

LOCAL POLITICS AND INDUSTRIAL ADJUSTMENT:
THE POLITICAL ECONOMY OF ITALY IN THE 1980'S

by

Richard Michael Locke

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Signature of Author Signature redacted
Department of Political Science
January, 1989

Certified by Signature redacted
Suzanne Berger
Thesis Supervisor

Accepted by Signature redacted
Nazli Choucri
Chairperson, Departmental Graduate Program Committee

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"EPPURE SI MUOVE" :

THE POLITICAL ECONOMY OF INDUSTRIAL CHANGE IN ITALY

by

Richard M. Locke

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ABSTRACT

This dissertation analyzes recent changes in industry and industrial relations in Italy. Industrial adjustment has been explained as a set of responses to secular shifts in the international economy or institutional arrangements in national politics. In contrast, I argue that the configuration of the new industrial order in Italy results from the political struggles, alliances and compromises among different industrial actors at the local level.

Micro-level industrial change is portrayed in this dissertation as embedded within local contexts in the sense that patterns of industrial development in different localities in Italy had a major impact on the organizational attributes (worldviews, capacities, etc.) of the various actors. These historical legacies were at times, consolidated, other times, transformed through struggles between industrial actors over their competing strategic choices. The outcome of these struggles, whether in the form of complete victory of some actors over others, or the result of compromises and alliances among them, shaped both the subsequent structure of industry and the future patterns of relations among the various actors. This is why there is such diversity in industrial adjustment patterns both between industries as well as between firms within the same industries in Italy.

Moreover, the Italian case illustrates that significant industrial and institutional change can take place within the same macro-institutional regimes or mode of regulation. Since such change is continuous and to a certain extent subterranean, it often gets overlooked by conventional political-economic analyses which focus on national institutions and arrangements. Yet, because micro-level change is so extensive, the substance (if not the form) of the relationship between local industrial actors and the national institutions regulating them has been transformed over the last decade or so. This is true not only for Italy but also for other advanced industrial nations as well.

To J.J.B., with love.

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Chapter One
Understanding Industrial Change

Introduction

This is a study of industrial change in Italy. Industrial adjustment has been explained as a set of responses to secular shifts in the international economy or institutional arrangements in national politics. In contrast, I argue that the configuration of the new industrial order in Italy results from the political struggles, alliances and compromises among different industrial actors at the local level of the firm or industry.

This argument rests on three separate but inter-related points. The first point is historical : patterns of industrial development in different localities in Italy had a major impact on the worldviews and organizational attributes of the various industrial actors (firms, unions, suppliers, etc.).

The second point is political. Notwithstanding the historical legacies of industrialization, patterns of industrial politics are not simply set in stone from the beginning. Instead, industrial actors with their alternative worldviews develop strategic choices which reflect their views and at certain critical junctures struggle with one another over their competing strategies. The outcome of these struggles, whether in the form of complete victory of some actors over others, or the result of compromises and alliances among them, shapes

both the subsequent structure of industry and the future pattern of relations among the various actors.

The third point is that given this view of micro-level adjustment in Italy, we must reconsider the way we traditionally understand how firms, industries, even entire national political economies change. In other words, the importance of local historical-institutional contexts and diverse micro-level patterns of industrial adjustment necessitates a different way of understanding the link between the micro and macro levels of national political economies.

Rather than viewing micro-level industrial change as ad-hoc reactions to shifts in the international economy or as mere reflections of macro-national policies and institutional arrangements, this study portrays them as embedded within their local contexts. And yet, local patterns of industrial politics are not completely determined from the beginning. At certain critical moments local arrangements are renegotiated as the various industrial actors struggle with one another over their competing strategic choices. Although these struggles are influenced by the worldviews and organizational attributes of the different actors -- legacies of the past -- these same features are transformed over the course of these struggles.

Moreover, the Italian case illustrates that significant industrial and institutional change can, in fact, take place within the same macro-institutional regime or mode of regulation. Since such change is continuous and to a certain extent subterranean, it is often overlooked by analyses which focus primarily on national institutions

and arrangements. Yet, because micro-level industrial change is so extensive, the substance (if not the form) of the relationship between local industrial actors and the national institutions regulating them has also been transformed over the last decade or so. This is true not only for Italy but for other advanced industrial nations as well.

In what follows I will develop this argument by first describing in highly stylized terms the extent of industrial change in Italy. Second, I will discuss and evaluate various theoretical explanations for this change and lay out an alternative historical-institutional account. Finally, I will discuss the organization of this study and indicate how the case studies on the restructuring of the automobile, textiles, and petrochemical industries which make up the bulk of this work support the above argument about industrial change.

Industrial Change in Italy

In recent years, changing conditions of world competition and technological innovation have spurred increasing numbers of individual firms as well as entire industries to restructure. As a result, there has been great experimentation among firms and much change in traditional patterns of industrial organization, strategy and relations among actors (i.e. between labor and management, manufacturers and suppliers, etc.). While some firms and industries are reorganizing themselves in order to reinforce "fordist"¹ patterns of organization, others are experimenting with various forms of flexible mass production or even flexible specialization. In fact, at

present we see a plurality of different organizational structures and strategies between different industries as well as between firms within the same industry.²

The extent of this industrial change and experimentation is especially evident in Italy. In many ways, Italy has acted as an advanced laboratory for industrial adjustment. Since the late 1960s, it has witnessed numerous experiments in both the organization of production and the strategies of the various industrial actors. Moreover, Italy has changed dramatically since the "hot autumn" struggles of 1969.

Throughout the 1970s, Italy appeared to be a nation with a "weak state", or at least, without a concerted efficacious political will. As a result of this political stalemate, macroeconomic reforms and/or a major institutional realignment of the Italian economy were blocked. Italy (along with the United Kingdom) was seen as a "sick man" of Europe. It suffered from all the ills of the advanced industrial democracies : unstable governments, terrorism, rigid and militant unions, high rates of inflation, etc.

The situation in the late 1980s appears to be quite different. Since the late 1970s Italy has managed to restructure a significant share of its economy. This restructuring has occurred both in the public and private sectors, both in large and small-scale firms.³ The results of this transformation are impressive. Italy recently surpassed the United Kingdom (and some argue France) in GNP.⁴ During the 1980s, its growth rates were among the highest of all OECD nations.⁵ Certain industrial sectors (textiles, automobiles, etc)

have rebounded from near collapse in the late 1970s to become successful exporters today. How this occurred, especially given Italy's Byzantine-like state and institutional structure, is the focus of this section.

The crisis of Italy's political-economy in the 1970s is so well known that it can be told almost telegraphically.⁶ As elsewhere in Europe, but perhaps more so, the 1970s witnessed a significant deterioration in economic performance. These years were marked by three separate but equally critical events : the "hot autumn" of 1969, the collapse of the international monetary system, and the oil crises of 1973 and 1978.

The consequences of the cycle of worker strikes and militancy following the hot autumn of 1969 for industrial output, profitability, productivity, and labor costs were substantial. In 1970 alone, average employment compensation rose by 19% as opposed to annual increases of 8.5% between 1963-1969.⁷ (See Figure 1) In the first half of the decade, the number of hours worked per employee decreased by 12% and overall productivity growth fell sharply.⁸ (See Table 1) The consequences of the hot autumn on the length of the workweek and labor relations on the factory floor (i.e., reduced scope of employers in dismissing workers, limited internal labor mobility, curtailed use of capital equipment, etc.) were also dramatic.⁹

The domestic situation was exacerbated by international developments. In the wake of the Smithsonian Agreements, the lira became progressively overvalued, resulting in a deterioration in

competitiveness as expressed by loss of market shares of Italian exports abroad and a sharp rise in import penetration.¹⁰

With firms caught between increasing labor costs on the one hand and a rise of import penetration on the other, industrial investment, particularly in the private sector, stagnated (see Table 2).¹¹ Instead of increasing productivity by raising the capital-labor ratio, entrepreneurs sought to decentralize production towards smaller-scale establishments or self-employed operators working at home (hence, also circumventing trade union restrictions and depressing wage bills).¹²

As in most other European countries, these years were dominated by inflation¹³ (see Table 3). Firms contributed to this spiral by defending their market power through cartelization, unions by supporting progressively rigid forms of indexation (i.e., the scala mobile agreement of 1975), and the public sector through increasingly indiscriminate use of subsidies. Growth rates and investment continued to decline and currency devaluations were frequent. Yet the deceleration of inflation that took place elsewhere in Europe barely occurred in Italy. When the second oil crisis struck, Italy was particularly vulnerable. Given the country's heavy dependence on oil (70% of its energy needs) the deterioration of terms of trade was especially pronounced.

Restraints on lay-offs, overtime, and flexible use of internal labor imposed by the unions combined with low levels of investments to limit productivity and profitability. Moreover, although employment was defended (Italy, almost alone in Europe witnessed an increase in employment in these years), population growth, a return flow of

migrants, and increased participation rates by women combined to promote unemployment, especially among the young.¹⁴

Economic policy during this period was initially designed to increase government intervention so as to off-set some unfavorable consequences of the crisis.¹⁵ Industrial investment by public corporations, especially in the South, rose substantially. Transfer payments, particularly for pensions, aimed at helping social groups not protected by the unions also increased dramatically.¹⁶ These measures, however, were of limited success. In fact, while the effects of the increased public expenditures were modest, the public sector deficit swelled ¹⁷ (see Table 4).

The structural weakness of the Italian economy -- best illustrated by record budget deficits and rates of inflation -- continued into the 1980s. Integration into the EEC and the establishment of the European Monetary System in 1979 foreclosed most protectionist measures and hindered successful devaluations of the lira. Other government attempts at correcting the situation, i.e. fiscal and taxation reform ¹⁸, incomes policy ¹⁹, and various forms of industrial policy also failed due to the continuing stalemate of Italy's political system.

Various government measures aimed at promoting industrial restructuring or even facilitating the adjustment processes underway, all appear to have produced limited results at best. For instance, initial attempts by the Italian government to promote industrial adjustment through the use of its huge public sector (ENI and IRI) or to provide financial and organizational support to enterprises in

difficulty through GEPI (Gestione e Partecipazione Industriale -- a program in which the state would purchase shares of private enterprises in need of restructuring, reorganize them, and then re-privatize them) -- resulted for the most part in saddling the state with more "lame-ducks" and increasing the public deficit.²⁰

Likewise, other government programs aimed specifically at industrial restructuring (e.g. Law 675 of 1977) and technological innovation (e.g. Law 46 of 1982) also suffered from a combination of bureaucratic inefficiency and government incapacity. Several studies found that a combination of political maneuvering by parties both in government and in opposition and endless bureaucratic in-fighting and red-tape blocked the efficient allocation and use of funds aimed at promoting industrial adjustment. In fact, because of these obstacles, only a small fraction of the allocated funds were ever used before the mandate for the various programs expired.²¹ In other cases, government funds were disbursed but without clear purpose and certainly not in any preconceived, rational plan.²² In short, because of various institutional limitations of the Italian state and due to the ongoing political stalemate of the 1970s²³, the government was unable to formulate, let alone implement a coherent policy aimed at promoting industrial restructuring.

The government's incapacity to promote industrial adjustment was mirrored by the failure of the two other major actors in Italy's political-economy -- Confindustria²⁴ (Italy's large, private business association) and Federazione CGIL-CISL-UIL²⁵ (the national trade union confederations) -- to develop a viable alternative.

During these years, Confindustria was a weak and divided organization. While its leadership in the early 1970s sought to resist all changes in industrial relations practices and refused to recognize, let alone reconcile itself to the altered political context of business following the hot autumn, by the middle of the decade, a new, more conciliatory group of entrepreneurs took control of the organization. Yet, even then, organized business was unable to develop a coherent program to address Italy's continuing industrial crisis.²⁶ Confindustria's central staff in Rome was demoralized and its membership was divided over what course to take to recover from the hot autumn. As a result, many of its territorial bodies simply provided services (most legal) to member firms during strikes and contract negotiations.

Under the presidency of Giovanni Agnelli, Confindustria was able to negotiate the 1975 scala mobile agreement with the unions. This was an attempt by organized business to dampen the industrial relations crisis and reduce the level of industrial conflict within firms. Yet, aside from this agreement (which actually contributed to the spiral of inflation of the late 1970s-early 1980s), Confindustria was unable to develop a clear plan aimed at promoting industrial adjustment.

Even attempts in the late 1970s by the central headquarters in Rome to assert a neo-liberal strategy and attack all government-sponsored sectoral plans and programs were resisted by several industrial federations (e.g. Federtessile, the business association of the textile industry) which insisted on the need for government planning and state assistance to industry. In sum, like the Italian

state, Italy's most powerful business organization was unable to promote a coherent plan or program for industrial adjustment and economic recovery during this period.

The Italian unions' response to the continuing political-economic crisis evolved as their understanding of its origins shifted. At first, the unions saw the crisis simply as an attempt by business and government to roll back the gains of the hot autumn. As a result, they continued to push their "maximalist" demands vis-a-vis wages, control over the shop floor, and social reforms. By the mid-1970s, however, the unions' interpretation changed. They perceived the crisis as the convergence of two sets of factors : 1) the crisis of the international economic system and the deterioration of the accumulation model which had sustained Italy's economic growth in the postwar period; and 2) domestic structural weaknesses peculiar to Italy.

As a result, for the rest of the decade the unions appeared to be pursuing two competing strategies : one aimed at building a stronger, more efficient capitalist system which would be more competitive internationally and domestically, less dependent on state subsidies; and the other attempting to seize the opportunities offered by the economic crisis in order to force the transformation of society in a socialist, or at least, collectivist direction.²⁷

Notwithstanding various internal conflicts,²⁸ the Federazione CGIL-CISL-UIL adopted the first of these strategies with the EUR program of 1978. Yet the persistent stalemate of the political system undermined this opportunity for concertation.²⁹ Unable to develop a

coherent, mutually agreeable program with either business or the state, the union confederations found themselves paralyzed at the national level. The situation was further aggravated by increased business opposition³⁰, decreased union membership³¹, and a seemingly endless struggle over the traditional institutions regulating industrial relations.³² As a result, the unions, like big business and the state, were unable to redirect industry out of its crisis.

Underneath and largely obscured by the national political stalemate, often ignored by politicians and social scientists alike, Italian industry was undergoing a fundamental restructuring. This restructuring took place both in districts of small firms³³ as well as among large enterprises³⁴ and its results have been quite positive for the Italian economy.

For example, since the early 1980s, labor productivity in Italy has increased more than West Germany, the United States, and even Japan (see Table 5 and Figure 2). Moreover, while unit labor costs have decreased (see Table 6), profitability, especially in those sectors that have undergone the most extensive restructuring, has increased significantly.³⁵ In fact, if one examines various indicators for structural adjustment in manufacturing (e.g., production, value added, investment, etc.) one sees clearly an improvement, both in terms of past performance and in comparison with other countries, during these years (see Tables 7 and 8). Given the inability of the three major industrial actors at the macro-national level to promote coherent programs aimed at industrial adjustment, how can we

understand these recent changes in industrial organization and performance?

Two Ways of Explaining Industrial Adjustment and Why Neither Really Works for Italy

The literature on industrial change falls into two basic schools one which analyzes patterns of industrial adjustment as responses to secular changes in the international economy; and a second which derives these patterns from national political-economic structures and institutionalized patterns of state-society relations.

The first school understands industrial restructuring as a result of irreversible changes in the economies of advanced industrial nations. There are two variants of this school.

The "modernization" variant emphasizes the progressive displacement of "mature" industries by service and high tech industries with innovative corporate structures and strategies and new types of workers unreceptive to the traditional message of labor unions. These accounts, more or less updated versions of the industrial society analyses of the 1950s, maintain that the tendencies of "post-industrial" society include a change from a goods-producing to a service economy, the pre-eminence of professionals and technicians in the labor market, and the centrality of technical knowledge in politics.³⁶ According to this view, technical expertise

will not only sustain economic growth but also relieve the social tensions which caused industrial strife in the past.

The "Marxist" variant is based on different assumptions about the changes in the economy. According to this view, the recession of the late 1970s-early 1980s throughout the West has permitted capital to rationalize production and roll back the gains won in the strike waves of the late 1960s. Firm restructuring not only takes place without and against the consent of unions,³⁷ but also leads to the de-skilling of the workforce. Labor's weakness at the firm-level is exacerbated by its increasing isolation in the political sphere.

According to these accounts, recent changes in Italy are the result of either the long-awaited modernization of the Italian economy in which overly ideological unions, inefficient small firms, and state-sponsored "lame-duck" industries were eliminated, or the final triumph of private capital which successfully crushed the unions, rationalized industry and rolled back the state from the free market economy. Yet both these "optimistic" and "pessimistic" versions of the secular trend explanation suffer from serious theoretical and empirical shortcomings which prevent them from fully accounting for both the extent and the variety of industrial change in Italy.

Theoretically, both variants of the secular trend explanation rely on questionable assumptions concerning the consciousness, interests and strategies of industrial actors,³⁸ the economic, social and industrial structures of advanced industrial societies,³⁹ and the historical laws propelling these societies in a predetermined direction and along narrowly defined trajectories.⁴⁰

For instance, often these accounts assume that all workers or all managers share the same interests, preferences or ideologies because they occupy similar positions within the division of labor. By homogenizing the interests of these actors in this way, these analyses obscure the diversity of experiences and understandings manifest among workers within the same plants or managers within the same enterprises. As a result, these accounts cannot truly understand how the strategic choices of the different actors get formed and how the struggles between them over their competing strategies shape future patterns of relations and organization at local firms and industries.

A second mistaken assumption underlying these secular trend accounts holds that all societies that want to produce industrial goods competitively must adopt certain specific structures of organization and relations of authority. Production, however, can be organized in several different ways. Plants using comparable technologies can nonetheless have different ways of dividing the work, and the same goods can be produced using different mixes of technology, skills and organization.

Moreover, by assuming that at any one moment in history there is a single best form of industrial organization and system of industrial relations ignores the reality that alongside very "modern" enterprises and human resource practices co-exist other, apparently archaic companies. In fact, sometimes these two different forms of organization are inter-dependent and their boundaries become blurred.

Underlying this view that there is only one best way of organizing industry is a conception of how industries, firms and

national economies change. In other words, this understanding of industrial organization extrapolates from the notion that market competition pushes individual companies and industries to develop the most efficient "best practices" and then simply assumes that only one organizational solution is, therefore, capable of executing this best practice at any one period of time. As a result, these analyses portray industrial change as a Darwinian process of adaptation and competitive selection.⁴¹ Only those firms with the most appropriate organizational features will be able to develop the particular "best practice" of the era. The other less "efficient" firms and industries will fail.

The reality, however, is that different organizational forms co-exist in all moments of history and that efficiency and competitiveness can be achieved in a variety of different ways. While it is true that in certain periods, particular organizational arrangements may appear and, in fact, even be dominant, other organizational forms nonetheless continue to exist alongside these more dominant patterns. In fact, these temporarily submerged structures even play a role in the functional logic of these momentarily dominant organizational arrangements.⁴²

Empirically, these explanations overstate both the actual changes in the economy and their effects. Challenging the forecasts of post-industrial theorists, recent work by Cohen and Zysman⁴³ indicates that the growth and effects of the service sector in Western economies fall far short of the expectations of these accounts. Likewise, recent work by American and European scholars suggests that the structural

changes underway from traditional blue collar industries accounts for only a fraction of the decline in union membership.⁴⁴

Moreover, secular trend accounts conflate the variety of different patterns of industrial adjustment manifest between as well as within nations. For instance, recent work by Osterman, Piore and Sabel, and Streeck indicates that the impact of industrial restructuring on worker skills and union strength is not necessarily negative since in certain cases enhanced skill levels and greater organizational strength for unions results from this process.⁴⁵

The Italian case casts further doubt on the validity of the secular development explanation. Industrial adjustment took place in the 1970s and 1980s but not at the expense of "mature" industries, small firms, or the labor movement. Ample evidence exists which indicates that small firms, far from being a hindrance to industrial adjustment, actually enhanced this process in Italy.⁴⁶ Moreover, notwithstanding various organizational and political setbacks in the early 1980s, Italian unions remain quite strong and their membership appears to once again be on the rise.⁴⁷ Finally, the cases included in this study on the restructuring of so-called "mature" industries like automobiles and textiles illustrate not only the economic vitality of these sectors but also the variety of industrial restructuring patterns possible within the same industries. In other words, there is no single, pre-determined pattern of industrial adjustment (whether "optimistic" or "pessimistic") but rather an array of possibilities. These possible outcomes depend not on any secular shifts in the

international economy but rather on local level institutional-historical factors.

The second approach to understanding industrial change is macro-institutional and seeks to account for patterns of industrial restructuring by showing how various state, business and union structures shape the adjustment strategies of firms and unions. This school builds on the institutionalist critique of secular trend explanations and stresses how individual nations with particular institutional histories and varying positions in world markets develop very different industrial, social and political institutions.⁴⁸

As a result, these explanations focus on different macro-level institutional arrangements (i.e., financial markets, state structures, corporatist arrangements, etc.) to explain divergent patterns of industrial adjustment among nations.⁴⁹ "Successful" adjustment⁵⁰ (or its failure) depends upon the existence (or lack thereof) of the "correct" mix of particular structures and/or institutionalized patterns of state-society relations.⁵¹

According to this approach, Italy's recent economic and industrial turn-around was the product of various macro-level institutional arrangements and policies which lowered inflation, disciplined the unions, and promoted industrial policies which facilitated structural adjustment in various industrial sectors. Yet, this explanation, like the secular development explanation which it criticizes, suffers from serious empirical flaws and theoretical oversimplifications.

For instance, as seen above, industrial adjustment in Italy was not the result of any concerted plan or strategy by either the government or the peak business and labor organizations. In fact, most proposals advanced by these actors were confused and contradictory. They often hindered more than facilitated industrial change.

Moreover, Italy possesses none of the macro-national institutions and patterns of relations which institutional political economists often argue are key to industrial adjustment. Unlike France and Japan, Italy does not possess a "strong" dirigiste state capable of directing industrial development. Similarly, in contrast to the small European states, Italy was unsuccessful at promoting corporatist arrangements among different industrial actors in order to facilitate industrial change.

Theoretically, institutionalist accounts simply assume that short of a regime change or crisis, national political-economic institutions are unchanging and that patterns of industrial adjustment within them are uniform. Thus, notwithstanding the intentions of these scholars, who are careful to avoid universal claims about how national economies change by being more attentive to particular legal, institutional and historical contexts, they nonetheless underestimate both the extent and variety of micro-level change within the national institutions they study.

An example from the Italian case may help to illustrate this point. Marino Regini explains the collapse of corporatist arrangements in Britain and Italy by stressing the lack of organizational instruments available to the respective union movements and states.⁵¹

While it is true that neither Italian nor British unions possessed the institutional capacities (strong central confederations, labor monopoly, ties to pro-labor governments, etc.) to enforce the concertative agreements they had entered into, it is equally true that corporatist-like agreements were reached in several industries and regions in Italy.⁵² Moreover, the failure of this experience encouraged the Italian unions to promote both organizational changes within their own structures⁵³ and altered relations with the state⁵⁴. Industrial restructuring further transformed both the unions' internal structures and their relations with the government.⁵⁵

The problem with many institutionalist analyses is that they focus solely or primarily on macro or national political-economic institutions. Moreover, often these accounts simply deduce explanations for divergent national patterns of industrial adjustment from stylized descriptions of either state structures, financial markets, and/or institutionalized forms of labor-management relations.⁵⁶

As a result, these accounts often back themselves into the universal assumptions they seek to criticize. For example, while portraying differences between societies and recognizing that industrial societies evolve in different ways, they nonetheless embrace the notion that there is a one best way of producing certain industrial goods.⁵⁷ They do so because their focus does not permit them to see the wide array of diversity and change occurring at the industrial or firm levels. As a result, they simply assume that there is a "one best way" of organizing the economy and then concentrate

their energies on figuring out what national institutions can promote this single best practice.

Moreover, by focusing primarily on the national or macro level of the political economy, these analyses often underestimate the degree of change that occurs both within each of these institutions and between them over time.⁵⁸ National configurations of industrial, political and economic institutions are being constantly repositioned and adjusted to accommodate both incremental changes which occur within them all the time and larger shifts which take place during critical conjunctures.

This process of institutional change is not merely a reaction to secular shifts in the economy, nor is it due to any underlying logic of organizations. Rather, it is the product of political struggles and compromises among various actors within and between these industrial, political and economic institutions. By looking at industrial change as the product of these ongoing political struggles at the micro-local level of firms and industries, we can begin to understand not only the plurality of experiences with industrial restructuring but also the impact of these changes on macro-level political-economic institutions.

An Alternative : An Institutional-Historical Approach

This study seeks to employ a somewhat different, more historical-institutional approach to explain both the extent and variety of industrial adjustment in Italy. This approach borrows from and builds on existing research in several social science fields which elucidates both the role of institutions in shaping political behavior⁵⁹ and the embeddedness of economic actors in local contexts.⁶⁰ The approach used in this study seeks to synthesize these two research traditions by emphasizing two basic points.

The first is that macro-national institutions are important in shaping the strategic choices and political behavior of industrial actors. In this way, it embraces the standard political-economic analyses which focus on these institutions. The second is that history matters, i.e., that the political possibilities of the present are constrained by the legacies of past choices and struggles between local industrial actors over these choices. In fact, the outcomes of past struggles among actors at this level structure their subsequent industrial, social and political arrangements as well as their relationship to the macro-institutions of the national political-economy.

The central idea is that industrial adjustment can best be understood as the interaction between these two factors. In other words, organizational features of the various local industrial actors (legacies of the past) shapes their strategic choices but that the struggles over these strategic choices, in turn, redefine the original

boundaries of their own organizations and of the larger political-economic institutions that regulate them.

This approach suggests that the most fruitful way to understand industrial adjustment is by looking at the strategic choices of the various micro-level actors under given historical constraints. Thus, at any one moment, the success of organizations like firms and industries will depend on the mesh between organizational attributes and historically given conditions. Organizational features that count as advantages in one period may turn into disadvantages in a subsequent changed phase.

For example, in the 1950s and 1960s, firms and industries organized along fordist lines were very successful, so successful that modernization theorists held them up as the model of the future. Yet, as the economy began to shift in the 1970s, firms with these organizational features appeared to have difficulty in adjusting. Their rigid production structures and taylorist work patterns hindered them from reacting quickly to the altered conditions of international competition.

In order to understand whether or not, and if so, how firms and industries change, this study analyzes organizations like firms and unions by examining their internal politics, their structures, and their context (i.e., the historical traditions and legacies which hinder or enhance their positions, their relations to other organized groups and institutions in society, etc.). As a result, it portrays the strategic choices of the various industrial actors as embedded within and shaped by their local contexts. In this way, it seeks to

avoid some of the mistaken assumptions of both the secular trend and institutionalist explanations.

For example, rather than assume that all workers or all managers possess the same interests because of their place in the division of labor, I argue that different industrial actors have different views of the world which shape their competing strategic choices. These worldviews serve as lenses through which industrial actors can interpret their experiences and maps with which they can chart their strategies. Yet these worldviews are by no means static.

The worldviews of industrial actors change both gradually in reaction to the day to day incremental changes of their environments, and more radically during moments of upheaval and crisis ⁶¹ It is during these latter moments that industrial actors struggle with one another over the future shape of their firms and industries. They call into question and seek to restructure the industrial, social and political arrangements which make up their local context. How they promote these changes depends on their understandings of themselves and their context and on the organizational resources the different industrial actors have at hand. These, in turn, are the products of history, the legacies of past political struggles and their outcomes.

Yet, the story of industrial change in Italy is not merely a collection of local tales of adjustment. Instead, the extensive micro-level change that has occurred in Italy in recent years has, in fact, altered the substance, if not the form, of the links between macro-level institutions regulating industry and local industrial actors. In other words, local level change has reshaped the constellation of

political, economic and social institutions that make-up the national political economy.

Tracing these changing patterns of state-industry relations is part of the explanation offered in this study. In this way, the institutional-historical approach examines the role national institutions play in shaping industrial politics but avoids portraying them as static or as exercising a uniform role throughout the national territory. In other words, unlike other institutionalist accounts it seeks to celebrate rather than ignore or underestimate the degree of micro-level change and diversity occurring within them. In other words, the approach used in this study seeks to show how the extensive but diverse industrial adjustment that has occurred at the local level has in subtle and not so subtle ways changed national regulatory institutions like labor law, collective bargaining, labor and capital market regulations, etc.

This study relies on this view of how industrial actors, firms and industries, and national political economies change in order to understand industrial adjustment in Italy. It seeks to illustrate these changes through in-depth analysis of restructuring in three different sectors : automobiles, textiles and petrochemicals. These three sectors were chosen for two reasons : first, because the different cases elucidate different models of industrial adjustment; and second, because each one in its own way addresses various shortcomings of the conventional explanations for industrial change while at the same time illustrating the heuristic power of the historical-institutional approach

The Organization of this Study

The three cases analyzed in this study illustrate different patterns of industrial adjustment manifest in Italy in recent years. The adjustment processes differ in the sense that the various industrial actors held different conceptions both of what industrial adjustment entailed and how it should occur. They also possessed different organizational resources through which to promote their strategies. As a result, the outcomes of the political struggles among the various actors in the three different industrial settings were quite diverse. To elucidate this point, attention will focus on the organizational attributes of and struggles between the two key industrial actors : labor and management.

The restructuring of Fiat Auto entailed the defeat of the union and a firm-centered, unilateral pattern of adjustment. By contrast, the process of change within the Biellese textile district was more collaborative. In Biella, different actors (firms, unions, local business groups, etc.) negotiated the process of change at both the firm and territorial levels. The Montedison (petrochemicals) study is a hybrid case where one of its plants (Ferrara) promoted a concertative approach to industrial adjustment while another (Porta Marghera) became a national symbol precisely for its militance and violent labor-management relations.

In the context of these diverse outcomes, it becomes clear that neither secular economic developments nor the interplay of national

political and economic institutions suffices to explain industrial adjustments. The explanation put forward in this study privileges instead a process of political bargaining among local industrial actors, whose interests, outlooks, and strategies are heavily constrained by prior local developments.

An examination of all three cases should provide some insight into the institutional-historical factors underlying the plurality of forms of industrial adjustment manifest not just in Italy but elsewhere as well. Matched pairs within each sector were included in order to control for sectoral, technological and market factors that may influence these divergent industrial adjustment strategies.

While all three case studies illustrate the importance of the institutional-historical approach, each addresses at least one mistaken assumption of standard accounts of industrial change : 1) reductionism, 2) the belief in the existence of a single best practice or organizational pattern in industry, and 3) the view that the national institutions and regimes regulating industry are invariant.

The reductionist assumption, that is, the idea that the interests, consciousness and hence, strategic choices of various actors stems from their place in the division of labor, is challenged by the case on the restructuring of the automobile industry (chapter two). The process of industrial adjustment at Fiat Auto demonstrates that various historical alternatives to the existent antagonistic labor-management relations and firm-centered restructuring strategies of the 1980s were, indeed, possible.

Furthermore, chapter two shows that the failure of these alternatives and the eventual victory of the current patterns had nothing to do with any reductionist claims about individual or organizational behavior. Instead, the outcome can be explained by examining how the particularities of Fiat's industrial development shaped both the worldviews and organizational attributes of the various industrial actors in such a way that hindered the development of viable, more cooperative patterns of industrial change.

The divergent patterns of industrial adjustment between Fiat Auto and Alfa Romeo are also compared in chapter two. Their divergent experiences are interesting since both firms share the same ownership, their workforces are organized by the same unions, and their plants possess similar technologies. As a result, an analysis of these two firms provides an excellent setting with which to gauge the impact of the local historical-institutional context.

The second common assumption in both economic-based and institutionalist explanations of industrial adjustment -- the idea that there exists a single optimal organizational solution for manufacturing certain industrial goods competitively -- is challenged by the case study of the Biellese textile district (chapter three). By analyzing how a plurality of organizational structures and strategies co-exist and, in fact, inter-relate continuously, this chapter seeks to demonstrate that the same industrial goods can be produced using different mixes of technology, skills and organization. Moreover, the case of Biella casts doubt on the natural selection/adaptationist vision of industrial change implicit in conventional explanations by

illustrating both how different industrial patterns have historically "survived" alongside one another while nonetheless alternating periods of apparent dominance or "success" and how these different patterns change over time.

Finally, the case study on Montedison (chapter four) seeks to reformulate the more static portrayals of national political-economic institutions by describing the intricate political struggles that occur within the same micro and macro-level institutions. By examining the contrasting reorganization patterns of two plants which share the same ownership, technologies, unions, product markets, etc. this chapter seeks to illustrate how this micro-level adjustment, in turn, redefines the seemingly unchanging, macro-level institutions regulating industry by subtly and not so subtly redrawing the boundaries of state-society relations. As a result, it sheds light on the extent of institutional change often missed by standard institutionalist accounts.

The Montedison case allows us to see how political struggles at all levels -- at the strategic level of the industry, national labor confederations and the state; at the collective bargaining level between the firm and the chemical workers unions; and on the shop floor between supervisors and employees -- take place simultaneously and how politics within and between these levels reshapes their original boundaries. Thus, we can see that even when it appears that institutional arrangements are stable and unchanging, substantial change is, in fact, occurring all the time.

This study tells a story of micro-level response to the industrial crisis of the 1970s by presenting various accounts of the massive industrial restructuring that has taken place in Italy in recent years. Moreover, it seeks to show that notwithstanding the appearance of continued political stalemate and institutional blockage in Italy's political economy, the micro-level changes underway since the late 1970s have, in fact, slowly and subtly begun to transform even these Byzantine structures. This is the subject of the concluding chapter, chapter five.

Moreover, to the extent that other national governments lost macro-economic control over their domestic economies in the 1970s, and given that today, countries as varied as West Germany, Sweden, even Japan resemble Italy with regard to the organization of production and relations between workers and managers, this last chapter will also consider the significance of this case study on Italy for the study of industrial adjustment in particular and comparative political economy more generally.

Notes

1. For a definition and description of Fordism, see Michael J. Piore and Charles F. Sabel, The Second Industrial Divide, (New York : Basic Books, 1984).
2. For a description of "fordism", "flexible specialization" and various other organizational forms in the present period, see Michael J. Piore, "Corporate Reform in American Manufacturing and the Challenge to Economic Theory," unpublished manuscript, MIT, April, 1987
3. See various essays in Mario Regini and Charles Sabel, eds., Strategie di riaggiustamento industriale, (Bologna: Il Mulino, forthcoming, 1989).
4. See "Italy: An Economy on the Move," in The Washington Post, March 23, 1988.
5. See special supplement on Italy in the Financial Times, April 23, 1987
6. For a synthesis of Italy's crisis, see Sydney Tarrow, "Aspetti della crisi italiana: note introduttive,": in Luigi Graziano and Sydney Tarrow, eds., La Crisi Italiana, vol. I, (Turin: Einaudi, 1979). For a discussion of the historical origins of the crisis, see Michele Salvati, Economia E Politica In Italia Dal Dopoguerra A Oggi, (Milan: Garzanti Editore, 1984).
7. These figures were taken from Guido Rey, "Italy" in Andrea Boltho, ed., The European Economy: Growth and Crisis, (Oxford University Press, 1982).
8. Ibid.
9. For more on the hot autumn, see Pietro Merli Brandini, "Italy: Creating a New Industrial Relations System From the Bottom," in Solomon Barkin, ed., Worker Militancy and Its Consequences, 1965-75, (New York: Praeger Publishers, 1975); Alessandro Pizzorno et al. Lotte operaie e sindacato: il ciclo 1968-1972 in Italia, (Bologna: Il Mulino, 1978); and Emilio Reyneri, "Comportamento di classe envoro ciclo di lotte," in Aris Accornero, ed., Prolemi del moviemento sindacale in Italia, 1943-1973. Annali della Fondazione Giacomo Feltrinelli, (Milan: Fetirelli, 1976).
10. See Mario Geri, "Il ruolo delle aree nell'equilibrio degli scambi commerciali: quattro paesi europei a confronto, " in Laura Pennacchi, ed., L'Industria Italiana: Trasformazioni Strutturali E Possibilita' Di Governo Politico, (Milan: Franco Angeli, 1981).

11. On the low levels of investment during these years, see Aldo Enrietti, "L'Accumulazione Industriale In Italia Negli Anni Settanta"; for the negative impact of this low investment on machine parks, R & D, etc., see Andrea Pecchio, Antonio Perrucci and Matteo Rollier, "Innovazione e progresso tecnico nell'industria italiana" both in Laura Pennacchi, ed., L'Industria Italiana: Trasformazioni Strutturali E Possibilita Di Governo Politico, Ibid.
12. See, for example, Luigi Frey, ed., Lavoro a domicilio e decentramento dell'attivita produttiva nei settori tessili e dell'abbigliamento in Italia, (Milan: Franco Angeli, 1975); and various essays in Carlo Catena, ed., La Piccola E La Media Industria Nella Crisi Dell'Economia Italiana, vol. II, (Rome: Editori Riuniti, 1975).
13. For more on this, see Michele Salvati, "The Italian Situation," in Leon N. Lindberg and Charles S. Maier, ed., The Politics of Inflation and Economic Stagnation, (Washington, D.C.: The Brookings Institution, 1985).
14. See Aris Accornero, "Recent Trends and Features in Unemployment," paper presented at the Political Economy Seminar Series, Center for International Studies, M.I.T., November 7, 1988.
15. For more on economic policy during these years, see Michele Salvati, "Muddling Through: Economics and Politics in Italy 1969-1979," in Peter Lange and Sidney Tarrow, eds., Italy in Transition. Conflict and Consensus, (London: Frank Cass and Co., 1980); and Guido Rey, "Italy", in Andrea Boltho, ed., The European Economy: Growth and Crisis, (Oxford: Oxford University Press, 1982).
16. See Massimo Paci, "Pubblico e privato nel sistema italiano di welfare," in Peter Lange and Marino Regini, eds., Stato E Regolazione Sociale, (Bologna : Il Mulino, 1987).
17. Michele Salvati, "The Italian Situation," op. cit., p. 520.
18. Ibid, pp 542-545.
19. Marino Regini, "The Conditions for Political Exchange : How Concertation Emerged and Collapsed in Italy and Great Britain," in John H. Goldthorpe, ed., Order and Conflict in Contemporary Capitalism, (Oxford : Clarendon Press, 1984).
20. For more on this, see Roman Prodi, "Italy", in Raymon Vernon, ed., Big Business and the State, (Cambridge, MA: Harvard University Press, 1974); and Alan R. Posner, "Italy: Dependence and Political Fragmentation," in Peter J. Katzenstein, ed., Between Power and Plenty, (University of Wisconsin Press, 1978).

21. For more on the failure of these attempts at industrial policy, see Pamela Adams, "Government-Industry Relations in Italy: The Case of Industrial Policy," Ph.D Dissertation, Department of Political Science, Yale University, May, 1985; Maurizio Ferrera, "Politica, assetti istituzionali e governo dell'industria," in Peter Lange and Marino Regini, eds., Stato E Regolazione Sociale, (Bologna: Il Mulino, 1987); CER-IRS Quale Strategia Per L'Industria?, (Bologna: Il Mulino, 1986); and Franco Momigliano, ed., Le Leggi Della Politica Industriale In Italia, (Bologna: Il Mulino, 1986).

22. For a comprehensive review of various government policies aimed at promoting industrial restructuring, investments, etc., see Simona Piattoni, "La Politica Di Incentivazione Agli Investimenti In Capitale Fisso In Italia (1970-1985)," unpublished manuscript, Universita Luigi Bocconi, Milan, 1986. For a historical analysis of the Italian state's inability to develop coherent economic and industrial policies, see Giuliano Amato, "Le istituzioni per il governo dell'economia," in Luigi Graziano and Sidney Tarrow, eds., La Crisi Italiana, op. cit.

23. For more on the crisis of the Italian political system, see Stefano Bartolini, "The Politics of Institutional Reform in Italy," West European Politics, 5, (July, 1982); Gianfranco Pasquino, "Partiti, societa civile, istituzioni e il caso italiano," Stato E Mercato, n. 8, (August, 1983); Leonardo Morlino, "The Changing Relationship Between Parties and Society in Italy," West European Politics, 7, (October, 1984); and Sydney Tarrow, "The Italian Party System: Between Crisis and Transition," American Journal of Political Science, XXI, (May, 1977).

