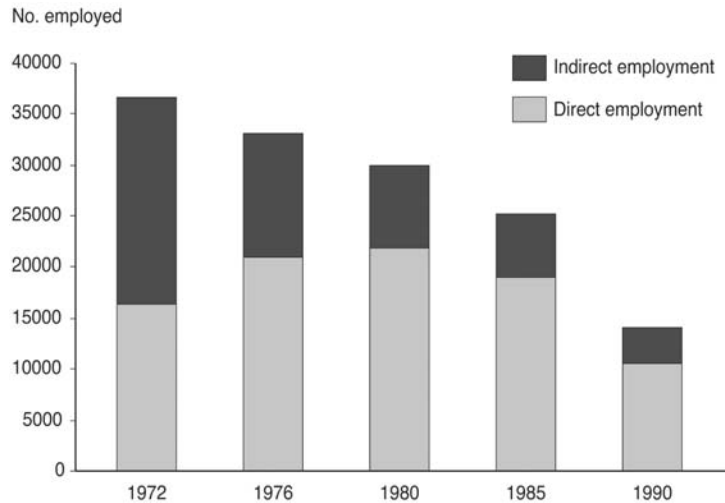


Figure 9 Direct and indirect employment at the Taranto plant
Source: Piattoni (1996).

incentives and favours which led them to act in ways which were incompatible with production efficiency. In the 1980s first Italsider and later ILVA pushed through a series of operational and organizational reforms to reduce costs and improve efficiency.⁶ Concretely, these changes had a limited impact on the workforce's attitudes. Employee and trade union resistance continued to characterize the plant.

The crisis of the early 1990s, which opened the way to the privatization of ILVA and the Taranto plant, had particularly adverse effects. These effects were exacerbated by an incapacity to exploit the initiatives available to ease the situation. At a local level, several regeneration projects were proposed, but the vast majority were never implemented.⁷ The crisis was managed primarily, however, at a national level. Law 181, approved in 1989, was designed to facilitate further capacity reductions, industrial re-conversion and new industrial activities in four priority areas: Genoa, Terni, Naples and Taranto. IRI was entrusted with the creation of alternative economic activities to employ redundant personnel, and SPI, a financial company belonging to IRI, was entrusted with the promotion of new joint initiatives with private operators. To achieve these goals, the Law envisaged government funding of up to a third of

the cost of industrial re-conversion programmes of public companies. For start-up companies, the Law provided for the use of incentives under Law 64/1986. In addition, the RESIDER Community Initiative provided incentives for SMEs involved in the steel crisis (SVIMEZ, 1999: 485–9). To reduce the social costs of capacity reductions, the Law envisaged, among other measures: early retirement measures for male workers of 50 years or more and women of 47 years or more; the payment of the CIG (Cassa Integrazione Guadagni – Temporary Layoff Wage Compensation Fund) entitlement as a lump-sum to workers who intended to enter self-employment; and incentives to companies which hired unemployed workers. The outcomes of these programmes were extremely modest. They were updated several times by decree, and each time there was a downward revision in employment targets and investments as the economic situation deteriorated and financial resources declined.

Table 8 shows that at the end of 1998 actual employment created in Taranto stood at just 25.4 percent of the original target compared with 50 percent nationally. Planned investment in 1999 stood at LIT1,404b (around €700m) and the grant committed stood at LIT385b (around €190m). This figure was significantly lower than the 1994 figure (LIT5,651b, around €2,800m) which had also

Table 8 Planned and actual employment for IRI's re-industrialization programme by steel crisis area

Areas	Planned employment (original programme)	Planned employment (updated programme)				Actual employment 31 Jan 1998		Actual as % of planned employment
		1994	1996	1997	1999	Total	Of whom steelworkers	
Genoa	1,319	626	555	224	224	286	175	21.7
Terni	325	310	295	295	295	312	211	96.0
Naples	2,749	2,450	2,450	1,839	1,836	1,906	353	69.3
Taranto	1,258	961	946	334	306	319	148	25.4
Total	5,651	4,347	4,246	2,692	2,661	2,823	887	50.0