24. See Ada Becchi Collida, "le associazioni imprenditoriali," in Gian Primo Cella and Tiziano Treu, eds., Relazioni Industriali: Manuale per l'analisi della esperienza italiana, (Bologna: Il Mulino, 1984)

25. The Italian labor movement emerged from the destruction of twenty years of fascism and the Second World War as a highly politicized, centralized, and united organization, the Confederazione Generale Italiana del Lavoro (CGIL). The union movement, like Italy's first post-war governments, consisted of a coalition of anti-fascist resistance forces. Communist, Socialist, Republican, and Catholic currents coexisted within the trade union confederation

With the advent of the Cold War and the division of Europe into two camps, both government and labor coalitions dissolved. The Catholic current of the CGIL eventually established itself as the Confederazione Italiana Lavoratori (CISL) while the Republican and Social-Democratic trade union leaders set up the Unione Italiana Lavoratori (UIL). Throughout the next two decades, the politics and strategies of the three confederations continued to be colored by their political origins and affiliations.

A form of the unification came about after the hot autumn struggles and the establishment of the Federazione CGIL-CISL-UIL in

1972. Each organization retained its autonomy at all levels but alongside these existing organizations, new joint structures aimed at coordinating decisions were created. This federation dissolved in 1984, due to disagreements between the Communists in the CGIL and the CISL and UIL over the Italian Communist Party (PCI)-sponsored referendum abrogating a government decree revising the scala mobile (system of wage indexation).

26. For more on this, see Pamela Adams, "Government-Industry Relations in Italy: The Case of Industrial Policy," op. cit.; R. Azzolini, "La politica della Confindustria da Carli a Merloni," Politica ed Economia, n. 1, (September, 1980); Alberto Martinelli, "Organized Business and Italian Politics: Confindustria and the Christian Democrats in the Postwar Period," in Peter Lange and Sidney Tarrow, eds., Italy in Transition, op. cit.; and Antonio M. Chiesi and Alberto Martinelli, "La rappresentanza degli interessi imprenditoriali come meccanismo di regolazione sociale," in Peter Lange and Marino Regini, eds., Stato E Regolazione Sociale, (Bologna, Il Mulino, 1987).

27. For more on the unions' interpretation of and strategies during this period, see Maurizio Vannicelli, "A Labor Movement in Search of a Role: The Evolution of the Strategy of the Italian Unions Since 1943," Ph.D Dissertation, Department of Government, Harvard University, 1983: Chapter 5. See also Marino Regini, I Dilemmi Del Sindacato, (Bologna: Il Mulino, 1981); and Gian Primo Cella, "Criteri di regolazione nelle relazioni industriali italiane: le istituzioni deboli," in Peter Lange and Marino Regini, eds., Stato E Regolazione Sociale, op. cit.

28. Mirian Anna Golden, "Austerity and Its Opposition: Italian Working Class Politics in the 1970s," Ph.D Dissertation, Department of Government, Cornell University, 1983.

29. Marino Regini, "The Conditions for Political Exchange: How Concentration Emerged and Collapsed in Italy and Great Britain," op. cit.

30. See Federmeccanica, "Imprese E Lavoro: Per una nuova politica delle relazioni industriali nel settore metalmeccanico," presented at Federmeccanica's General Assembly, July 18, 1984.

31. Active membership in the three confederations began to fall in 1981. See figures reported in Guido Romagnoli, "Sindacalizzazione e rappresentanza," in Guido Baglioni, Marina Camonico, and Ettore Santi, eds., Le relazioni sindacali in Italia: Rapporto 1982-83. (Rome: Edizioni Lavoro, 1984): 213.

32. For a review of these conflicts, see Richard Locke, "Redrawing the Boundaries of Italian Union Politics," Center for International Studies, MIT Working Paper Series, February, 1988.

33. See Michael J. Piore and Charles F. Sabel, "Italian Small Business Development: Lessons for U.S. Industrial Policy," in John Zysman and Laura Tyson, eds., American Industry in International Competition, (Ithaca, NY: Cornell University Press, 1983).

34. See Marino Regini and Charles Sabel, eds., Strategie di riaggiustamento industriale, op. cit.

35. See Confindustria, X Rapporto CSC: Squilibri commerciali e aggiustamento produttivo nei paesi industriali, (Rome: Confindustria, May 1988).

36. Daniel Bell, The Coming of Post Industrial Society, (New York: Basic Books, 1976).

37. See, for instance, Philip Armstrong, Andrew Glyn, and John Harrison, Capitalism Since World War II, (London: Fontana, 1984); and Richard Peet, ed., International Capitalism and Industrial Restructuring, (Boston: George Allen and Unwin, 1987).

38. For a critique of economic based theories of worker consciousness, see Charles F. Sabel, Work and Politics, (New York: Cambridge University Press, 1981).

39. For a discussion of this point, see Anthony Giddens, The Class Structure of the Advanced Societies, (London: Hutchinson and Co., 1973); and Ralf Dahrendorf, Class and Class Conflict in Industrial Society, (Stanford, CA: Stanford University Press, 1981).

40. For a description and then critique of these views, see Suzanne Berger and Michael Piore, Dualism and Discontinuities in Industrial Societies, (New York: Cambridge University Press, 1980); Charles Sabel and Jonathan Zeitlin, "Historical Alternatives to Mass Production," Past and Present, 108, (August, 1985); and Gary Herrigel, "Industry and Politics: The German Case," Ph.D Dissertation in progress, Department of Political Science, MIT.

41. This section draws from David Friedman, The Misunderstood Miracle: Industrial Development and Political Change in Japan, (Ithaca, NY: Cornell University Press, 1988).

42. An example from the Italian case illustrates this point. If we look at the literature on the relationship between economic growth and firm size in Italy, we can roughly identify three different waves of analysis coinciding with three different moments in Italy's postwar political-economy. In the first wave of analysis, scholars like Hildebrand, Shonfield and others argued, among other things, that the Italian economic miracle of the 1950s-early 1960s was due to Italy's successful adaptation of American mass production structures and methods. Moreover, these analyses predicted that with the continued

diffusion of this model, Italy's industrial landscape would change as its traditional small-scale shops and factories would be either incorporated within larger enterprises or swept aside. (See George H Hildebrand, Growth and Structure in the Economy of Modern Italy, (Cambridge, MA. : Harvard University Press, 1965); Andrew Shonfield, Modern Capitalism, (Oxford University Press, 1965); and Josselyn Hennesy, Vera Lutz, and Giuseppe Scimone, Economic "Miracles" : Studies in the resurgence of the French, German and Italian economies since the Second World War, (London: Andre Deutsh Limited, 1964)

When this model of economic development went into crisis in the early 1970s, attention began to focus on these so-called "backward" sectors. Since these pre-modern vestiges had not disappeared but actually appeared to be growing, accounts which emphasized either their political or economic functionality to Italy's political economy developed. Thus, small firms continued to exist because they served as both bases of conservative political support and as economic buffers for otherwise rigid large-scale industrial structures. In other words, they "survived" through a combination of government protection and big business-labor union complicity because they were both politically and economically necessary to the stability of Italy's political economy during a period of economic turmoil and political crisis. (See Suzanne Berger and Michael Piore, Dualism and Discontinuity in Industrial Societies, (New York: Cambridge University Press, 1981)

As these larger firms continued to grow in number and as the larger, fordist structures slipped further into crisis, small and medium-sized enterprises were portrayed no longer as serving subordinate, dualist roles in the political economy but rather as possessing a dynamic all their own. In fact, some argued that an alternative economic system based on these smaller, more flexible and specialized firms with their own particular structures and processes would eventually supercede and replace the original, fordist system of the industry. (See Michael Piore and Charles Sabel, The Second Industrial Divide, op. cit.).

None of these analyses were entirely correct. Alongside the large-scale industrial structures, smaller firms always existed. In fact, they were often important for the viability of large-scale industry not just during its crisis in the 1970s and early 1980s but before and after then as well. (See Stanislaw H. Wellisz, "The Coexistence of Large and Small Firms : A Study of the Italian Mechanical Industries," The Quarterly Journal of Economics, LXXI, February, 1957.) Likewise, during the present period of massive industrial restructuring, both large-scale firm structures and strategies and smaller, more flexibly specialized enterprises continue to co-exist and often collaborate in product development and manufacturing. In certain localities and at particular moments they are so inter-related that their boundaries often blur.

Thus, the evolution of Italy's political economy was such that neither one of these forms ever emerged completely victorious. Instead, at different moments in the postwar period, the organizational attributes of one industrial order meshed better with the conditions of international competition. That is why at times, one

pattern appeared more prevalent or successful than the other.

In Italy there was no universal process of natural selection but rather alternating periods of closeness of fit or lack thereof between certain organizational attributes and the broader political economy. Moreover, over time these two alternative models of industry evolved on their own and through their interaction with one another. The small firms of the early postwar period were very different from what they are today and the large firms of the 1960s look quite different in the late 1980s.

43. Stephen Cohen and John Zysman, Manufacturing Matters, (New York : Basic Books, 1986).

44. See Harry Farber, "The Extent of Unionization in the United States," in Thomas Kochan, ed., Challenges and Choices Facing American Labor, (Cambridge, Ma. : MIT Press, 1985); William T. Dickens and Jonathan S. elonard, "Accounting for the Decline in Union Membership," Industrial and Labor Relations Review, 35, (1985); and Jelle Visser, "Trade Unionism in Western Europe : Present Situation and Prospects," paper presented at the Symposium on "The Future of Trade Unionism in Industrial Market Economies," Turin, December 9-11, 1987.

45. See Paul Osterman, "New Technology and the Organization of Work . A review of the Issues," unpublished paper, Sloan School of Management, MIT, September, 1988; Michael Piore and Charles Sabel, The Second Industrial Divide, (New York : Basic Books, 1984); and Wolfgang Streeck, "Skills and the Limits of Neo-Liberalism : The Enterprise of the Future as a Place of Learning," presented at the Conference on "Mutamenti del lavoro e trasformazione sociale," Turin, November 27-28, 1987.

46. See Michael J. Piore and Charles F. Sabel, "Italian Small Business Development : Lessons for U.S. Industrial Policy," in John Zysman and Laura Tyson, eds., American Industry in International Competition, (Ithaca, N.Y.: Cornell University Press, 1983); and Linda Weiss, Creating Capitalism : The State and Small Business since 1945, (Oxford : Basil Blackwell, 1988).

47. Jelle Visser, "Trade Unionism in Western Europe : Present Situation and Prospects," op. cit.

48. See Suzanne Berger and Michael Piore, Dualism and Discontinuity in Industrial Societies, (NY: Cambridge University Press, 1980) for an example of this critique.

49. For examples of scholarship which seeks to account for differences in state-market relations or even government economic policy by focusing on national political-economic institutions, see Peter Hall, Governing the Economy, (Oxford: Oxford University Press, 1986); and John Zysman, Governments, Markets, and Growth, (Ithaca, NY Cornell University Press, 1983).

50. For a definition of "successful adjustment", see Peter Katzenstein, Small States in World Markets, (Ithaca, N.Y.: Cornell University Press, 1985) : 29.
51. See Peter J. Katzenstein, Small States in World Markets, Ibid.; and Robert Reich, "Bailout: A Comparative Study in Law and Industrial Structure," in A. Michael Spence and Heather A. Hazard, eds., International Competitiveness, (Cambridge, MA: Balinger Publishing Co., 1988).
51. Marino Regini, "The Conditions for Political Exchange : How Concertation Emerged and Collapsed in Italy and Great Britain," op cit.
52. See Marino Regini and Peter Lange, "Introduction : Italy from Rupture to Change," paper presented at the Conference on "Work and Politics in Italy : Twenty Years after the Hot Autumn," Center for European Studies, Harvard University, November 18-20, 1988.
53. See Ida Regalia, "Centralization or Decentralization? An Analysis of Organizational Chnages in the Italian Trade Union Movement at a Time of Crisis," in Otto Jacobi, et. al., Technical Change, Rationalization, and Industrial Relations, (London : Croom Helm, 1986).
54. See Emilio Reyneri, "Il Mercato del lavoro italiano tra controllo statale e regolazione sociale"; and Gian Primo Cella, "Criteri di regolazione nelle relazioni industriali italiane : le istituzioni deboli," both in Peter Lange and Marino Regini, eds., Stato E Regolazione Sociale, (Bologna : Il Mulino, 1987).
55. Paolo Perulli, "Conseguenze Delle Ristrutturazioni Sulle Relazioni Industriali : Ipotesi E Verifiche Empiriche," Economia E Politica Industriale, n. 43, 1984.
56. See various essays in John H. Goldthorpe, ed., Order and Conflict in Contemporary Capitalism, (Oxford : Basil Blackwell, 1984).
57. For an exampke of this, see Peter Hall, Governing the Economy, op cit. For a critique of this view, see david Friedman, The Misunderstood Miracle : Industrial Development and Political Change in Japan, (Ithaca, N.Y.: Cornell University Press, 1988).
58. This point is developed in Gary Herrigel, "Industrial Order and the Politics of Industrial Change : Mechanical Engineering in the Federal Republic of Germany," in Peter Katzenstein, ed., Toward a Third Republic? Industry, Politics and Change in West Germany, (Ithaca, N.Y.: Cornell University Press, forthcoming).
59. For a review, see James G. March and Johen P. Olsen, "The New Institutionalism : Organizational Factors in Political Life," in The American Political Science Review, 78, (September 1984).

60. See Arnaldo Bagnasco, "La costruzione sociale del mercato : strategie di impresa e esperimenti di scala in Italia," Stato E Mercato, n. 13, April 1985; and Mark Granovetter, "Economic Action and Social Structure : The Problem of Embeddedness," American Journal of Sociology, Vol. 91, N. 3, (November 1985) : 481-510.

61. See Amelie Oksenberg Rorty, "A Literary Postscript : Characters, Persons, Selves and Individuals," in Amelie Oksenberg Rorty, ed., The Identity of Persons, (Berkeley, CA. : University of California Press, 1976).

TABLE 1
Productivity Trends (GDP per employed)
(average annual percentage changes)

	1951-79	1951-58	1958-63	1963-69	1969-73	1973-79
Total	4.6	4.7	7.1	5.7	4.4	1.5
Agriculture	5.0	6.2	7.3	7.5	4.8	4.1
Industry	4.7	4.6	6.6	6.2	4.5	1.9
Services	2.2	1.4	4.9	3.0	2.6	--

Sources: OECD, National Accounts of OECD Countries, 1962-1979; OECD, Labor Force Statistics, 1968-1979; ISTAT, Annuario di contabilita nazionale, 1978 (Vol. 1), Guido Rey, "Italy," in Andrea Boltho, ed., The European Economy: Growth and Crisis (Oxford. Oxford University Pres, 1982).

TABLE 2
Economic Indicators

Year	GNP at constant prices (% annual variation)	Gross fixed capital formation (% annual variation)	Prices (% annual variation)	Unemployment rate (%)	Balance of payments (millions of lire)
1951					-77
1952	4.4	14.0	3.2	--	-84
1953	7.5	13.1	2.8	--	-49
1954	3.6	11.4	2.8	--	-4
1955	6.7	12.3	3.4	--	+45
1956	4.7	6.6	3.9	--	+54
1957	5.3	9.0	2.0	--	+129
1958	4.8	2.7	2.3	--	+496
1959	6.5	8.7	-0.2	8.0	+531
1960	6.3	12.3	2.0	5.6	+274
1961	8.2	11.4	3.0	5.1	+359
1962	6.2	9.5	5.8	4.5	+31
1963	5.6	8.0	8.4	3.9	-783
1964	2.6	-5.9	6.5	4.3	+483
1965	3.2	-8.4	4.3	5.4	+996
1966	5.8	4.3	2.3	5.9	+435
1967	7.0	11.7	2.9	5.4	+203
1968	6.3	10.9	1.5	5.7	+392
1969	5.7	7.4	4.2	5.7	-869
1970	5.0	2.7	6.8	5.4	+223
1971	1.6	-3.1	7.1	5.4	+489
1972	3.1	0.4	6.3	6.4	-747
1973	6.9	8.2	11.7	6.4	-208
1974	3.9	3.7	17.7	5.4	-3,588
1975	-3.5	-12.7	17.3	5.9	-1,439
1976	5.9	3.3	17.9	6.7	-1,531
1977	2.0	0.1	18.9	7.2	+1,730
1978	2.6	-0.4	12.4	7.2	+6,997
1979	4.9	5.8	15.7	7.7	+1,824
1980	3.9	9.4	21.1	7.6	-6,388
1981	0.2	0.6	18.7	8.4	+1,533
1982	-0.4	-5.2	16.3	9.1	-2,521
1983	-1.2	-5.3	15.0	9.9	+3,882

Source : ISTAT. Taken from Frederick Spotts and Theodore Wieser, Italy : A Difficult Democracy, (New York : Cambridge University Press, 1986)

TABLE 3
Inflation Rate Trends

	1970	1971	1972	1973	1974	1975	1976	1977
Percent Change of Real GDP Over Previous Year	5.3	1.6	3.2	7.0	4.1	-3.6	5.9	1.9
Percent Rise in Consumer Prices Over Previous Year	5.0	4.8	5.7	10.8	19.1	17.0	16.8	17.0
Percent of Total Labor Force Unemployed	5.4	5.4	6.4	6.4	5.4	5.9	6.7	7.2

	1978	1979	1980	1981	1982	1983	1984	1985
Percent Change of Real GDP Over Previous Year	2.7	4.9	3.9	0.1	-0.3	-1.2	2.6	2.3
Percent Rise in Consumer Prices Over Previous Year	12.1	14.8	21.2	17.8	16.5	15.0	10.8	9.4
Percent of Total Labor Force Unemployed	7.2	7.7	7.6	8.4	9.1	9.8	10.4	10.4

Sources: Real GDP and Consumer Prices through 1984: OECD and ISTAT figures cited in CISL, CISL 1984 (Rome: Ediziano Lavoro, 1984): 28,32. Unemployment figures: ISTAT, Annuario Statistico, 1983, (Rome: 1984): Table 292 for 1970-82. All others: Ferruccio Marzano, "The Report on Italy's Economic Situation in 1984," Journal of Regional Policy 5 (April-June, 1985): 208-209: From Stephen Hellman, "Italy," in Mark Kesselman and Joe Krieger, eds., European Politics in Transition, (Lexington, MA: D.C. Heath & Co., 1987).

TABLE 4
The Structure of Public Revenues and Expenditures

	1960-61	1969-70	1978-79
Total revenues (in percent of GDP)	29.1	31.2	36.4
<u>shares of:</u> Direct taxes	17.9	18.9	27.3
Indirect taxes	41.7	36.6	26.9
Social security contributions	28.7	33.7	35.3
Total expenditures (in percent of GD)	30.1	34.6	46.0
<u>shares of:</u> Consumption	42.3	40.5	34.8
Investment	11.8	8.8	6.7
Social transfers	32.4	35.8	35.0
Interest payments	5.0	5.0	12.7
Subsidies to producers	3.8	4.7	5.8
General government net lending (in percent of GDP)	-0.9	-3.3	-9.6

Sources: ISTAT, Bolletino mensile di statistica, July 1981; OECD, National Accounts of OECD Countries, 1950-1979: From Guido Rey, "Italy," in Andrea Boltho, ed., The European Economy: Growth and Crisis, (Oxford: Oxford University Press, 1982).

TABLE 5

Factor Productivity of Private Sector
(annual % of change)

	Year	Capital	Labor	Intermediary Inputs	Total
Italy	1981	-3.36	0.56	4.01	0.38
	1982	-3.23	-0.32	0.62	-0.83
	1983	-2.99	-0.50	1.50	-0.71
	1984	2.51	5.51	-4.81	2.51
	1985	0.25	2.72	-1.31	1.18
	1986	-0.59	2.54	-1.20	0.90
	1987	0.80	4.81	-4.66	1.88
	1981-87	-0.94	2.19	-0.84	0.76
West Germany	1981	-3.95	0.43	2.17	-0.43
	1982	-3.74	0.98	0.44	-0.58
	1983	-1.35	5.32	0.12	1.97
	1984	0.94	3.65	-1.95	1.40
	1985	-1.75	2.52	-1.59	0.12
	1986	-2.03	1.72	-0.47	-0.04
	1987	-2.27	1.05	-1.68	-0.67
	1981-87	-2.02	2.24	-0.42	0.25
France	1981	-3.67	1.41	2.52	0.22
	1982	-1.16	2.94	0.07	1.15
	1983	-3.29	0.99	2.77	0.12
	1984	-1.11	3.29	-0.97	1.07
	1985	-3.33	2.61	-2.37	-0.27
	1986	-2.34	2.74	-3.32	-0.12
	1987	-3.04	1.78	-1.87	-0.52
	1981-87	-2.56	2.25	-0.45	0.24
United Kingdom	1981	-4.16	3.24	0.94	0.68
	1982	-0.31	4.71	-2.55	1.42
	1983	1.61	6.44	-1.41	3.0
	1984	0.91	1.67	-5.51	-0.38
	1985	0.36	1.93	0.68	0.87
	1986	-0.06	3.41	-2.31	0.84
	1987	0.67	2.77	-2.65	0.74
	1981-87	-0.24	3.45	-1.83	1.02

TABLE 5 (continued)

Factor Productivity of Private Sector
(annual % of change)

	Year	Capital	Labor	Intermediary Inputs	Total
United States	1981	-1.43	0.72	0.14	-0.04
	1982	-5.19	-1.79	-0.35	-2.78
	1983	2.49	3.57	-6.29	2.21
	1984	5.77	4.48	-11.06	3.21
	1985	-0.12	1.82	-1.88	0.76
	1986	-4.43	1.93	-6.26	-1.21
	1987	-5.03	0.44	-1.06	-1.67
	1981-87	-1.13	1.60	-3.82	0.07
Japan	1981	-3.44	2.66	1.64	0.99
	1982	-3.24	1.80	2.39	0.57
	1983	-3.45	0.88	5.50	0.32
	1984	-0.50	5.48	-4.38	2.67
	1985	-7.25	3.66	3.98	0.59
	1986	-10.91	1.79	-0.72	-2.24
	1987	-9.26	2.64	-1.92	-1.14
	1981-87	-5.44	2.70	0.93	0.25

Source: Confindustria, X Rapporto CSC (Rome: Confindustria, May 1988): p. 30.

TABLE 6

Variable Costs and Prices in the Private Sector

(annual percent of change)

	1981	1982	1983	1984	1985	1986	1987
Cost of labor per unit produced	17,0	19,5	16,6	7,7	8,6	5,1	3,7
Cost of labor per worker	20,5	16,7	15,7	11,3	11,5	7,2	7,7
Labor productivity	2,9	-2,4	-0,8	3,5	2,6	2,0	3,8
Cost of intermediary inputs per unit produced	20,7	12,4	9,9	9,1	6,6	0,2	3,1
Price of intermediary inputs	17,8	14,2	10,9	10,5	7,3	-1,4	3,3
Intermediary input productivity	-2,4	1,6	1,0	1,3	0,7	-1,6	0,1
Total variable costs	19,4	14,9	12,3	8,5	7,3	2,1	3,4
Prices	18,3	15,2	12,4	9,8	7,6	3,8	3,2

Source: ISTAT

TABLE 7

Indicators of Structural Change
in the Manufacturing Sectors, Italy

3000	manufacturing
3031	food, beverages, tobacco
3032	textile, apparel, leather
3033	wood products, furniture
3034	paper, paper products, printing
3035	chemical products
3036	non-metallic mineral products
3037	basic metal products
3038	fabricated metal products
3039	other manufacturing

Production (bil. Lira)	1980	1981	1982	1983	1984	1985
3000	214894	248235	273085	323632	384951	
3031	26259	30813	35119	41389	50224	
3032	24458	26838	30436	35685	39993	
3033	6847	6933	7058	8921	10227	
3034	9860	11151	12572	16197	20787	
3035	42257	55453	58319	69769	86973	
3036	12037	14227	15024	16888	20481	
3037	21621	23328	26446	26541	32312	
3038	69869	77596	85772	105469	121115	
3039	1686	1896	2339	2573	2779	

Value Added (bil. Lira)	1980	1981	1982	1983	1984	1985
3000	83103	95426	101543	99255	116102	
3031	7144	8434	5783	8087	9568	
3032	10385	11643	12786	13451	16365	
3033	2787	3063	3207	3134	3716	
3034	4520	5105	5843	5576	6837	
3035	12892	15490	16735	14808	18661	
3036	5722	6767	7515	6382	7318	
3037	8281	7933	8587	9115	8794	
3038	30626	36175	40140	38296	44348	
3039	746	816	947	406	495	

TABLE 7 (continued)

Indicators of Structural Change
in the Manufacturing Sectors, Italy

Employment (thousands)	1980	1981	1982	1983	1984	1985
3000	3371	3228	3025	3119	3126	
3031	229	223	218	226	229	
3032	579	544	497	558	563	
3033	7484	8810	10378	11443	13240	
3034	10792	13054	15276	17506	19251	
3035	11021	13103	15469	17308	19419	
3036	8742	10725	12333	13985	16798	
3037	10083	12187	13735	15153	22836	
3038	9421	11261	12846	14396	16702	
3039	7649	9118	11000	12000	13235	
Wages per empl. (mil. Lira)	1980	1981	1982	1983	1984	1985
3000	9252	11147	12900	14398	16986	
3031	9738	11874	14092	15500	18227	
3032	7245	8810	10378	11443	13240	
3033	7484	9059	10590	12415	13444	
3034	10792	13054	15276	17506	19251	
3035	11021	13103	15469	17308	19419	
3036	8742	10725	12333	13985	16798	
3037	10083	12187	13735	15153	22836	
3038	9421	11261	12846	14396	16702	
3039	7649	9118	11000	12000	13235	
Investment (bil. Lira)	1980	1981	1982	1983	1984	1985
3000	9731	11218	12290	14205	17284	
3031	913	1090	1200	1564	1943	
3032	949	1084	1978	1433	1908	
3033	292	307	274	381	491	
3034	511	566	551	595	934	
3035	1688	2113	2203	2369	3029	
3036	1006	1163	1225	1518	1681	
3037	1227	1334	1410	1518	1681	
3038	3088	3502	4277	5174	5759	
3039	57	59	72	45	51	

Source: OECD: Industrial Structure Statistics, 1982, 1985.

TABLE 8

Basic Figures from National Accounts

Real GDP (1)	1970	1975	1980	1985
United States	100	111	130	148
Japan	100	123	157	190
Germany	100	111	130	139
France	100	122	150	156
United Kingdom	100	111	121	119
Italy	100	113	136	147
Canada	100	127	150	165

(1) index numbers

Gross Capital formation (2)	1970	1975	1980	1985
United States	17.6	17.3	19.2	18.9
Japan	35.5	32.4	31.6	27.8
Germany	25.5	20.4	22.7	19.5
France	23.4	23.3	23.0	19.0
United Kingdom	18.9	20.0	18.1	19.0
Italy	21.4	20.0	24.3	21.3
Canada	21.3	24.4	23.3	19.4

(2) as % of GDP

Private final consumption (2)	1970	1975	1980	1985
United States	63.5	64.1	64.5	65.7
Japan	52.3	57.1	58.9	58.3
Germany	54.6	56.8	56.8	61.0
France	59.9	61.6	58.9	61.0
United Kingdom	62.0	61.4	59.6	67.7
Italy	63.3	65.0	62.5	62.7
Canada	58.2	56.9	55.6	57.7

(2) as % of GDP

TABLE 8 (continued)

Basic Figures from National Accounts

Government consumption (2)	1970	1975	1980	1985
United States	21.6	21.2	19.2	20.6
Japan	7.4	10.0	9.8	9.7
Germany	15.7	20.4	20.1	19.9
France	13.4	14.7	18.1	19.6
United Kingdom	17.5	21.7	21.2	23.4
Italy	14.3	16.0	14.9	16.7
Canada	18.5	19.4	19.1	19.9

(2) as % of GDP

Exports (2)	1970	1975	1980	1985
United States	5.6	8.5	10.1	7.0
Japan	11.3	13.6	14.9	16.5
Germany	22.6	26.4	28.5	35.2
France	15.3	18.2	21.5	23.9
United Kingdom	22.5	25.6	27.4	32.4
Italy	15.9	21.0	19.7	21.0
Canada	22.5	22.7	28.3	28.5

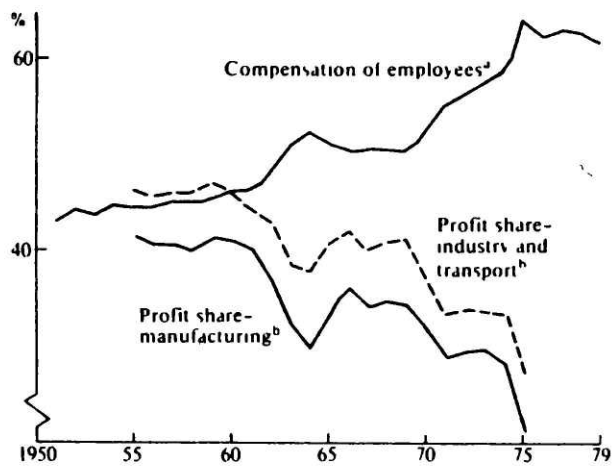
(2) as % of GDP

Imports (2)	1970	1975	1980	1985
United States	5.5	7.6	10.7	10.1
Japan	10.2	13.7	15.8	12.7
Germany	20.5	23.5	28.7	31.2
France	15.0	17.8	22.7	23.3
United Kingdom	21.6	27.3	25.1	31.2
Italy	16.6	22.2	24.0	22.9
Canada	20.0	24.1	26.4	25.8

(2) as % of GDP

Source: IMF: International Financial Statistics Yearbook, 1987.

FIGURE 1

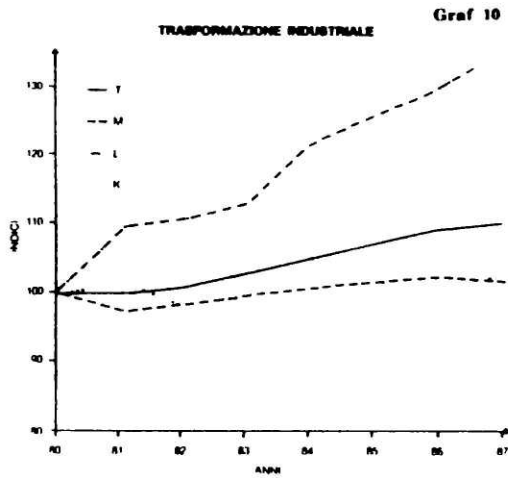


Sources: T.P. Hill, Profits and Rates of Return, OECD, Paris, 1979;
National Accounts of OECD Countries, 1950-1979

Guido Rey, Italy, in Adrea Boltho, ed., The European Economy: Growth and Crisis, (Oxford: Oxford University Press, 1982.)

FIGURE 2

Factor Productivity in Italian Industry



T = total; M = intermediary inputs; L = labor; K = capital

Source: Confindustria, X Rapporto CSC (Rome: Confindustria, May, 1988): p. 30

Chapter Two

Between Fordism and Flexibility : The Case of Fiat Auto

Introduction

This chapter examines the restructuring of Fiat Auto in Turin. Recent changes at Fiat Auto have helped it to overcome very serious organizational and economic problems, regain profitability and international competitiveness, and become a world leader in the use of new, flexible technologies. The Fiat case is interesting since it illustrates how a large-scale, mass production firm located in a traditional industrial area (in fact, a company town) has sought to reorganize itself and respond to the ever more turbulent and competitive international environment.

Over the course of the 1980s, Fiat Auto restructured through the use of new process technologies and the reorganization of various phases of the production cycle to promote both economies of scale and flexibility vis-a-vis its markets. However, it promoted this reorganization in a unilateral, firm-centered manner in which management set the terms of change not only for workers and their unions but also for other industrial actors (e.g., suppliers).

One argument often made is that the economic, sectoral and technological features of the automobile industry in general, Fiat in particular, rendered this outcome inevitable.¹ Yet, the firm-centered restructuring process and its accompanying antagonistic labor-management relations were not so pre-determined. Other automobile producers, both in Italy and abroad², and other local firms in Turin³, reorganized themselves in very different ways. Moreover, alternative,

more cooperative patterns were attempted at Fiat but failed. The reasons for their failure and for the eventual victory of the current patterns can not be fully understood when relying on reductionist claims about individual and organizational behavior or overly determined views of how industries change.

Instead, it will be shown that the particularities of Fiat's industrial development shaped both the worldviews and the organizational attributes of the various industrial actors in such a way as to preclude the development of viable, more cooperative patterns of change. The antagonistic relations between labor and management which developed at Fiat influenced the strategic choices of these actors and thus, shaped the subsequent patterns of organization and administration of the firm.

This chapter is divided into three parts. First, it will briefly discuss the crisis of Fiat Auto in the late 1970s and describe the different aspects of the reorganization process that took place in the 1980s. Second, it will review certain historical moments of Fiat's industrial development in order to illustrate how over time the various industrial actors developed ideologies and organizational features which shaped their strategic choices. Finally, the third section will seek to show how the particularities of Fiat's restructuring process can best be understood in light of these historical factors which limited the range of viable strategies available to the firm, unions, and other industrial actors during the firm's crisis and its subsequent reorganization.

The Restructuring of Fiat Auto

Fiat's troubles in the late 1970s were related in many ways to the more general crisis of the automobile industry. A variety of factors, including increased international competition, the rise in fuel costs following the Oil Crises, saturated and unstable markets for new cars, changing consumer tastes, more stringent government environmental and safety regulations, and increased labor costs all contributed to the crisis of the automobile industry in Western Europe and the United States.⁴

The more specific reasons for the progressive loss of competitiveness of Fiat Auto include : lower productivity than other European manufacturers (table 1), insufficient investments⁵, especially for product innovation, overmanning⁶, and low plant utilization rates (table 2). As a result, Fiat's cars were priced above the average of its competitors in Europe (Fiat's most important export market) while being less reliable. Moreover, the firm's organizational structure remained rigid, despite successive attempts at divisionalization, and over-extended, due to the productive diversification of the firm.⁷

To emerge from its crisis, Fiat, like other automakers⁸, adjusted its production cycle so as to increase product differentiation while simultaneously promoting increased economies of scale. Moreover, to confront its more particular problems, the firm initiated a deep reorganization process aimed at improving its

profitability in the short-run and its survival in the auto market in the long run. The main features of this process were :

1. a new product policy which went from a few poorly differentiated models to many new models with frequent restyling and increased commonality of components;
2. process innovations in different phases of the production cycle, from the planning and design of the product to its final assembly;
3. a new relation with its component suppliers with emphasis on achieving both better quality and more standardized components;
4. a radical break with the industrial relations practices of the 1970s and an attempt to develop a more direct relationship with the workforce.

Thanks to this strategy, Fiat has made a rapid and impressive recovery, especially when compared with other European automakers ⁹. For instance, firm productivity as measured by the average number of cars produced per worker was 14 in 1979, 21 in 1982 and 29 in 1986. ¹⁰ Fiat Auto investments have also increased from 226 billion lire in 1976 (representing 27.8% of total Fiat Group investments) to 415 billion in 1979 (43.1%) to 857 billion in 1982 (65.1%) to 2.06 trillion lire (71.5%) in 1987. As a result of investments in new process technologies and a radical reduction of the labor force (employment was halved in these same years -- see table 3), direct labor costs have decreased from 27.4% of total costs in 1979 to 19.1% in 1985.

All of these changes have resulted in the renewed profitability of the firm. From a net loss of 97 billion lire in 1979 (the first year Fiat Auto had a separate balance sheet) and 130 billion lire in 1980, the firm earned a net profit of 2 trillion lire in 1986.

Increased profits and sales have made Fiat (now including Alfa Romeo as well) the number one auto producer in Europe.

To better understand this remarkable turn-around, we must look more closely at Fiat's three-pronged strategy centered on product and process innovations, the reorganization of suppliers' networks, and a redrawing of industrial relations.

Product and Process Innovations

The automobile industry has long served as a model of industrial development and technological progress based on Fordism : the manufacture of standardized products in large volumes using special-purpose machinery and semi- or unskilled labor. Automobiles were traditionally produced in rigid sequential assembly lines in which different workers at different points in the line performed specific tasks until the car was finally assembled.

One of the principal innovations which emerged from Fiat's reorganization process was the reconceptualization of the automobile as a modular system, no longer composed of sequentially arranged single parts and components but rather of more complex and interchangeable component systems. Fiat autos now consist of a series of different component systems, each in itself a finished product composed of various interchangeable parts which are assembled in a variety of ways on different models ¹¹. Thus, each model is made of components shared with other models (i.e., engines, transmissions, brakes, etc.) and others more particular to the specific model. As a

result, Fiat can now produce (or have produced) a series of macro-component systems, each manufactured to obtain maximum quality and efficiency, but assembled in a flexible way to permit a wider range of product mix and customer specification ¹².

This rationalization is significant in that it permits the reduction of unit production costs while at the same time increasing the quality and differentiation of the product. This has made it possible for Fiat to reduce the number of base models (platforms) it produces while simultaneously augmenting the variation of models within this more restricted range. For instance, in 1982 Fiat produced 12 base models composed of 52 particular components (i.e., specific to only one model) and 42 components common to more than one model. In 1986, the 9 base models consisted of only 13 particular and 49 common components, permitting 80 variations within the range. ¹³

The modular system of production permits not only model variation but also continuous product innovation in the sense that each particular component can be improved, redesigned, etc. without major overhauls in the essential model. This process of continuous product innovation is facilitated by the use of new technologies in the design (i.e., CAD) and the production (CAM, robots) of the automobile.

Flexible process technologies are not new to Fiat but rather began to be adopted at the beginning of the 1970s in response to constraints imposed by the unions. Following the cycles of worker strikes during the "hot autumn" of 1969 and the 1971 collective bargaining agreement between Fiat and the unions (which the unions believed would bring about the "end of the assembly line")¹⁴,

management began to promote process innovations. Automation served a dual purpose. On the one hand it responded to workers demands for safe and less strenuous working conditions. On the other hand, it allowed management to circumvent labor rigidities and dampen industrial conflict.

While the first innovations were introduced in areas of the factory that were seen to be particularly hazardous or strenuous and hence prone to industrial conflict (paint shops, welding areas, etc.), new process technologies were eventually diffused throughout the entire factory. In fact, with the introduction of Robotgate, an electronically controlled multi-headed welding system, and LAM, an automated engine assembly unit, it appeared that Fiat had achieved a degree of productive flexibility far exceeding its actual needs.

One of the benefits of these last two innovations was their reconvertability. Unlike in the past when a change in models entailed an entire restructuring of the plant, now Fiat can change models with greater ease since 80% of this hardware can be adapted to new models. However, Fiat has by no means made full use of the degree of flexibility achieved by these technologies. For instance, while the Robotgate system at the Rivalta plant is theoretically capable of working simultaneously on 4-5 models, production schedules only required that it work on no more than 2 models at a time. Similarly, the LAM at Mirafiori was designed to work on over 100 different engine specifications.

Yet, since these systems permitted a product mix far exceeding the firm's needs, let alone logistic capabilities, and since these new

technologies entailed high installation costs, new, more "rigid" technologies were subsequently introduced. Thus, the later version of Robotgate introduced at Mirafiori in 1983, while still maintaining the basic characteristics of the Rivalta system, is organized like a traditional sequential assembly line to work on only two models simultaneously.

Likewise, the Termoli III facility for the construction of the FIRE engine is substantially less flexible in terms of product mix and plant reconvertability than LAM. In order to obtain maximum economies of scale, production at Termoli is rigidly organized with sequential assembly points and stations. Moreover, it manufactures only two base engines (FIRE 1000 and FIRE 750) in 26 different versions. As a result of the economies of scale obtained through the almost complete automation of the production process together with the decrease by one-third in number of components and parts used to make the FIRE engine, Fiat was able to reduce the costs of its flagship car, the Uno, by 10%.¹⁵ These latest process innovations may lead one to believe that Fiat has embarked on a technologically-driven neo-fordist strategy. In reality, this appears true only if one focuses solely on these two particular phases of the production cycle. If, however, one analyzes these changes with an eye to the construction of the entire product, the firm's strategy of promoting flexibility "capable of satisfying all necessities manifested in previous years, while at the same time obtaining an effective and substantial lowering of the break-even point"¹⁶ becomes clear.