Source: Elaborated from SVIMEZ (2000).

envisaged the use of resources provided by the programme of extraordinary intervention in the Mezzogiorno under Law 64/1986 but which was wound up in the early 1990s (SVIMEZ, 2000). At the end of 1998 there were 107 SPI initiatives (Table 9); 55 percent of the investment and 68.4 percent of the assistance was destined for the South. The South, however, experienced the largest downward revision in planned employment, while actual employment fell furthest short of the original target in Taranto: just 36.9 percent of the originally planned jobs were created and just 67 percent of the revised target.

At the start of the 1990s, after years of acute crisis, Taranto and its environs were in decline. According to a Confindustria (1994) index of development,⁸ in

1986 the province of Taranto had the highest score in Puglia (81.7 percent of the national figure) and lay above the southern average (73.9 percent). Six years later, it stood at the regional average (73.2 percent) and slightly beneath the southern average (73.5 percent). At the same stage, the activity rate in Taranto was less than 30 percent. At the regional level, the same indicator stood at 32 percent. The unemployment rate stood at 18 percent compared with 15 percent in Apulia. In 1986–92 there was a dramatic increase in the use of ordinary and extraordinary CIG from 2001 to 8,506, reflecting the sharp downward trend in industrial employment. In 2003, the unemployment rate in the province stood at 16.3 percent, while at the regional level the same indicator stood at 13.8 percent (ISTAT, 2004).

Table 9 SPI initiatives for the promotion of new activities in steel crisis areas in 1989–98 (LIT billion)

Areas	Situation in 1994		Situation in 1999 ^a					
	Planned employment		Number of initiatives	Investment	SPI contribution	Employment		
	Original programme	Updated programme				Planned	Actual	Actual as % of planned
Genoa	1,330	1,089	22	267	52	1,034	831	62.5
Terni	1,030	833	19	217	60	814	477	46.3
Other areas ^b	750	675	29	306	128	1,389	449	59.9
Naples	2,230	1,772	21	518	188	2,716	2,069	92.8
Taranto	2,188	1,051	16	433	332	1,206	808	36.9
Total	7,528	5,420	107	1,741	760	7,159	4,634	61.6

Notes:

^aNet of initiatives that had lapsed and were no longer achievable in April 1999.

^bMassa Carrara, Piombino (LI), Trieste, Lovere (BG) and Villadossola (NO).

Source: Elaborated from SVIMEZ (2000).

According to the latest Census (ISTAT, 2004), employment in the three subsectors of economic activity concerning steel production and processing (manufacturing of products from the processing of non-metal minerals, manufacturing of metals and of their alloys, manufacturing and processing of metal products) decreased by 39.5 percent in 1981–2001, from 29,380 to 17,771 employees.

In 1996 the privately owned Riva Group took over this troubled plant in a troubled locality which was still dependent on steel employment. After taking control, the new owners embarked on a series of actions which restored profitability almost immediately. One step was the adoption of new logistics arrangements. The Riva Group's fleet replaced road transport: in 2001 the new company had 80 ships which, for example, supply Genoa from Taranto and return with spare parts for the Taranto complex (interview data, July 2001). Another step was the decision to serve customers directly, avoiding the onerous intermediation of specialized companies (Affinito et al., 2000). According to the Riva Group, ILVA managers had offered low prices in exchange for bribes. A third step was the addition of a new line for electro-galvanized products, raising added value by 20–30 percent, and automation of production to reduce employment and increase reliability. As for output (Table 10), it declined slightly (–10 percent in the case of steel). Most important, however, was an active policy of workforce recomposition.