In other words, previously, the break-even point was calculated on the basis of annual production of automobiles. In the 1970s, it was assumed that Fiat needed to manufacture two million cars a year to be profitable. (Something it was never able to do in these years.) Now, modular production allows economies of scale to be achieved not by producing two million or more cars a year but rather through the production of large series of macro-components which can be used on several different models.

Thus, Fiat can produce fewer cars and more models efficiently since its interchangeable macro-components are, in fact, manufactured in large series. In this way, Fiat can be both more attentive to the ever-fragmented market and achieve productive efficiency.

Moreover, although the production of the FIRE engines is rigidly organized, a central computerized logistic system regulating the flow of materials, production schedules, etc. links the Termoli plant to other Fiat plants (Mirafiori, Desio, Rivalta and Termine Imerese). This permits the firm to alter monthly production schedules through daily up-dates and along the principles of "just-in-time". Thus, while the FIRE engine itself may be produced rigidly, it is part of a larger system in which the final product, the Uno, is manufactured more flexibly. In short, "rigidities" in particular phases of the production cycle may enhance rather than hinder the overall flexibility of the system and respond better to firm needs, especially when integrated more fully with the firm's reorganized suppliers network.

The Reorganization of the Suppliers Network

Until the mid-1970s, Fiat had a stable network of approximately 1100 suppliers. As these firms were in an oligopolistic situation vis-a-vis Fiat, they paid little attention to cost containment and product innovation. Moreover, as many of these firms were started and operated by ex-Fiat foremen, personal loyalty to Fiat management more than any economic calculation of efficiency or technical evaluation of quality determined Fiat's relations with its suppliers. ¹⁷

Things changed somewhat in the mid-1970s as Fiat began to decentralize its production as a way of circumventing internal firm rigidities in production and industrial relations practices. Thus, by 1979, Fiat's suppliers had grown to 1300 firms. Fiat sought to reduce its production costs and maintain control over its suppliers by pitting one against the other in a bitter price competition for orders. ¹⁸

After 1980, the firm's suppliers were reduced and rationalized according to firm-dictated requirements concerning suppliers' prices, technical capacities, service records, etc. ¹⁹. The implications of this new relationship between Fiat and its suppliers were elaborated by Fiat Auto president Vittorio Ghidella in 1984:

Fiat is moving towards a conception of the firm as a system, as a bridge between the world of clients and that of suppliers; this entails deverticalization, that is, assigning outside the firm that which is not

specific to the product's image and which does not require technologies or investments prohibitive for the suppliers (...) (W)e need to encourage the search for efficiency that we have realized internally towards the world that surrounds us. 20

In practice this policy has led to a reduction in the number of suppliers and an increase in collaboration and coordination between Fiat and its suppliers not only in production but also in the design and development of new products.

Today, Fiat is connected to about 800 suppliers. The selection process Fiat used to enhance the concentration and rationalization of its suppliers network focused on the suppliers' levels of sales, specialization, competitiveness, quality, and capacity to innovate. 21 While reducing the number of suppliers, this selection process also encouraged investments and promoted economies of scale. The rationalization of the suppliers also permitted Fiat to organize them according to specific roles and functions within its new integrated system of production.

Thus, suppliers are classified into three major groups: pilot firms which produce macro-component systems for Fiat and which cooperate with Fiat in product design and development; firms that produce less complex components and work almost exclusively for the automobile industry and which supply the pilot firms; and firms that produce standard, multi-purpose components and parts. 22

Fiat promoted coordination and innovation among various firms using three key instruments:

1. Fiat Componenti, a subholding company with the task of coordinating the activities of seven companies, each of which includes several divisions and/or controls other companies. While Fiat Componenti companies can cover almost the entire spectrum of car components, only 35% of the firm's components come from these sources. The other 65% are produced by external sources.²³ Thus, by pitting Fiat Componenti companies against outside competition, Fiat encourages market competition, and hence, cost reduction and product quality among its suppliers.

2. Development contracts. Fiat provided both technical assistance and financial resources to certain chosen firms to permit them to restructure themselves and introduce new technologies in their own production.

3. Long-term supplier contracts which guarantee a certain quantity of purchases for 3-5 year periods to firms which initiate technical and productive innovations.

It is important to note that while the supplier network has been reorganized to promote innovation, efficiency, and quality, and while an ever-greater share of innovation in the auto industry depends on the innovative capacity of these seemingly more autonomous suppliers, initiatives for change came from Fiat. In fact, Fiat continues to exercise substantial control over its suppliers in a variety of ways, including unilaterally determining prices paid for parts and components, maintaining multiple suppliers for the same component, and reserving the right to break all contracts if defects exceed 2% of total supplies. While this is not surprising given that between 60-65% of the cost of producing a car derives from components and parts, it also indicates the limitations of Fiat's willingness and perhaps ability to approximate the Japanese model of collaborative producer-supplier relations in the automobile industry.²⁴

Changes in Industrial Relations

During the 1970s, attempts were made to build a "constructive" system of industrial relations at Fiat. Agreements were reached between management and the unions which promoted experiments with new forms of work organization (i.e. work islands) and eliminated overly strenuous or hazardous working conditions. Union delegates enjoyed considerable power on the shop floor, regulating work rhythms, determining breaks and controlling internal mobility. Yet, these experiments in union-management cooperation were largely unsuccessful and industrial conflict remained high throughout the 1970s.

The crisis in industrial relations became especially evident when Fiat Auto acquired a separate balance sheet for the first time in 1979. Suddenly, Italy's largest privately owned firm appeared to be on the verge of bankruptcy. In response, the firm launched the ambitious restructuring process described above while simultaneously seeking to radically reduce its labor force.

In the Fall of 1980, Fiat proposed to place 24,000 workers in Cassa Integrazione, a state-financed redundancy fund. The union rejected this proposal and broke off relations with the firm. Fiat, in turn, declared its intention to fire 15,000 workers, beginning October 6. Things heated up as the unions blockaded the factories and Fiat sent out letters of dismissal. The strike lasted 35 days. Finally, on October 14, Fiat foremen and supervisors organized a successful demonstration calling for a return to work. 40,000 people marched silently through the streets of Turin in protest against the union,

among them many blue collar workers. ²⁵ That very night an agreement was signed which represented a major defeat for the union. The agreement met with resistance from the more militant factions of the local union but was signed and pushed through for approval by the national confederations. Despite initial attempts by the local labor movement to claim victory in this strike ²⁶, it marked a major defeat from which the union has yet to recover. ²⁷

If the results of Fiat's restructuring have been positive for the firm, the consequences for the union have been less than encouraging. Immediately following the rupture of relations with the unions in the Fall of 1980, the firm asserted a "hard line" with the labor movement. Within the factories this translated to a reinstatement of traditional hierarchies and control on the shop floor ²⁸, the expulsion of numerous union activists (see table 4), and the reduction of the workforce by one-half. ²⁹

In some shops, unions today have no representatives and thus have little understanding of the changes that have occurred in recent years. ³⁰ A recent study on the way Fiat workers perceive the technological changes underway in the firm suggests that those workers most vulnerable to being replaced by automation (unskilled, poorly educated, middle aged) are extremely anxious about their positions and diffident towards the union. Unions are shunned not only because of their failure to protect these workers but also because of fears that union contacts will result in company reprisals. ³¹ Union membership rates reflect these feelings. While unionization rates at Fiat have always been below the national average, even during the hot autumn,

the unions now represent only 20.5% of the workforce in Fiat's various Turinese plants versus 32.5% in 1980 (see table 5). In certain factories (Mirafiori) unionization rates are even lower.

If the situation is precarious for unionized workers within the firm, it was even more dismal for those workers expelled from the factories. The most evident sign of the severe dislocation resulting from Fiat's restructuring and the defeat of the union was the existence and fate of the "cassaintegrati", i.e., those workers dismissed from the firm and sustained by this special redundancy fund Fiat alone placed 31,000 full-time workers in Cassa Integrazione while also employing this mechanism to lay-off other workers during periodic downshifts in demand. While the exact number of people placed in Cassa Integrazione by Fiat and other related firms is difficult to determine precisely ³² (figures are calculated in terms of hours, not individuals) it is nonetheless clear that during the first half of this decade, tens of thousands of local workers found themselves under- or unemployed.

One study has shown that the majority of cassaintegrati consisted of middle-aged, unskilled, poorly educated workers of Southern origin. Most of the handicapped and women workers hired during the latter half of the 1970s were also removed from the factory. Many cassaintegrati experienced tremendous difficulties adjusting to their new lives outside the factory. With the loss of their jobs, their identities -- very much associated with the workplace, work group, and productive activity -- were thrown into question. Removed from the shop floor, these workers also lost their political affiliations and social

relations. Moreover, workers in Cassa Integrazione found themselves in a state of limbo : no longer active in the factory but still legally dependent on the firm for survival. The social costs of this exclusion were high. Among these workers, rates of suicide, divorce, substance abuse and psychological illness reached alarming proportions in the early 1980s. ³³

Needless to say, serious tensions developed between this group and the unions which are held responsible for their sad state. Loss of support among the rank-and-file has been matched by other problems, including continued strategic confusion, factional in-fighting and purges, and persistent paralysis in the face of firm initiatives.³⁴

In sum, the local union's policy of militant confrontation and intransigence in the face of the firm's need to restructure not only failed but also threatened to destroy the union. Yet, the defeat of the union at Fiat was not inevitable. Alternative outcomes, including a pattern of more constructive and stable labor relations based on collective bargaining between labor and management, were possible. In fact, other automobile producers competing in the same product markets (Ford and Volkswagen) and other producers in Italy (Alfa Romeo) experienced very different reorganization processes. In order to explore the viability of this alternative scenario, we will now examine the restructuring of Alfa Romeo.

A Brief Comparison with Alfa Romeo

Although founded in 1906, for a variety of reasons Alfa Romeo was either unwilling, or perhaps unable to concentrate its production on automobiles until after World War II. ³⁵ Instead it produced along with cars a variety of more or less profitable products such as munitions, railroad stock and even aircraft engines.

Following the First World War, market limits, financial problems and management errors constrained Alfa Romeo's car output. This occurred during the same period in which Fiat began to organize its production along fordist mass-production lines. Alfa management drew on the firm's experience in making racing cars and concentrated on the manufacture of high quality products. In the field of industrial relations, the firm stressed workers' skills, cooperation, and loyalty to the firm. Even after the firm's take-over by the state (becoming part of IRI) during the Depression, Alfa continued to be characterized by this model of industrial development.

This triad of high quality production, skilled workers and cooperative industrial relations continued to underpin the firm's industrial strategy in the post-war period. In fact, Alfa did not really embark on the mass production of autos until 1963, when it opened its Arese plant outside of Milan and doubled its productive capacity. ³⁶ Even then, it continued its tradition of high quality production through technical innovation (Alfa was famous for its technically advanced product development and design.) and labor-management cooperation.

This is not to suggest that there was no conflict between labor and management at Alfa. There was. In fact, the labor force at Alfa was perceived to be even more militant than at Fiat since it possessed a significant number of anarchists and the unions were stronger.³⁷ Yet, because the unions were better organized and more institutionalized than their counterparts in Turin, they were more able to control and/or isolate these radical groups of workers. Moreover, Alfa's management never attempted to decimate the local unions in the same way Valletta had savagely repressed them at Fiat.³⁸ Thus, they remained viable institutions with historically strong links with both firm management and their base.

In fact, the "success" of Alfa's "model" of industrial development became especially apparent once this model was abandoned for Fordism. In 1972, Alfa Romeo opened its Pomigliano plant outside of Naples and thus sought to break from its past and embark on a new model of development. With the Pomigliano plant, Alfa decided to manufacture a new product (the Alfasud, an economy car), for a new (mass) market (which the firm knew little about since its traditional products are extremely expensive and cater to a small niche of clients), in a new way (using unskilled workers and highly automated and dedicated equipment).³⁹ The construction of the Pomigliano facility symbolized a major break from Alfa's tradition and an attempt by the firm to organize itself along the lines of Fordism. That it chose to do so exactly at the moment when this system of production began to enter into crisis throughout Western Europe may explain the disastrous results this change in strategy had on the

firm. As is well-known, following the opening of Pomigliano, Alfa never again turned a profit and what was once seen as the pride and joy of Italian state enterprise languished for about a decade until it was sold off to Fiat in 1986. ⁴⁰

Nevertheless, even the way Alfa managed its troubles in the 1970s and early 1980s was radically different from Fiat. For instance, like Fiat, Alfa Romeo experienced an especially militant wave of strikes and worker mobilization during the hot autumn. While instigated and for the most part controlled by older union militants, here too they witnessed the active participation of Southern migrant workers. These new workers formed alliances with older union militants and in the process transformed both labor relations at the firm and the traditional union organizations. ⁴¹ In fact, the unions at Alfa became so powerful that they were often able to achieve their goals with no more than the threat of strikes. ⁴² Accords reached at Alfa frequently preceded and influenced those later negotiated by the national metalworkers federation. ⁴³

Yet, persistent worker militancy combined with the altered automobile market and the debacle of Alfa Sud at Pomigliano to provoke serious economic problems for the firm. Following the opening of Pomigliano in 1972, Alfa's accounts showed consistent losses. As a result, Alfa's management went through a series of turnovers, each seeking to reorganize the firm in its own ways and abandoning the project quickly afterwards. As Alfa was a part of IRI, many of these managers had come from other areas of the public sector and thus, had little experience in the automobile industry. ⁴⁴ As a result of these

numerous, often confused and contradictory managerial strategies, the firm sank further into crisis. Investments stagnated, suppliers networks dissolved, labor militancy persisted and production floundered. ⁴⁵

Like at Fiat, attempts to construct a more stable and "mature" system of industrial relations initially failed as the union resisted all proposals for wage moderation and increased flexibility and instead blamed management's incompetence for the crisis of the firm. Similarly, during this period the union increasingly suffered from internal divisions and thus, steadily lost its ability to formulate coherent strategies. Divisions within the unions and increased hostility between the unions and management also constrained the union's ability to win gains through collective bargaining. ⁴⁶

Yet things began to change at Alfa in the late 1970s. As the economic position of the firm continued to deteriorate, the unions became increasingly involved in management attempts to increase productivity and promote technological innovation. ⁴⁷ Illustrative of this change was the agreement by the union at Alfa to work eight extra Saturdays in order to meet demands for the new Giulietta model.

Another example of this attempt to build a more cooperative labor-management relationship at Alfa was the 1981 accord in which production groups were organized as a way of increasing productivity and flexibility for the firm while simultaneously enhancing job enrichment and skill levels for workers. ⁴⁸ This accord, which occurred shortly after the union's defeat at Fiat, was heralded as a major breakthrough for Italian industrial relations and as a clear

counter-example to Fiat. In fact, in the first years after the accord, productivity increased substantially and industrial relations appeared more calm. The "success" of this model appeared so great that Alfa's Personnel Manager specifically argued that one could "forget Turin" ("dimenticare Torino") in this new phase of "negotiated restructuring".⁴⁹

While a variety of factors including the increased militancy of the local FIM (Catholic metalworkers' federation), the break-down of Alfa's logistic system (making it nearly impossible to maintain production schedules, let alone product quality), continued management turn-over, and persistent under-investment, especially in new product and process technologies, all combined to undermine this accord,⁵⁰ the more cooperative spirit of Alfa's labor-management relations continues, even now that Alfa belongs to Fiat and is run by Fiat managers. The May 3, 1987 agreement between Fiat and the unions over the restructuring of Alfa Romeo entailed an exchange of increased labor flexibility and productivity for massive investments in new process and product technologies and job security for the existing labor force.⁵¹ As is apparent, this accord is radically different from the unilateral reorganization process at Fiat.

Cooperative industrial relations between the union and management at Alfa used to be attributed to the fact that Alfa was (until late 1986) a state-owned firm and thus, its management could be more relaxed about economic goals like efficiency and sales, permitting it to be "easier" on the unions. However, a review of the strategies of the different managements over the course of the 1970s reveals that

Alfa's management was no more benevolent towards the unions than Fiat's management and at times, it was even more aggressive. ⁵² Moreover, that labor relations at Alfa continue to be significantly different from those at Fiat, even now that they share the same ownership and management, also casts doubt on this assertion. Another way to understand the differences in industrial politics between Alfa and Fiat (as well as between Fiat and its foreign competitors in the same market segments, e.g., VW and Ford) is by looking at the local institutional and historical factors that shape the strategies of the different industrial actors.

Thus, the next section will seek to analyze the different industrial reorganization processes at Fiat and Alfa Romeo by exploring the historical origins and development of Fiat. The historical development of the two firms will be compared in order to shed light on the divergent worldviews and organizational features possessed by the respective industrial actors at Fiat and Alfa. The point of this next section is to elucidate the importance of local institutional-historical factors on industrial strategy and industrial relations.

Shaping Industrial Politics : Local Patterns of Industry and Industrial Relations

The industrial development of Fiat had significant effects on both the firm and its workforce. Fiat was the main architect of Fordism not just in Turin but throughout Italy. Yet, the realization

of this plan took over forty years, from the reconception of the firm along fordist lines at the beginning of the century, through the reorganization of the production process after World War I (the Lingotto plant was opened in 1921), to the creation of a mass market for automobiles in the late 1950s. Thus, notwithstanding firm intentions, it was only following World War II, when altered political and market conditions emerged to assure the development of a mass production market, that Fordism developed in Turin. Yet, if the fordist factory dates back to the 1920s and the mass market for automobiles to the late 1950s, the institutional arrangements for the macroeconomic regulation of the system -- mainly, recognition of trade unions as formal bargaining partners within factories, indexation of wages to cost of living increases, etc. -- occurred much later, between 1969 and 1975. By that time, however, the other two elements of Fordism, mass production and stable markets, entered into crisis. 53

This particular evolution of Fordism in Turin had enormous consequences on the ideologies and strategies of both firm management and union leaders. It also influenced the industrial structure of Fiat and the social, economic and political landscape of Turin. In fact, the political development of the various industrial actors limited their range of viable strategies once the firm's fordist system went into crisis in the late 1970s. In other words, because of the way industry and industrial relations developed in Turin during the first sixty-odd years of this century, both the firm and the union possessed certain organizational attributes (i.e., structures, ideologies, etc.)

which shaped the way they responded to the firm's crisis and acted during its restructuring process. In order to better understand how these historical legacies shaped recent strategies, a synoptic account of the organizational and political development of Fiat and its union will follow. This account is not an exhaustive history. It is intended only to highlight certain critical moments of Fiat's development.

The three periods that will be described -- the initial attempts at constructing Fordism at Fiat in the 1920s; the consolidation of this industrial system and the repression of the working class in the 1950s; and the failed efforts at adjusting this model to changing political-economic conditions in the 1970s -- are important since they represent critical conjunctures in which both the structure and style of industrial politics at Fiat were shaped. In all three of these moments, struggles between different worker groups as well as between the unions and the firm resulted in the creation and/or consolidation of certain organizational and ideological attributes for both the firm and labor. These features later acted as both lenses through which these actors perceived and understood their experience and constraints, shaping their strategies in certain familiar directions, along particular political pathways, even when changes in political-economic conditions rendered this behavior ineffective and anachronistic. In other words, the exploration of these three periods is intended to elucidate various historical-institutional factors shaping the strategic choices of the industrial actors at Fiat today.

The Construction of Fordism at Fiat : Early Beginnings and Failed Attempts

Fiat was founded in 1899. After a few years, Fiat's founder and chairman, Giovanni Agnelli, began to pursue a strategy aimed at the transformation of automobile production into large-scale industry. This change in strategy was the result of Agnelli's visit to the United States and his decision to "produce like Henry Ford." ⁵⁴

This plan by Agnelli to develop large-scale industry in Turin made Fiat a major actor in the local economy. Fiat, like Ford, began to pay higher wages as a way of attracting skilled workers away from other firms. After the recession of 1907, it took over several of its suppliers as well as its competitors. As a result, it managed to increase the integration of its production process while simultaneously reducing local competition.

Factory work also began to change. Production was organized by sequence and American semi-automatic single-purpose machine tools were introduced. These changes increased both product quality and output but sparked a series of strikes among workers.

Interestingly enough, the metalworkers' union, FIOM, not only agreed to these changes (in return for increased piece rates) but also reorganized its structures in order to match the emerging fordist organization of production. ⁵⁵ In fact, it was not the FIOM but rather various groups of anarcho-syndicalist workers who "spontaneously" (i e., without the consent or knowledge of, and actually in opposition

to, the "reformist" FIOM) erupted into militancy and disrupted production. 56

This episode is important since it not only discredited the union in the eyes of Fiat management but also marked the beginning of a cyclical pattern in which the organizationally weak local union was unable to withstand the dual pressures of a well-organized and powerful adversary (Fiat and the Turinese business association) and a significant group of radical and movement-oriented rank-and-file workers. Together, these pressures prevented the local union from building its organizational resources and becoming a viable actor in the local political economy. Instead, it continually found itself reacting to these pressures rather than confronting them by developing a coherent strategy of its own.

Notwithstanding this reorganization and increase in production, the Italian auto market remained quite narrow. It was only during World War I that Fiat was able to fully employ its productive capacity. In 1917 it produced 20,000 military trucks and employment increased ten-fold, from 4000 before the war to 40,000 immediately afterwards. In 1923 Fiat opened its Lingotto plant (modelled after Ford's Highland Park factory) and introduced integrated continuous flow production. With this newly constructed productive capacity it appeared as if Fiat would finally achieve its pre-war goal of mass producing automobiles in Italy. In fact, between 1926 and 1931, Fiat manufactured about 40,000 vehicles a year.

Even in these years, labor relations at Fiat and in Turin continued to be characterized by weak union organizations which were

unable to either extract major concessions from management or control the periodic waves of worker unrest. And yet, what is important to note is that neither the organized union leadership nor the various groups of rank-and-file radicals opposed the general direction and organization industry was taking. In fact, both workers and managers throughout the first half of this century shared a common "culture of production" based on shared norms, skills, status symbols and "technical authority".⁵⁷ Thus, even when workers and managers were in conflict, as in the factory occupations of 1920, disagreement was not over the direction of industrial development but rather over who would control this "inevitable process" of technological progress and large-scale industrial development.⁵⁸

In short, given the emergence of a shared "culture of production" between labor and management and the increased productive capacity of the firm, it appeared as if Agnelli's plans to construct Fordism at Fiat had succeeded. However, with the economic collapse of the late 1920s, followed by the Fascist regime's autarkic economic policies, Italy's auto market quickly disintegrated and the development of its infant automobile industry was stunted.⁵⁹

Nevertheless, certain longstanding features of the local industry were already apparent during this period. For example, during these years, Fiat emerged as the largest, most powerful firm in Turin. As a result, it exerted significant influence over the local labor market and other industries (i.e., capital equipment, automobile components, etc.) as well. In fact, in order to control these necessary inputs, Fiat began to integrate these sectors within its own structures.

Likewise, the seeds of certain characteristic patterns of labor-management relations at Fiat were sown during this period. In other words, during these initial decades of the firm's existence, management became convinced that it and it alone should direct the process of industrial development (including relations on the shop floor) of the firm.⁶⁰ The unions also appear to have developed certain of their characteristic features during these years. They emerged as highly politicized but organizationally weak actors. As a result, they were perceived neither as stable interlocutors by Fiat management nor as fully representative bodies by the rank-and-file. Since they were more of a movement than an organization, they were able to exert their influence only during brief moments of worker militancy and mobilization. However, as soon as their power eclipsed, they were quickly defeated and repressed within the factories.

These features -- a highly centralized, firm-centric management and a weakly organized but strongly politicized union movement -- would continue to shape the strategic choices of these two actors in the years to come. In fact, after the war, these features were reinforced and continued to constrain the range of possible strategies available to the firm and its unions during its postwar development.

The "Golden Age" of Fordism: Valletta and the Historical Particularities of Industrial Relations at Fiat

Following World War II, the environment in which Fiat operated was not substantially different from that of the late 1920s. Fiat continued to depend on foreign supplies of raw materials and technology and Italy still lacked a mass market for automobiles. Moreover, the unions and the parties of the Left were stronger and the government's laissez-faire economic policy confined itself to promoting deflationary measures instead of industrial recovery through central planning. ⁶¹ Reconstruction did not, in fact, really begin to occur until private management re-established its control over industry following the expulsion of the Communists from the government coalition in 1947 and the division of the labor movement into competing confederations in 1948. ⁶² At Fiat this translated into the return of Vittorio Valletta and his associates to the company's administration ⁶³ (They had been expelled from the firm for collaborating with the fascists.) and the final implementation of Giovanni Agnelli's original plans to develop Fiat along the lines of Fordism.

It is important to note that Valletta was alone in advocating this line of development since both the Italian government and Confindustria (Italy's private business association) argued at the time that industrial expansion in Italy could only occur through development based on small firms. Large firms were seen as "unnatural" to the Italian industrial landscape. ⁶⁴ But internal opposition was

more than balanced by external (American) support, through which Valletta was able to import new technologies, repress the local working class, and attain his goal of constructing Fordism at Fiat. ⁶⁵

Valletta set about rebuilding the firm by importing American technology, expanding the productive capacity of the factories, and hiring thousands of new workers from the nearby countryside and eventually from the South. In order to ensure the success of his plans, Valletta sought to crush or control any obstacles to Fiat's development. Thus, Fiat wooed the local Church and maintained control over the local government. Valletta also promoted moderate political parties and trade unions and tamed the firm's workforce through a combination of repression and paternalism. On the shop floor, he undermined the Consigli di Gestione (workplace councils) which had been established immediately after the war to promote workers' participation in production decisions and engineered the systematic expulsion of union activists from the factories. ⁶⁶

The impact of this strategy is best illustrated by the results of the elections to the commissione interne (see table 6). Between 1955 and 1957 support for the FIOM fell from about 33,000 votes to about 12,000 votes. Following the split of the FIM (CISL's metalworkers federation) in 1958, it too suffered repression within the firm. ⁶⁷

The consequences of this strategy were important for a variety of reasons. First, without any significant opposition from either the trade unions or the local government, Valletta managed to shape both Turinese industry and the local labor market into a highly integrated pyramid-like structure with Fiat management at the commanding heights

Second, Fiat's repression of the FIOM (the historic union at Fiat) reduced it to a small vanguard of elite who lost touch with both the rank-and-file on the shop floor and firm management. As a result, they were unable to keep abreast of changes within the firm. Moreover, within the FIOM, two groups emerged. One, out of a sense of pride and historic tradition, continued to promote working class "productivism" ⁶⁸ and sought to encourage product quality and technical innovation within the firm. The other resisted all cooperation with management, seeing productivity and efficiency as "capitalist" values. Instead, they awaited (passively) for both the "inevitable collapse of capitalism" and the resurrection of working class militancy.

This debate, somewhat irrelevant since both groups had little influence in the factories during this period, nevertheless destroyed the previously shared "culture of production" between the unionists and firm managers. It also hindered the development of any positive positions on technological innovation and firm competitiveness within the union -- a hindrance which would be sorely felt in the 1970s. ⁶⁹ The split-off from the FIM of the "collaborationist" group (which later established itself as the company union SIDA) also resulted in the increased isolation and growing militancy of the local Catholic union. In short, by the mid-1950s, the traditionally weak working class organizations in Turin became even more fragmented and isolated from both management and shop floor workers.

The organizational and political vacuum which resulted from the repression of the unions was partially filled by various "New Left" groups of intellectuals and students who migrated to Turin during this

period. Seeing Fiat as the most advanced site of capitalism in Italy, these groups flocked to Turin since they believed it to be a promising laboratory for political action.⁷⁰

One such group, led by Raniero Panzieri and his associates at the journal Quaderni Rossi (Red Notebooks), was active in the broader political and intellectual debates in Turin during this period and later served as a precursor to many extra-parliamentary groups in the late 1960s-early 1970s. Socialist in origin, this group sought to create political bodies within the factory and argued that worker control over technological development, itself seen as deeply capitalist in character, was crucial for the success of the labor movement. In this way, this group became heir to the local "culture of production" which had been decimated by management repression in the 1950s. Panzieri's line found resonance within and crossed the institutional boundaries of several different organizations in Turin. Trade union leaders like Sergio Garavini, a leading Communist in the CGIL (ex-national secretary of the FIOM and currently a PCI parliamentary deputy) and socialist militants like Vittorio Foa contributed to Quaderni Rossi.

Thus, during these years, certain organizational attributes of the local industrial actors were reinforced. For instance, the unions remained organizationally weak but highly politicized bodies. Management, in turn, continued to exert almost despotic control over both the firm and its workforce as well as over other industrial actors in the local context. During these years, Fiat developed into an extremely integrated, hierarchically organized firm with rigid

productive structures, subservient suppliers, and growing numbers of semi- and unskilled workers. It appeared as if Fordism had finally "arrived" in Turin.

Yet, the costs of this development pattern were enormous. For instance, to meet its expansion needs, Fiat hired an enormous number of new workers, mainly from the South.⁷¹ These migrants were put on the assembly line where they experienced very difficult working conditions and had little hope of promotion. Moreover, as ever increasing numbers of migrants arrived, these workers found serious problems (housing shortages, lack of schools, inadequate public transportation, etc.) outside the factories.

These were the workers who surprised both Fiat management and local union leaders by their massive participation and intense militancy during the strike waves of the hot autumn. These workers eventually captured control of and transformed both the unions and power relations within the firm.⁷² Consequentially, they reinforced the traditional characteristics of the local labor movement by making it an ever more politicized, movement-oriented organization. Moreover, they exposed the organizational and cultural weaknesses of Fiat's apparently omnipotent management. Caught off guard, Fiat management did not know how to respond to the hot autumn and its consequences. In other words, it did not possess the organizational resources necessary to deal with a strong labor movement.⁷³ As a result, the firm began to hire and promote a number of industrial relations and personnel specialists to help it resolve its seemingly perpetual crisis on the shop floor. Yet, while staff management

changed, line management, which continued to rule accordingly to traditional authoritarian principles, remained with the same. As a result, the situation within the factories was exacerbated by confused, often contradictory managerial policies.

Likewise, Fiat management could not understand and did not initially possess the organizational abilities to assess (let alone react to) changes in its competitive environment. In a recent manuscript-length interview, Fiat S.p.A. CEO Cesare Romiti describes the situation of management during these years as extremely constrained by its rigid hierarchial structures -- again, another legacy of the Valletta era.⁷⁴

Labor Relations and Industrial Crisis at Fiat in the 1970s

The period 1968-1972 witnessed the blurring of the distinctions between the two internal union groups as the thousands of Southern workers who had migrated to Turin in the late 1950s and 1960s were assimilated into the factories and as the strike waves of the hot autumn changed both the organizational structures and political style of the local unions.⁷⁵ While distinctions remained blurred throughout the 1970s, tensions within the union would continue to simmer beneath this apparent unanimity. Moreover, the evolution of union strategy in this period is in many ways related to the shifting coalitions between different worker groups within the local union.

The 1970s were particularly interesting at Fiat since several outcomes to the struggles between labor and management were possible.

An examination of the different phases in labor relations during this decade helps us understand not just the eventual failure of local union politics but also the interaction between union politics, firm strategy and changing political-economic conditions in Italy.

The early years of the decade witnessed dramatic changes in work relations at Fiat. During this period, referred to by one analyst as the "golden age of shop floor bargaining" ⁷⁶, Fiat workers gained considerable control over their jobs and improvements in their wages. With the national agreement of 1973, demands for "egalitarianism" were partially fulfilled through an integrated system of grading and wage differentials for white and blue collar workers alike (inquadramento unico) ⁷⁷.

Representative of this period is the 1971 assembly line agreement. In this accord, union and management together determined piece rates, the speed of the line, the amount and distribution of breaks, etc. Management also pledged to collaborate with the union in eliminating all operations hazardous to workers' health. As a result, restructuring began in unhealthy areas like the paint shops and in some sections of the assembly line as well. In short, during this initial period, it appeared as if a new system of labor relations was emerging at Fiat -- one in which worker demands for job control and equality, and management concerns for production, were negotiated in collective agreements. ⁷⁸

Even in this initial period of apparent union unity and strength, however, divergences arose between different groups of workers over both the means and the goals of union strategy. While some militants

in the union focused on the implementation of recently won collective agreements, others saw gains on certain issues merely as the basis from which to launch another set of new demands. Differences between these various spirits of the local labor movement (something every unionist I interviewed discussed) became increasingly apparent as economic conditions changed and the competing demands (desires) of the different groups could no longer all be fulfilled.

As a result, the subsequent period witnessed a series of more obvious contradictions in the union's politics. Following the first Oil Crisis and the precipitous fall in the demand for autos, both unionists and firm managers began to predict the end of the automobile. The firm froze hiring and radically reduced investments in the auto sector. The decrease in employment was substantial. Between 1974 and 1976 employment at the Mirafiori plant decreased by 8000 and at Rivalta by 5000. ⁷⁹ Management also asked for increased internal mobility, which the unions resisted. Thus, the firm resorted to the use of overtime to meet production schedules and traded experiments in new forms of work organization (i.e., work islands) in return. Yet, tensions increased between the local union and management as labor rigidity and work stoppages continued to disrupt production and as experiments with new forms of labor organization were abandoned.

The request by Fiat management in 1977 for six Saturdays of overtime to meet production schedules for the 127 model sheds light on the increasingly precarious situation at Fiat. Against the advice of various groups of factory delegates, the provincial union (in which

the more conflictual, movement-oriented group of unionists was more influential ⁸⁰) refused the firm's request and organized pickets against it. ⁸¹ For the first time since the hot autumn, a substantial number of workers tried to force their way through the pickets and management nearly broke off all negotiations with the union. ⁸²

Between 1977 and 1980 the situation continued to worsen. With the brief up-turn in the automobile market, Fiat began to re-hire workers. Up to 20,000 new workers were assumed. Many of these workers were women and youths. The new workers created problems for the foremen who relegated the women to a restricted range of jobs and struggled with the less disciplined younger workers who rejected traditional work values and habits. ⁸³ A disastrous situation followed in which Fiat continued to hire new workers but could not use them properly due to both the characteristics of the new workers and the local union's rigidity. The union prevented the transfer of workers from lines dedicated to less popular models to lines which produced cars still in demand, contributing to Fiat's progressive loss of competitiveness. Overmanning combined with decreased productivity and inefficient plant utilization to make Fiat consistently less competitive than other auto producers. Moreover, Fiat continued to under-invest in product innovation and thus retained a fleet of out-dated, poor quality models while some of its European competitors (VW) were already rehauling their product range and restructuring their plants. ⁸⁴

Enhanced local militancy became even more apparent during the 1979 national contract negotiations. In order to ensure participation in strikes, groups of delegates often resorted to intimidation of the

rank-and-file. ⁸⁵ Striking workers also blockaded the streets and hijacked city buses and trolleys, thus disrupting transportation throughout the city and producing lasting resentment against the local union among the city's residents. As the situation appeared increasingly out of control, the national FLM (metalworkers' union federation) quickly closed the contract negotiations and signed an accord. ⁸⁶ The wild-cat strikes in the paint shops a few months later once again paralyzed production. This event further alienated management and divided the workforce, which was laid off during the two weeks of agitations. Since this strike erupted so soon after the conclusion of the national contract, tensions between Fiat management and the local unions as well as within the unions (between national and local union structures) nearly reached their breaking point.

The final break between the local union and Fiat management occurred in the Fall of 1980 when Fiat announced its restructuring plans and the local union launched the famous 35 day strike. As described earlier, the union was eventually defeated in this strike and has not yet recovered the power and influence it enjoyed for most of the 1970s.

The defeat of the union at Fiat was not inevitable. As I have attempted to show, alternative outcomes were possible, including a pattern of more constructive and stable labor relations in which firm needs for production were exchanged for union rights and influence. The failure of these alternatives to take root was the result of particular political and organizational features of the local

industrial relations system, themselves a product of past struggles between labor and management.

Due to the particular way Fordism was constructed at Fiat (i.e., firm hegemony, union repression, etc.) neither the firm nor the local union possessed the organizational and cultural resources necessary to build a new system of industrial relations, one which would allow them to negotiate together the changes underway both within and outside the firm. Instead, they were locked into traditional patterns of conflict and opposition.

As a result of this continuous struggle between these actors, no long lasting compromises or alliances between them were possible. Defeat by one meant its almost complete subordination to the other. The wounds of past battles were nourished as the loser prepared revenge in the next round of struggles. Thus, throughout the long history of labor-management conflict at Fiat, including the factory occupations in 1920, the rise and fall of fascism, the restoration of private capital and the repression of the Left in the 1950s, the hot autumn struggles in the late 1960s-early 1970s, and the 35 day strike in 1980, labor and management in Turin have been engaged in this zero-sum game.

Moreover, because of the particular pattern of industrial development in Turin (promoted and controlled by Fiat), the local context never fully developed into a complex society capable of mediating conflicting interests. The expansive development of Fiat made it not only the biggest, but in many ways the only show in town (Fiat is called "la mamma" by local residents.) The local economy

revolves around the automobile industry. The majority of the local labor market consists of unskilled Southern migrant workers who are employed at Fiat or at one of the numerous small and medium sized metalworking firms that supply Fiat with components, spare parts, machine tools, etc.

Because of the simplicity of Turinese society -- composed essentially of two groups : an industrial bourgeoisie and a proletarian working class -- well organized extra-industrial interest groups and political parties never fully developed in Turin.⁸⁷ For instance, membership figures and participation rates in political parties have been historically low in Turin.⁸⁸ Even in the union, which has traditionally been more of a movement than an institution, membership rates have always been below the national average.⁸⁹ What other interest groups or associations do exist are, in fact, dominated by either the firm or the union movement. The only institutions that are autonomous of these two protagonists and relatively strong as institutions are the local churches. But, due to their own historical development, even they are quite radical and actually enhance rather than hinder antagonisms between labor and management at Fiat.⁹⁰ In sum, Turin does not possess the socio-political resources necessary to mediate, let alone "integrate"⁹¹ these two actors.

As we have seen, the situation is quite different at Alfa Romeo in Milan. Like at Fiat, the union at Alfa was militant, divided, and paralyzed during the early 1970s. But by the end of the decade, the local union initiated a process of organizational renewal in order to

enhance its ties to its base and its ability to implement strategies. Likewise, Alfa's management, both historically and in the late 1970s-early 1980s, sought to engage the unions in the process of industrial change rather than repress or circumvent them.

This process of renewal is far from over and its success is still uncertain. In fact, it has been marked by both moments of success (as in the elections for the renewal of the factory council in 1978 where over 90% of the firm's blue and white collar workers participated) as well as set-backs (like the breakdown in bargaining in the mid-1980s due to the intense radicalism of the local FIM). Yet, the fact that the FIOM and the UILM were able to mobilize a majority of workers in support of the accord with Fiat, despite the rejection of this accord by the local FIM ⁹² is a clear indication of the vitality of this process of organizational renewal.

The success of this renewal of the local union is in many ways due to its own particular history and context. Unlike at Fiat, the union at Alfa was never seriously repressed during the postwar period. Thus, throughout the 1950s and 1960s, as well as after the hot autumn, the union at Alfa consisted of a sizeable group of disciplined old-guard unionists who promoted shop floor bargaining. This group was active in all debates over union politics and played a major role in the shift in strategy of the local at Alfa.

The composition of the workforce at Alfa was also different, consisting of more skilled workers than at Fiat. The local union was always a stronger and more complex organization than its equivalent at Fiat and thus, less subject to the vicissitudes of the more movement-

oriented union in Turin.⁹³ Moreover, the auto industry is only one of many industries in the area and the metalworkers at Alfa and elsewhere in Milan are not hegemonic in the same way they are in Turin.⁹⁴

Textile and chemical union federations -- two unions with much experience in technological innovation and firm restructuring -- are especially strong in Milan and thus counterbalance the particular interests and strategies of the metalworkers. The existence of strong political parties and organized interest groups in Milan (both missing in Turin) have served historically as mediators between labor and management and have thus helped to avoid the development of the zero-sum mentality like that of Fiat and the union in Turin.⁹⁵

In short, the strategies of the local union at Alfa were shaped not just by its own history and organizational resources but also by the local context. The Alfa union belonged to a more institutionalized local labor movement and was embedded in a more complex social context. The importance of these features becomes especially apparent when compared to the Turinese context where local features did not mediate but rather reinforced the conflictual tendencies in labor-management relations at Fiat.

The Interrelationship Between Industrial Relations and Industrial Strategy at Fiat

The alternative patterns of industrial development described above influenced not only labor-management relations but also the other strategies the firms used in reorganizing themselves. For instance, if we re-examine the reorganization of Fiat's suppliers network or even its experience with new technologies, we can see how the historical legacy of its past continues to color its industrial strategies. In other words, past struggles among various industrial actors not only influenced subsequent patterns of relations among them but also the structure and strategy of the industry itself.

For example, if we review the various strategies Fiat management promoted vis-a-vis new technologies, we can see clearly the legacy of past patterns on more recent industrial strategies. The various stages of technological innovation at Fiat since the hot autumn can be summarized as follows : First, firm management introduced new technologies as a way of circumventing labor rigidities and militancy. Then it promoted extensive automation, at all levels and in extreme form (in the sense that it adopted technologies like Robotgate with degrees of flexibility it could not use and did not need) in order to replace a "rigid" workforce and adapt to the increasingly turbulent markets. Finally, management adopted less flexible technological systems but integrated them into a more broadly flexible production system. The evolution of management strategy vis-a-vis new technologies elucidates Fiat management's historical approach to

industrial change. At different times and in different ways, management promoted technological innovation primarily as a means of regaining control of its workforce and production process. This drive for control was so strong that sometimes Fiat management adopted technologies for exceeding its actual needs and capacities.

The reorganization of the suppliers network mirrors the firm's experience with technological innovation. Initially, Fiat created (and controlled) its suppliers on the basis of personal loyalty and highly structured relations. Then, it sought to circumvent labor rigidities and union strength within its own plants by increasing its reliance on outside suppliers for production purposes. However, to maintain its control over the suppliers during this period of increased dependence (and potential weakness), it increased the number of its suppliers and pitted one against the other in a vicious competition for orders. Finally, recognizing its need for high quality components and parts, Fiat rationalized its supplier network and promoted product and process innovation among them.

While certain firms in this reorganized network have considerable autonomy and initiative vis-a-vis the final assembler, Fiat nevertheless maintains considerable control over all its suppliers, regardless of their size or technological prowess. As one Fiat manager described it, the firm acts like a film director, collaborating with a team of other actors and specialists while still maintaining control over the set by determining the sequence and quality of the performance. ⁹⁶ Thus, like the firm's industrial relations and new technology strategies, its industrial structure (e.g., degree of

integration) is also shaped by the historical legacy of past political struggles among industrial actors.

Because of Fiat's insistence on maintaining absolute control over both its own production processes as well as those of its suppliers, the local network of automobile components and suppliers never fully developed into autonomous, efficient, and technologically sophisticated enterprises. Moreover, the combination of Fiat's ideological insistence on control and its suppliers' organizational shortcomings rendered the development of more cooperative and flexible relations between the two actors (a la Japanese kan ban system) extremely difficult, if not impossible⁹⁷, even though such relations are often cited as key to competitive success in the automobile industry⁹⁸.

In short, the firm's attempts to adapt to the altered environmental conditions of the 1980s continue to be colored by the legacy of its past, a past in which it called the shots for all actors involved. Notwithstanding the costs of this legacy (i.e., the "backwardness" of its management structures and culture, industrial relations strife, the technological and qualitative inferiority of its suppliers, the costs of adopting inappropriate process technologies, etc. -- all which had to be overcome in the last several years), Fiat management continues to be shaped by this need to unilaterally control the process of industrial change. This legacy has provoked serious shortcomings in the strategic capacities of other actors as well.

We have already seen how the historical legacy of Fiat-style fordism severely constrained the range of viable strategies available

to the union. Even though there existed (and continue to exist) groups within the local union which sought to construct alternative patterns of labor-management relations at Fiat, they were minoritarian and lacked sufficient resources to develop their alternative visions.

The same is true for the local automobile suppliers as well as for the local government. For instance, while local governments elsewhere in Italy have been able to promote innovation and mediate conflict during this period of economic flux,⁹⁹ in Turin, local government has not developed in a way that permits it to play such a constructive role. Again, this is due to legacy of the particular historical development of Fiat and Turin.

In his recent book on Turin, Arnaldo Bagnasco argues that notwithstanding the various changes of the last decade, particularly those provoked by increased international competition in the automobile industry, social, political, and economic relations at Fiat and in Turin continue to be regulated through "hierarchy" rather than "market"¹⁰⁰. Thus, Turin, a classic company town, continues to be characterized by its mono-industrial economy and its overly simplistic society -- both inherited from the particular manner in which Fordism was constructed at Fiat and in Turin.

While this system seems to have worked (in the sense of promoting economic growth and guaranteeing social stability) for much of the postwar period, it proved unable to adapt to the altered social, political, and economic conditions of the 1970s. Moreover, as we have seen, this historical legacy continued to color the strategies of the various actors as they sought to reorganize themselves in the 1980s.

Concluding Considerations

This chapter has argued that the particular restructuring pattern of Fiat Auto in the 1980s was the result of the peculiarities of Fiat's industrial development and its impact on the strategic choices of the various industrial actors. In other words, over the course of Fiat's history, different industrial actors (i.e., firm management, unions, suppliers, etc.) developed divergent worldviews and organizational features which shaped both their strategic choices and their capacity to implement these strategies. The political struggles within and among these industrial actors over their competing strategic choices reshaped not only the original worldviews and features of these organized actors, but also the subsequent structure of the local industry and the future patterns of relations among the same actors.

This argument was made in opposition to other accounts which rely on reductionist claims about individuals and organizational behavior and thus portray the situation at Fiat Auto in the 1980s as inevitable. This chapter has sought to challenge these claims and support an alternative explanation by : 1) reviewing certain historical moments of Fiat's industrial development in order to illustrate how over time the various local industrial actors acquired ideologies and organizational factors which shaped their strategic choices; and 2) analyzing different aspects of the recent

reorganization of the firm in light of these institutional and historical factors.

The unilateral firm-centered pattern of adjustment and the antagonistic labor-management relations present at Fiat Auto were not inevitable. Alternative, more cooperative patterns of change were attempted at Fiat but failed. This failure was due to the limited range of strategic possibilities available to the various industrial actors in Turin -- again a legacy of past political struggles and their impact on the subsequent understanding and organizational capacities of the different actors. In fact, elsewhere (e.g., at Alfa Romeo in Milan) these more cooperative patterns were able to consolidate since the historical development of the local history was quite different.

The next chapter on the restructuring of the textile district of Biella, only 75 kilometers from Turin, will further support the argument that the strategic choices of different industrial actors are shaped by local institutional and historical factors. In contrast to Fiat Auto, the process of change within the Biellese textile district was more collaborative. In Biella, different actors negotiated the process of industrial change at both the firm and territorial levels. A comparison of these two cases should provide further insight into the institutional-historical factors underlying the plurality of different patterns of industrial adjustment manifest both in Italy and in other advanced industrial countries as well.

Notes

1. This argument was made in Interview n. 6 by Cesare Annibaldi, Director of External Relations, Fiat Spa, Turin, October 20, 1987.
2. See Wolfgang Streeck, "Industrial Relations and Industrial Change : The Restructuring of the World Automobile Industry in the 1970s and 1980s," in Economic and Industrial Democracy, Vol. 8, (1987): 437-462; and Richard M. Locke, Thomas A. Kochan, and Christopher R. Heye, "Industrial Restructuring and Industrial Relations in the U.S. and Italian Automobile Industries," paper presented at the Conference on "Managing the Globalization of Business," Capri, Italy, October 28-29, 1988.
3. See Angelo Michelsons, "La grande impresa tra sviluppo e crisi," in Angelo Michelsons, ed., Tre Incognite Per Lo Sviluppo, (Milan: Franco Angeli, 1985).
4. For a description of these changes, see Alan Altshuler, et. al., The Future of the Automobile : The Report of MIT's International Automobile Program, (Cambridge, MA.: MIT Press, 1984); Giuseppe Volpato, "The Automobile Industry in Transition : Product Market Changes and Firm Strategies in the 1970s and 1980s," in Stephen Tolliday and Jonathan Zeitlin, eds., The Automobile Industry and Its Workers (Cambridge, UK: Polity Press, 1986) and Antonio Mosconi and Dario Velo, Crisi E Ristrutturazione Del Settore Automobilistico, (Bologna: Il Mulino, 1982).
5. For more on this see, Vincenzo Comito , La Fiat tra crisi e ristrutturazione, (Rome Editori Riuniti, 1982).
6. For more on personnel planning mistakes and overmanning at Fiat, see Ada Becchi Collida' and Serafino Negrelli, La Transizione Nell'Industria E Nelle Relazioni Industriali : L'Auto E Il Caso Fiat, (Milan: Franco Angeli, 1986).
7. Until the late 1960s, Fiat's different activities (which span several continents) were rigidly organized into a highly vertically integrated pyramid-like structure, according to the designs of Vittorio Valletta, Fiat's post-war president for over twenty years. For more on this, see Piero Bairati, Valletta, (Turin: UTET, 1984). With the ascension of Giovanni Agnelli as president of Fiat in 1966, a

long process of organizational change was initiated, only to be completed in 1979, when the present group structure was achieved. For more on this process, see Gianpaolo Pansa's book-length interview of Cesare Romiti, Fiat S.p.A.'s CEO, Questi Anni Alla Fiat, (Milan: Rizzoli, 1988). The present arrangement places in the hands of group headquarters (Fiat Spa) strategic, financial and political functions while the main divisions (Fiat Auto, Comau, etc.) enjoy considerable managerial autonomy. This evolution of Fiat's organizational structure was explained to me in Interview n. 10, Giorgio Rampa, Director of Industrial Policy, Fiat Auto, Turin, January 20, 1987.

8. See Harry C. Katz and Charles F. Sabel, "Industrial Relations and Industrial Adjustment in the Car Industry," Industrial Relations, Vol 24, n. 3, (Fall, 1985) : 295-315; Volpato, op. cit.; and Wolfgang Streeck, "Introduction : Industrial Relations, Technical Change and Economic Restructuring" in Wolfgang Streeck, ed., Industrial Relations And Technical Change in the British, Italian and German Automobile Industry. Three Case Studies. (Berlin, WZB Discussion Paper, 1985).

9. For a quick review of Fiat's comeback, see Antony M. Sheriff, "Fiat : The Comeback of the 1980s and the Future with Alfa Romeo," unpublished paper, Sloan School of Management, MIT, December, 1986. For a comparison of Fiat's strategy with that of other European auto producers, see Jonah Levy, "Four of the Floor : The Political Economy of Industrial Restructuring at Fiat, PSA, Renault, and BL", unpublished paper, Department of Political Science, MIT, April, 1988.

10. These and the following figures were obtained in Interview n. 10, Giorgio Rampa, op. cit.

11. This section draws on Patrizio Bianchi, Divisione del lavoro e ristrutturazione industriale (Bologna : Il Mulino, 1984).

12. For more on new product design at Fiat and its impact on greater firm efficiency, see Antony Sheriff, op. cit.

13. These figures were provided in interviews with several Fiat managers, including Interview n. 6, Cesare Annibaldi, Director of External Relations, Fiat Spa, Turin, October 20, 1987; Interview n. 10, Giorgio Rampa, op. cit.; and Interview n. 20, Carlo Bessusso, Director, Organization of Production, Fiat Spa, Turin, December 22, 1986

14. For more on this 1971 agreement, see Tom Deallessandri and Maurizio Magnabosco, Contrattare Alla Fiat, (Rome: Edizioni Lavoro, 1987).

15. See R. Bosio, "Con la supertecnologia del Fire la Uno rende di piu' e costa di meno", Il Sole 24 Ore, January 28, 1985.

16. Franco Uberto, "Tecnologia : necessita' di flessibilizzazione nella strategia della competitività", paper presented at the Eurojobs Conference, Paris, September, 1984.

17. A description of this process can be found in Piero Bairati, Valletta, op. cit.
18. These figures were obtained from internal company documents obtained during Interview n. 10, Giorgio Rampa, op. cit.. The general analysis of this section draws on other interviews, including Interview n. 6, Cesare Annibaldi, op. cit., Interview n. 5, Michele Figurati, Director of Industrial relations, External Relations Office, Fiat Spa, Turin, October 20, 1987; and Interview n. 16, Mr. Gaude, ex-union coordinator for the components industry and current factory delegate at Altissimo, Spa, December, 1986.
19. See A. Enrietti, M. Follis, G.M. Gros-Pietro, and G. Pescetto, La Ristrutturazione Nell'Industria Metalmeccanica : Il Caso Dell'Auto E Dei Componenti, (Milan: Franco Angeli, 1980)
20. Taken from Franco Mana and Tino Valvo, Fiat Auto Anni '80, (Milan: Franco Angeli, 1988): 40.
21. Based on interviews cited in footnote 24. See also Patrizio Bianchi, "Component Technology and the Automobile Production Process" in Jean Pierre Barbier, et. al., Automobile Components Industry Study : Final Report (Berlin : Wissenschaftszentrum, May 1983).
22. For more on this process, see Aldo Enrietti and Massimo Follis, "Il settore dei componenti per autoveicoli," Politica ed Economia, XIV (1983): 37-45; and Massimo Follis, "Mercato del lavoro e piccole-medie imprese dell'indotto auto," Quaderni di Rassegna Sindacale, n. 78-79 (1979): 141-151.
23. Data obtained in Interview n. 10, Giorgio Rampa, op. cit.
24. For more on this, see Michael Cusumano, The Japanese Automobile Industry. Management and Technology at Nissan and Toyota. (Cambridge, Ma. : Harvard University Press, 1983).
25. For more on this episode, see Alberto Baldissera, "Alle origini della politica della disuguaglianza nell'Italia degli anni '80 : la marcia dei quarantamila," Quaderni di Sociologia, XXXI, 1984; Giuseppe Bonazzi, "La lotta dei 35 giorni all Fiat : un analisi sociologica," and Fabrizio Carmignani, "Il 'Sindacato di classe' nella lotta dei 35 giorni all Fiat," both in Politica ed Economia, n. 11 (1984).
26. Based on various internal union and PCI documents collected during field research in Turin in the winter 1986-87. See, for instance, Partito Comunista Italiano, Federazione di Torino, La lotta alla Fiat : Il Giudizio del PCI torinese, (Turin, November 1, 1980); Federazione Regionale CGIL, CISL, UIL Piemonte, Riflessioni Sulla Vicenda Fiat Per Il Rilancio Dell'Iniziativa Sindacale, (Turin : November 17, 1980); and FLM-CISL Provincia di Torino, Perche Questo Documento? (Turin: November 1980).

27. Interestingly enough, the union possessed information suggesting its lack of rank-and-file support months before the strike. See Aris Accornero, Alberto Baldissera and Sergio Scamuzzi, "Ricerca di massa sulla condizione operaia alla Fiat," Bollettino Cespe, n. 2 (February 1980). For more on this, see Fabrizio Carmignani, op. cit.

28. Based on Interview n. 5, Michele Figurati, Director of Industrial Relations, External Relations Department, Fiat Spa, op. cit.; Interview n. 6, Cesare Annibaldi, Director of External Relations, Fiat Spa, op. cit.; Interview n. 28, Mr. Mairano and Ms. Pinto, Industrial Relations Office, Fiat Auto, Turin, February 4, 1987. See also Tom Deallessandri and Maurizio Magnabosco, Contrattare Alla Fiat, op. cit.; Matteo Rollier, "Changes of Industrial Relations At Fiat," in O Jacobi, et. al., Technological Change, Rationalization, and Industrial Relations, (New York : St. Martin's Press, 1986); Robert Ball, "A Tough Engineer Brings Fiat Back," Fortune, n. 12 (1984); and Gianpaolo Pansa, "Quei trentacinque giorni che sconvolsero la Fiat : Romiti racconta la sfida di Mirafiori," La Repubblica, April 14, 1987.

29. See Aldo Enrietti, "La Caduta Dell'Occupazione Alla Fiat," Ex Macchina, n.1, 1986, and table 3 provided from Fiat management.

30. Based on interviews conducted during field research in Turin, including Interview n. 2, Francesco Ciaffaloni, Camera del Lavoro-CGIL, Turin, November 19, 1986; Interview n. 14, Gian Piero Carpo, IRES-CGIL Piemonte, Turin, December 2, 1986; Interview n. 18, A. Marchetto, FIOM-CGIL, Provincia di Torino, Turin, December 1986; Interview n. 17, Cesare Cosi, FIOM-CGIL Provincia di Torino, Turin, December 1986.

31. See Vittorio Reiser, "Immagini Del Progresso Tecnologico E Del Lavoro," Ex Macchina, n. 2 (1986).

32. This is true also because neither the firm nor the government are willing to share these figures publicly. Following meetings with firm managers, Parliamentary deputies, and the head of INPS (the equivalent of the social security administration, which in Italy is run by the unions and is responsible for distributing Cassa Integrazione funds, I was still unable to obtain precise figures. See Interview n. 10, Giorgio Rampa, op. cit.; Interview n. 38, Ada Collida', Parliamentary Deputy and Member of the Standing Committee on Labor, Rome, October, 1987; Interview n. 39, Giacinto Militello, President of INPS, Milan, November 1987.

33. Roberto Cardacci, "Gli Effetti Sociali Della Ristrutturazione : La Cassa Integrazione A Torino Dopo Il 1980," in Angelo Michelsons, ed., Tre Incognite Per Lo Sviluppo, (Milan: Franco Angeli, 1985).

34. Based on interviews with union leaders, including Interview n. 1, Tom Deallessandri, CISL-Piemonte, Turin, November 20, 1986; Interview n. 3, Angelo Airoidi, National Secretary FIOM-CGIL, Rome, October 12,

1987; Interview n. 4, Raffaele Morese, National Secretary FIM-CISL, Rome, October 13, 1987; Interview n. 40, Guido Bolaffi, National Coordinator for the Automobile Industry, FIOM, Milan, November 1987, Interview n. 8, Cesare Damiano, Regional Secretary FIOM-CGIL Piemonte, Turin, October 16, 1987; Interview n. 15, Bruno Manghi, Provincial Secretary, CISL Torino, Turin, November 26, 1986 Compare also Bruno Manghi's interview by Loris Campetti, entitled "La CISL non ha bisogno di consigli" in Il Manifesto, September 12, 1986, with its rebuttal from another CISL leader, Adriano Serafino, "Omissis sulla Cisl Torinese," Il Manifesto, September 29, 1986.

35. For more on the early years at Alfa Romeo, see Duccio Bigazzi, "Management Strategies in the Italian Car Industry, 1906-1945: Fiat and Alfa Romeo," in Stephen Tolliday and Jonathan Zeitlin, eds., The Automobile Industry and Its Workers (Cambridge, UK: Polity Press, 1986)

36. See Massimo Roccella, "La Composizione Dei Conflitti Di Lavoro Nella Grande Impresa : Il Caso Dell'Alfa Romeo Di Arese," Giornale di diritto del lavoro e di relazioni industriali, n. 14, (1982): 251-273

37. See Duccio Bigazzi. op. cit.; and Emilio Reyneri, "Maggio Strisciante : L'inizio della mobilizzazione operaia," in Alessandro Pizzorno, et. al., Lotte operaie e sindacato: il ciclo 1968-1972 in Italia, op. cit.

38. See texts of Bruno Bezza, "Public Lecture" and Paolo Santi, "Public Lecture", at Seminar on "Il Movimento Dei Metalmeccanici A Milano Negli Anni Cinquanta E Sessanta", Milan, October 31, 1986.

39. For more on Alfa Sud, see Dario Salerni, Sindacato E Forza Lavoro All'Alfa Sud : Un Caso Anomolo Di Conflittualita' Industriale, (Turin : Einaudi, 1980). For more on the impact on Alfa Romeo of this change in strategy, see Gianni Geroldi and Antonio Nizzoli, L'Alfa Romeo : il mercato, la struttura, le risorse d'azienda, le prospettive, (Milan: FIM-CISL, 1986).

40. See Gianni Geroldi and Antonio Nizzoli, Ibid. The sale of Alfa was a major event in Italy and reported as front page news throughout the Winter-Spring 1986-1987.

41. For more on this period, see Giuseppe Medusa, "Condizioni di impiego nella grande impresa : il caso Alfa Romeo-Arese," Osservatorio sul mercato del lavoro e sulle professioni, n. 11-12, (1979) : 54-78, and Raffaella Montini, "Il Caso Alfa Romeo : anni settanta", unpublished manuscript, 1986.

42. For more on the union at Alfa and in Milan and how they differ from Fiat/Turin, see Carol Anne Mershon, "The Micropolitics of Union Action: Industrial Conflict in Italian Factories," Ph.D Dissertation, Department of Political Science, Yale University, May 1986.

43. For a good review of the various accords at Alfa in the recent past, see FIM-CISL, Alfa Romeo. Tutti Gli Accordi Aziendali : 1968-85, (Milan: FIM-CISL, 1986)

44. Based on Interview n. 3, Angelo Airoidi, op. cit.; and Interview n. 32, M. Tramontana, op. cit.

45. See Gianni Geroldi and Antonio Nizzoli, op. cit. for more on the firm's disarray in the 1970s.

46. Raffaele Montini, op. cit.

47. For more on this, see Giuseppe Medusa, L'Impresa Tra Produttivita' E Consenso : il caso Alfa Romeo, (Milan: ETAS Libri, 1983); and special issue of Dibattito Sindacale, XV, (January-February), 1978, Convegno dei lavoratori dell'Alfa Romeo su occupazione, prospettive produttive, condizioni di lavoro.

48. Based on Interview n. 3, Angelo Airoidi, op. cit.; Interview n. 36, Vito Milano, op. cit.; firm document "'Gruppi Di Produzione' Sulle Linee Di Abbigliamento", Relazione impostativa, Arese, September 24, 1980

49. Giuseppe Medusa, L'Impresa Tra Produttivita' E Consenso : il caso Alfa Romeo, op. cit.

50. Based on Interview n. 3, Angelo Airoidi, op. cit.; Interview n. 4, Raffaele Morese, op. cit.; Interview n. 32, Mr. Tramontana, op. cit.; Interview n. 36, Vito Milano, op. cit.; and Gianni Geroldi and Antonio Nizzoli, L'Alfa Romeo : il mercato, la struttura, le risorse d'azienda, le prospettive, op. cit.

51. Tiziano Treu, "Accordo Alfa : Scambio Vincente," Il Sole 24 Ore, May 20, 1987.

52. Raffaele Montini, op. cit.

53. For a discussion of how Fordism, as a particular historical system is composed of these different elements, see Michael Piore and Charles Sabel, The Second Industrial Divide, (New York: Basic Books, 1984).

54. This section draws heavily on Duccio Bigazzi, "Management Strategies in the Italian Car Industry 1906-1945 : Fiat and Alfa Romeo," in Stephen Tolliday and Jonathan Zeitlin, eds., The Automobile Industry And Its Workers, op. cit.; Valerio Castronovo, Giovanni Agnelli. La Fiat dal 1899 al 1945, (Turin : Einaudi, 1977); Angelo Michelsons, "Turin Between Fordism and Flexible Specialization : Industrial Structure and Social Change, 1970-85", op. cit.; and Simonetta Ortaggi, "Padronato e classe operaia a Torino negli anni 1906-1911," Rivista di Storia Contemporanea, 3 (1979): 321-366.

55. For more on this see, Giuseppe Berta, "Dalla manifattura al sistema di fabbrica : razionalizzazione e conflitti di lavoro," in Storia D'Italia Annali I, (Turin: Einaudi, 1978). For a specific statement of why the metalworkers' union organized itself this way, see a statement by the union's founder, Bruno Buoizzi, "Per L'Organizzazione Dei Metallurgici A Milano," published originally in Il Metallurgo, February 20, 1910, and republished in Gianfranco Bianchi and Giorgio Lauzi, I Metalmeccanici: Documenti Per Una Storia, (Bari: De Donato, 1981).

56. See Simonetta Ortaggi, "Cottimo e produttivita' nell'industria italiana del primo Novecento," Rivista di Storia Contemporanea, 1, (1978): 15-58; Angelo Michelsons, "Turin Between Fordism and Flexible Specialization," op. cit.; and various essays in Aldo Agosti and Gian Maria Bravo, eds., Storia Del Movimento Operaio, Del Socialismo, E Delle Lotte Sociali In Piemonte, (Bari: De Donato, 1979).

57. See Giulio Sapelli, "La cultura della produzione : 'autorita' tecnica' e 'autnomia morale'", in Bruno Bottiglieri and Paolo Ceri, eds., Le culture del lavoro. L'esperienza di Torino nel quadro europeo, (Bologna: Il Mulino, 1987).

58. See Giulio Sapelli, Ibid. for more on this argument. See also Antonio Gramsci, "Americanism and Fordism" in Quintin Hoare and Geoffrey Nowell Smith, eds., Selections From The Prison Notebooks of Antonio Gramsci, (New York: International Publishers, 1971) for a clear statement of how even the most radical worker groups shared the fordist vision of industrial development. For more on the Turinese labor movement during these years, and the role of Gramsci and the Ordine Nuovo group, see John M. Cammett, Antonio Gramsci and the Origins of Italian Communism, (Stanford University Press, 1967); Martin Clark, Antonio Gramsci and the Revolution that Failed, (Yale University Press, 1977); and Paolo Spriano, L'occupazione Delle Fabriche : Settembre 1920, (Turin : Einaudi, 1964).

59. See Duccio Bigazzi, "Management Strategies in the Italian Car Industry 1906-1945 : Fiat and Alfa Romeo," op. cit.; Angelo Michelsons, "Turin Between Fordism and Flexible Specialization," op. cit.; and Giulio Sapelli, Organizzazione, Lavoro, E Innovazione Industriale Nell'Italia Tra Le Due Guerre, (Turin: Rosenberg and Sellier, 1978).

60. For more on management during these years, see Valerio Castronovo, Giovanni Agnelli. La Fiat dal 1899 al 1945, (Turin: Einaudi, 1977).

61. For more on Italy's post-war development and the role of the Italian state, see George Hildebrand, Growth and Structure In The Economy of Modern Italy, (Harvard University Press, 1965); Charles Kindleberger, Europe's Postwar Growth : The Role of Labor Supply, (Harvard University Press, 1967); Andrew Shonfield, Modern Capitalism (Oxford Press, 1965); and various essays in Andrea Boltho, ed., The

European Economy: Growth Crisis (Oxford University Press, 1982.)

62. For more on this development in Italy and elsewhere in Europe, see Charles S. Maier, The Two Postwar Eras and the Conditions for Stability in Twentieth Century Western Europe, "American Historical Review, 86, (1981).

63. For more on Valletta and his tenure at Fiat, see Piero Bairati, Valletta, (Turin : UTET, 1983).

64. See Piero Bairati, Valletta, op. cit., p. 163.

65. For more on the role of the US in Fiat's/Italy's immediate post-war development, see Piero Bairati, Ibid.; Gian Giacomo Migone, "Stati Uniti, Fiat e repressione antioperaia negli anni cinquanta," Rivista di Storia Contemporanea, n. 2 (1974): 232-280; and Charles S. Maier, "The politics of productivity : foundations of American international economic policy after World War II", International Organization, Volume 31, n. 4 (1977): 607-633.

66. For reconstruction of this period, see Emilio Pugno and Sergio Garavini, Gli anni duri alla Fiat, (Turin: Einaudi, 1974); Aris Accornero and Vittorio Reiser, Il Mestiere Dell'Avanguardia : Riedizione di "Fiat Confino", (Bari: De Donato, 1981); and Aris Accornero, Gli Anni '50 in fabbrica : con un diario di commissione interna, (Bari: De Donato, 1973).

67. See Franco Gheddo, "L'esperienza della Fim CISL alla Fiat e nella realta' torinese degli anni cinquanta al contratto del 1963," in Ettore Santi, ed., Itinerari Sindacali. Momenti di storia della Cisl in fabbrica, (Rome: Edizioni Lavoro, 1980).

68. For more on this episode, see Vittorio Reiser, "Come si riproduce un'avanguardia" in Aris Accornero and Vittorio Reiser, Il Mestiere Dell'Avanguardia, op. cit.. For more on "productivism", see Aris Accornero, Il Lavoro Come Ideologia, (Bologna: Il Mulino, 1980).

69. A good general history of the union at Fiat during this period and through the 1970s is Renzo Giannotti, Trent'Anni Di Lotte Alla Fiat (1948-78), (Bari: De Donato, 1979).

70. See Sandro Mancini, "Introduzione," in Raniero Panzieri, Lotte Operaie Nello Sviluppo Capitalistico, (Turin: Einaudi, 1976). This point was also raised in several interviews, including Interview n. 15, Bruno Manghi, op. cit.; Interview n. 31, Aris Accornero, Turin, November 7, 1986; as well as in informal conversations with ex-members of Quaderni Rossi (Vittorio Reiser, Michele Salvati, etc.).

71. Turin experienced the largest flow of migrants from the South of all Italian cities. After Palermo and Naples, it is the third largest "Southern" city in Italy. See Guido Martinotti, ed., La Citta'

Difficile : Equilibri e disequaglie nel mercato urbano, (Milan: Franco Angeli, 1982); and Italo Vignoli, "Torino : la citta' Fiat," in R. Mainardi and C. Tombola, eds., Grandi Citta' E Aree Metropolitane, Vol. I, (Milan : Franco Angeli, 1982).

72. Based on interviews and discussions with union leaders in Turin, including Interview n. 15, Bruno Manghi, op. cit.; and Interview n. 17, Cesare Cosi, FIOM-CGIL Provincia di Torino, December 9, 1986. For more on this process see Miriam Golden, "Historical Memory and Ideological Orientations in the Italian Workers' Movement," Politics and Society, Vol. 16, n. 1 (1988): 1-34; and Charles F. Sabel, Work and Politics, (New York: Cambridge University Press, 1981).

73. In fact, shortly afterwards, it began to hire and/or promote new managers more experienced with labor relations problems, like Maurizio Magnabosco, now head of industrial relations at Fiat. For more on this, see Tom Deallessandri and Maurizio Magnabosco, Contrattare Alla Fiat, op. cit.

74. Gianpaolo Pava, Cesare Romiti: Questi Anni Alla Fiat (Milan: Rizzoli, 1988.) For more on management's crisis during these years, see Giuseppe Turani, L'Avvocato: 1966-1985. Il Capitalismo Italiano Tra Rinuncia E Ripresa (Milan: Sperling & Kopfer, 1985.)

75. For more on this process, see Charles F. Sabel, Work And Politics, (Cambridge University Press, 1981).

76. For more on shop floor bargaining at Fiat during this period, see Giovanni Contini, "The Rise and Fall of Shop Floor Bargaining in Fiat, Turin, 1969-1980", in Stephen Tolliday and Jonathan Zeitlin, eds., The Automobile Industry And Its Workers, op. cit.

77. For more on this and other accords during these years, see Tom Deallessandri and Maurizio Magnabosco, Contrattare Alla Fiat, op. cit.

78. Interesting, however, is the way in which different groups of workers reacted to these accords. For example, in Mirafiori's body shop, where the majority of the workforce consisted of recent Southern migrants and shop stewards were extremely militant, the 1971 agreement was seen only as one conquest in a longer battle still in progress. Instead, in the machine shops, where workers were more skilled and many delegates were party (PCI) militants, delegates did careful research on every single operation and engaged the Job Analysis Office of the firm in exhausting technical discussions.

While this divergence can not be traced to any simple distinction between skill level, party affiliation or even geographic place of origin, it does indicate that under the apparent unity of this period, divergences between different worker groups continued. This information is based on interviews with union delegates, including Interview n. 14, Gian Piero Carpo, IRES-CGIL Piemonte, op. cit.; Interview n. 17, Cesare Cosi, FIOM-CGIL Provincia di Torino, op. cit.;

and Interview n. 18, Aldo Marchetto, FIOM-CGIL Provincia di Torino, op. cit.. See the various "Mappe Grezze" (Rough Maps) made by these more technically oriented workers for the different shops within the factory. For an interesting discussion based on survey data of the different types of workers at Fiat in these years, see Aris Accornero, Fabrizio Carmignani, Nino Magna, "I tre tipi di operai della Fiat," Politica ed Economia, n. 5 (1985) : 33-47.

79. Giovanni Contini, "The Rise and Fall of Shop Floor Bargaining at Fiat, Turin, 1969-1980," op. cit.

80. Fabrizio Carmignani, "Il 'Sindacato di Classe nella lotta dei 35 giorni alla Fiat," op. cit. describes nicely the various groups within the different union structures in Turin during these years.

81. Giovanni Contini, op. cit.

82. See Maurizio Magnabosco's description of this episode in Tom Deallessandri and Maurizio Magnabosco, Contrattare Alla Fiat, op. cit.

83. For more on these new workers, see Joanne Barkan, Visions of Emancipation, (New York: Praeger, 1985).

84. See Wolfgang Streeck, "Industrial Relations and Industrial Change : The Restructuring of the World Automobile Industry in the 1970s and 1980s," in Economic and Industrial Democracy, Vol. 8 (1987): 437-462.

85. Giovanni Contini, op. cit.

86. Interview n.1, Tom Deallessandri.

87. For more on this, see Arnaldo Bagnasco, Torino, op. cit.; Valerio Castronovo, Torino, (Bari: Editori Laterza, 1987); and Giuseppe Berta and Sergio Chiamparino, "Lavoro industriale e azione politica", Sisifo, n. 7 (April 1986).

88. See Arnaldo Bagnasco, op. cit., for these figures. See also special issue on local political culture in Turin, Il Sistema Politico Locale, Sisifo, n. 8, (September 1986). For more on how political parties and interest groups in Turin are colored by this weak institutionalism, see Miriam Golden, Austerity and Its Opposition : Persistent Radicalism in the Italian Labor Movement, (Cornell University Press, forthcoming); Steven Hellman, The Rise and Fall of the Historic Compromise in Turin, (Oxford University Press, 1988); Judith Adler Hellman, Journeys Among Women : Feminism in Five Italian Cities, (New York: Oxford University Press, 1987); Carol Anne Mershon, "The Micropolitics of Union Action : Industrial Conflict In Italian Factories," op. cit.; Ted Perlmutter, "Urban Crisis and Union Response in Fordist Cities : Turin 1950-1975 and Detroit 1915-1945,"

paper presented at the Center for European Studies, Harvard University, May 13, 1988.

89. See Bruno Manghi, "Cultura Torinese E Sindacato Dell'Autonomia," unpublished paper, CISL Piemonte, February 2, 1985.

90. See Luigi Berzano, et. al., Uomini Di frontiera : "Scelta Di Classe" E Trasformazioni Della Coscienza Cristiana A Torino Dal Concilio Ad Oggi, (Turin: Cooperativa di cultura Lorenzo Milani, 1984)

91. For more on the role of society in integrating various actors, see Karl Polanyi, The Great Transformation, (New York: 1944).

92. The national and regional FIM organizations both supported the accord. The local FIM at Alfa is led by a small group of anarchist workers who oppose all shifts in strategy away from the militancy of the hot autumn period. This group publishes an excellent journal called Azimut, which is the best portrayal of their view. The evolution of the local FIM was explained to me by Vito Milano, Regional Secretary, FIM-CISL, Milan; and Raffaele Morese, National Secretary, FIM-CISL, Rome.

93. This has always been true, see Bruno Buozzi, op cit., when he attempted at the beginning of the century to convince Milanese metalworkers to be more like their Turinese counterparts. For more on the Milanese working class, see Carol Mershon, op. cit.; Paolo Santi, op. cit.; Bruno Bezza, op. cit.:

94. See Mershon, op. cit.; and Amalia Fumagalli, "Lo sviluppo dell'area metropolitana milanese," in R. Mainardi and C. Tombola, eds., Grandi Citta' E Aree Metropolitane, Volume I, (Milan : Franco Angeli)_for more on the industrial landscape of Milan.

95. See Peter Lange, "The PCI at the Local Level : A Study of Strategic Performance," in Donald Blackmer and Sidney Tarrow, eds., Communism in Italy and France, (Princeton University Press, 1975) for more on the salience of parties at the local level in Milan.

96. Interview n. 10, Giorgio Rampa, op. cit.

97. This is what Cesare Annibaldi, Director of External Affairs, Fiat, S.p.A., claimed during interview n. 6, op cit.

98. See David Friedman, "Beyond the Age of Ford: The Strategic Basis of the Japanese Success in Automobiles," in John Zysman and Laura Tyson, eds., American Industry in International Competition, (Ithaca, NY: Cornell University Press, 1983.)

99. See Carlo Trigilia, "La regolazione localistica : economia e politica nelle aree di piccola impresa," in U. Ascoli and R. Catanzaro, eds., La Societa' Italiana Degli Anni Ottatnta, (Bari:

Laterza, 1987).

100. Arnaldo Bagnasco, Torino: Un Profilo Sociologico (Turin: Einandi. 1986.)

TABLE 1

The car industry:
Indices for production, employment and productivity, 1972-7

Production, 1972 = 100						
	1972	1973	1974	1975	1976	1977
Great Britain	100	102	93	86	87	92
France	100	108	102	100	127	131
Germany	100	109	95	99	111	121
Italy	100	109	101	83	94	99
Sweden	100	109	125	124	112	110
Japan	100	115	108	116	136	149
United States	100	101	87	76	96	109

Total employment of operatives, 1972 = 100						
	1972	1973	1974	1975	1976	1977
Great Britain	100	104	102	93	91	99
France	100	105	101	100	108	106
Germany	100	102	92	86	93	96
Italy	100	114	108	100	105	112
Sweden	100	102	107	114	115	110
Japan	100	109	111	108	108	110
United States	100	110	99	89	99	101

Labour Productivity (cars per person), 1972 = 100						
	1972	1973	1974	1975	1976	1977
Great Britain	100	98	91	92	96	93
France	100	103	101	100	120	124
Germany	100	107	103	112	119	126
Italy	100	95	93	83	89	88
Sweden	100	107	117	109	97	100
Japan	100	106	97	107	126	135
United States	100	92	88	85	97	109

Source: Istituto di Studi sulle Relazioni Industriali, 1980.

Taken from Ash Amin, "Restructuring in Fiat and the decentralization of production into Southern Italy," in R. Hudson and J. Lewis, eds., Uneven Development in Southern Europe: Studies of Accumulation, Class Migration and the State (London: Methuen, 1988).