Organizationally the Riva Group flattened the management hierarchy: in 2001 the plant comprised a plant manager/director, area management, foreman, shift manager and workers. The roles of 'deputy-director and deputy-area director' had

disappeared. A range of white-collar tasks in, for example, administration, personnel, order acceptance and production scheduling were automated. In just five years from 1995–2000 the new private sector managers cut white-collar jobs by 38 percent, from 2,500 to 1,550.

Overall employment declined, although direct employment increased: whereas ILVA employed 15,000 internal staff and subcontract staff, in 2001 the Riva Group employed nearly 13,000 after internalizing some of the formerly subcontracted work. Of this workforce, 88 percent is blue collar. According to figures issued by the company, in 1995–2001 employment increased by more than 2,000 jobs, with the hiring of 7,300 new employees, nearly 5,000 of whom were young people aged 20–25. In the former company, the average age of staff was over 50 years. Since a large number of those of 50 years or more took early retirement funded by the Italian government, the result was a large modification of the age profile of the workforce. To cope with the short-term loss of experienced workers, an internal school for technical training was created. In contrast to ILVA the Riva Group does not use European Social Fund (ESF) projects. The reason why is that it implies a relationship with the public administration, strict controls and a 'lot of time' and that it interferes with employment flexibility, as the names of participants must be given in advance (interview data, Taranto, July 2001).

The privatization of the Taranto plant did not change the conflictual relationships between the company and the city. The importance of the steel mill for the area's economy is self-evident. The crux of the issue is the quality of its presence. Two aspects are worth mentioning. The first concerns

Table 10 Output of the Taranto plant (000 tonnes), 1997–2000

	1997	1998	1999	2000
Coke	3,315	3,308	3,199	3,080
Sinter	10,367	10,393	9,835	9,807
Pig iron	7,876	7,915	7,532	7,444
Steel	8,007	8,001	7,570	7,210
Coils	6,858	6,363	6,468	6,515
Pickled coils	1,414	1,351	1,165	1,278
Plates	1,256	1,188	1,139	954
Longitudinal pipes	648	689	568	267

Source: Personnel and training department of the Riva Group.

the quality of employment and the profit-driven recomposition of the workforce. The second concerns environmental and health matters.

As far as employment quality is concerned, trade union and left-wing parties argue that, since the purchase of ILVA, the Riva Group has systematically eroded employment conditions and trade union power. A partial confirmation of this position came in 1999 when a local public prosecutor, Judge Francesco Sebastio, launched an inquiry into the plant following the death of five experienced workers in eight months in 1998 and injuries to a further 1,302 (Endean, 1999).

The Riva Group is also accused of pursuing a policy of reducing labour costs through the axing of jobs and the recomposition of the workforce. According to trade union sources, from 1995 to 2001 some 7,000 workers left the plant. Of these workers only a minority left with early retirement packages connected to the CIG (offered until the end of 1996) or mobility (a position in between CIG and unemployment). The vast majority departed with benefits provided under Law 257/1992 on asbestosis which was applicable to 70 percent of ILVA workers with ten years' service (Foglia, 2001). The termination of established employment contracts permitted the recruitment of young people on apprenticeship contracts. These contracts last for two years and may lead to new contracts at the end of the period. Interview data (Taranto, July 2001) indicated that, in a three-year period, 5,000 people had been employed on apprenticeship contracts and that, in 2000, 36,000 hours of training were delivered. An interview with a former Riva Group worker, who left the company voluntarily, shed some light on one aspect of these apprenticeships and training courses:

The training course lasted for just one week. [The trainers] ... talked to us about our future behaviour in the plant, because you have to behave well in the company. If they [the managers] ask you to stay longer, even after your shift, you should stay. You have to respect your bosses and the vigilantes – those who control your work. Above all, you must not join trades unions: if you do, that is a black mark on your apprenticeship contract, [and] after two years you leave. (Unità, 21/5/2001)