TABLE 2

Labour Time per Employee in the European Car Industry, 1979

	Fiat	VW	Ford (Germany)	Mercedes	BMW	Peugeot	Renault	EL
Labour time per day (hours) per shift worker								
Attendance	8 00	8 30	0 30			<u>Morning</u> 8 00	<u>Evening</u> 8 40	8 30
Meal break	0 30	0 30	0 30			0 30	0 20	1 00
Meal time paid	0 30			-		0 30	0 20	-
Total-time paid	8 00			8 00		8 20	8 30	8 00
Total labour time	7 30	8 00	8 00	8 00	8 00	7 30	8 10	8 00
Labour time per week								
No of working days	5	5	5	5	5	5	5	5
Total labour time	37 50	40	40	40	40	39 10	40 50	40
Labour time per annum								
No of working days	229	224	223	223	222	233	230	233
Expected labour time (hours)	1731	1792	1784	1784	1776	1806	1876	1864
Absenteeism (hours lost)	251	242	178	227	243	249	189	143
Overtime (hours gained)	41	35	70	70	152	40	70	126
Actual labour time	1521	1585	1676	1627	1635	1597	1757	1847
Index Fiat=100	100	104.2	110.2	107.0	110.3	105.0	115.0	121.4

Source Ministero Industria, Commercio e Artigianato, 1980a

Taken from Ash Amin, "Restructuring in Fiat and the decentralization of production into Southern Italy," in R. Hudson and J. Lewis, eds., Uneven Development in Southern Europe: Studies of Accumulation, Class, Migration and the State, (London, Methuen, 1985)

TABLE 3

Employment at Fiat Auto, 1979 - 1987

	1979	1980	1981	1982	1983	1984	1985	1986	1987
Blue Collar Workers	113,568	110,049	97,046	88,812	78,993	71,345	64,123	60,283	60,180
White Collar Workers & Management	25,381	24,572	22,156	20,350	19,176	18,312	17,736	17,627	17,882
Total # Employees	138,949	134,621	119,202	108,662	98,169	89,657	81,859	77,910	78,062
Personnel in Cassa Integrazione	0	20,505	18,598	19,109	14,569	10,380	6,501	1,915	667
Total # Active Laborers	138,949	114,116	100,604	89,553	83,600	79,277	75,358	75,995	77,395

Source: Fiat Auto

TABLE 4

Numbers of Workers and Union Members in Cassa Integrazione
in 1981 in Principal Turinese Plants of Fiat *

PLANT	# WORKERS IN CASSA INTEGRAZIONE	UNION MEMBERS	%
<u>Mirafiori</u>			
Assembly	3,800	1,948	51.3
Machine Shops	1,400	1,045	74.6
Presses	850	624	73.4
<u>Rivalta</u>			
Assembly	2,300	1,354	58.9
Machine Shops	250	151	60.4
Presses	200	144	72.0
<u>Lingotto</u>			
Assembly	1,060	555	52.4
Presses	160	77	48.1
<u>Lancia Chiavasso</u>	1,250	1,069	85.5
TOTAL	11,270	6,967	61.8

Source: FILM TORINO.

Taken from A. Collida and S. Negrelli, La Transizione Nell' Industrie E Nelle Relazione Industriale: L'Auto E Il Caso Fiat, (Milan: Franco Angeli, 1986).

NOTE: These figures do not include the resignation of 6,300 workers placed in Cassa Integrazione in October, 1980.

TABLE 5

Unionization at Gruppo Fiat and Turin

Year	Total # Workers	Members FIM-FIOM-UILM	Union Density %
1980	101,311	32,898	32.5%
1981	98,461	27,380	27.8%
1982	76,541	20,803	27.2%
1983	70,156	17,131	24.4%
1984	60,817	14,527	23.9%
1985	57,338	12,940	22.6%
1986	56,619	11,589	20.5%

Source: FIM TORINO

NOTE: These are aggregate data and hence do not reveal the even lower unionization rates at particular plants, i.e. Mirafiori, which supposedly have fallen below 20%.

TABLE SIX

Elections Results for the Commissione Interne at Fiat (1948-68)

Year	Cisl		Uil		Cgil-Film		Other Unions					
	Votes	% Members	Votes	% Members	Votes	% Members	Votes	% Members				
1948	9,433	21.4	35	-----	-----	--	33,420	75.9	98	1,291	2.7	7
1954	13,175	25.4	45	5,889	11.3	13	32,885	63.2	100	76	0.1	2
1955	20,910	40.5	93	11,628	22.5	40	18,937	36.7	55	157	0.3	4
1956	26,000	47.2	111	13,147	23.9	46	15,903	28.8	45	70	0.1	2
1957	28,435	50.0	114	16,200	28.5	57	12,025	21.4	34	201	0.4	
1958	7,365	12.9	15	16,149	28.3	58	14,454	25.3	36	19,076	33.4	82
1960	10,163	16.4	34	17,007	27.4	58	13,766	22.2	31	21,137	34.0	82
1965	12,554	15.4	33	23,418	28.8	67	17,538	21.6	32	27,773	34.1	70
1968	13,394	13.1	36	28,638	28.1	72	31,932	31.4	56	27,852	27.4	68

Source: E. Rugno, S. Garavni, Gli anni duri alla Fiat (Turin: Einaudi, 1974): 98

Note: 1968 is the last year of Commissione Interne elections since they were subsequently replaced by the delegates and factory councils following the hot autumn of 1969

Chapter Three

From Economic Backwardness to International Competitiveness.
The Case of the Biellese Textile District

Introduction

In the last chapter, the first misleading assumption common to the literature on industrial adjustment -- reductionism -- was criticized. The case study on the restructuring of Fiat Auto illustrated that the interests, consciousness and strategic choices of the various industrial actors stemmed not from their place in the division of labor. Instead, the last chapter argued that the particularities of Fiat's industrial development shaped both the worldviews and organizational features of these actors in a way that hindered the development of more cooperative patterns of industrial change. The Fiat chapter also argued that its particular pattern of industrial adjustment was not inevitable. Changes at the firm were not merely reflections of secular shifts in the economy but rather the result of political struggles between different local actors.

In this chapter on the restructuring of the Biellese textile district, a second mistaken assumption found in the literature on industrial change is challenged. This second assumption claims that there exists a single optimal organizational solution for manufacturing certain industrial goods competitively.

Linked to this assumption about industrial organization is a view which portrays industrial change as a Darwinian process of adaptation

and competitive selection. In other words, according to this view, firms and industries must necessarily emulate the "best practice" of their era if they are to remain viable. However, since not all companies possess the necessary organizational capacities to change in the required direction, a good number of them fail. Only the most "efficient" survive and thus, only the one, most adaptable organizational pattern is expressed at any one time.

The following description of the Biellese textile district challenges these more conventional notions of industrial organization and change by illustrating how a plurality of different organizational structures and strategies can co-exist and, in fact, inter-relate continuously. It demonstrates that the same industrial goods can be produced competitively using different mixes of technology, skills and organization. Moreover, this case study on Biella casts doubt on the natural selection/adaptationist vision of industrial change by showing that alternative industrial patterns were not eliminated through competitive struggle but rather changed over time and through interaction with one another.

The case of the Biellese textile district has been selected for several reasons. The birthplace of Italy's industrial revolution, the Biellese is a small area located in the mountainous north-west section of Piedmont. The "Manchester of Italy" ¹, this area consists of 83 small towns and villages and about 200,000 residents. Yet, despite its isolation and fragmentation, the Biellese area is a leader in the world's textile industry ².

With over 90,000 people active in the labor market, the Biellese area has one of the highest employment rates (45.2%) in the country; and with 235 out of every 1000 residents employed in industry, it is the most industrial district in all of Italy. The Biellese has over 5000 firms with approximately 44,000 workers. The vast majority of these firms (3000) and workers (35,000) are employed in the woolen textile industry. In 1986, the textile industry produced 4,300 billion lire in sales, of which one-third was exported (mostly to West Germany, Japan, France and the United States). For an industry that is in crisis in almost every advanced industrial nation of the West, this is a notable achievement. ³

Yet Biella was not always successful. During the 1960s and 1970s the local textile industry was in trouble. Many firms threatened bankruptcy and a number actually shut down. Changing conditions of international competition -- Newly Industrialized Countries (NICs) with lower labor costs are very strong in the textile-apparel sector -- combined with increased labor and energy costs and altered consumer tastes to render traditional integrated textile firms uncompetitive. Only through a massive process of industrial restructuring and technological innovation was the industry restored to health.

This chapter tells the tale of this industrial district's turnaround. It is divided into three sections. First, it will describe the more general crisis of the textile industry in Italy and elsewhere in order to place the Biellese story in the national and international economic context. Second, it will analyze the restructuring process of the Biellese district by discussing this process more generally, and

then by examining in greater detail the reorganization of several individual firms. Finally, it will review certain historical moments of Biella's industrial development in order to elucidate how the strategic choices of the actors involved in this process of industrial reorganization were shaped by various institutional and historical factors characteristic of the Biellese area.

To anticipate the argument, one finds in Biella a diversity of industrial structures and strategies within the local textile industry. This is due to the particular development of the local industry in which the emergence of large integrated textile mills did not occur at the expense of either smaller, more artisanal firms nor of the rather highly skilled local labor force. As a result, a plurality of different industrial structures and strategies continued to exist and later facilitated the reorganization process of the local textile industry. Industrial restructuring entailed the break-up of large integrated mills producing standardized goods into a network of smaller, more specialized firms working together to produce some of the finest cashmeres and woolens in the world.

Likewise, various formative experiences of the local labor movement encouraged the unions to develop strong territorially-based organizations, a tradition of collective bargaining (the first collective agreement over wages and working conditions in Italy was negotiated in Biella), and close integration into a rather complex local community. These ideological and organizational features permitted the local unions to constructively negotiate the process of industrial reorganization in the 1970s.

In short, the particular process of industrial development in the Biellese promoted certain ideological and organizational features among the local industrial actors which shaped their strategic choices and promoted their cooperation during the process of industrial adjustment. A comparison to the restructuring of two other Italian textile districts (Prato and Schio) illustrates the salience of the local context

The Crisis of the Textile-Apparel Industry

Beginning in the 1960s, the textile-apparel industry of most advanced industrial nations began to experience severe crisis. As a result of changing conditions of international competition, with low wage NICs becoming large exporters of textile-apparel goods, increased labor costs and rigidities in the advanced industrial nations of the West, higher energy and raw material costs, more restrictive government environmental and safety regulations, and altered consumer tastes, the industry's traditional model of economic development -- based on low wage, semi-skilled workers employed in integrated mills and producing large series of low-medium quality standardized goods -- was rendered inefficient and obsolete in both Western Europe and the United States. ⁴

Notwithstanding various attempts at protection from and/or circumvention of these challenges ⁵, few nations were spared the disabling consequences these changes held for their domestic textile-apparel industries. In the United States, 282,000 jobs were lost in the textile-apparel industry between 1980 and 1985 alone. ⁶ Loss in employment was matched by decreases in market share. North America's share in world textile production dropped from 21.7% in 1963 to 20.2% in 1980 ⁷. Apparel imports have risen even more dramatically : representing only 2% of domestic consumption in 1963, imports now total over 50% of the U.S. market. ⁸

In industrially powerful West Germany, the textile-apparel industry also suffered severe dislocation. Between 1970 and 1983, West German textile imports nearly tripled while the number of domestic textile mills decreased by one-third -- from 2396 in 1970 to only 1620 in 1980.⁹ The reduction in number of firms was accompanied by a steady decrease in textile employment. Between 1957 and 1980, 350,000 workers lost their jobs in the West German textile industry.¹⁰ The situation appeared even worse in other West European countries like France and the United Kingdom -- once world leaders in this sector -- where entire segments of the industry disappeared.¹¹

In fact, the crisis of the textile apparel industry appeared so severe that by the early 1970s scholars and policy-makers alike were beginning to theorize a "new international division of labor" in which "mature" industries like textiles would be ceded to developing countries which possessed an abundance of low-wage, unskilled labor and thus, could manufacture labor-intensive products like textiles at lower costs.¹² In short, these scholars and policy-makers took for certain the demise and disintegration of the textile-apparel industry in both the United States and Western Europe.

The Italian industry was particularly hard hit by this more general crisis for a variety of reasons, including the high costs of labor and credit, inefficient state intervention, weaknesses in the sector's productive structure, and the fragmentation of the industry's distributional networks.¹³ Following the "hot autumn" of 1969 and the severe economic crisis of the 1970s, the cost of both labor and credit (necessary to finance purchases of raw materials and production

runs which in this industry take place long before deliveries are made) in Italy were among the highest of all Western nations. ¹⁴ These financial constraints were compounded by ill-advised programs of state intervention (GEPI, ENI) ¹⁵ which purchased and supported failing firms and hence sustained overcapacity in the sector. Finally, the productive structure of the Italian industry -- composed of both large integrated firms and many small shops of suboptimal size -- was weak in that large firms produced long series of standardized, low-medium quality goods (the first to be captured by NIC producers) and small firms did not have sufficient resources and contact with the market (often they operated solely as subcontractors for large firms) to develop into autonomous and viable enterprises.

As a result, Italian textile employment experienced a major reduction in the 1970s. A comparison of the 1981 and 1971 Industry Census reveals a drop in textile employment by 49,485 workers (from 542,908 in 1971 to 493,423 in 1981) over the course of the decade. ¹⁶ This fall in employment was concentrated primarily in the Northern industrial regions and in large integrated firms. The Census data indicate that while the number of large (+500 employees) and medium-size (between 20-499 employees) firms decreased between 1971 and 1981, the number of small firms (between 1-19 employees) increased by about 15% (see table 1).

The crisis of the textile-apparel industry in Italy was especially critical given this sector's importance to the national economy. The industry is crucial to the Italian economy for several reasons. First, it is the single largest industrial employer.

According to the 1981 Census, this sector employed 1,215,732 workers -
- roughly one-fourth of the Italian industrial workforce. ¹⁷ If one
includes undeclared workers employed in small shops in the
"underground economy", a frequent practice in the textile-apparel
industry, the employment share is probably much larger. ¹⁸

Second, the textile industry is critical for Italy's balance of
payments. According to Federtessile, the industry's business
organization, textiles have maintained a trade surplus throughout the
postwar period. In 1987, the surplus was 11,200 billion lire (see
table 2). For a nation that is highly dependent on foreign sources of
energy and raw materials, this surplus is very important to the
overall health and stability of the economy.

Given its importance, the restructuring and restoration of health
of the textile-apparel sector was perceived as key to Italy's
international competitiveness and national employment. An examination
of the restructuring process of the Biellese textile district, while
certainly particular to the area, nevertheless illustrates the more
general strategy underlying Italy's return to competitiveness in this
sector.¹⁹

Industrial Crisis and Restructuring in the Biellese

The restructuring of the Biellese occurred in two phases,
coinciding roughly with two separate decades. During the first phase
in the 1960s, traditional mill owners sought to lower production costs
and circumvent labor rigidities by outsourcing varied phases of their

production processes and investing in labor-saving technologies. In this initial phase of restructuring, the firms did not have a coherent strategy, nor did they seek to work with the local unions in resolving the crisis of their traditional system of production. As a result, during this period there was substantial "sweating" of labor and thus, significant conflict between labor and management.

The second phase of restructuring in the Biellese began in the early 1970s. Following a massive flood in 1968, which destroyed numerous plants and disrupted production for nearly all the local mills, firms began to decentralize certain phases of their traditional production cycles and to introduce new technologies in a systematic way. Unlike in the early 1960s, this second wave of restructuring involved the participation of the local labor movement. Moreover, the break-up of large firms and the development of a network of smaller, more specialized enterprises resulted in the overall up-grading of production, increased coordination and cooperation among local firms, and a territorial-wide collective bargaining agreement which protected all workers in the industry, regardless of their employer's dimensions.

A more careful examination of this two-phase process is interesting because it allows us to refine traditional views of industrial adjustment. It also allows us to up-date some of the claims regarding economic "backwardness" often associated with the decentralization of production that took place in Italy (and elsewhere) during these years. Moreover, the story of the Biellese allows us to evaluate the more general claim that there can exist only

one efficient organizational pattern of industry at any one time in history.

The crisis of the Biellese textile district preceded the more general downturn of the industry in the 1970s. It was triggered by the transformation of the textile industry's distribution network during the 1960s. In the 1940s and 1950s, textile mills produced cloth for a fragmented market consisting of either wholesalers or intermediaries who, in turn, sold the cloth to individual customers, be they tailors, dress-makers or private individuals. Textiles were considered consumer goods and each firm's identity was clearly associated with its products. ²⁰

Beginning in the 1960s, with the development of the apparel industry, this original distribution network became transformed. Textile mills no longer manufactured consumer goods for direct customers but rather produced semi-finished products for apparel firms which, in turn, transformed the cloth into clothing and sold it to their own final customers. Thus, beginning in the 1960s, textile mills no longer dealt with a myriad of smaller customers but rather with a few major clients which acquired ever greater amounts of material and thus, increased power vis-a-vis the textile mills.

Whereas in the 1940s and 1950s textile mills could impose their products on the market (on their clients), they now confronted a stronger and more demanding clientele. To satisfy these new clients' demands, the Biellese mills were forced to continue to produce high quality goods but at lower prices. This resulted in decreased profits

which, in turn, hindered investments and thus furthered the dependence of the mills on their apparel industry clients.

The renewal of the national contract for the textile industry in 1962 further aggravated the situation for the Biellese mills. Like elsewhere in Italy, this round of contract negotiations elicited major labor conflicts and strikes. Essentially workers demanded a share in the fruits of Italy's economic miracle of the late 1950s-early 1960s. Thus, with the renewal of this contract, labor costs increased by 23% in just one year. As a result, mill owners began to invest in new labor-saving technology, i.e. automatic looms which required fewer workers to operate. Through these capital investments (which did not, however, affect the general organization of the firms) 1700 workers were expelled from the sector.²¹

Yet the situation did not improve for the local industry. Due to Italy's economic down-turn between 1963-1967²², domestic demand (then, Biella's largest market) for textiles stagnated and certain local industries began to falter. During this period, approximately 7000 workers were laid-off from the industry,²³ most of them previously employed in large integrated mills (e.g., Lanificio Rivetti) which were forced to close.

During these years, many firms began to dismantle and decentralize certain phases of production. Yet the results appeared uncertain. For instance, while many new firms were established during this period (see table 3), general levels of employment, investment, and average income levels faltered. In fact, while the Biellese was one of the top 10 most affluent areas in Italy in the 1950s and early

1960s, its standing slipped significantly between the mid-1960s and early 1970s. ²⁴ Thus, when Luigi Frey and his associates conducted their famous study on decentralized production in Italy during this period, they included Biella as one of their cases illustrating the growth of exploitative relations between large-scale enterprises and low paid workers, producing at home or in small shops. ²⁵

The flood of 1968 marked a turning point in Biella's industrial restructuring. In many ways, the flood was a blessing in disguise. Although it caused widespread devastation, it also unleashed substantial sums of state aid to reorganize and rebuild the industry. The flood also changed the psychology and/or identity of the mill owners, according to various mill owners I interviewed. Previously, these owner-managers had been very "privatistic" or "isolationist" in their attitudes and approaches to their problems. Rather than ban together to develop a common strategy to confront their problems in the 1960s, they competed against and undermined one another in a desperate attempt to satisfy their apparel industry clients. With the flood, things began to change as these entrepreneurs began to develop a collective identity and increasingly sought to cooperate amongst themselves. ²⁶ In addition, with the introduction of new technologies, firms began to specialize in particular phases of the production cycle and coordinated their production with other, complimentary firms.

Relations between mill owners and the local unions also began to change after the flood. Workers and their unions became increasingly involved in the restructuring process of the local industry.

Sometimes, workers were given plant equipment and start-up capital to open their own, more specialized shops. As a result, they continued to perform within their own smaller businesses the jobs they had done previously as employees within the integrated plants.

In short, with the flood of 1968, the restructuring process in the Biellese textile district changed dramatically. In this second phase of restructuring, the organization of production, the type of technologies implemented, and the worldviews of the different organized actors all changed to promote the successful adjustment of the local industry.

For most firms, restructuring occurred through the simultaneous modernization of the weaving shops and decentralization of traditionally labor-intensive jobs like mending, dyeing, and various processes associated with spinning. Within the weaving shops, new, automatic looms (Sulzers) were introduced. These looms increased productivity, since they were faster and more reliable and thus, managers could assign more machines to individual workers. They also improved product quality and diversity. They were more flexible in that they could work with different yarns, in different patterns, with fewer mistakes or imperfections. Companies preserved internally only those phases of production in which they were most specialized and/or which most distinguished their products and subcontracted the other, typically labor-intensive tasks to nearby shops.

This particular process of restructuring changed the overall industrial geography of the area. For example, in 1970 there were six woolen mills with between 500-1000 workers and one with more than 1000

employees. By 1979, only one firm with between 500-1000 employees remained and none with more than 1000 workers. ²⁷ The reorganization process also spawned the development of many new, smaller firms specialized in specific phases of the production process like dyeing and finishing (see table 4).

Increased specialization promoted innovations in product and process technologies for both the original and newly established firms. Products evolved away from traditional, heavy woolens and increased in both quality and creativity through the use of new fibers and/or new ways of weaving or finishing traditional fibers, (i.e. "Cool Wool") .

Economies of scale were achieved in two basic ways : 1) weaving mills were able to efficiently produce smaller batches of woolens using more flexible, universal looms; and 2) dyeing, finishing, and mending contractors were able to aggregate large volumes of work from several different client textile firms.

A network emerged among the different firms engaged in the various processes of production. Cooperation developed not only between the original weaving mills and their dyeing or finishing subcontractors but also among mills who employed the same suppliers. In other words, increased collaboration between the mills and their new subcontractors was matched by greater cooperation among the original mills themselves. This, in turn, further promoted product and process innovations as firms exchanged experiences and techniques with new machines, new fibers, new finishing processes, etc.

Several owner-managers I interviewed explained that before buying a new machine or initiating a new process, they visit other local plants in the area which already have installed these innovations and conduct tests with their own products. ²⁸ Visits to the local Rotary Club, Business Association (Unione Industriale Biellese) or to certain trattorie (local restaurants) had Biellese managers exchanging information and sharing experiences with new techniques and technologies.

New market strategies also emerged from this reorganization process. Most firms changed to produce specialized products for specific market niches. Moreover, while Biellese textile firms continue to remain competitive with one another and very protective of their individual firm autonomy, they nonetheless unite both to buy raw materials (setting up purchasing cartels) and to sell their finished goods (organizing international trade fairs like "IdeaBiella" or "Pitti Filati", at which they expose their latest products.) They also organized training programs for managers and workers, established a research facility for textile technology and product development, built an airport, rebuilt existing roads, and carried out a wide range of lobbying activities in Rome to enhance government support of their area. ²⁹

By the latter part of the 1970s, the productive landscape of the Biellese was consolidated with local industry thriving (see figure 1) and employment stabilized (see table 5 and figure 2). ³⁰ For instance, the local industry exports over 4000 billion lire of sales every year

Moreover, today Biella has one of the highest employment rates (45.2%) and is one of the most affluent regions of all of Italy.

The transformation of the Biellese area illustrates the limits of the traditional literature on the decentralization of production ³¹ Normally, this process is described as entailing the outsourcing of production from large firms to smaller shops so as to reduce costs and increase savings. Often, there is an element of exploitation involved in this process. Yet, the evolution of the Biellese textile district indicates that this characterization is not entirely accurate.

While exploitation and "backwardness" certainly did occur in textile districts like Biella during the 1960s and early 1970s, this is only half the story. The other half is one of dramatic industrial change, the elimination of low-wage sweating, and the promotion of major organizational and technological innovation.

During this second period of restructuring, the transformation of industry in the Biellese entailed the reorganization of production so that it was no longer structured in a rigid sequential line but rather through highly specialized, complementary processes. ³² As described above, this reorganization entailed the decentralization of successive phases of the production cycle, and then, the development of a network of smaller firms, specialized in particular jobs previously internal to the large, integrated mills.

Along with this change, there also occurred an evolution in the type of technology used by the Biellese mills. Technologies dedicated exclusively to one product were supplanted by more flexible and universal technologies, able to process a wide variety of products,

coming from different firms, working on different phases of the production cycle. In these years, machines became less specialized and more universal, that is, potentially capable of performing work for various production cycles. For instance, weaving firms introduced new, shuttleless looms capable of working on several different fibers (cotton, wool, silk) and fiber mixes. One firm I visited, Tessiana, a highly automated dye shop had introduced new process technologies which were operated by highly skilled technicians. Once a small shop, Tessiana now operate 24 hours a day, 7 days a week and is capable of dying both fibers and entire garments of all fibers and fiber mixes. In short, as a result of these new technologies, knowledge of the production process was transferred away from the particular machine, to both the skilled workers operating these machines and the electronic systems coordinating them.³³

The reorganization of production by phases also reduced stocks and increased plant utilization rates. For instance, previously, when almost all firms were integrated and possessed the entire production cycle, many shops (i.e., dye shops) were employed at most 3-4 hours a day. The newly reorganized firms, however, were able to work 2 to 3 shifts per day, which permitted them to not only better utilize their plant's capacity but also to invest more easily in new technologies because the pay-back was quicker. Hence, a virtuous cycle developed in which firms were increasingly capable of producing higher quality products more efficiently and thus, better able to respond to the ever-greater volatility of demand and the decreases in product life-cycles characteristic of this industry.

The restructuring of the Biellese textile district also casts doubt on the second misleading assumption common to the literature. In Biella we find not one predominant pattern of industrial organization but rather three basic groups of firms following slightly different structures and strategies.³⁴

One group consists of firms like Lanificio Ferla which produce in quasi-artisanal ways extremely high quality and high fashion textiles for exclusive designers and clothing boutiques (i.e. Louis of Boston, Hickey Freeman, etc.). A second group of Biellese firms, like Lanificio Ing Loro Piana or Cerruti, employ the latest technologies to manufacture industrially high fashion, high quality woollens for top quality industrial apparel firms like Gruppo Finanziario Tessile, and Hart, Shaftner and Marx. Finally, a small group of still integrated firms employing the latest labor-saving technologies continue to survive by manufacturing medium-high quality goods for industrial apparel firms with whom they have long-standing relations.

While these "survivors" are few in number, they have invested heavily in new technologies in order to render their production extremely efficient. Moreover, they too rely on some subcontracting in order to enhance their own flexibility and thus, better respond to their clients' needs without disrupting or altering their own internal production system.

In short, within the Biellese one finds three different groups of firms employing different mixes of technology, organization and skills to manufacture more or less the same goods competitively. Their competitiveness, however, rests on slightly different strategies.

Thus, while Ferla may emphasize design and small batch production, Loro Piana competes through the use of new technologies and high quality raw materials. Botto remains competitive by using both modern looms and integrated production methods to produce quality goods at lower prices and by establishing close links with several large clients.

A better idea of these different strategic groups of firms in the Biellese can perhaps best be given through sketches or vignettes of a number of individual firms. These sketches are not comprehensive; nor are they complete. They are based on interviews and plant visits and are intended only to provide an idea of the extent of change textile firms in the Biellese experienced in the past decade or so.

A Few Vignettes

Lanificio Egidio Ferla³⁵ is a small, artisan-like woolen mill which manufactures high-quality, high-priced woolens for specialty boutiques and customized clothiers. In many ways, the history of Lanificio Ferla is characteristic of that of most other firms in the area. Founded in the nineteenth century in Pollone, a small commune in the mountains above Biella, Lanificio Ferla developed over the nineteenth and twentieth centuries into a horizontally integrated textile mill.

However, following the crisis of the textile industry in the 1960s, particularly severe for firms with this type of organizational structure, Lanificio Ferla began to restructure. Like all firms in

crisis, it cut its workforce, from 150 in the 1960s to 75 today. At the same time it reduced the number of operations it performed within its own plant and entered into closer collaboration with other smaller, more specialized enterprises to provide needed services like finishing, dyeing, etc. In addition, it entered into business with a number of independent subcontractors, with whom it has long term, stable relations, so that it can cope with peaks and troughs in demand.

Most important, Ferla changed its product line, moving up-scale to produce higher-quality fabrics. The firm produces hundreds of different types of cloth to be transformed into tailored men's suits and jackets. Lanificio Ferla also reorganized its marketing structures. In the past, the firm employed seven sales agents who traveled abroad; following the reorganization of the 1970s, the owner-manager himself travels to Paris, Frankfurt and New York and maintains close contacts with designers and his principal clients. Paolo Ferla also told of attending fashion fairs and visiting other local and non-local (i.e., Benetton) firms to see new machinery in operation and of trying out his own samples on this equipment. Visits to other factories in the area revealed that this was standard practice among the Biellese mills.

Operating in a similar market niche and with analogous technologies and organizational structures is Lanificio F.lli Piacenza.³⁶ Established in 1733, Lanificio Piacenza manufactures among the most beautiful and expensive cashmeres and mohairs for women's clothing in the world. In the 1960s, Piacenza, like Ferla, was

a horizontally integrated firm. Yet, in the early 1970s, the firm constructed a new plant and simultaneously changed its organizational structure. Within the firm it retained only the dyeing, weaving and finishing phases of the production cycle. Spinning and other related processes were subcontracted to smaller, independent firms with which Piacenza has long-term relations. This reorganization of production reflects the firm's decision to increase its specialization in those phases of production most important to the identity of the firm and the quality of its products.

The firm is owned and run by three brothers and employs about 200 workers. After the introduction of new labor saving looms in 1973, employment fell by about one-third. However, it remained stable throughout the 1970s and increased slightly in the early 1980s as a result of the firm's growth. Like Ferla, Lanificio Piacenza maintains certain ancient machines (i.e., cards) alongside its modern looms and computers in order to finish in artisanal fashion its high quality woolens.

Relying on external designers for assistance, the firm produces four "collections" of its products each year (one for each season for the Italian market and one for each season for foreign markets), consisting of about 370-430 separate articles of cloth. It renews about 10-12% of its product range annually and exports around 40% of its production (mostly to Japan) yearly. Last year, it had a turn-over of 30.5 billion lire.

Indicative of this and similar firms' strategies are its affiliated businesses. Aside from a small apparel firm which

transforms about 3% of its own production into clothing for specific designers, Lanificio Piacenza owns a botanical garden business (Mini Arboretum) which surrounds the plant and sells rare plants, trees, etc.; and PAL, an airplane rental service. This last enterprise grew as a result of the textile mill's own marketing needs. Used primarily by the owner-managers to travel abroad to sell their products, the planes are also hired by other Biellese firms for similar purposes and by the local business association (Unione Industriale Biellese) to fly local mail to Switzerland in order to ensure and expedite affiliates' correspondence with foreign markets.

Operating in the same market segment but with radically different methods is Lanificio Ing. Loro Piana & Co.³⁷ of Quarona Sesia, another tiny village in the Italian pre-Alps. Founded in 1924 by the current owner-managers' grandfather, the firm developed following a product-oriented strategy. In fact, since its establishment and through the 1960s, the firm's goal of "producing the highest quality cloth in the best way" led it to search world-wide for quality raw materials and to experiment with new products (i.e., "Tasmanian Cool Wool"). During the 1970s, however, this product-driven strategy proved unable to adapt to changing market conditions and the firm was threatened with bankruptcy. At the same time, however, the two grandsons of the founder, recent graduates of Bocconi University in Milan, entered the firm and began to modernize its structures and adapt its strategy.

The two brothers, Sergio and Pier Luigi Loro Piana, now 38 and 36 respectively, reorganized production away from a wide range of

different products for different markets and towards a highly specialized market niche of high-quality, high-priced woolens and woolen mixes. In order to do this, they invested heavily in marketing and new technologies (spinning machines, weaving looms, computers, etc.) which enhanced both productivity and product quality. In contrast to other firms in the area, they also began to integrate various phases of the production cycle. Previously, the company was solely a weaving firm. With the new strategy, in which product quality and firm identity were key, the firm began to develop its own spinning, dyeing and finishing phases of production. It also made it a policy of buying each year's prize-winning bushels of raw cashmere at international auctions.

Their strategy succeeded. In 1975 Lanificio Loro Piana manufactured 300 thousand meters of cloth a year with 350 workers, generating a turnover of 3.5 billion lire. In 1985, annual production rose to 1.8 million meters produced by 370 workers and giving the firm a turnover of 84 billion lire. The firm is now the world's leader in cashmere production and is opening plants in Latin America, Asia, and even Connecticut. It produces eight yearly "collections" (four for Italy and four for abroad) consisting of about 140 different products. Consistent with the logic of this firm's strategy, products are designed internally, without recourse to outside specialists.

Characteristic of many of the Biellese firms is the way Loro Piana involves its workforce in the process of technological innovation and in general firm strategy. Industrial relations at the firm are handled by one of the Loro Piana brothers. With the

continuous introduction of new technologies, be they looms, spinning machines, a computerized stock room, etc., production workers and managers are retrained to work the new technologies or to work in other areas of the plant. Workers and managers meet regularly to discuss product quality and suggested innovations and the entire firm meets yearly to discuss firm strategy. Unionization rates are high and relations between management and the unions are "correct", according to Sergio Loro Piana. This impression was validated both through my own interviews and multiple visits to the firm as well as by a detailed study of the company by the regional textile union, Filtea-CGIL Piemonte. ³⁸

Located in the same market niche as, and perhaps serving as a model for Loro Piana, is Lanificio Ermenegildo Zegna ³⁹. Established in Trivero by its namesake in 1910, Lanificio Emernegildo Zegna began as a weaving firm seeking to out-compete the then British leaders of the market by producing extremely high quality products but in shorter pieces, thus reducing the risk of unsold goods for clients. Product quality was the principal ingredient of the firm's strategy and firm managers travelled world wide to ensure a steady supply of the very best raw materials.

Zegna also began to label its textiles and required that its clients, even when they transformed the cloth into clothing, keep the label attached to the final product. As a result, by the 1930s, Zegna had established name recognition and presence in over 40 markets abroad. To ensure the quality of its products, Zegna developed its own spinning, dyeing and finishing phases in the 1930s. By the 1950s,

Lanificio Ermenegildo Zegna was one of the most horizontally integrated firms in the industry. It even internalized the "combing" phase of the production cycle, something only industry giants like Marzotto and Lanerossi in Veneto possessed.

With the crisis of the Biellese industry in the 1960s, Zegna restructured in two opposing ways. First, it decentralized certain phases of its production (spinning, mending, etc.) and began to rely on a network of local artisans and subcontracting firms to perform these tasks. It retained internally other phases (i.e., weaving and finishing) which were important for the identity of the firm's products and where the value added was greatest. Second, in response to the growth of the apparel industry, Zegna began to integrate vertically by opening its own factory for formal men's clothing. Over the course of the 1960s and 1970s, Zegna opened other apparel and accessory plants -- both in Italy (Novara) and abroad (Spain and Switzerland). It also established commercial affiliates throughout Europe, the United States and even Japan in order to ensure the increased internationalization of its sales. Zegna now employs 2,500 workers worldwide and generated a turnover of 270 billion lire in 1985.

According to Pier Giorgio Colombo, General Manager of the firm, despite its evolution, Zegna continues to follow a small batch/market niche strategy aimed at an extremely elite clientele. As a result, its production does not rely primarily on new technologies but rather on experienced and highly skilled workers to manufacture its products. This entails continuous training and retraining of its personnel and

the decentralization of the firm's decision-making. Moreover, Zegna is continuously seeking to improve both the quality of its products and the productivity of its operations. For instance, its textile division sells cloth both to its own apparel affiliates and to other, competing apparel firms in order to stimulate product innovation and efficiency through competition and cross-pollination of new ideas. The firm is also engaged in various "Quick Response" ⁴⁰ experiments in order to reduce production and delivery times.

No longer concentrating solely on textiles for men's formalwear, Zegna now manufactures textiles, knitwear and accessories for both men's and women's sportswear as well. According to General Manager Colombo, Zegna was able to broaden its product range quite easily. Because its machinery was less specialized and its workforce highly skilled, the same plant was easily reorganized to produce different products or even variations of products. ⁴¹

Lanificio Giuseppe Botto & Figli is unlike the other firms discussed so far. ⁴² Like Zegna, it too has integrated vertically but unlike the other firms in the Biellese, it has remained horizontally integrated as well. Nonetheless, for specific product runs and certain particular client orders, it too seeks to temper its internal rigidities through the use of outside subcontractors and suppliers

Founded in 1876, this firm is one of the few that remained horizontally integrated throughout the 1970s and 1980s. Unlike most other firms, Lanificio Botto did not decentralize its production. Instead, following the flood of 1968 which devastated the original plant, Lanificio Botto invested heavily in new technologies aimed at

enhancing its productivity and product quality. It also concentrated its production in a market segment (medium-high quality standardized textiles for use by industrial apparel firms) appropriate to this technologically driven strategy and sought to guarantee this niche by developing long-term relations with its clients.

The firm employs 480 people and produces about 4 million meters of cloth a year. Moreover, it relies on a network of specialized firms to fill more unusual orders requested by its clients. In this manner, it seeks to respond to its clients' needs by using outside suppliers and thus, not altering its own internal organization of production

The firm relies on a large sales network, composed both of firm employees and external agents, in order to ensure and expand its markets. In fact, over the 1970s, the firm was able to increase its exports from 20% of total production in 1975 to over 60% today. The firm has also begun to integrate vertically, buying interests in various knitwear and apparel companies. It generated a turnover of 160 billion lire last year.

Shaping Industrial Politics : Local Patterns of Industry and Industrial relations in the Biellese

As the above anecdotal accounts suggest, within the more general restructuring process that occurred in the Biellese in the 1970s, individual firms employed a variety of strategies in order to enhance their productive flexibility and guarantee their market niches. While most firms decentralized various phases of their production cycles,

some did so more than others. The same holds true for the introduction of new technologies : some firms completely revamped their plants while others were more selective about the technologies they appropriated. These differences were due to a variety of factors, including the firm's product market, existing firms structures and available capital, and the strategic choices of its owner-managers

Yet, regardless of the particularities of individual firm strategies, all rationalized their production in order to produce for specialized market niches and all, in one form or another, relied on and contributed to the construction of a network of specialized firms in the Biellese area. For instance, while both Lanificio Botto and Lanificio Loro Piana remained (or became more) integrated than most other firms in the area, both systematically rely on outside firms for particular jobs and both are active in associations promoting the creation of inter-firm linkages Sergio Loro Piana is President of IdeaBiella and Paolo Botto heads the Associazione Laniera Italiana -- the National Woolen Manufacturers Association.

Perhaps even more interesting is the role unions played in these developments. Although most (but not all) restructured firms reduced their workforces, the transition from integrated to specialized production was usually negotiated with the union. ⁴³ The union had a say in who was let go or put in Cassa Integrazione and was consulted on plans to remodel plants and introduce new technologies. For instance, in 1987 Biella's Chamber of Labor negotiated a restructuring plan with Lanificio Cerrutti, one of the area's oldest and most successful firms. In this plan put forth by the local union, the firm

guaranteed to maintain employment at its current level if the unions, in turn, agreed to enhance labor flexibility during and after the restructuring process.

The union also negotiated a territorial collective bargaining agreement with the local business association in order to extend union strength in certain firms to other weaker sectors of the workforce ⁴⁴ Not only did this territorial agreement protect workers; it also strengthened the unions by preventing whipsawing, enhancing workers' solidarity, and extending union agreements in large firms to the newly formed smaller firms. ⁴⁵ As a result, the productive decentralization that took place in this area did not undermine union strength nor did it victimize individual workers. Workers who remained within the restructured firms were often retrained in the use of new process and product technologies while many who exited the firms set up their own small businesses, buying old machines from and often working as subcontractors for their original bosses. ⁴⁶

Labor relations were not always tranquil in the Biellese. There were a number of strikes and even a few factory occupations. The local union is militant and factory owners are far from complacent about it. While the workers are primarily Communist, most business leaders support the rightist Liberal Party (PLI). The point, however, is that this process of radical change was negotiated by management and the unions. Although both sides recognize their different interests and express very different ideologies, they nevertheless bargain and reach accords regulating the processes of industrial adjustment. As one local business leader put it, the unions and the managers united in a

"pact for development" in order to save the local industry and preserve jobs. ⁴⁷ Interestingly enough, the major confrontations between labor and management occurred not in restructured firms but rather in those businesses which did not restructure and thus, were forced to close. ⁴⁸

Cooperation continues between the unions and business leaders. Joint efforts have emerged to promote research and development, technical education and job retraining, and improved infrastructures - all aimed at enhancing the competitiveness of the local industry. ⁴⁹ The results have been positive. Record sales and profit rates for firms have been matched by high rates of employment (people actually commute into the Biellese area to work! ⁵⁰). Union membership rates are above the national average and the Communist Party is the only party able to elect a representative to Parliament from this politically competitive electoral district. ⁵¹ For an area only 75 kilometers from Turin, the contrast is striking.

Unlike at Fiat, in Biella firm management and union leadership cooperated to promote the successful adjustment of the area's industry. In fact, in many ways this cooperation served as a safety net which allowed the firms to experiment with different industrial structures and strategies. Since the workers were protected and involved in one way or another in the reorganization of the local industry, it really did not matter which particular mix of skills, technology and organization any particular firm adopted.

To better understand this pattern of industrial politics in the Biellese area, this section will explore the origins and development

of these more cooperative patterns of relations and how their continuity over the course of the industrial development of the Biellese contributed to the successful reorganization of the area in the 1970s.

The particular pattern of industrial development in the Biellese had significant effects on the structures and strategies of the local textile mills as well as on the worldviews of their managers and workers. In essence, Biella industrialized in a way that preserved a reserve of highly skilled workers with artisanal traditions and a network of small, specialized firms. During the 1960s, industrial sociologists pointed to these characteristics as feudal vestiges destined to disappear with modernization. However, the existence of these two "backward" vestiges greatly facilitated the adjustment process of the local textile industry in the 1970s.

In order to better understand how these historical legacies shaped recent strategies, a synoptic account of the development of Biella's textile industry and labor movement will follow. This account is not comprehensive. It is intended merely to highlight certain critical conjunctures in which the strategic choices of various industrial actors were shaped.

Three periods will be described : 1) the initial industrialization of the Biellese and the uneasy co-existence of the first factories with pre-industrial social relations; 2) the consolidation of the factory system and the role of "backwardness" in the development of the local industry during the first half of the

twentieth century; and 3) the break-down of this model of development and the reorganization of the textile industry in the 1960s and 1970s

In all three periods, struggles between firm managers and local unionists as well as between mill owners and apparel clients, small vs. large firms, etc. resulted in the consolidation of certain organizational and ideological attributes. These institutional-historical factors, in turn, shaped the strategic choices of the actors in subsequent periods, most notably during the most recent wave of industrial restructuring in the 1970s.

The Uneasy Co-Existence of Industrial Production and Pre-Industrial Social Relations in the Nineteenth Century

The history of the Biellese in the nineteenth century is in many ways the history of the difficult co-existence of industrial patterns of production with pre-industrial social relations. While these relations were forced to change over the course of the century, they evolved in ways that promoted bargaining between labor and management. In fact, notwithstanding the transformation of these original social relations, the local labor movement developed various institutions which permitted it to preserve its power and identity.

Moreover, due to the intense struggles between skilled workers and mill owners which marked much of this period, many small producers continued to exist alongside the newly formed integrated factories, despite successive attempts to concentrate or rationalize the local industry.

In short, during these years, two "traditional sectors" -- a reserve of skilled workers and artisans and a network of small specialized firms -- successfully resisted their elimination or expropriation by the emerging fordist system of production. As a result, certain peculiar characteristics of both the local industry and its workforce emerged during this period. Although aspects of these features would change over time, their continuity would nonetheless continue to color the strategic choices of the local industrial actors in the current era.

Industrialization began in the Biellese during the eighteenth century. Previously, "lanaioli" (wool traders) distributed raw wool to be transformed into yarn, and later yarn to be woven into cloth, to a network of artisans working in their homes. These "lanaioli" relied on still other workers to perform other jobs like finishing, dyeing, etc. 52

With the introduction of the first mechanical looms in the late eighteenth century, the first factories were established in the Biellese. While these factories internalized various phases of the production cycle, they nevertheless continued to rely heavily on outside artisans to perform significant portions of their spinning and weaving. Moreover, this industrialization process remained somewhat limited due to external, governmental constraints. In other words, due to the policies of first, a reactionary monarchy in Turin and later, of Napoleon, the expansion of the local textile industry was severely curtailed. 53

Following the defeat of Napoleon and the restoration of the Savoy monarchy in 1814, a thirty-year period of protectionism ensued. While the protectionist policies of the Piedmont monarchy safeguarded the textile industry from foreign competition and permitted it to develop (by 1850 there were 1,100 looms and 7000 workers employed in the Biellese industry), this policy skewed the industrialization of the area by maintaining many small artisanal shops and thus, preventing the concentration of the industry and the diffusion of new technologies.

Change occurred only later, following the unification of Italy and the implementation of Cavour's free trade policies which forced firms to experiment with and promote innovation in order to withstand foreign competition from better developed rivals in England, France and Germany.⁵⁴ For the Biellese this translated in a substantial development of the local industry. In 1861, the Biellese counted 94 woolen mills with 2166 looms and 6500 workers. By 1882, there were 178 woolen mills with 3000 looms and 12,000 workers.⁵⁵ Moreover, by this time, 62% of all textile firms in the area were horizontally integrated. These firms employed 89% of all local textile workers, and possessed 75% of all active spindles and 90% of total looms in the Biellese.⁵⁶

Yet, this industrialization process was shaped by the particular strategies of the local industrialists as well as by various peculiarities of the local labor force. For instance, the Biellese mill owners sought to compete with foreign industries and compensate for the high cost of energy and their complete dependence on foreign

machinery and chemical products by paying their workers low wages and working them long hours. As a result, the Biellese mill owners did not invest in new technologies and thus, their workers continued to preserve both their skills and many of their pre-industrial artisanal traditions.

Moreover, next to the integrated mills, many smaller producers continued to exist. While these shops generally manufactured lower quality goods for different markets, they had an ambiguous relationship with the larger, integrated manufacturers. On the one hand, they served as buffers for these integrated manufacturers, producing for them during moments of peak demand and absorbing redundant labor during cyclical downturns. But the small shops also posed a potential threat to these mills since they could both move up-scale and invade the markets of the integrated mills and provide skilled textile workers with an alternative source of employment (hence, giving these workers greater bargaining power with these larger mill owners).

Although many of these smaller shops vanished with the mechanization of the industry at the end of the century, some continued to operate through the remainder of the nineteenth and into the twentieth century. Their continued existence throughout these years permitted the Biellese industry to preserve its development model based on low wages, high skills, and little or no technological innovation.

Biella's industrialization was also colored by an atypical working class which was tightly linked both to the land and to various

community traditions which ran counter to mainstream patterns of industrial development (i.e., technological innovation, de-skilling of workers, increased scale of production, etc.). As a result of the incomplete expropriation of its pre-industrial bases of subsistence, this working class was able to negotiate both its place and working conditions within the newly established textile factories of this period. Thus, industrialization in the Biellese did not result in the de-skilling of the local labor force nor their substitution by machines. Rather, through various working class struggles, textile workers were able to preserve their pre-industrial skills and status and contribute to the industrial development in the Biellese.

The local working class in the Biellese was unusually militant and well-organized given its embeddedness in a strong local community and its ownership of the land. Tight integration into the rather complex local community is best illustrated by the numerous mutual aid societies, cooperatives, wine circles, etc. these workers developed throughout the Biellese. For instance, by 1884 there were 64 mutual aid societies with 9789 members in 42 of the 93 villages and towns of the Biellese. At the same time, there were about 800 "wine circles" which were essentially small taverns created by and for workers as places where they could relax, gather and organize.⁵⁷

Land ownership not only guaranteed subsistence and credit (power and autonomy) for these workers but also contributed to preserving their identity as artisans, as producer-citizens. For instance, textile workers did not work their own land but rather hired day laborers to do so, seeing such work as beneath their status as

artisans. Mill owners recognized and respected this identity. When state troops attempted to arrest and exile striking textile workers during the strike waves of 1877-1878, mill owners like Quintino Sella intervened, arguing that such treatment, while appropriate for "migrants or brigands of the South" was unacceptable for the Biellese textile workers who (after all) were artisans and land-owners. 58

Thus, during this initial phases of Biella's industrialization, textile workers organized intense resistance to proletarianization and managed to preserve their skills and identity as artisans. Even when textile manufacturers were actually able to expropriate some workers of their artisanal professionalism, they never succeeded at removing them from their land. As a result, they had to contend with a workforce capable of waging very long and militant strikes. Beginning in the 1850s, but continuing through the 1860s and late 1870s, strikes in the Biellese were always among the most militant in all of Italy and attracted the attention of several Parliamentary commissions and numerous scholars.

The Biellese strikes appeared enigmatic to these observers since the area did not possess the features normally associated with the outbreak of industrial unrest, i.e. large-scale plants, lack of direct contact between mill owners and workers, etc. Moreover, conflicts in the Biellese were usually not over wages but over the organization of production and they were often settled through the negotiation of territorially-based collective agreements. For instance, the strike of 1861 was settled with an accord which gave workers control over existent apprenticeship programs. This, in turn, provided workers with

substantial power in the local labor market while simultaneously safeguarding their skills. The agreement also regulated working conditions and work hours within the factories. 59

In short, during most of the nineteenth century, Biellese workers were able to rely on pre-industrial patterns of land tenure and community organization to protect their skills and preserve their identities as artisans. Paradoxically, Biella's first mill owners were also able to rely on these same pre-modern features to develop the textile industry. Since most textile workers had alternative sources of subsistence and were highly skilled, the local industrialists did not need to invest in expensive new technologies but rather could develop their businesses by paying their workers low wages and working them long hours. This model of industrial development would continue to color the local industry for much of the next century.

The Consolidation of the Factory System and the Development of "Reformism" in the Biellese

With the electrification of the area at the turn of the century, the Biellese continued to grow as an industrial center. According to the 1901 Census, out of a total population of 164,000, 83,918 were actively employed, of which 44.7% in the textile industry. 60 And yet, the extensive emigration from the area -- 21,367 emigrants between 1879-1900 and 52,262 between 1901-1914 -- indicates that with the consolidation of the factory system, traditional patterns of landholding and work were being undermined and thousands of ex-

artisans/small land-owners were being forced to leave the Biellese 61

During this period, the local labor movement also began to change. For most of the nineteenth century, the Biellese working class expressed an artisanal-republican ideology and was organized into local mutual aid societies and strong territorially-based "resistance leagues".⁶² Yet, by the turn of the century, this ideology was increasingly supplanted by various forms of socialist and even anarchist thought and the "resistance leagues" became transformed into full-fledged trade unions. In 1901, the local Chamber of Labor, (Camera del Lavoro) was established in an attempt to coordinate and centralize the various trade union organizations of the area.⁶³

While this period witnessed various internal struggles within the local labor movement, i.e., between "reformist" social democrats and anarchists, and between the central Chamber of Labor and the various individual trade organizations, the victorious union structures and ideology which emerged from these struggles nevertheless contributed to the consolidation of the Biellese model of economic development. For instance, while "reformist" socialists replaced the original republican artisans as leaders of the local labor movement, their positivist Marxist ideology merely encouraged local mill owners to develop their industry in much the same way as in the past, i.e., to expand the productive capacity of firms but without investing in new technologies.

Believing that the concentration of industry, like technical progress, followed certain "historical laws" and trajectories which would eventually lead to socialism, local union leaders discouraged workers from militating against such developments. Yet, because these local union leaders also encouraged textile workers to develop their technical skills and negotiate the particular forms of industrial change, the Biellese labor movement in practice continued to strike against any changes which threatened either its professional skills or autonomy.

Illustrative of this particular brand of Marxist positivism are the words of Pietro Secchia, leader of the Biellese workers' movement and later a national figure in the PCI. According to Secchia :

Biellese workers are not opposed to technological development, to the introduction of new machines. They do not oppose progress. First of all, because such opposition would be useless and would not impede the objective laws of history from taking their course. Second, because technical progress, like the concentration of industry, creates the material bases for the future socialist society where machines, expropriated from capital, will serve the workers.

Workers are not contrary to technical progress, but they know that if they do not struggle to defend their wages, their right to work; if they do not react with the most militant and organized struggles against their exploiters, technical progress can bring about a deterioration of their living conditions. Therefore, workers know that with every introduction of new machines or new methods, they must generate new demands and new struggles in order to realize a corresponding progress in social conditions.⁶⁴

Thus, while theoretically not opposed to technical change, local textile workers in practice continued to block technical innovation in

the local industry. As a result, they reinforced the mill owners' model of economic development based not on new product or process technologies but rather on low wages and long work hours. By continuing to employ almost artisanal methods of production, the local industry continued to grow and the textile workers remained highly skilled and firmly rooted in their local community. Saved by the blocked technical development of the local industry, many smaller shops also continued to operate.

The embeddedness of the textile workers in their local communities was also promoted by the organizational features of the Biellese union movement. Put simply, the organizational struggles between the centralized Chamber of Labor and the individual trade organizations which took place during this period resulted in a compromise in which the trade unions maintained considerable political autonomy while the central Chamber of Labor acquired strategic control, as evidenced by the territorial collective agreements and contracts it negotiated from this time forward.

In essence, the organizational and ideological changes of the local labor movement at the turn of the century preserved many of the earlier features of the artisanal system of the past. These historical and ideological legacies would continue to survive throughout the twentieth century notwithstanding the repressive policies of the fascist regime and the turmoil surrounding both World Wars.⁶⁵ Similarly, Biella's model of industrial development would continue unchanged until the mid-1960s, when the local industry entered into

crisis as a result of the growth of the apparel industry and the increase in labor costs and militance.

The Demise of the Mass Production Model and the Restructuring of the Textile Industry in the 1970s

Many Italian scholars claim that the workers' struggles in the Biellese during the early 1960s were in certain ways a precursor and model for the "hot autumn" struggles of the late 1960s. In these struggles, highly skilled Biellese workers joined forces with recently arrived unskilled immigrants from the surrounding countryside and the Veneto to demand increased wages and improved working conditions. It was in reaction to this wave of worker militance that the Biellese mill owners finally began to modernize their plants by introducing new labor-saving technologies.⁶⁶

Yet, as we saw earlier in this chapter, mill owners initially reorganized their firms in limited and make-shift ways. The purpose of this first wave of restructuring was to circumvent labor rigidities and preserve the old regime of industrial production and administration. Only after the flood of 1968 did local entrepreneurs embark on a completely new industrial strategy.

This is not to suggest that the old system would have remained in place had it not been for a natural disaster but rather that the devastation of old factories and the availability of state funds in the wake of the flood greatly facilitated the reorganization of the local industry. That this reorganization occurred also during the years

of strong worker militancy and organizational strength following the hot autumn struggles of the late 1960s may also help to explain why firm managers embarked on the strategies they did. In other words, caught in a situation in which they suddenly found themselves with devastated plants and strong unions, these managers reformulated their strategies to take advantage of the skilled workers and small shops they inherited from the past. In short, these two external factors served as both the carrot and the stick to influence industrial change in the Biellese in its particular direction.

External constraints (i.e., labor law reforms, increased power of the union movement, changing conditions of international competition, etc.) combined with already existent local characteristics (i.e., the continued existence of highly skilled workers, the survival of many small specialized shops, etc.) to transform Biella from a center of "economic backwardness" into a highly competitive industrial district

In a strange irony of history, it was precisely the "backwardness" of the Biellese model of industrial development which formed the basis for the industrial reorganization of the 1970s. Because the industry developed by exploiting low-wage labor rather than mechanizing production, it retained a large pool of skilled workers. Moreover, because the local industry never fully modernized, a myriad of "pre-modern vestiges", i.e. small specialized production shops, were able to survive and compete alongside larger firms throughout the nineteenth and twentieth centuries. As a result, the development of an extensive network of small-scale, specialized firms operated by highly skilled ex-factory workers, often using the

original machinery of the now deverticalized mills, was greatly facilitated.

Finally, because the local labor movement was able to protect its skills and maintain its links to the local community, the Biellese labor force was able to preserve its organizational strength during the process of industrialization. As a result, it continued to possess the ideological predisposition and organizational capacity to negotiate the restructuring process of the 1970s. For instance, the continuation of its tradition of territorial collective bargaining with local industry greatly facilitated the transformation of the area into an industrial district in the 1970s.

In sum, the particular pattern of industrial development had a significant impact on subsequent patterns of industry and industrial relations in the area. The struggles between the various industrial actors during the three periods just examined resulted in the consolidation of certain organizational and ideological attributes of these actors. These, in turn, shaped the range of possible strategies available to them during the reorganization of the textile industry in the 1960s and 1970s.

In order to shed further light on the way the local contexts shape industrial politics, we will now examine the situations of Italy's two other major woolen textile areas -- Lanerossi in Schio (Veneto) and the textile district of Prato.

A Brief Comparison with Lanerossi and Prato

The Biellese experience contrasts with that of other textile areas. For example, the restructuring of the Lanerossi complex in the Veneto region was very different from the process of adjustment in Biella.⁶⁷ Throughout the 1960s and 1970s Lanerossi's public management (ENI) promoted a process of major restructuring which entailed the rationalization of production and the introduction of new technologies, a radical reduction in labor force, and vertical integration of the production process.

At the time Lanerossi was absorbed into ENI (1962) the situation of the firm was critical. On the verge of bankruptcy and with technologically out-dated plants, the productive structure of the firm was spread over 8 different plants in 6 different localities. Each plant was horizontally integrated and thus, there was substantial overlap and duplication of functions among the various factories. This structure of the firm reflected the historical development of Lanerossi, in which the company's namesake sought to industrialize the area but without transforming the agricultural social relations characteristic of Veneto. As a result, plants were constructed close to pools of low-wage agricultural workers as well as to sources of water and transportation.⁶⁸

Over the course of the 1960s and 1970s, the various plants of the firm were reorganized so that each factory no longer contained the entire production cycle but rather specialized in only one phase of production, relying on the other plants to complete the job. The firm

also invested 17 billion lire in modernizing its plants. For instance, in the weaving shops, the firm contained about 600 out-dated looms at the time of the ENI take-over. Beginning in 1963, with the introduction of 20 C.F.O. looms but continuing into the late 1960s-early 1970s with the introduction of new Sulzer looms, the machine park of these shops was almost entirely renewed. Both productivity and production increased as a result of these changes. For instance, while workers were originally assigned two looms each, with the Sulzer looms, one worker could control 12 machines. Production also increased from 18,000 meters of cloth per day in 1963 to 22,000 meters a day in the early 1970s. The reduction of the workforce due to the rationalization and automation of production was substantial: 5592 workers in 1972, as opposed to 12,000 workers in 1955.

While this increased rationalization and specialization enhanced the productive capacity of the firm, Lanerossi continued to underutilize its plants and reduce its workforce. Moreover, it continued to produce traditional, standardized products (low-medium quality yarns and fabrics, heavy woolen blankets, etc.) which were exactly those most subject to competition from lower cost NIC producers and which sold least on the domestic market. Thus, while firms in the Biellese area reorganized production to diversify the range and upgrade the quality of their products, and while other firms in the Veneto area (i.e., Benetton and Marzotto) ⁶⁹ also diversified their product ranges and adopted aggressive production and marketing strategies to both acquire greater segments of existing markets and

create new ones, Lanerossi continued to produce as usual and watched its market share evaporate.

Moreover, rather than increase its flexibility by decentralizing production, Lanerossi also began to integrate vertically. Beginning in the early 1960s but continuing throughout the 1970s, the firm acquired ever greater interests in various large apparel industries scattered throughout the Italian peninsula. This strategy, aimed at enhancing the firm's productive efficiency (economies of scale) and strength in the market (especially vis-a-vis other apparel companies) actually contributed to the deterioration of the firm's economic stability since the apparel firms Lanerossi acquired operated in exactly those segments of the market (low-medium quality, standardized goods) which were experiencing severe crisis in this period.

In the face of this gradual decline of the firm, the unions were unable to either promote alternatives or adopt a coherent position vis-a-vis the firm. Their policies were often confused and contradictory.⁷⁰ At times, they made concessions in order to restore the firm's economic health. Other times, they provoked confrontations in order to preserve jobs and/or relaunch production. In the end, their policies proved fruitless as firm production continued to decrease and employment levels fell. Finally, Lanerossi was purchased by and incorporated into a local competitor, Marzotto.

As in the case with the Biellese industry, to more fully understand the industrial politics of Lanerossi we need to consider the institutional and historical factors influencing both firm and union strategy in Schio. In many ways, the failure of Lanerossi's

restructuring strategy is linked to the historical development of the firm and its workforce. Founded in 1809 by Francesco Rossi, the firm continued to grow under the dynamic leadership of his son Alessandro through most of the century. By 1862, Lanificio Rossi was the largest industrial firm in the country, employing 800 workers, 6000 spindles and generating a turnover of 3 million lire.

Rossi continued to expand the firm, believing that it could compete only by increasing its scale and scope of production. In fact, Rossi's conception of industrial development and competition derived from his visits to Britain and the United States where he was particularly impressed by the large, integrated mills he observed.⁷¹ Yet, fearing the social dislocation he observed in these countries, Rossi sought to industrialize the Veneto area through more paternalistic means. In order to preserve the pre-industrial social relations he held so dear, Rossi set about building various factory towns (i.e., "Citta' Nuova") surrounding his mills, as well as creating various social clubs, pension plans, schools, etc. This model of large-scale paternalistic industrial development characterized the growth of the firm throughout the nineteenth and twentieth centuries. While this model appeared to work well during most of this period, it was unable to adjust to the changing conditions of industrial competition in the 1960s. In fact, by the early 1960s, the firm's organizational structure and ideology acted more as a hindrance than a resource.

The same is true for the local workforce. The formative experiences of Lanerossi's labor force were colored by the firm's

development strategy as well as by its industrial relations practices. Through a combination of repression and paternalism, Lanerossi resisted the unionization of its workforce. Moreover, it joined with other social forces in Veneto, i.e. the Church and local political forces, to promote industrial development of the "White" region along "conservative" lines. ⁷²

This type of formative experience coalesced with the otherwise pre-industrial local context to hinder the local unions from developing articulated views and strategies, let alone organizational capabilities, to influence the development and later the reorganization of the local textile industry. Because of their history, unions in Schio were weak and workers were poorly organized, unskilled, and incapable of assuming production responsibilities. As a result, they often passively accepted management strategies which doomed the firm to extinction.

The situation was quite different in Prato. There, local unions, political parties and producer cooperatives united with management to radically reorganize industry away from the same market segments and production strategies it shared with Lanerossi. Unlike Biella, Prato continues to produce low-medium quality textiles. Yet, in many ways, the disaggregation of large firms into a network of smaller, more specialized enterprises resembles the restructuring of Biella, even though the areas possess strikingly different local political subcultures. Local contextual factors also influenced the development of the textile industry in Prato. Since there exists already an

extensive literature on Prato, the following description of this textile district will be synoptic. 73

Consisting of seven municipalities and 212,000 residents, Prato is one of the world's most important woolen textile centers. 43,000 workers (75% of total industrial employment) and 800,000 carding spindles (63% of national capacity) are employed in this industry. Specializing in low-medium quality carded wool products, Prato exported 60% of its production (20% of total Italian textile exports) and generated about 3,000 billion lire in sales during the mid-1980s

Prato's industrialization began at the turn of the century but was consolidated during the interwar era. During this period, medium- and large-sized integrated woolen mills dominated the industrial landscape of the area. While a network of smaller, more specialized firms and impannatori (converters who buy raw materials, distribute them to various small subcontracting firms which transform them into cloth, and sell the fabric on the market) existed alongside these larger plants, their importance during this period was limited.

The prevalence of integrated firms was due to Prato's product and final markets. Since the turn of the century, Prato specialized in producing "reprocessed" wool (i.e., wool made from old rags). The use of this raw material and the technologies employed to transform it limited the range of products produced in Prato. Essentially Pratese firms manufactured low-quality, dark fabrics for traditional men's clothing, blankets, and shawls. For the first half of this century, these highly standardized products had stable markets. Much of Prato's production filled military orders and about half of it was exported to

territories of the British Empire (India, South Africa, etc.). Product standardization and market stability (controlled by British intermediaries) favored the industrial concentration of the local industry.

The situation changed radically following the Second World War. The disintegration of Prato's main export market, plant destruction during the war, obsolete technology, restrictive government economic policies (post-1948), and the growth of a highly organized and politically powerful union movement within the factories pushed the traditional integrated model of production into crisis. Consequentially, a wide-ranging reorganization process began in Prato. During this reorganization, several plants shut down while others scaled back their operations. Many firms dismantled and decentralized various phases of their production and dismissed thousands of workers. Between 1949-1950, about 6,500 workers were dismissed from these mills.

As a result of this and the ensuing reorganization of production over the course of the 1950s, many ex-workers and artisans bought old machinery from the original mills and established thousands of small, specialized shops. Between 1951 and 1981, the number of textile firms in Prato increased from 750 to 11,000 while the average size of firm decreased from 26 to 4.3. Moreover, the postwar crisis and restructuring of the local industry relaunched the role of the impannatore, who began to reorganize production among the newly established network of small firms.

This reorganization proved highly successful for the area. The impannatori were able to redirect production toward higher-quality, more creative products which found a growing market. Employment increased in the local industry from 21,000 in 1951 to 48,000 in 1981

This reorganization was all the more remarkable in that it took place without major conflicts or social dislocation. With the help of the local Communist Party (PCI), which in Prato played a major role in the anti-fascist resistance and thus enjoys considerable support (polling about 48% of the vote and governing the area since 1946), the local business association (Unione Industriale Pratese), and the regional artisan's association, local firms were able to reorganize away from their previous integrated structures and towards a network of small, specialized shops organized by impannatori.

While conflicts between workers and managers continued throughout this period, the situation never degenerated into a zero-sum game in which industrial development was blocked or workers were expelled from their jobs. Moreover, unions remained powerful actors and continued to organize a vast majority of workers despite the reduced size of the firms.

In other words, because of the existence of several firmly embedded local institutions capable of mediating conflicting interests and cooperating with one another to promote industrial change, Prato, unlike Lanerossi, was able to adapt its productive structure to changing national and international market conditions. Moreover, these organized groups have promoted a wide variety of services to the local firms, including training and skill development for workers and

managers, marketing assistance and cheap credit for firms, and a variety of financial and tax incentives to invest in new technologies and/or renovate plants -- all aimed at promoting the competitiveness of the local industry.

In the last two years, as a result of changes in consumer tastes and decreases in the value of the dollar, Prato's exports (still, mostly carded woolens) have decreased and the local industry is once again seeking to reorganize itself. While the exact direction and proportions of the current reorganization are difficult to determine at the moment, one thing is clear : just as in the 1950s, this transformation is being negotiated by the various organized groups of Prato, with the costs and benefits of this transition being shared among them.

In short, like the Biellese but in contrast to Lanerossi, the historical development of the local industry in Prato provided its industrial actors with ideological and organizational attributes which facilitated the industrial adjustment of the local industry. While Prato is politically quite different from Biella -- its reorganization was coordinated primarily by pro-labor, Communist-inspired organizations, and the local "Red" ⁷⁴ political subculture is predominant in this area -- its relatively complex social system resembles that of the Biellese. In other words, both areas contain well organized actors and institutions capable of negotiating the process of industrial change. This situation contrasts quite sharply with that of Lanerossi in Schio or even Fiat in Turin where the industrial development of that area occurred along firm-centered and

paternalistic lines which deprived both the firm and the local labor movement of the resources necessary to adjust.

Concluding Remarks

This chapter has argued that the particular restructuring pattern of the Biellese textile industry was the result of the peculiarities of its industrial development and the impact of this development on the strategic choices of the various industrial actors. In other words, over the course of the last two centuries, various industrial actors (mill owners, skilled workers, subcontractors, etc.) developed particular worldviews and organizational attributes which shaped the range of possible strategies available to them. The political struggles between these industrial actors over their competing strategic choices structured the subsequent patterns of industry and industrial relations in the Biellese.

This case study on Biella challenges a misleading assumption in the literature on industrial change. This assumption holds that there exists a single "best practice" and/or optimal organizational solution for manufacturing industrial goods competitively. Underlying this assumption is a view which portrays industrial change as a Darwinian process of adaptation and competitive selection. This chapter has argued against this notion of industrial adjustment by demonstrating that a plurality of different organizational structures and strategies have historically co-existed alongside one another and that they have evolved over time through their continuous interaction.

This chapter examined the more cooperative patterns of industrial adjustment in the Biellese by analyzing the restructuring process of the district as a whole as well as that of several individual firms. It also reviewed certain moments of Biella's past in order to elucidate how the strategic choices of the actors involved in this process of industrial reorganization were shaped by the region's institutional and historical development.

The lesson of this chapter is that societies that want to produce industrial goods competitively are not restricted to a single organizational structure or pattern of relations. Instead, production can be organized in several different ways, using different mixes of technology, skills and organization. In the Biellese, this plurality of different patterns co-exist within the same industry because of certain institutional-historical factors peculiar to the area.

The next chapter on the restructuring of Montedison seeks to move beyond the more localistic emphasis of the last two case studies by exploring how diverse patterns of micro-level industrial change effects macro-regulatory institutions. Thus, while the next chapter's comparison of Montedison's Ferrara and Porta Marghera plants is intended to once again emphasize the importance of local institutional-historical factors in shaping the strategic choices of the various industrial actors, it also attempts to shed light on how micro-level changes are, in fact, transforming macro-politics, that is the relationship between the state and industry in Italy.

Notes

1. This term was taken from Pietro Secchia, Capitalismo e classe operaia nel centro laniero d'Italia, (Rome: Editori Riuniti, 1960).
2. This and the following figures are taken from, Unione Industriale Biellese, La Realta' Socio-Economica Biellese, (Biella, U.I.B., 1987)
3. For more on the general crisis of the textile industry in advanced industrial nations, see Brian Toyne, et. al., The Global Textile Industry, (Boston: George Allen and Unwin, 1984).
4. See Toyne, et. al., Ibid., and The Textile Institute, World Textiles : Investment, Innovation, Invention, (London: The Textile Institute, 1985).
5. See MIT Commission on Industrial Productivity, Textile Sector Study, March, 1987, for a discussion of attempts by the U.S. textile industry to promote protectionism and adopt a "Southern strategy" to circumvent these challenges.
For European strategies, see Roberto Marchionatti, "L'accordo Multifibre : storia, bilancio critico e prospettive del protezionismo tessile," in CER-IRS, L'Europa Delle Industrie, (Bologna: Il Mulino, 1987).
For an interesting comparison with a non-Western nation which successfully adjusted its industry, see Ronald Dore, Flexible Rigidities : Industrial Policy And Structural Adjustment In The Japanese Economy 1970-1980, (Stanford: Stanford University Press, 1986).
6. Figures from U.S. Congress, Office of Technology Assessment, The U S. Textile and Apparel Industry : A Revolution in Progress -- Special Report, (Washington, DC : U.S. Government Printing Office, April 1987) :7.
7. National Research Council, The Competitive Status of U.S. Fibers, Textiles, and Apparel Complex : A Study of the Influence of Technology in Determining International Industrial Competitive Advantage, (Washington, D C.: National Academy Press, 1983): 33.
8. MIT Commission on Industrial Productivity, Textile Sector Study, March, 1987 : 15.
9. These figures were taken from Wayne Brooke Nelson, "Improving Competitiveness In Mature Industries : Lessons from the West German Textile Industry," M.S. Thesis, Department of Political Science, MIT, October, 1987.
10. Ibid.

11. See Graziella Fornengo, "Innovazione E Internazionalizzazione Nell'Industria Tessile-Abbigliamento," in Angelo Michelsons, ed., Tre Incognite Per Lo Sviluppo, (Milan: Franco Angeli, 1985); Giacomo Correale and Raffaele Gaeta, "Mutamenti Strutturali Nell'Industria Tessile-Abbigliamento Mondiale. Posizione Competitiva E Strategie Internazionali Delle Aziende Italiane," in Economia e politica industriale, n. 38 (1983): 145-192; Federtessile, "Problemi Dell'Industria Tessile Nei Confronti Di Un Quadro Internazionale," (Milan: Federtessile document, 1986); and Giancarlo Lombardi, President of Federtessile, "Le Prospettive Del Tessile-Abbigliamento Europeo Nel Confronto Mondiale : Il Ruolo Dell'Italia," paper presented at the "IV Convegno Nazionale Degli Industriali Tessili E Dell'Abbigliamento," Milan, September 29, 1986.

12. Based on Interview n. 86, Mr. Ciampini, Secretary General of Federtessile, Milan, May 15, 1987. See also Folker Froebel, Juergen Heinrichs, and Otto Kreye, The New International Division of Labor : Structural Unemployment in Industrialized Countries and Industrialization in Developing Countries, (Cambridge, UK: Cambridge University Press, 1980)

13. For more on the crisis of Italy's textile-apparel industry, see Federtessile, Il Settore Tessile E Abbigliamento In Italia, (Milan: Franco Angeli, 1980), and Giuseppe Turani, ed., Sull'Industria Tessile, (Milan: Feltrinelli, 1976).

14. This section draws from Federtessile , "L'Industria Tessile : Sua Evoluzione Dal 1950 Ai Giorni Nostri," Milan, unpublished Federtessile document, 1986.

15. For more on this, see Franco A. Grassini and Carlo Scognamiglio, eds., Stato E Industria In Europa : L'Italia, (Bologna: Il Mulino, 1979)

16. These figures are from Istat, 5th and 6th Censimento Generale dell'industria, del commercio, dei servizi, e dell'artigianato, reported in Michael Contarino, "The Politics of Industrial Change : Textile Unions And Industrial Restructuring in Five Italian Localities," Ph.D. Thesis, Department of Government, Harvard University, May 1984.

17. Ibid.

18. See Luigi Frey, ed., Lavoro a domicilio e decentramento dell'attivita' produttiva nei settori tessili e dell'abbigliamento in Italia, (Milan: Franco Angeli, 1975).

19. For more on the general strategies of the industry, see Sergio Mariotti, Efficienza e struttura economica : il caso Tessile-Abbigliamento, (Milan: Franco Angeli, 1982); Antonello Zanfei, "Cambiamento Tecnologico E Strategie Di Internazionalizzazione Delle

Imprese Tessili Italiane," in Economia e politica industriale, nos. 46,47 (1985); and special issue of Quaderni di Rassegna Sindacale, n. 88 (January-February, 1981), entitled I Tessili.

For a discussion of the restructuring of the industry in various localities in Italy, with particular attention to union strategy, see Michael Contarino, op. cit.. For a comparison of changes in Biella with those of other woolen textile areas in Italy, see Marco Romagnoli, "Tecnologie e organizzazione del lavoro nell'industria laniera," Quaderni di Rassegna Sindacale, n. 105 (1983): 118-131.

The choice of Biella as a case was taken after interviewing national, regional and local business and union leaders throughout Italy, and after visiting numerous textile districts, including Busto-Arsizio, Bergamo-Brescia, Carpi, Como, Vincentino, and Prato.

20. For more on this, see Sergio Scanziani, "Profili Di Analisi Del Sistema Tessile Biellese," Tesi di Laurea, Facolta' Di Economia E Commercio, Universita' Commerciale Luigi Bocconi, Milan, 1986.

21. See Luigi Frey, op. cit.: 295; and Clemente Ciochetti and Franco Ramella, "Una rivoluzione tecnologica nel biellese," in Quaderni Rossi, n. 4 (1964).

22. For more on this downturn, see Alan R. Posner, "Italy : Dependence and Political Fragmentation," in Peter J. Katzenstein, ed., Between Power And Plenty, (Madison, WI : University of Madison Press, 1978); and Guido Rey, "Italy" in Andrea Boltho, ed., The European Economy Growth and Crisis, (Oxford University Press, 1982).

23. Luigi Frey, op. cit.: 296.

24. Ibid.; For more on the divergent and uncertain strategies of this period, see CERPI, Ricerca Su Alcune Linee Di Ristrutturazione Dell'Industria Tessile Biellese, (Milan: November, 1971).

25. Ibid.

26. Interview n. 60, Alberto Brocca, President of the Unione Industriale Biellese, May 22, 1987; Interview n. 68, Paolo Botto, President, Lanificio Giuseppe Botto & Figli, Biella, July 17, 1987; and Interview n. 47, Paolo Ferla, Lanificio Egidio Ferla, SpA, Ponzzone, May 22,27, 1987.

27. See Paolo Ferla, "Progresso Tecnico E Nuove Forme Organizzative Nel Comparto Laniero Biellese. Analisi Empirica Di Alcuni Casi Significativi," Tesi di Laurea, Facolta' Di Economia E Commercio, Universita' Degli Studi Di Torino, 1981.

28. Interview n. 47, Paolo Ferla, op. cit.; and Interview n. 69, Pier Luigi Loro Piana and Sergio Loro Piana, co-Presidents of Lanificio Ing. Loro Piana & Co., SpA, Quarona Sesia, June 10, 1987.

29. This section draws on data and documents obtained in Interview n. 60, Alberto Brocca, President, Unione Industriale Biellese, op. cit.; and Interview n. 74, Arnaldo Cartotto, Unione Industriale Biellese, Biella, May 22, June 10, 1987.
30. See Unione Industriale Biellese, Biella negli anni '80, (Biella: U.I.B., 1980).
31. see Luigi Frey, op. cit.
32. This section draws on multiple interviews and plant visits in the Biellese during the Spring-Summer, 1987.
33. This observation is based on several plant visits and interviews with local firm managers, including, Interview n. 47, Paolo Ferla, op. cit.; and Interview n. 69, Pier Luigi and Sergio Loro Piana, op. cit.
34. Ibid. This section also draws on Interview n. 91, Donatella Canta, Regional Secretariat, Filtea Piemonte, Turin, October 20, 1987; and Interview n. 92, Ezio Becchis, IRES-CGIL Piemonte, Turin, October 20, 1987.
- For a similar analysis of the situation, see Raffaele Gaeta, "La segmentazione strategica di un settore industriale : la filatura e la tessitura pettinata Biellese," unpublished paper, November 1987.
35. Based on information gathered during Interview n. 47, Paolo Ferla, op. cit.
36. This section relies heavily on information taken from a study in progress on the Biellese by Filtea-CGIL Regionale, Turin, Winter 1987-88. See also description of this firm in Paolo Ferla, "Progresso Tecnico E Nuove Forme Organizzative Nel Comparto Laniero Biellese," op. cit..
37. Based on information gathered in Interview n. 69, Pier Luigi and Sergio Loro Piana, op. cit.
38. Ezio Becchis and Gianni Montani, "Loro Piana", unpublished report for the Osservatorio Tessile Piemontese, Filtea-CGIL Piemonte, February 1988.
39. Based on information gathered in Interview n. 67, Pier Giorgio Colombo, General Manager, Lanificio Emernegildo Zegna, Trivero, July 16, 1987. For more on the community in which Lanificio Zegna is located, see Censis, Il Caso Trivero : demografia, occupazione, qualita' e stili di vita in un comune montano industrializzato, (Biella: Unione Industriale Biellese, 1983).
40. On "Quick Response" and other attempts at enhancing efficiency in the textile industry, see MIT Commission on Industrial Productivity, Textile Sector Study, op. cit.

41. For more on how production efficiency is obtained not through firm size but in other ways in the Biellese textile industry, see M. Richetti, "Le fasi del ciclo tessile laniero : flussi di produzione e alcuni aspetti strutturali," unpublished paper, Milan, November 1987.

42. Based on information obtained in Interview n. 68, Paolo Botto, President of Lanificio Giuseppe Botto & Figli, Biella, July 17, 1987. See also, Arthur Andersen & Co., Scelte imprenditori ed organizzazione : Il Caso Di Quattro Aziende Biellesi, (Biella : Unione Industriale Biellese, May, 1981) :82-98 for more on Lanificio Giuseppe Botto.

43. Based on data and documents obtained in Interview n. 73, Renzo Giardino, Secretary General, Camera del Lavoro, Biella, June 10, 1987. Documents obtained include : Ufficio Economico Filtea Nazionale, "Primi Risultati Dell'Indagine Fultra Sull'Industria Laniera," (Rome : Filtea, July 27, 1983); Ufficio Economico Filtea Nazionale, "L'Industria Laniera Tra I Due Censimenti (1971-1981). Unita' Locali E Addetti Nei Dati Nazionali, Del Piemonte, Veneto, Toscana." (Rome : Filtea, January, 1984); and Ufficio Economico Filtea Nazionale, IRES-CGIL, "Valore aggiunto, fatturato, investimenti, nelle imprese industriali," (Rome: Filtea Nazionale, January, 1984).

44. For a good description of these territorial agreements, see Camera del Lavoro Territoriale Biellese, "Ricerca Sul Sistema Industriale Biellese," unpublished report, November, 1987.