According to local trade unions, the company's management is also seeking to put in place paternalistic employment relations. The children of

previous employees are favoured when the company recruits new staff. At the same time, the company is seeking to convey the idea of 'shared responsibilities' according to which the success of the company and its impact on the area's economy and employment are collective responsibilities. In some cases this philosophy spills over into the concealment of information. In an interview, an anonymous former employee of the Riva Group said:

It's not difficult to work in the coke oven. You need to control two levers and then clean the area above the ovens which reach a temperature of 1,250 degrees. The most important thing, however, is to bring out 37 ovens per shift. This is a difficult task: some batteries are 30 years old and don't reach the appropriate temperature in a short time; the gas pipes are in a terrible state; there is coke all over the place; [and] there is a lack of basic maintenance equipment. The most important thing for management is to reach the planned daily amount. For this reason, workers are obliged to 'make cold ovens' (the temperature in the oven is not as high as it should be). Such a procedure is highly polluting: coal gives off highly polluting IPA (Idrocarburi Policiclici Aromatici – Aromatic Poli-cyclical Hydrocarbons). [An implication is] ... that workers are obliged to write false data, declaring that the right temperature was attained when the coal was melted.

The same worker added:

Inspections are not effective. It takes a bit of time to get from the main gate to the coke ovens. Workers usually get a phone call. The gas levels are lowered; many machines are put in a stand-by position; and plant output is lowered. During the night production is usually higher; there are few checks at night.

Some aspects of the current situation are therefore worrying. Addressing them will need the concerted efforts of all the actors involved. It is no misrepresentation to state that the majority view in Taranto is that the Riva group is blackmailing the city over its need for jobs and its desire to avoid further employment crises.

A second area of controversy concerns the impact of the plant on the environment and on the health of the area's inhabitants. In 1990–98, 25 employees died of lung cancer. Almost all of them worked in the coke ovens. In the period from privatization to 1999, 37 employees were diagnosed as having lung cancer. Since 1971 the number of

people who have died of cancer has risen by 100 percent. In the last 15 years, there has been an increase of 50 percent in the number of cancer cases related to air pollution. Of particular concern is the emission from coke ovens of benzopyrene. The normal limit for acceptable air quality is 1 nano-gram per cubic metre. In industrial areas the limit is 300. However, a 1995 report by the Local Health Unit recorded the presence of 137,000 nano-grams per cubic metre in an area close to the plant. The seriousness of the issue is indicated by the fact that the government has classified Taranto as 'a high-risk environment'.

Critics suggest that the Riva Group is unwilling to spend sufficient money on safety and on cleaning up its emissions. A parliamentary report by the Senate's industrial committee accused the plant's owners of 'violations of rules regarding the ... maintenance of equipment'. This report also noted that the factory management had demonstrated an 'unsatisfactory knowledge of the dangers of asbestos' (Endean, 1999). On its side, the Riva Group claims that, of an investment of LIT1,300b (around €700m) since the purchase of the company, LIT600b (around €300m) was devoted to improving the factory's safety and pollution record, with 80 percent of this sum used to improve environmental conditions in the coke ovens. A DS (Democratici di Sinistra – Left Wing Democrats) municipal councillor, De Gregori, has questioned these company claims (*Corriere del Giorno*, 2001). Acknowledging that it spent almost LIT500b (around €250m), De Gregori argued that most of the money was spent to increase capacity rather than to improve existing plants. Actions to reduce dangerous emissions attracted only 6 percent of resources. Moreover, the DS argues that the temporary closure of batteries 3 and 4 and then 5 and 6 would imply a loss of only 700,000 tonnes of coke out of a total of 3,500,000.

The controversy obviously also involved the local administration. The Forza Italia mayor of Taranto, Rossana di Bello, issued repeated warnings, asking the Riva Group to replace coke oven batteries 3 and 6 because of high emissions of dangerous dust. The Cassazione (the highest magistrate's court in Italy) was also involved. At one point, in 2001, the company's owner, Emilio Riva, wrote a letter to all Taranto's citizens emphasizing that the restructuring of the coke ovens would mean a 50

percent capacity reduction with inevitable consequences for employment.