45. Ibid.; This is also based on interviews with various union leaders at different levels of the union hierarchy, including Interview n. 73, Renzo Giardino, op. cit.; Interview n. 91, Donatella Canta, Filtea-CGIL Piemonte, op. cit.; Interview n. 88, Mario Agostinelli, Regional Secretary, CGIL Lombardia, Sesto San Giovanni, June 11, 1987; Interview n. 90, Agostino Megale, National Secretariat, Filtea-CGIL, Rome, October 13, 1987; and Interview n. 45, Gianni Amoretti, National Secretary, Filtea-CGIL, Rome, October 13, 1987

46. For more on this, see Paolo Ferla, "Progresso Tecnico E Nuove Forme Organizzative Nel Comparto Laniero Biellese...", op. cit.: 59; and Renzo Giardino, "Ristrutturazione e professionalita' diffusa (Il Settore Tessile)" in Enrico Talliani, ed., Processo produttivo e professionalita' emergente, (Rome: Carucci editore, 1984).

47. Interview n. 47, Paolo Ferla, op. cit.

48. See Adriano Massazza Gal, "Gli anni del cambiamento," in M. Neiretti, et. al., L'Altra Storia : Sindacato e lotte nel biellese. 1901-1986, (Rome: Ediesse, 1987).

49. Based on data and documents obtained during Interview n. 73, Renzo Giardino, Secretary General of the Camera Del Lavoro Territoriale Biellese, op. cit.; and Interview n. 60, Alberto Brocca, President of Unione Industriale Biellese, op. cit..

50. See Unione Industriale Biellese, La Pendolarita' Dei Lavoratori Dipendenti Dell'Industria Biellese, (Biella: U.I.B., 1981).

51. Interview n. 73, Renzo Giardino, op. cit.

52. This section relies on Sergio Scanziani, "Profili Di Analaisi Del Sistema Tessile Biellese," op. cit., chapter 1.

53. At first a reactionary monarchy in Turin feared the growth of a powerful industrial bourgeoisie in near-by Biella and thus sought to restrict and severely regulate the expansion of the textile industry. Later, during the Napoleonic era, the French government sought to promote French textiles at the expense of the nascent Italian industry and planned to transform all of Italy into an agricultural bread-basket for France. In accordance with this policy, the Napoleonic regime blocked the transfer of mechanical looms from either France or Belgium (the Continental blockade also hindered British imports) and discouraged all investments in the industry. For more on these policies, see Pietro Secchia, Capitalismo e classe operaia nel centro laniero d'Italia, op. cit.: chapter 2.

54. Unification also created a national market which further promoted the development of this industry. Previously, Italy was plagued by hundreds of different trade barriers, transportation taxes, tithes, etc. by the numerous principalities, papal territories and small states. Between 1870 and 1890, the Italian state built thousands of miles of road and railroad, hundreds of schools and postal offices, and reformed its trade policy (1878) in order to provide some protection to its nascent industries. As a result, Italy experienced its first economic "take-off". For more on this process, see Alexander Gerschenkron, Economic Backwardness in Historical Perspective, (Cambridge, MA: Harvard University Press, 1976); and Alexander Gerschenkron, "Notes on the Rate of Industrial Growth in Italy 1881-1913," Journal of Economic History, XV, n. 4, (December 1985). For more on Cavour, see Denis Mack Smith, Cavour, (NY: Knopf, 1985).

55. Pietro Secchia, op. cit., chapter 3.

56. Sergio Scanziani, op. cit.: chapter 1. For more on the history of the Biellese, see Valerio Castronovo, L'Industria laniera in Piemonte nel secolo XIX, (Turin: Einaudi, 1964).

57. For more on these societies and cooperatives, see Marco Neiretti, "Dalle origini alla fine della prima guerra mondiale," in M. Neiretti, et. al., L'Altra Storia : Sindacato e lotte nel biellese : 1901-1986, op. cit.

58. This section relies heavily on Giuseppe Berta, "La Formazione del movimento operaio regionale : il caso dei tessili (1860-1900)," in Aldo Agosti e Gian Maria Bravo, eds., Storia Del Movimento Operaio. Del Socialismo, E Delle Lotte Sociali In Piemonte. Volume I, (Bari: De Donato, 1979). Interestingly, this type of artisanal-republican ideology was expressed by other worker movements elsewhere during the same phase of industrialization. For more on this in America, see Sean Wilentz, Chants Democratic : New York City and the Rise of the American Working Class, 1788-1850, (New York: Oxford University Press, 1984); Herbert G. Gutman, Work, Culture and Society In Industrializing America, (New York : Vintage Books, 1977); and Alan Dawley, Class And Community The Industrial Revolution In Lynn, (Cambridge, MA : Harvard University Press, 1976). For expressions of this ideology elsewhere in Europe, see Gareth Stedman Jones, Languages of Class : Studies in English Working Class History, 1832-1982, (Cambridge, UK : Cambridge University Press, 1983); and William H. Sewell, Jr., Work and Revolution In France The Language of Labour From the Old Regime to 1848, (Cambridge University Press, 1980).

59. Berta, *Ibid.*

60. See Marco Neiretti, *op cit.*

61. For a discussion of this process, see Franco Ramella, Terra E Telai Sistemi di parentela e manifattura nel Biellese dell'Ottocento, (Turin: Einaudi, 1983).

62. Giuseppe Berta, *op. cit.*

63. Marco Neiretti, *op. cit.*

64. Pietro Secchia, *op. cit.*: 200. My translation.

65. For more on this period, see Luigi Moranino, "La Camera del Lavoro di Biella dall'armistizio al Patto di Palazzo Vidoni (1918-1925)"; and Gianni Perona, "Gli Anni del fascismo", both in M. Neiretti, L'Altra Storia, op cit.; and Renzo Giardino, "Il Movimento Operaio Nel Biellese," unpublished manuscript, n.d.

66. Clemente Ciochetti and Franco Ramella, "Una rivioluzione tecnologica nel biellese," in Quaderni Rossi, n. 4 (1964).

67. This section is based on a information gathered during a visit to Lanerossi in Schio in July, 1987, as well as from various secondary sources, including: Fiorenza Belussi, "La Lanerossi Tra Risanimento E Smobilitazione," Oltre Il Ponte, n. 2, 1983 : 20-45; Enrico Marchesini and Attilio Masiero, Il Caso Tessile : Ciclo Produttivo e Forza Lavoro, Lanerossi 1963-74, (Milan: Marzotta, 1975) and Luigi Guiotto, La Fabbrica Totale, (Milan: Feltrinelli, 1979).

68. For more on Alessandro Rossi and his vision of industry, see Guido Baglioni, L'Ideologia Della Borghesia Industriale Nell'Italia Liberale, (Turin: Einaudi, 1974), especially chapter 4, "La costruzione di un paternalismo organico nel pensiero di un imprenditore d'eccezione : Alessandro Rossi".

69. For more on these two firms, see Giuseppe Nardin, La Benetton : strategia e struttura di un'impresa di successo, (Rome: Edizioni Lavoro, 1987); Piero Bairati, Sul Filo Di Lana. Cinque generazioni di imprenditori : i Marzotto, (Bologna: Il Mulino, 1986); and Giorgio Roverato, Una Casa Industriale : I Marzotto, (Milan: Franco Angeli, 1986).

70. See Antillo Masiero, "Ristrutturazione e scomposizione della forza-lavoro alla Lanerossi," Classe, n. 7, 1973: 247-256.

71. See Guido Baglioni, op. cit.

72. For more on this development model, see Giuseppe Berta, "Dalla manifattura al sistema di fabbrica : razionalizzazione e conflitti di lavoro," in Storia D'Italia, Annali 1, (Turin: Einaudi, 1978); Luigi Guiotto, La Fabbrica Totale, (Milan : Feltrinelli, 1979); Silvio Lanaro, "Geneologia di un modello" in Storia D'Italia : Le Regioni. Il Veneto, (Turin, Einaudi, 1984); and Massimo Cacciari, "Struttura e crisi del 'modello' economico sociale veneto," in special issue of Classe, n. 11 (November, 1975), entitled Monopolio E Dipendenza. L'area veneta.

73. See D. Bernardi and M. Romagnoli, L'area pratese tra crisi e mutamento, (Prato: Consorzio Centro Studi, 1984); Michael Contarino, "The Politics of Industrial Change : Textile Unions And Industrial Restructuring In Five Italian Localities," op. cit.; G. Lorenzoni, "Lo sviluppo industriale di Prato," in Storia di Prato, vol. III, (Prato. Cassa di Risparmi e Depositi, 1980); Marco Romagnoli, "L'evoluzione della tecnologia e dell'organizzazione del lavoro nell'industria laniera," op. cit.; Charles Sabel and Michael Piore, The Second Industrial Divide, (New York: Basic Books, 1984); and Lucia Scarpiti and Carlo Trigilia, "Strategies of Flexibility : Firms, Unions and Local Governments. The Case of Prato", paper presented at the Conference on "New Technologies and Industrial Relations : Adjustment to a Changing Competitive Environment," Endicott House, Dedham, MA, February 22-24, 1987.

This section relies on the above literature as well on various plant visits and interviews conducted in Prato during the Spring of 1987, including : Interview n. 66, Mr. Parenti, President of Unione Industriale Pratese, Prato, May 28, 1987; Interview n. 65, Sergio Carpini, Promotrade, Prato, May 28, 1987; and Mr. Bigagli, President, Bigagli, SpA, May 28, 1987.

74. For more on political subcultures in Italy, see Samuel Barnes, Representation In Italy : Institutionalized Tradition and Electoral Choice, (Chicago: The University of Chicago Press, 1977). For more on the role the subcultures play in industrial politics, see Carlo Trigilia, Grandi Partiti E Piccole Imprese, (Bologna : Il Mulino, 1986)

Table One

CLASSIFICATION OF FIRMS IN PERCENTAGE OF TOTAL EMPLOYEES

<u>Year</u>	<u>1 - 19 Employees/Firm</u>	<u>20 - 499 Employees/Firm</u>	<u>500 or More Employees/Firm</u>
1961	24.9	52.6	22.5
1971	23.3	60.3	16.4
1981	38.1	54.2	7.7
1984	36.7	55.5	7.8

Source ISTAT and FEDERIESSILE

Table 2

Foreign Trade in Italian Apparel Industry
(15 Billion of Lire)

	<u>Exports</u>	<u>Imports</u>	<u>Balance</u>
1970	7.712	2.517	5.195
1971	8.127	2.092	6.035
1972	9.151	2.397	6.754
1973	9.397	3.793	5.604
1974	10.291	4.149	6.142
1975	8.776	1.788	6.988
1976	11.732	4.324	7.408
1977	12.769	4.396	8.373
1978	14.443	4.997	9.446
1979	15.642	5.241	10.401
1980	13.812	5.431	8.381
1981	14.839	4.708	10.131
1982	15.095	4.902	10.193
1983	15.649	4.641	11.008
1984	17.126	5.311	11.815
1985	18.530	5.850	12.680
1986	18.277	5.597	12.380
1987 (estimate)	17.400	6.200	11.200

Source: ISTAT
Federtessile document

Table 3

Employment by Firm Size in the Biellese (1965-1969)

Firm Size (By # of Employees)	1965				1969			
	Firms		Employees		Firms		Employees	
	n.	(%)	n.	(%)	n.	(%)	n.	(%)
1 - 10	281	(42.8)	970	(2.6)	540	(57.8)	1,942	(5.3)
11 - 50	228	(34.5)	5,606	(15.2)	251	(26.8)	6,416	(17.5)
51 - 100	80	(12.1)	5,401	(14.6)	68	(7.3)	4,685	(12.8)
101 - 500	59	(8.9)	13,551	(36.5)	67	(7.1)	14,414	(39.2)
501 - 1000	5	(0.8)	3,250	(8.9)	8	(0.9)	5,761	(15.7)
+ 1000	7	(1.1)	8,084	(21.9)	3	(0.3)	3,480	(9.5)

Source. Unione Industriale Biellese. Data reprinted in Luigi Frey, ed. Lavoro A Domicilio E Decentramento Dell' Attivita' Produttiva nei settori tessili e dell' abbigliamento Italia (Milan: Franco Angeli, 1975): 298

Table 4

Number of Industrial and Artisinal Textile - Apparel Firms in the
Biellese (By Productive Activities)

	1962	1965	1968	1973	1978
Spinning & Weaving	187	145	130	131	123
Combed Wool Spinning	181	169	182	242	294
Twisting	82	73	91	131	152
Dyeing	18	18	20	15	15
Finishing	18	18	20	15	15

Source Unione Industriale Biellese

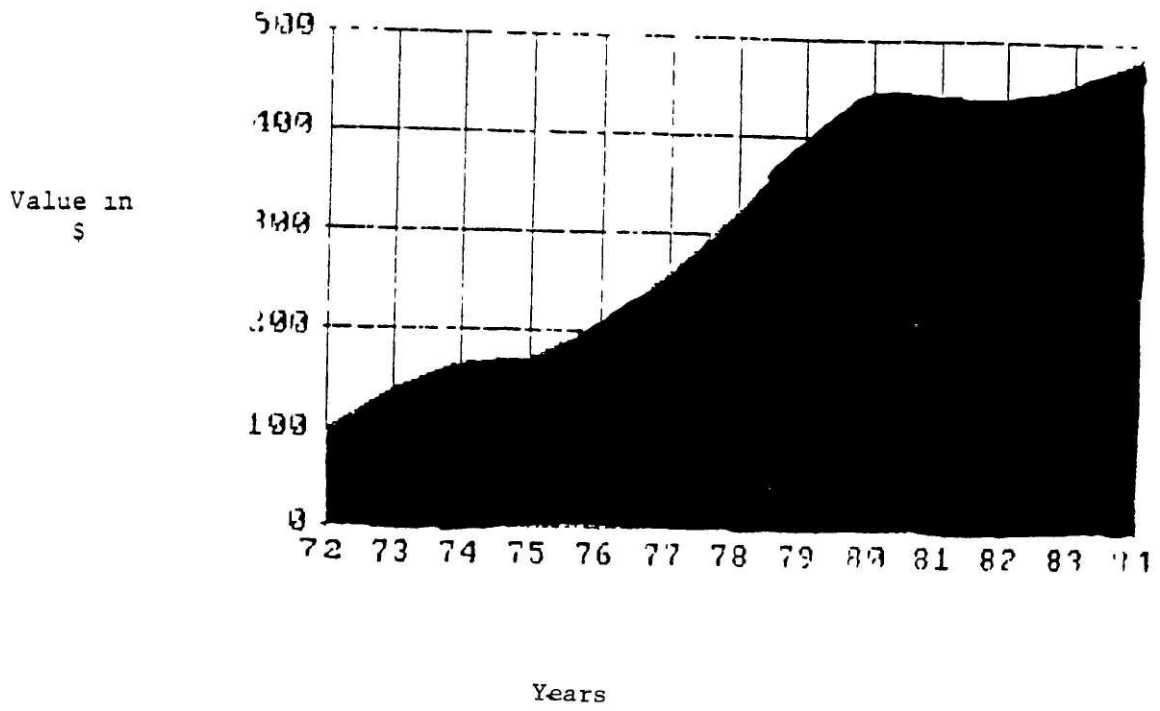
Table 5

Employment By Industrial Sector in the Biellese (1976-1986)

Year	Textile - Apparel		Mechanized Engineering		Others		Total	
	N	%	N.	%	N.	%	N.	%
1976	33086	73.4	5828	12.9	6166	13.7	45080	100.0
1977	32631	73.2	5836	13.1	6102	13.7	44569	100.0
1978	32301	73.0	5837	13.2	6121	13.8	44259	100.0
1979	33303	73.2	5932	13.0	6216	13.7	45501	100.0
1980	32983	71.9	6732	14.7	6131	13.4	45846	100.0
1981	32131	71.6	6503	14.5	6223	13.9	44857	100.0
1982	30239	71.5	6207	14.7	5827	13.8	42273	100.0
1983	28835	72.1	5731	14.3	5452	13.6	40018	100.0
1984	29270	71.9	5758	14.2	5661	13.9	40689	100.0
1985	30504	72.2	6002	14.2	5749	13.6	42255	100.0
1986	30109	71.3	6212	14.7	5887	13.9	42208	100.0

Source Camera Del Lavoro Territoriale Biellese, Nov. 1987

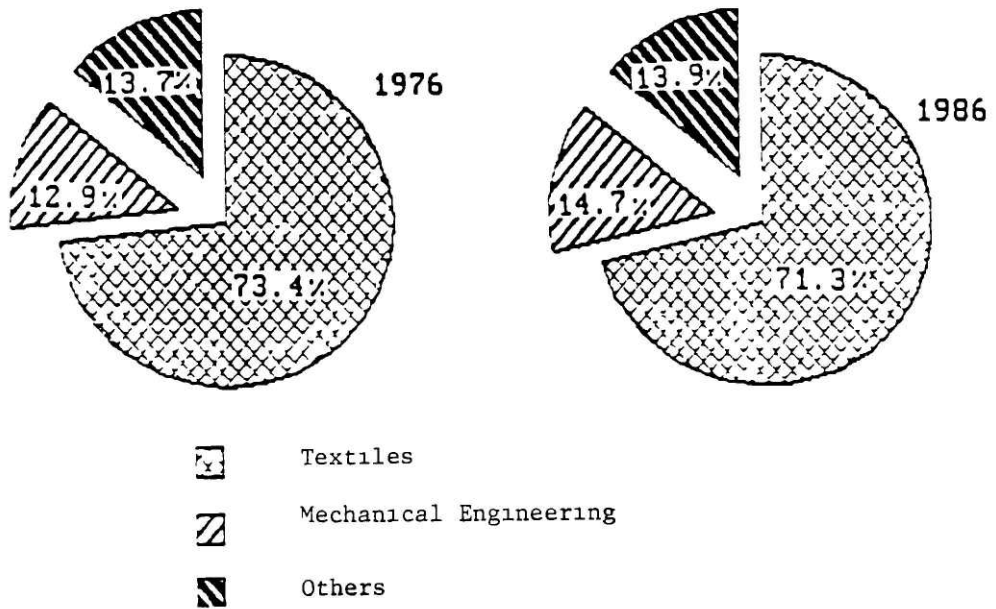
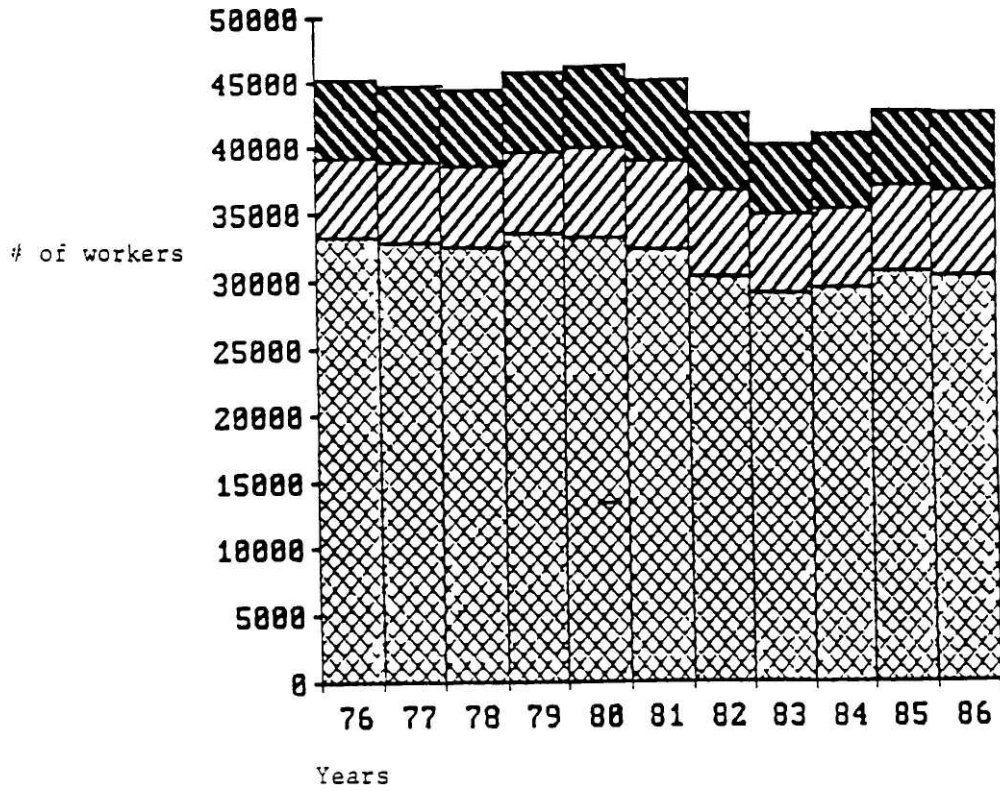
Figure 1



Source: UNIONCAMERE

Figure 2

Employment by Industrial Sector in the Biellese.



Chapter Four

The Inter-dependence of Micro- and Macro-level Industrial Change
The Case of Montedison, S.p.A.

Introduction

This chapter analyzes the restructuring process of Montedison S p.A , Italy's leading petrochemical firm. In the last two chapters, two misleading assumptions common to the literature on industrial adjustment were challenged. The case study on the restructuring of Fiat Auto argued that the interests, consciousness and strategic choices of the various industrial actors did not correspond to any reductionist claims about individual or collective behavior but were the product of Fiat's particular industrial development and its impact on the worldviews and organizational features of these actors.

The chapter on the restructuring of the Biellese textile district criticized the second mistaken assumption found in the literature on industrial change. This second assumption claims that there exists a single "best practice" or organizational solution for manufacturing certain industrial goods competitively. Underlying this assumption is a view which portrays industrial change as a Darwinian process of adaptation and competitive selection.

The case study on the Biellese textile district argued against these notions of industrial adjustment by illustrating how a plurality of different organizational structures and strategies have co-existed alongside one another ever since the area was initially industrialized and how both patterns of industry have changed over time and through interaction with one another.

This chapter on Montedison challenges the third misleading assumption about industrial change which either ignores or underestimates the degree of change that occurs within and between the macro-level institutions of national political economies. Most institutionalist analyses of industrial adjustment focus primarily on macro or national political-economic institutions.¹ Because these analyses are confined to the national institutions or practices that are claimed to determine economic and industrial policies -- financial structures, corporatist relations between labor and management, etc -- they often ignore the degree of micro-level change occurring within an apparently stable set of institutions. Underlying this focus on the macro level is an assumption that micro-level institutions merely replicate or reproduce macro-level arrangements and practices.

This case study on Montedison challenges this view by illustrating how micro-level adjustment, instead, redefines the seemingly unchanging macro-level institutions regulating industry by subtly (and not so subtly) redrawing the boundaries between these two levels. It seeks to elucidate the extent of institutional change often missed by standard accounts.

The Montedison case has been selected for several reasons. First, this chapter on Montedison, like the other two case studies, illustrates the underlying importance of local institutional and historical factors in shaping the strategic choices of the various industrial actors. To illustrate this point, two plants : Montedison-Ferrara and Montedison-Porta Marghera, are compared. This comparison shows how two plants within the same company, sharing a single

management, operating in the same product market, and employing similar technologies developed radically different approaches to the process of industrial adjustment.

Due to the divergent patterns of industrial development at these two plants, the worldviews and organizational features of the relevant local actors were shaped in very different directions. Thus, during Montedison's restructuring process in the early 1980s, the Ferrara plant developed a highly concerted approach to industrial adjustment and promoted very innovative strategies regarding the organization of labor and the reskilling of workers. In contrast, the Porta Marghera plant was rife with industrial conflict and stalled innovation. In fact, while the Ferrara plant presents itself as an ideal-typical case of micro-concertation,² the Porta Marghera complex is notorious for its experiences with terrorism, including the kidnapping and assassination of two firm managers by the Red Brigades

Second, the case of Montedison presents itself as a hybrid between the other two cases previously examined. Its restructuring process was not simply firm-centered as in the case of Fiat nor did it involve a network of firms as in the Biellese. Instead, Montedison transformed itself into district-like firm. In other words, over the course of its reorganization, Montedison spun-off its various operational units into autonomous enterprises and transformed itself into a holding. Market and quasi-market relations which in many ways resemble the links between the small textile firms described in the last chapter developed among these previously integrated units.

This corporate restructuring and the subsequent initiatives aimed at rationalizing and up-grading production, shedding redundant workers, developing new products, etc. were linked to industrial relations practices which reduced intra-firm hierarchies, broadened jobs, enhanced skills, and promoted increased labor flexibility and mobility. As a result, the Montedison case highlights the decreasing relevance of distinctions between large and small firms, markets and hierarchies, corporate strategy and industrial relations practices.

Finally, this chapter on Montedison allows us to see how political struggles at all levels -- at the strategic level of the industry, the national labor confederations and the state; at the collective bargaining level between the firm and the chemical workers' unions; and on the shop floor between supervisors and employees -- take place simultaneously and how these multi-level struggles, in turn, reshape the original boundaries between the different levels. As a result, we can see that even when it appears as if institutional arrangements are stable and static, there is, in fact, substantial change occurring all the time.

The restructuring process of Montedison elucidates how divergent patterns of industrial change at the micro-level influenced macro-level policy by forcing industry, union and government officials to devise innovative ways of diffusing the experiences and patterns of relations more typical of Ferrara to other Montedison plants, including Porta Marghera. Similarly, the reformulated strategies and plans at the strategic level, in turn, altered conditions at the micro-level and permitted plant managers and local union leaders at

Porta Marghera to regain control of what was generally perceived to be an explosive situation.

In short, a recursive process of feedback and change between the various levels of the firm developed which altered initial strategies and spawned new ones. Interaction between levels also changed the patterns of relations between the various actors. What began as highly conflictual relations between both management and labor as well as between private and public sectors of the industry were slowly transformed into more cooperative ties over the course of the restructuring process. It is no wonder that the only sectoral restructuring plan to succeed in Italy was the Chemical Plan.

This chapter is divided into three sections. First, it will briefly describe the more general crisis of the petrochemical industry. Second, it will analyze the reorganization of Montedison S.p.A. by considering various changes at both the corporate and plant levels. This section will also compare the adjustment processes of the Ferrara and Porta Marghera complexes. The last section will seek to re-link the two levels of industrial change by analyzing their interdependence during the reorganization of Montedison.

The Crisis of the Petrochemical Industry

For most advanced industrial nations in the West, the development of the petrochemical industry occurred relatively recently. Beginning in the 1950s, the mass production of plastics and synthetic fibers developed quickly in all OECD nations. The industry grew at an

impressive rate : typically 30-50% faster than GNP. Since the basic technology for the industry was readily available, entrance costs were low, and since the industry was initially quite profitable, returns on investments appeared promising ³ Thus, original chemical companies were soon joined by a host of new entrants, including oil companies, utility concerns, etc. and the global petrochemical industry developed at a furious pace.

This pattern of development continued until the 1970s when the industry, crowded with giant producers and poised to exploit ever-growing demand, was hit with major changes in the international market which threatened to undermine the financial stability and productive strength of the sector. Due to a variety of factors, including the increase in feedstock prices, process technology innovations which improved production yields, the emergence of new competitors producing in oil rich countries, and a severe economic downturn -- all of which had been developing slowly for several years -- individual petrochemical firms suddenly found themselves burdened with rigid productive structures and excess capacity. In short, both their structures and strategies were ill-suited to the altered international conditions of the late 1970s.

The results were catastrophic. During this period, even industry leaders operated at a loss for several years in a row. In the United States, the industry was profitable during only half the last decade. ⁴ During the depth of the recession in 1982, the U.S. petrochemical industry faced its most severe downturn of the entire postwar period net profits of the 12 largest chemical companies fell by 37% in just

one year. ⁵ In 1983, the combined operating losses of Japan's petrochemical manufacturers amounted to \$ 1.6 billion. ⁶ In Italy and France, the entire industry operated at a loss throughout the late 1970s-early 1980s. ⁷

As a result of this crisis, petrochemical firms throughout the West initiated major processes of restructuring in an attempt to rationalize production, eliminate excess capacity, and up-grade the quality of their production (i.e., move from commodity to specialty chemicals). While the patterns of restructuring were quite different in the various countries, as a result of both industrial and firm features (i.e., degree of integration, financial resources, etc.) and government and union policies ⁸, firms everywhere devised plans, formed alliances, and cut deals aimed at reorganizing their structures, upgrading their production, and reducing the number of players in their ever-more competitive and segmented markets.

The crisis of the petrochemical industry was especially severe in Italy due to the industry's complete dependence on foreign sources of oil, its low degree of specialization, and its highly fragmented and poorly coordinated productive structure. In many ways, the troubles of the Italian petrochemical industry preceded the more global crisis due to the various problems associated with its development. In fact, the crisis of the industry in the late 1970s revealed the latent shortcomings of its development, which included limited economic planning, autarchic firm strategies, highly politicized firm managements, and a vision of industrial growth which exclusively identified technology with large plants and development with large

scale.⁹ This notion of industrial development combined with poor firm management and disruptive state intervention to bring about the near-collapse of what was originally a technically sophisticated and economically strong sector.

To emerge from this crisis, the industry shed thousands of workers, closed numerous plants, and radically reorganized both its structures and strategies. In the process of this reorganization, several foreign firms closed their Italian operations while other domestic companies went bankrupt. In the end, two national monopolies, each specializing in particular product markets (one in commodities and the other in specialty chemicals) and revolving around Montedison and Enichem, were established. To further understand this restructuring process, the next section of this chapter will explore the adjustment process at Montedison, Italy's major petrochemical company.

Montedison and the Crisis of the Italian Chemical Industry

Montedison S.p.A. was established in 1966 from a merger of two Italian companies, Montecatini and Edison.¹⁰ Montecatini (established in 1888) was a large chemical and mining company which had diversified into fertilizers, dyes, paints, pharmaceuticals, fibers and coal-based chemicals in the 1920s and 1930s. In 1949, it built the first petrochemical complexes in Italy. A few years later, Giulio Natta, one of the firm's chemists, discovered a new process to produce polypropylene, for which he was later awarded the Nobel Prize in

Chemistry. With its long tradition in chemicals and its strong technical capacity, Montecatini expanded rapidly as plastics developed world-wide and the firm sold polypropylene technology to other firms at home and abroad.

Edison Co. was founded in 1884 and until 1950, was exclusively a utility company. However, following the nationalization of utilities in the early 1960s, Edison merged with Montecatini. The results of this fusion were remarkable. During the first year of its existence, Montecatini-Edison (called Montedison after 1972) made a profit of 9% on sales of \$680 million.¹¹ For the next several years, in fact, the company continued to show a healthy balance sheet and to hold a dominant share in the Italian market for fertilizers, plastics, synthetic fibers, and several other chemicals.

Yet, the success of the firm was quickly thwarted due to the particular way the rest of the industry developed during and after the Italian "economic miracle" of the early 1960s. During these years, the Italian government encouraged economic development, especially in the poverty-stricken South, through its state-holding companies I.R.I. (established in 1933) and E.N.I. (established in 1953).¹² Given the initial success of the petrochemical industry, the government tied its aspirations for economic growth to the development of the sector. As a result, it encouraged investment by established firms and promoted the entrance of new ones.

Due to the hurried pace of investments, generous government funding, and regional development incentives of these years, Italian petrochemicals developed into a poorly structured, highly fragmented

industry. Fifteen separate petrochemical centers sprang up around the country -- most of them small, poorly balanced and not adequately integrated with one another. Moreover, most producers concentrated on low value-added primary chemicals (i.e., ethylene) for which they (but also oil-rich NICs) could easily license technology. Secondary chemicals (i.e., specialties and pharmaceuticals) were ignored. As a result, the Italian industry developed into one with structural weaknesses, excess capacity, and productive redundancy. Since most of this expansion was financed through debt (often subsidized by the state) the costs of this uneven development weighed heavily on firm balance sheets. And as the national and international context began to change in the 1970s, the legacy of this pattern of industrial development left the Italian industry particularly vulnerable.

Following the "hot autumn" of 1969, the rapid rise in labor costs began to squeeze firm profit margins. Montedison's labor costs rose from 29% of sales in 1969 to 34% in 1972.¹³ As a result, the firm's narrow profits were quickly transformed into huge losses. This situation was compounded by broader developments, including the quadrupling of oil prices after 1973, the emergence of new competitors from oil-rich NICs, and the devaluation of the lire by 25% between 1971-1976. Thus, Italian chemical producers like Montedison found themselves suddenly squeezed for profits at a time when they were still paying off plant construction costs. In order to bolster the sector, the Italian government provided subsidies to certain ailing firms and took over others (i.e., Liquichimica, SIR, Rumianca). During

this period, it also purchased 17% of Montedison's stock in an attempt to assist that firm with its financial difficulties.

Yet the increased role of the state in the industry only added to its troubles. With the growth of government influence in the industry -- either through direct ownership or through partial participation -- firm managements became a battleground for Italy's factionalized political parties.¹⁴ As a result, rather than witnessing the beginning of an overall restructuring of the industry (initiated in Germany during these same years), the Italian petrochemical industry became involved in price wars, take-over attempts, and continued construction of new plants and productive capacity. The results were disastrous. What had begun as a highly competitive, technically sophisticated industry in the early 1950s was quickly transformed into a center of political corruption and irresponsible management.

By the late 1970s, the entire national industry appeared to be on the verge of total collapse. For instance, in 1978 Montedison's net losses amounted to \$ 315 million on \$6.9 billion in sales (4.6%). Finance fees alone were 10% of sales.¹⁵ To raise cash and cover its debts, Montedison sold its participation in joint-ventures in Spain and Holland as well as its propylene business in the United States. But the revenues from these sales were inadequate. The firm continued to suffer severe losses in 1980 (5.8% of sales), 1981 (6.9%) and 1982 (9.5%).¹⁶ The situation was even worse at ENI where balance sheets had been in the red for over a decade and managements were changed almost yearly. Only after a change in government and a renewal of

company management at both Montedison and ENI, did the situation begin to change.

The Restructuring of Montedison S.p.A.

In 1980 Montedison changed management and initiated a major reorganization of the firm. Under the new management, operating companies were spun-off, leaving Montedison as a holding company; state shares were sold to private entrepreneurs; fresh equity and long-term debt were raised; the firm's organizational structure was revamped; and major capacity rationalization agreements were reached with other firms (i.e., ENI, Hercules, etc.). This reorganization occurred in several phases and over the course of several years. In fact, it is still going on. ¹⁷

The corporate reorganization of the firm transformed Montedison into a holding company. The largest operating divisions were spun-off to form seven autonomous operating companies, each one responsible for a particular area of business and possessing its own separate balance sheet (See table 1). According to Mario Schimberni, CEO of Montedison at the time, the break-up of the firm :

...was primarily a move to a better way of managing the different businesses. They could now be managed separately and more professionally. Italian managers are good at dealing in innovative ways with small- and medium-sized enterprises, but not with larger ones. The new organization also allowed greater flexibility in

the structure and culture of each business and the businesses were pushed closer to the market. 18

The firm was also sold publicly-held shares to private individuals and groups under the new management. A consortium of leading entrepreneurial families (i.e., Agnelli, Pirelli, Bonomi, etc.) was constituted to purchase Gemina, Montedison's small finance company, which, in turn, bought out the state's shares in the company. The re-privatization of the firm allowed it to eliminate direct government intervention in management strategies and to proceed with the other phases of Montedison's restructuring.

Beginning in the winter of 1980 but continuing through 1983, Montedison began a process of divestments and plant closings in areas it defined as no longer strategic for the company. It also initiated a radical reduction in personnel in those plants it planned on keeping and revamping to produce higher quality, more value added products (i.e., specialty chemicals). Between 1980 and 1981, the firm reduced its workforce (both staff and production workers) by 20,000 people. This reduction of its workforce continued in 1982 and 1983, with the trading of plants between Montedison and ENI and the closure of several synthetic fiber factories.

Both the reduction of the workforce and the subsequent rationalization of the industry into two national champions were negotiated with the unions and guided by the government, through the Ministries of Industry and State Participations. 19

Between 1981 and 1983 a National Plan for the industry was developed through a concerted effort by the state, the industry (Montedison and ENI), and the chemical workers' unions.²⁰ The Plan called for the concentration of the industry in two national monopolies, one in commodities and the other in specialty chemicals. Montedison became the speciality company and ENI continued to produce commodities. Following an agreement between Montedison and ENI in 1983, rationalization of the industry began as plants were closed and/or swapped, joint ventures with foreign firms were promoted, and investments in new process and product technologies were made. As a result, both national champions emerged more competitive on the European market (see table 2).

Montedison also began to pursue joint ventures in order to increase its penetration of foreign markets. For instance, although it had been a leader in the early development of polypropylene technology, Montedison now lagged behind its major competitors abroad. In order to return to the technological forefront, Montedison joined forces with Mitsui to work on a new generation of polypropylene technology. The resultant spheripol process, developed in 1983, proved to be a major break-through. Using improved catalysts, this process proved to be simpler and more efficient in that it eliminated several phases in the production cycle, required less energy (30% less electricity and 90% less steam), and employed cheaper and more available grades of propylene than previous processes (see figure 1)

In order to market this new process and gain greater access to foreign markets, Montedison formed another joint-venture with

Hercules, Inc. of the United States, the leading manufacturer of polypropylene in the world. The joint-venture, Himont, established in 1983, combined Montedison's superior technology with Hercules' extensive market network.

As a result of all these changes, Montedison appears to be making a come-back. It now maintains the number one position in several segments of the national chemical market and reports a return to profits ²¹ It has also re-established itself as a leading firm in polypropylene technology. (See table 3 for various indicators of Montedison's recent turn-around.)

Montedison's restructuring process is still underway, and the financial security of the firm is far from certain. Nonetheless, a more detailed look at this process at the local level reveals several patterns, including the apparent convergence of large and small firm patterns of behavior and the impact of local contextual factors on the implementation of national corporate and sectoral strategies. The following section of this chapter will analyze in greater detail the restructuring process at Montedison's complex in Ferrara. In many ways, Ferrara proved to be an ideal setting for the implementation of Montedison's broader strategies. At the same time, developments at Ferrara served to fine-tune these corporate-level policies.

The Micro-level Foundations of Industrial Change : The Restructuring of Montedison-Ferrara ²²

The petrochemical plant of Ferrara was established in the early 1940s to produce synthetic rubber but was reconverted to petrochemical derivatives in the early 1950s. By the mid-1960s, when Montecatini merged with Edison, the Ferrara plant was producing plastics, ammonia, urea, polyethylene, catalizers, dutral, polypropylene and other petrochemical derivatives. While the plant employed about 5000 workers in the early 1960s, by the time of the merger between Montecatini and Edison, employment was down to 4000 staff and production workers. It remained at that level until 1979. Although some processes at Ferrara had been modernized in the mid-1970s, major restructuring took place between 1980-1984.

In many ways, the reorganization of Ferrara merely reflected the corporate level changes described above. For instance, at Ferrara, certain obsolete production processes (e.g., synthetic fibers) were closed while others (e.g., polystyrene) were transferred to another Montedison plant in Mantova. Ferrara also divided into five autonomous firms, each possessing a particular production process or cycle. The largest of these five firms provides services for the other four operating units. Moreover, certain production processes (i.e., the ABS and polyethylene) cycles were transferred to Enichem while others (i.e., polypropylene) were internationalized through the joint venture with Hercules. Important process innovations and a radical reduction

of the workforce (by 1100 workers or 33% of the workforce) also took place during these same years.²³

To get a better idea of the micro-level implementation of Montedison's corporate strategy and how developments at the local level, in turn, modified the national strategy, this section will review certain elements of Ferrara's reorganization. Particular attention will be given to product and process innovations, changes in industrial relations practices, and the reorganization of the plant into a district-like complex. The point of this section is to illustrate how the same corporate strategy is interpreted and implemented in very different ways in different localities. To further emphasize this point, a comparison of changes at Montedison-Porta Marghera will also be included. While Ferrara implemented these strategies by reorganizing itself into a district-like firm with concertative labor-management relations, the Porta Marghera plant violently resisted all change.

The divergent micro-level experiences of these two plants are important not only because they illustrate the impact of local historical and institutional factors on the strategic choices of industrial actors, but also because they show how divergence at the local level influenced and modified strategy at the macro-level of the industry.

Organizational Change at Ferrara

The Ferrara plant was divided into five newly constituted autonomous firms : Enichem, part of the public monopoly which produces commodity chemicals like polyethylene; Fertimont, which manufactures fertilizers like urea and amonia; Dutral, a subsidiary of Ausimont which produces plastics and catalizers; Himont, which is a joint-venture between Hercules and Montedison and produces polypropylene; and Montedipe, which provides general services and technical assistance for the other four firms (see table 4).