As is clear, the troubled history of Taranto's steel plant continued after privatization. As for ILP as a whole, it has had indifferent economic and financial results (Affinito et al., 2000). With the same production capacity, the new company increased crude steel and pig iron production. In 1997, capacity utilization reached 90 percent for pig iron and 80 percent for crude steel. Despite price fluctuations, national sales of cold-rolled steel were good due in part to an effective distribution system. However, operating and net incomes did not improve after privatization, nor did the volume of investment. Overall employment increased with a drastic downsizing of white-collar jobs in administration and management and workforce recomposition. Given, moreover, the recent trend towards greater concentration, the Riva Group lies some way behind Europe's leaders. All major European producers also manufacture a wider range of products, combining mass products with special steels. In these strategic respects the Riva Group seems to have a weaker competitive position.

Conclusions

In the mid-1990s, after the years of questionable management which followed an earlier phase of remarkable economic dynamism, the Italian public steel industry was privatized. The state's exit brought onto the steel scene a number of established private players involved mainly in the mini-mill sector. Major job losses and capacity cuts preceded privatization, while after the mid-1990s output increased and a more concentrated industry did not have to grapple with sharp contractions in demand. In these more propitious post-privatization conditions the economic and financial efficiency of Italy's steel companies improved, and there have been no further dramatic reductions in capacity, although employment continued to decline especially in ILP, and output has increased more slowly than consumption, leading to increased imports (Figure 4).

The privatization of ILVA significantly strengthened the market position of a number of Italian and foreign groups (Lucchini, Riva, Krupp and Rocca) specialized in different subsectors, and

substantially changed some qualitative features of the geography of the steel sector. At the same time overseas acquisitions enabled Italian groups to internationalize.

Of the new companies a number chose strategies of specialization in higher value-added segments of the market (product upgrading) and are part of diversified international groups. Given that the steel industry is a mature industry, where technological change is incremental and can be easily replicated, especially for the manufacture of mass products, the strategy of these companies consisted of an upgrading of products and technologies as well as of logistic functions and their relationships with their clients. In this way, these companies have become less exposed to mass competition, although the future of individual plants will depend on their performance relative to the others in the groups of which they are a part.

The situation of the Riva group is different. The privatization of ILP transferred its plants to a successful Italian group which was medium in size and non-diversified. These acquisitions gave the Riva Group a chance to expand, although after the recent sharp increase in concentration in the steel sector Riva remains relatively small compared with the world leaders. At the same time the manufacture of crude steel and a relatively weak diversification make it more exposed to competition from newly industrializing countries.

A corollary is that the economic and social situation of the southern establishments considered in this article is relatively weak. In the case of Potenza the plant owes its recent existence to logistic cost advantages and cartel arrangements. As it specializes in low-end products, subject to strong international competition, its survival capacity is limited. Taranto is a locality whose destiny is heavily linked to the presence of the steel industry. After the economic and social shock associated with the downsizing of the state-owned company, and with its legacy of unemployment, expectations of the private owner were lowered. And yet relations of conflict were generated on the one hand by the group's unwillingness to reduce the external environmental, social and economic costs of its operations, as it sought to ensure the profitability of the Taranto operation, and, on the other hand, by a more general incapacity of local actors to provide for alternative forms of local economic development.

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Notes

- ¹ State ownership was widespread and existed for a range of reasons including: capital costs which were beyond the means of private capitalists; political decisions to rescue insolvent private-sector companies or, as in the case of IRI in Italy, the private financial institutions which had funded them; the strategic importance of iron and steel; a desire to merge smaller companies to create national champions capable of realizing potential scale economies, without creating private monopolies; and, in the case of Austria, a decision to take over enterprises which were either founded or taken over by the German Nazi regime to prevent their confiscation by the four Allied powers occupying the country immediately after the Second World War.
- ² After the Asian crisis in 1998 there was an East Asian invasion of European markets. Although steel is a heavy material which is expensive to ship, East Asia was rapidly transformed from a net importer to a net exporter, due to the appearance of excess capacity in Asia, currency devaluations which permitted dramatic price reductions and, in some cases, dumping (exporting at prices lower than the prices usually charged on the domestic market). In 1998, 40% of Asian imports into the EU arrived in Italy. One reason why is that Italian stockholders are numerous, independent and very price-sensitive. Another was the fact that two decrees passed to ensure that imported material for the construction sector met minimum quality standards were not applied. According to an interviewee (Milan, July 2000): 'all the rubbish arrives here'. To implement these decrees Federacciai was seeking involvement in quality control of the Guardia di Finanza. Another interviewee (Ing. Roberto Bevilacqua, Siderurgica Pugliese, July 2001) explained that attempts by ASSOFERMET (which represents the interests of steel stockholders) to stabilize the market failed due to the high degree of competition. The subsequent Russian and Brazilian financial crises further intensified competition in world steel markets and contributed to further downward pressure on prices. In 2002–04 the US government imposed measures granting temporary protection to domestic producers. To limit the diversion

- of substantial quantities of third-party steel to the EU market, the EU imposed a series of counter-measures.
- ³ Aldo Moro, the Secretary of the DC, Segni, the then Prime Minister, Colombo, the Minister for Industry, and in the local DC Mazzarino were instrumental in the choice of Taranto which the Communists had controlled for ten years until 1956.
- ⁴ This Law required that the employees of subcontractors to public companies be given the same working conditions as the employees of the public company itself. The policy of transgression reduced costs. The company suffered, however, from a large number of workplace accidents (Consiglio and Lacava, 1985). The trade unions demanded improved general working conditions, including a reduction in the number of subcontracting firms, equal treatment of workers and the hiring of subcontract workers employed regularly by Italsider. The company instead was planning to reduce direct employment. In 1972, Italsider announced plans to shed 4,000 jobs by the end of 1975, starting with construction workers. After two general strikes, in which the whole city participated, and several production stoppages, Italsider accepted a proposal according to which it would give subcontracting work only to those companies which agreed to implement additional investments outside the plant. The number of subcontracting firms declined from 168 to 51, yet the proposal was not fully implemented as only a few subcontractors were sincere in their intention to diversify and the public authorities, such as the ASI, the Comune and other agencies depending on the Cassa per il Mezzogiorno were inefficient and ineffective.
- ⁵ In those years, Italsider implemented a new job classification system. While in principle providing for vocational training, re-skilling and gradual career progress, the job classification resulted in a progressive rise in wages and greater rigidities. Higher-level jobs proliferated. Once promoted, workers refused to carry out their previous tasks. New workers had to be hired, and the company had to resort to overtime.
- ⁶ Included were the MRO (Miglioramenti dei Risultati Operativi – Improvement of Operating Results) programme, increased capacity utilization, the creation of separate business units with full responsibility for different areas of production, competitive tendering for subcontracts and a new system of centralized collective bargaining.
- ⁷ Examples include a yard for the repair of pleasure boats, or the more complex plan to revitalize Mar Piccolo and its traditional activities, such as the farming of mussels. ILVA itself set up a technological office through which it publicized its activities and informed local companies about business opportunities. Much more recently, CISI (Centro Integrato per lo Sviluppo dell'Imprenditorialità – Integrated Centre for the Development of Entrepreneurship) was established as an incubator for new firms.

- ⁸ This synthetic index combines indicators of demographic conditions, well-being (the value of bank accounts, car ownership and electricity consumption) and the degree of economic development (per capita income, employment and the degree of industrialization).

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