Montedipe played a major role in the transformation of the Ferrara factory into what resembles an industrial district. In accordance with the logic of the restructuring process, Montedipe performs two functions: first, it acts as a centralized supplier of services and technical assistance for the entire complex; and second, it functions as an internal employment agency, regulating the flow of workers entering and exiting the company, providing job training, absorbing the redundancies of the other four firms, and negotiating with the state over the Cassa Integrazione (state-financed redundancy fund) and other employment programs.

In many ways, Montedipe serves as a "safety valve" for the entire complex in that the other four firms were able to transfer their excess workforce to Montedipe. Unburdened by excess workers, they are able to operate quite competitively on the market. Montedipe has also absorbed various non-productive functions, including quality control, maintenance, technical assistance in the set-up and modification of

plants, environmental protection and safety, and industrial relations and personnel management.

Montedipe acts as an internal employment agency for the entire complex. By accumulating the redundancies of the other firms, Montedipe was able to gain access to funds for Cassa Integrazione, contratti di formazione and the fondo sociale europeo (both job training/vocational education programs) so that it could buffer labor force reductions and retrain redundant workers. Montedipe also screens and trains incoming workers before transferring them to the various individual plants. In this way, it has managed to circumvent certain Italian labor laws which make it nearly impossible to fire workers once they are hired full-time.

Relations between Montedipe and the other four firms at Ferrara are regulated by over 200 supplier contracts, of which a small fraction are renegotiated each year while the remainder are renewed automatically. Yet, these relations among the various constituent parts of the Ferrara complex are not completely market-oriented. For instance, in accordance with agreements made at the time of the restructuring, Montedipe supplies services at fees slightly above the market rate, in order to compensate for the inefficiencies it absorbs from the other four firms.

Likewise, the complicated rules and regulations linking the other firms to Montedipe serve to discourage the other four firms from breaking their ties with Montedipe and purchasing services on the market. Thus, Montedipe can not be left holding the redundancies of the other firms and rendered even more inefficient since its costs

would then have to be distributed among ever-fewer clients. In fact, fearing this prospect, the local union has been pressuring the managements of the four productive units at Ferrara to purchase stock in Montedipe and thus, increase their interdependence (responsibility) vis-a-vis this supplier of services.

In short, with the reorganization of the Ferrara plant into five autonomous operating companies, production units were able to shed redundancies and modernize their plants. Montedipe served as a centralized coordinator of this process by providing technical assistance, absorbing redundancies, screening and training incoming workers, etc. In this way, it acted like a private local government, coordinating services for local industry while also providing training and distributing social services to the local labor force. As a result of Montedipe's role at Ferrara, the other four operating units were free to promote notable product and process innovations within their own plants.

Product and Process Innovations

As a result of new process innovations promoted at Ferrara, productive structures in certain cycles (i.e., polypropylene) were also reorganized. The new technology, a high yield catalyzer, was discovered at the Giulio Natta Research Center at Ferrara and introduced into production in July 1983. Himont now sells this technology throughout the world. Essentially, the catalyzer transforms propylene and ethylene (which come to Ferrara via pipeline from Porta

Marghera) into polypropylene. The new catalyzer is high yield because smaller amounts are needed to produce greater quantities and superior grades of polypropylene than were possible through the previous processes.

The previous process involved 9 different phases, consumed greater amounts of raw materials, energy, time and workers (108 employees working 3 shifts/day, every day of the year). The new process eliminates 3 intermediate phases, reduces consumption of raw material and energy to one-tenth of the original consumption, and halves the number of workers (45) needed to run the process.

Yet cost reduction is not the only benefit of this new process. The addition of different doses of catalyzer and secondary chemicals allows for the diversification of the product range into 10-15 varieties. Moreover, due to the simplification of this process and the consequent reduction of time necessary to produce polypropylene, re-tooling the plant to produce different products becomes much less onerous. Thus, while the previous production process entailed the production of one product 365 days a year, this new process allows for weekly changes in product "campaigns" (batches). This change not only fits better with the ever-more segmented nature of the market, but also permits Himont to increasingly collaborate with certain of its major clients (i.e., Fiat, VW, Mercedes) in developing customized products for their use. As a result, more stable and collaborative relations between the firm and its clients have developed in recent years.

Changes in the Organization of Work

The new process technologies introduced at Ferrara not only altered production processes but also changed the organization of production ²⁴ In other words, the rapid shifts in product "campaigns" and the resultant reorganization of the plant have led to an increase in decision-making autonomy and planning of production at the shop floor.

Frequent changes in the production schedule have combined with the on-going reduction of Ferrara's workforce to transform both the content and nature of work at these plants. Remaining workers have had to acquire greater skills and broaden their knowledge of the total production process so that they are able to intervene at different levels and in different areas of the production process. Through negotiations between the local unions and plant managers, narrowly defined work rules and job descriptions have been transformed. New jobs with broader responsibilities and skills have been installed instead. For instance, production workers are now responsible for quality control and plant maintenance in addition to their original production-related tasks. The up-grading of workers' skills has been managed through several in-house training programs promoted by Montedipe. Tables 5 and 6 illustrate both the qualitative and quantitative shifts of Ferrara's workforce.

As these tables indicate, along with workforce reductions, there occurred a more general up-grading of work away from basic production and increasingly towards technical jobs. Up-skilling of the labor

force also entailed a reduction of firm hierarchies and greater autonomy for workers. In fact, the number of supervisors at Ferrara decreased dramatically during these same years. ²⁵

What is important to note is that these changes in the organization of the firm's structures, production cycles and labor force were negotiated with the unions at several different levels. In fact, the entire process of Montedison-Ferrara's restructuring was accompanied by (and managed through) a thick network of negotiations between the firm and the chemical workers unions.

In other words, up-skilling of workers, reduction of firm hierarchies and increased autonomy on the job floor were not merely consequences of the various technological changes underway at Ferrara. While it is certainly true that new process technologies in the petrochemical industry create a need for workers with greater skills and decision-making autonomy, this need often goes unmet. Nor can purely technological considerations explain a number of other organizational changes underway at Ferrara such as the transcendence of firm hierarchies or the way training is organized. In short, the way process innovations were embedded in a series of larger, organizational changes at Ferrara was the result of political bargaining between the various industrial actors. It was not inherent in the technology. This ongoing process of bargaining had important implications for both the structure and content of collective bargaining at the firm as well.

Changing Patterns of Industrial Relations : Relinking the Micro and Macro Levels

Beginning in the summer of 1980, managers, union leaders, and government representatives became involved in an on-going process of negotiations over the restructuring of the firm. The restructuring occurred at three (factory, corporate and national) levels. In accordance with the local patterns of relations in Ferrara, the plant level was the most active in these negotiations. Between March, 1981 and May, 1985, the unions and management at Montedison-Ferrara concluded five accords dealing with a variety of issues, including investments, restructuring of the plant, lay-offs, re-training, etc

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Negotiations at the corporate level were normally held in Rome. While these sessions produced only three accords dealing almost exclusively with issues of employment and rationalization of production, they were important in that they, like the state-level discussions over the future of the industry and the development of the national Chemical Plan, reinforced (and were, in turn, reinforced by) the local-level negotiations at Ferrara. ²⁷ As a result, a virtuous cycle developed in which support for a concerted approach to the restructuring of the industry at one level encouraged collaboration among the different actors at another. This combination of decentralized bargaining at the local level and coordination at the national level is reflected in the nature of the accords negotiated. State-level and corporate-level accords were not detailed contracts

but rather more general frameworks to be articulated at the local level. Even factory-level accords were further elaborated in discussions at the various shops.

The division of labor among different levels of the bargaining process reflects a conscious attempt by both the union and the firm to enhance and broaden participation in very divisive and costly decisions. ²⁸ This is also evident in the specific content of the accords, which focused on issues of labor mobility, skills, the amalgamation of specific jobs, experiments with flexible shifts and work-hours, the reduction of firm hierarchies, etc. ²⁹ The union tied all changes in industrial relations practices and all sacrifices in terms of employment and work flexibility to increased union "control" (i.e., enhanced participation) in the reorganization of the firm. ³⁰

Union involvement in the reorganization of production and work at Montedison-Ferrara was also enhanced by the thick network of informal links between labor and management at Ferrara. ³¹ Given the high unionization rate at the Ferrara plant and the elevated percentage of technical workers in the union (see table 7 -- technical workers have historically acted as the leaders of the local union), unionists and managers at the Montedison plant in Ferrara in many cases shared the same education, the same discourse, and the same understanding of the problems of the firm. This "cultural homogeneity" was further promoted by the great number of intra- and extra-firm cultural and scholarly events promoted by the local union.

In short, between 1980 and 1986, the local union and management of Montedison's petrochemical plant in Ferrara were able to negotiate

the apparently successful restructuring of the firm. While employment dropped from 3600 employees in 1980 to 2428 in 1986, production levels at the plant did not suffer a parallel contraction but actually increased slightly. Moreover, due to various process innovations, the plastics and compounds produced at this plant have increased in both quality and variety, thus enhancing Ferrara's competitiveness on the market.

As a result of these negotiations between labor and management over changes in the organization of production and the more general reorganization of the structure of the firm, workers have witnessed an increase in their skills, a broadening of their jobs and a blurring of traditional hierarchies at the firm. The results of these changes are reflected in the climate of industrial relations at the plant. For instance, whereas in 1982 each worker lost about 150 hours (and about 1 million lire -- about one-tenth the average yearly salary) in strikes against firm management, in 1986, only 6 hours per worker were lost in industrial conflict. ³² Moreover, discussions with both firm managers and union leaders at the plant reveal a strong sense of cooperation, mutual respect and trust between the different local actors. For a firm that has undergone such dramatic changes in the last several years, this impression is truly remarkable. In fact, to more fully appreciate the extent and nature of industrial change at Ferrara, we will now briefly compare this experience with that of the Montedison plant at Porta Marghera near Venice.

Like at Ferrara, the corporate reorganization of Montedison provoked major restructuring of productive facilities and workplace relations at the Porta Marghera complex. Likewise, the reorganization at the local level was more or less in accordance with the general lines outlined at corporate headquarters. The plant was divided into autonomous enterprises specializing in different product lines. However, in addition to the five newly formed enterprises Porta Marghera shared with Ferrara, the Venice plant also included a "cracking" facility to convert ethylene into propylene (which it used internally as well as sent to Ferrara via pipeline) as well as a recently restructured synthetic fiber plant, Montefibre. 34

As a result, the Porta Marghera plant was more integrated and larger than the Ferrara plant. In fact, in 1980, just before the restructuring of Montedison began, the Porta Marghera plant employed 10,600 workers, of which 7000 were exclusively dedicated to petrochemicals. (Employment was 12,400 in 1977, before the Montefibre facility was restructured.) 35 However, once the reorganization of the plant began in 1980, total employment dropped to 7100 at Porta Marghera, of which 4600 remained in petrochemical areas.

Yet the process of organizational restructuring, process innovations, reduction of personnel, swapping and/or closing down of plants, etc. which took place at Porta Marghera occurred very differently than at Ferrara. Rather than being negotiated and regulated by concerted efforts between labor and management, at Porta

Marghera, every change was resisted by at least some factions of the local labor movement. Even when certain accords were negotiated and voted in by the local union, subsequent assemblies and votes by other factions of the union movement would manage to over-turn the previous accords. This occurred with the very first agreement on restructuring in the spring of 1981 and continued throughout the entire period. As a result, negotiations broke down between the unions and plant management and innovation was either completely blocked or imposed unilaterally by the company.

As a result of the stagnation in bargaining and the general climate of confrontation characteristic of Porta Marghera during these years, there were frequent strikes, factory occupations, and lock-outs. Since the shut-down of the ethylene "cracking" process also interfered with production processes at other Montedison plants (i.e., Ferrara and Mantova which rely on propylene from Marghera for certain processes), tensions between the local unions at Marghera and those of other Montedison plants soon developed. The local union became increasingly isolated from the rest of the chemical workers union. Attempts by other levels of the union movement to mediate the conflicts at Porta Marghera and thus redirect the course of events at that plant proved futile.

Moreover, because of the continuous climate of crisis at the Marghera complex, in which no stable alliances between the different groups within the unions, let alone between the unions and the firm appeared possible, a political vacuum developed within the plant. This space became quickly filled by various extremist political groups from

nearby universities. These groups argued that the entire restructuring process was simply a frontal attack on the working class and advocated armed struggle and violence as a way of resisting restructuring.³⁶ They began to take actions against various firm managers, union leaders, and local political figures involved in the restructuring of the area. Scores of individuals were wounded and intimidated while various areas of the plant were sabotaged. Furthermore, shortly after the initial plans for the restructuring of Montedison were announced at Porta Marghera, both the Assistant Manager (Gori) and the General Manager (Tagliericio) of the Marghera complex were kidnapped and assassinated by the Red Brigades.

Just as worrisome was the strength of these groups among local workers. Popular support (or, at least tolerance) for these groups became shockingly clear following the lack of rank-and-file support for union organized anti-terrorist demonstrations after the assassinations of the two plant managers. Managers were not the only targets of these terrorist groups. Union leaders were also subjected to threats, vandalism, and personal assaults during these years. In fact, only after years of this situation of near-anarchy (one plant manager I interviewed feared that the entire complex would be lost to terrorist control in these years)³⁷ did local union leaders and plant managers finally begin to negotiate the process of industrial adjustment at Porta Marghera.³⁸

Thus, we have two cases of radically different patterns of industrial adjustment: one of micro-concertation and the other of violent confrontation. How do we account for such divergent patterns

given that both plants share the same management, technology, product market, etc.? Again, closer look at the local contexts of these two plants helps explain these widely divergent patterns of industrial adjustment by illustrating how various historical and institutional factors influence industrial politics.

Local Patterns of Industrial Politics : Ferrara and Porta Marghera Compared

While both plants were established at roughly the same time, their historical development took very different paths. Ferrara was developed in the early 1940s as the largest and most sophisticated industrial center of the area. It continues to be so. In this essentially agrarian region, the newly-established Montecatini complex was seen as the symbol of science and modernity by local business and government leaders and hence, accorded much prestige by the local community. This is the image one receives when reading about the Ferrara plant in Giorgio Bassani's well-known novel The Garden of Fitzi-Contini³⁹. Even today, the Montedison plant holds this same high status among residents of Ferrara.

The presence of an internationally recognized research center (Centro di Ricerche "Giulio Natta") has promoted the plant's links with businesses and scientists abroad. As a result, the plant has developed a very cosmopolitan corporate culture, with both firm management and the local workforce priding itself on its technical sophistication and well-developed skills. This sense of technical

competence is also promoted by the local union through numerous cultural activities, including various conferences and publications regarding new technologies and product innovations, recent social science debates on the future of industrial society, new forms of work organization, etc.. A quick glance at these publications reveals that leading international scholars (i.e., Kern and Schuman) are recruited to speak at these conferences of the local workforce on a variety of social, political and economic issues. ⁴⁰

This legacy of technical expertise has not only encouraged the local unionists to keep abreast of various technological and economic changes in the industry but also permitted them to develop a common language with which to engage the plant's management. As a result, unionists and managers tend to meet frequently, both within and outside of the plant, to discuss issues concerning the organization of production and its impact on labor.

This tradition of labor-management cooperation within the factory has been further reinforced by the local context surrounding the plant. Ferrara is in Emilia-Romagna, one of the "Red Belt" regions of central Italy. An extensive literature has analyzed how in the "red" regions of Emilia-Romagna, Tuscany and Umbria local governments, trade unions and business associations cooperate in promoting economic development and industrial innovation.⁴¹ For our purposes, it suffices to remember only that following the fascist era ⁴² and the active role the Communist Party played in the anti-fascist resistance of the early-1940s, Emilia-Romagna became a Communist strong-hold. The PCI has governed the region alone or in coalition with the Socialists

since the end of the war. Moreover, given the PCI's interpretation of the origins of fascism in Italy, it has pursued an aggressive policy of incorporating the middle classes into its ranks⁴³, as well as promoting cooperation between different social groups in the area.

Since both the PCI and the local labor movement are very well organized and powerful in the area (i.e., unionization rates in the region are among the highest of the country, at Montedison-Ferrara unions organize 70% of the entire workforce), this policy of inter-class collaboration can be enforced through strong and well-articulated institutions, capable of aggregating interests and mediating conflicts. As we saw in the previous two chapters when comparing divergent patterns of adjustment at Fiat and Alfa or between the Biellese and Schio, strong local institutions are critical in mediating conflict between labor and management during times of major industrial upheaval.

Like Biella, the local industrial actors at Montedison-Ferrara possessed the necessary ideological and organizational resources to encourage a more concerted approach to industrial adjustment at the firm. This, along with the long-standing tradition of technical competence and cooperative relations between workers and managers within the plant, combined to foster the patterns of micro-concertation characteristic of Montedison-Ferrara in the early-mid 1980s.

In contrast, the development of the Porta Maghera plant occurred in a way that promoted conflict between workers and managers at the plant. Established in 1952, the petrochemical plant at Marghera

immediately became the center of much political debate. In these years, there was substantial disagreement among various political parties over the industrialization of the Veneto region. While the Christian Democrats initially sought to direct industrialization away from agricultural areas (traditional strongholds of the Church and the Christian Democratic Party) the Communists advocated the diffusion of industry throughout the region.

Behind these competing plans, however, lay common assumptions about the impact of industrialization on Venetian politics. Believing that the industrialization/modernization of the area would lead to the secularization of the local society and hence, the erosion of Catholic values and Christian Democratic electoral support,⁴⁴ different parties promoted alternative development plans for the Veneto. Thus, while the Christian Democrats sought to limit this process to certain areas of the region (i.e. Porta Marghera), the Communists hoped to spread it throughout the area. As the Christian Democrats retained an absolute majority in both the national and regional governments at the time, their more conservative industrialization plan won out.

As a result, Montecatini's petrochemical facilities were constructed in Porta Marghera, the industrial port of Venice. By the time the plant was built, however, Marghera was industrialized, containing various steel and ship-building plants. With the addition of petrochemicals to the area, Marghera became an especially large and densely concentrated industrial center.⁴⁵ The Montedison plant alone contains 100 kilometers of road and another 100 kilometers of railroad within its gates.

Like elsewhere in Italy, the growth of the petrochemical industry at Porta Marghera coincided with the postwar "economic miracle". Consequently, thousands of previously agrarian workers flocked to Porta Marghera to occupy unskilled jobs in the ever-expanding steel, shipping, and petrochemical industries. Both the strenuous and hazardous working conditions these laborers experienced within the factories and the inadequate housing, schooling, and health facilities they found in Mestre and Marghera quickly transformed these peasant-workers ⁴⁶ into a highly militant and politicized group.

Yet, because of the political development of the area, in which the dominant Christian Democrats were unsympathetic to their demands and the local Communist and Socialist parties were weak ⁴⁷ (and all parties were highly factionalized), the demands and needs of these new workers were either ignored or poorly aggregated. Even after the "hot autumn" at Porta Marghera (which was especially militant), existent local parties and unions were either unwilling or unable to organize these new workers into coherent and articulate institutions. Instead, traditional patterns of Venetian politics continued to play themselves out.

In other words, while the highly factionalized and polarized parties consumed themselves in palace-like intrigues against one another at the local and regional levels (ignoring the external world they claimed to represent), local workers were left alone to languish in both the factories and residential neighborhoods of Mestre and Marghera. Thus, while one urban renewal plan after another was rejected or delayed, and safety and occupational health codes were

routinely violated, Maghera's workforce grew ever more alienated from the existing local political-economic institutions.

Thus, it should come as no surprise that when the crisis and restructuring of the petrochemical plant (which followed the crises of the local shipping and steel industries) were announced, the local workforce reacted as violently as it did. And since local unions and political parties never fully developed into well-organized and articulate organizations, they were unable to aggregate, let alone mediate the various groups of workers affected by the firm's restructuring.

This political vacuum provided a fertile ground for extremist political groups. In the absence of a network of strong local institutions capable of integrating local workers and shielding them from the appeal of extremist groups, a substantial fraction of Montedison's workforce became either involved with, or at least sympathetic to the analyses of, groups like Prima Linea, Democrazia Proletaria, etc. This is not to suggest that they became terrorists. However, it does explain why terrorist acts against local managers, politicians and even union organizers did not evoke strong condemnations by the majority of Marghera workers.

In sum, given the historical development of the local industry and its workforce, as well as the political idiosyncracies of the local context, Montedison managers and unionists did not possess either the ideological disposition or the organizational attributes necessary to mediate the conflicts generated by the restructuring of the plant. In fact, it took the near-collapse of the plant to finally

convince local actors to break away from their traditional patterns of intrigue and antagonism and begin to work together in negotiating this process of industrial adjustment.

Conclusions

This chapter has argued that the divergent patterns of industrial adjustment manifest at Montedison's Ferrara and Porta Marghera plants were the result of the particularities of both Montedison's and the Italian petrochemical industry's development as well as the local context at Ferrara and Porta Marghera. This industrialization pattern shaped the organizational and ideological development of the central actors in each region in very different ways. As a result, they interpreted and responded to the firm's crisis and restructuring process in sharply contrasting manners.

Over the course of the postwar period, the Italian petrochemical industry developed in a highly uneven fashion. For the two plants examined in this chapter, this translated into two radically different patterns of industrialization. While the Ferrara plant developed cooperative labor-management relations and became integrated into a complex web of local institutions and associations, the Porta Marghera complex developed into an isolated "cathedral" on the edge of the Adriatic Sea. In other words, Porta Marghera developed into a massive industrial complex, isolated from the rest of Veneto with its traditional "white" institutions and unable to develop its own network of viable interest groups and associations.

Thus, within the same company, in two plants sharing similar technologies and operating in identical markets, two very different patterns of industrial adjustment emerged. As with the other two case studies presented earlier in this work, this diversity illustrates the importance of local historical-institutional factors.

In many ways, the development pattern of Montedison-Porta Marghera resembles that of Fiat in Turin. Both developed quickly and with massive numbers of uprooted migrant workers from the nearby countryside and the South. Both were the biggest shows in town. Like Fiat, Montedison-Porta Marghera lacked strong labor organizations capable of aggregating and integrating these new workers. And like Turin, Mestre did not possess well developed interest groups or political parties capable of mediating conflicts between different industrial actors. As a result, extremely militant battles erupted between labor and management over the course of Porta Marghera's history, including during this most recent wave of the firm's restructuring.

But more than simply providing another example of local level change, this chapter on Montedison has sought to challenge macro-level analyses of industrial adjustment. By suggesting how micro-level adjustment redefines seemingly unchanging macro-level institutions regulating industry, this study of Montedison attempts to elucidate the extent of change often missed by macro-institutionalist accounts

The Montedison case allows us to see how political struggles at all levels of the industry reshape the original boundaries between these different levels. In other words, the restructuring process of

Montedison illustrates how divergent patterns of industrial change at the micro-level influenced macro-level policy by forcing industry, union and state officials at this level to reformulate plans and policies. Likewise, the reformulated strategies at the strategic level of the industry altered conditions at the micro-level by reinforcing certain local groups and strategies over others.

A recursive process of feedback and change between the various levels developed. This altered both the strategies of the actors as well as relations between these actors within and across the various levels of the industry. Thus, we can begin to see how even when it appears as if institutional arrangements are stable or static, there is, in fact, substantial change occurring within and between them all the time.

The next chapter will develop this theme by re-linking micro- and macro-level industrial change. In other words, it will analyze how the extensive micro-level change described in the last three chapters and experienced more generally in Italy in recent years has, in fact, altered the substance, if not the form, of the links between macro-level institutions regulating industry and local industrial actors. Moreover, it will suggest that these changing patterns of state-industry relations are not restricted to Italy, but are emerging in other advanced industrial nations as well.

Notes

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3. For more on the golden years of the industry, see Joseph L. Bower, When Markets Quake. The Management Challenge of Restructuring Industry, (Boston : Harvard Business School Press, 1986); MIT Commission on Industrial Productivity, The Transformation of the U S Chemicals Industry, (July, 1988); and G. Serravalle, L'Industria Chimica In Italia E In Europa, (Milan: CLUP, 1980).
4. Josph Bower, When Markets Quake, Ibid.
5. MIT Commission on Industrial Productivity, The Transformation of the U.S. Chemicals Industry, (July, 1988) : 21.
6. Ibid.
7. For more on the global crisis of the pterochemical industry, see Joseph Bower, When Markets Quake, Ibid.; MIT Commission on Industrial Productivity, The Transformation of the U.S. Chemicals Industry, Ibid.; Martin N. Bailey and Alok K. Chakrabarti, Innovation and the Productivity Crisis, unpublished manuscript, January, 1987 : chapter 4; and R. Azzolini, G. Dimalta and R. Pastore, l'industria chimica tra crisi e programmazione, (Rome : Editori Riuniti, 1979).
8. See Josph Bower, Ibid. for more on the different strategies employed in the different countries.
9. For more on the crisis of the Italian petrochemical industry, see Pietro Genco, "Fattori Di Crisi E Problemi Di Riorganizzazione Del Settore Delle Materie Plastiche" and Enzo Rullani and Sergio Vacca', "Miti E Realta' Della Crisi Petrolchimica Italiana" both in Pippo Ranci and Sergio Vacca', eds., L'industria petrolchimica in Italia : anatomia di una crisi, (Milan: Franco Angeli, 1979); and R. Azzolini, et. al., l'industria chimica tra crisi e programmazione, op. cit
10. For more on the historical development of the industry, see Vera Zamagni, "L'Industria Chimica In Italia : Dalle Origini Agli Anni '50," unpublished manuscript, University of Florence, March 1987.

11. These figures are taken from Harvard Business School, Montedison S.p.A., Case n. 0-385-065, 1984. This section draws on this case.
12. For more on these two state holding companies, see Andrew Schonfield, Modern Capitalism, (Oxford : Oxford University Press, 1965); and M.V. Posner and S.J. Woolf, Italian Public Enterprise, (Cambridge, MA. : Harvard University Press, 1967).
13. Harvard Business School, Montedison S.p.A . op. cit.
14. For more on the politicization of the industry and its disastrous effects, see Gastone Sclavi, "La Chimica In Italia : Da Problema 'Politico' A Scelte Di Sviluppo Industriale Nazionale. Necessita' Di Una Fase Di Industrializzazione Del Mezzogiorno," in FULC-Formazione Sindacale, Programmazione nazionale e territoriale, intervento pubblico, controllo sindacale, (Rome: FULC, 1982); and Giorgio Galli and Alessandra Nannei, Il Capitalismo Assistenziale, (Milan : SugarCo Edizioni, 1976) : chapter 4, "Il Capitalismo cattolico degli anni '60 : la chimica e l'energia sino all crisi dell'75".
15. Harvard Business School, op. cit.
16. Harvard Business School, op cit.
17. For a description of the changes, see Montedison, "Innovazione tecnologica -- settore chimico", April 1982, excerpted in Ristrutturazione, Innovazione E Livelli Occupazionali Nel Settore Chimico, Quaderni FULC, n. 6, Ferrara, May, 1982. The on-going reorganization of the Italian chemical industry was explained to me during Interview n.105, Dottoressa Evelina Codacci Pisanelli, Manager, Strategic and Marketing Analysis, Montedison, Cambridge, Ma., November 17, 1988.
18. Harvard Business School, op. cit., : 7
19. For more on the role of the unions in this process, see Paolo Perulli, "Conseguenze Delle Ristrutturazioni Sulle Relazioni Industriali : Ipotesi E Verifiche Empiriche," Economia e politica industriale, n. 43, (1984).
- The network of negotiations among the firms, state and unions between 1980 and 1983, which led to the reorganization of the entire national industry was explained by Cesare Vaciago, ex-Director of labor relations, Montedison, in a Public Lecture at the Meeting of the Associazione Italiana di Studi Sulle Relazioni Industriali, Università Cattolica, Milan, January, 1987; and in Interview n. 95, Gastone Sclavi, ex-National secretary, Filcea-CGIL, currently a Manager for Montedison, USA, New York, Cambridge, Ma., June 25, 1987 and Milan, July 20, 1987.

20. For more on the restructuring of Montedison and the rest of the Italian petrochemical industry, see Vittorio Barattieri, "La ristrutturazione del settore chimico in Italia : una analisi dei principali avvenimenti dal 1977 al 1983," in Rivista di Politica Economica, Vol. III, (March, 1984); Joseph L. Bower, When Markets Quake, op cit., : chapter 9, "The Restructuring of Montedison", Enzo Rullani, "La Riorganizzazione Del Ciclo Etilenico In Italia : Elementi Di Valutazione Sulle Alternative Strategiche In Discussione," in Pippo Ranci and Sergio Vacca', eds., L'industria petrolchimica in Italia : anatomia di una crisi. op. cit.; and Montedison-Union Accord of December 2, 1987 which outlines the entire process.

For more on the government's Chemical Plan, see a synthesis in Filcea-CGIL Regione Lombardia, Vertenza Chimica : Analisi E Problematiche Per L'Iniziativa Del Sindacato, (Milan : CGIL, 1981)

21. See Marco Panara, "Montedison. Tutti I Conti E Le Promesse Di Foro Bonoparte," la Repubblica, March 6, 1987; and Federchimica, Rapporto sullo stato dell'industria chimica in Italia Anno 1986 (Milan: Federchimica, 1987).

22. This section relies heavily on Lorenzo Bordogna, "Strategie Di Flessibilita' : Imprese, Sindacati, Governi Locali. Il Caso del Petrochimico Montedison di Ferrara", in Marino Regini and Charles Sabel, eds., Strategie Di Riaggiustamento Industriale, forthcoming

This section also benefited from a series of interviews, including: Interview n. 94, Gaetano Sateriale, National Secretary CGIL, Rome/ ex-Regional Secretary Filcea-CGIL Emilia Romagna), Rome, October 20, 1988; Interview n. 96, Sergio Cofferati, Secretary General Filcea-CGIL Nazionale, Rome, October 14, 1987; Interview n. 97, Enrico Di Giorgi, Director of Personnel, Montedipe S.p.A., Milan, (ex-Director of personnel at the Ferrara and Porta Marghera plants), Milan, December 5, 1987; and Interview n. 100, Lorenzo Bordogna, Como, December 1, 1987.

23. Each step of the restructuring process of Ferrara is well documented by the union in various publications it sponsored, including: Professionalita', Responsibilita' Giuridiche E Nuove Organizzazione Del Lavoro. L'Esperienza Delle Fabbriche Chimiche, Quaderni FULC, n. 1, October 29, 1980; Conferenza di Produzione della Montedison di Ferrara Relazioni, Interventi, E Documentazione, Quaderni FULC, n. 2, February 20, 1981); Politica industriale e contrattazione aziendale Il Piano Chimico., Quaderni FULC, n. 3, July 6, 1981; Vertenze e riconversione nel settore chimico, Quaderni FULC, n. 4, November 23, 1981; La II Conferenza di produzione della Montedison di Ferrara. Il Ruolo Di Un Petrochimico Nel Tessuto Economico Regionale, Quaderni FULC, n. 5, February, 1982; Ristrutturazione, Innovazione E Livelli Occupazionali Nel Settore Chimico, Quaderni FULC, n. 6, May, 1982; La Terza Fase Della Vertenza Chimica, Quaderni FULC, n. 7, February, 1983; and L'Industria Delle Materie Plastiche Tra Ristrutturazione E Innovazione, Quaderni FULC, September. 1983.

24. For more on this, see Patrizio Bianchi, Pino Foschi and Gaetano Sateriale, "Organizzazione Della Produzione, Del Lavoro, E Nuove Relazioni Industriali," in cds documentazione, nos. 1-4, (1986); and Pino Foschi, "Il Caso Montedison. Esperienze di organizzazione per fasi di lavoro integrate," in cds documentazione, nos. 1-2, (1985).

25. See Ettore Masucci, "L'esperienza dei chimici sulle ristrutturazioni e le relazioni industriali per lo sviluppo," in Sandro Gloria and Gianni Caravaggi, eds., Il Sindacato E' Protagonista?, (Rome : Ediesse, 1985); and Gaetano Sateriale, "L'Esperienze dei chimici nelle aree di lavoro integrate e i circoli di qualita'," in cds documentazione, nos. 3-4, 1985.

26. See Patrizio Bianchi, Pino Foschi and Gaetano Sateriale, "Organizzazione Della Produzione, Del Lavoro, E Nuove Relazioni Industriali," op cit

27. Paolo Perulli, "Conseguenze Delle Ristrutturazioni Sulle Relazioni Industriali," op. cit.

28. Based on information gathered during Interview n. 94, Gaetano Sateriale, ex-Regional Secretary of Filcea-CGIL Emilia Romagna, op. cit; Interview n. 96, Sergio Cofferati, National Secretary, Filcea-CGIL, op cit; and Interview n. 97, Enrico Di Giorgi, Director of Personnel, Montedipe, op. cit.

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29. See various accords negotiated at Ferrara in various numbers of Quaderni FULC, published by the local chemical workers union.

30. Gaetano Sateriale, op cit

31. This point was emphasized in several interviews I conducted with union and firm managers, including Interview n. 94, Gaetano Sateriale, op. cit.; Interview n. 95, Gastone Sclavi, op. cit.; Interview n. 96, Sergio Cofferati, op cit.; and Interview n. 97. Enrico Di Giorgi, op. cit.

32. See Lorenzo Bordogna, op. cit.

33. The following section is based on documents and data collected during several interviews, including Interview n. 96, Sergio Cofferati, National Secretary Filcea-CGIL, op cit.; Interview n. 97, Enrico Di Giorgi, Director of Personnel, Montedipe, Milan (ex-head of personnel at both the Porta Marghera and Ferrara plants), op cit; Interview n. 99, Cesco Chinello, Regional Secretary of the PCI, Venice-Marghera area, Venice, December 2, 1987; Interview n. 101,

Antonio Cavaliere (Filcea-CGIL) and Alfredo Anastasio (Uilcea-UIL), local chemical worker union leaders, Mestre, December 8, 1987; Interview n. 102, Mr. Gavagnin, Chemical Engineer, Montedison-Porta Marghera, December 8, 1987; Interview n. 103, Orlando De Toni, Secretary General Flerica-CISL Venezia, Mestre, December 8, 1987; and Mr. Giuliani, Director of Personnel of the Margera plant, Mestre, December 8, 1987.

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35. Figures were obtained in Interview n. 103, Orlando De Toni, op cit.

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37. Interview n. 97, Enrico Di Giorgi, op. cit..

38. See Flerica-CISL Venezia e Regionale, Per l'innovazione della chimica a Porta Marghera e per le difesa delle prospettive occupazionali, (Venice : CISL, 1984) for more on the negotiations at Marghera following this initial period of conflict and chaos.

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40. See Horst Kern and Michael Schumann, "Razionalizzazione Industriale E Nuovi Concetti Di Produzione," cds documentazione, nos. 1-4 (1986).

41. See, for instance Michael Piore and Charles Sabel, The Second Industrial Divide, (New York: Basic Books, 1984); Giorgio Tassinari, Il Sistema Industriale Dell'Emilia-Romagna, (Bologna: Il Mulino, 1986); Carlo Trigilia, Grandi Partiti E Piccole Imprese, (Bologna : Il Mulino, 1986); and Linda Weiss, Creating Capitalism. The State and Small Business since 1945, (Oxford: Basil Blackwell, 1988).

42. See Alessandro Roveri. Le origini del fascismo a Ferrara : 1918-1921, (Milan: Feltrinelli, 1974).

43. See Stephen Hellman, "The PCI's Alliance Strategy and the Case of the Middle Classes," in Donald L.M. Blackmer and Sidney Tarrow, eds , Communism In Italy And France, (Princeton, N.J.: Princeton University Press, 1975) : 373-419.

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45. For more on the historical development of the area, see Cesco Chinello, Storia Di Uno Sviluppo Capitalistico. Porta Marghera E Venezia : 1951-1973, (Rome : Editori Riuniti, 1975).

46. see Charles F. Sabel, Work And Politics, (Cambridge University Press, 1981) : chapter 3, for more on the more general politicization of peasant-workers in Italy.

47. For more on the local politics of Veneto, see Franco Anderlini and Cesco Chinello, eds., Operai E Scelte Politiche. Il Caso Delle Zone Bianche A Economia Diffusa Del Veneto, (Milan: Franco Angeli, 1986), and Alan Stern, "Political Legitimacy in Local Politics : the Communist Party in Northeastern Italy," in Donald L.M. Balckmer and Sidney Tarrow, eds., Communism In Italy And France, (Princeton University Press, 1975).

Table 1

The Break-Up of Montedison Into:

<u>Company</u>	<u>Products</u>	<u>1980 Sales (\$ Dollars)</u>
Montedipe*	basic petrochemicals	2,289
Montepolimeri*	plastics	1,908
Ausimont*	specialty chemicals	380
Resem	resins and emulsions	229
Acna	dyes and pigments	403
Fertimont	fertilizers	545
Farmoplant	pesticides	82
Farmitalia/Carlo Erba**	pharmaceuticals	821
Montefibre**	synthetic fibers	921
Standa**	retailing	1,159

Source Harvard Business School, Montedison, S.p.A. Case #0-385-065, 1984

Notes * Following the rationalization accord with ENI in 1981, Montedison relinquished production of most commodity chemicals and concentrated on specialties, through Ausimont and Himont (joint-venture with Hercules). Montepolimeri was dissolved in 1984 and Montedipe, removed of all productive functions, specializes in services

** These three companies were already independent enterprises before 1980

Table 2
Shares of Total European Capacity, 1983

<u>Product</u>	<u>Major Competitor</u>	<u>ENI</u>	<u>Montedison</u>
LDPE (Low Density Polyethylene)	Exxon, Dow (8%)	16%	0
HDPE (High Density Polyethylene)	HOECHST (16%)	10%	0
PVC (Polyvinyl Chloride)	Solvay (15%)	16%	0
PS (Polystyrene Resin)	BASF (25%)	0	12%
PP (Polypropylene)	ICI, Shell (11%)	0	17%

Source Harvard Business School, Montedison, S.p.A., Case #0-385-065, 1984

Table 3**Employment, Turnover and Economic Results of Montedison, SpA (1978-85)**

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Employees			105530		72813	71215	69653
Sales							
Italy	3539	4304	4970	5365		7892	9002
Abroad	2236	2529	2811	3562		4490	5130
Total (billion lire)	5775	6833	7781	8927	10660	12382	14132
Net Profits of losses (billion Lire)	-269	12	-448	-642		-83	113

Source: Lorenzo Bordogna, "Strategie di Flessibilita' Imprese, Sindacati, Governi Locali. Il Caso De Petrochimico Montedison di Ferrara", in Marino Regini and Charles Sabel, eds, Strategie Di Riaggiustamento Industriale, forthcoming

Table 4

The Reorganization of Montedison-Ferrara

<u>Firm</u>	<u>Foundation</u>	<u>Productive Cycles</u>
Fertimont	1980	urea, amonia
Enichem	March, 1983	ABS, polyethylene
Himont	November, 1983	Polyproylene, compounds
Dutrai	May, 1984	dutrai
Montedipe	(before 1980)	sercives

Source Lorenzo Bordogna, "Strategie di Flessibilita: Imprese, Sindacati, Governi Locali. Il Caso Del Petrochimico Montedison di Ferrara," in Marino Regini and Charles Sabel, eds , Strategie Di Riaggiustamento Industriale, forthcoming

Table 5

Changes in Employment Levels, Montedison-Ferrara (1980-1986)

	<u>12/80</u>	<u>12/81</u>	<u>12/82</u>	<u>12/83</u>	<u>12/84</u>	<u>12/85</u>	<u>12/86</u>
Montedipe*	3300	2881	2694	1576	1134	1008	886
Fertimont	233	209	202	202	222	216	203
Himont				615	631	653	690
Dutral					279	279	322
Enichem				327	327	327	327
TOTAL	3533	3090	2896	2720	2593	2483	2428

Note * Called Monteplimero until December 31, 1984
 ** Workers in Cassa Integrazione included

Source Lorenzo Bordogna, "Strategie di Flessibilita' Imprese, Sindacati, Governi Locali Il Caso Del Petrochimico Montedison di Ferrara," in Marino Regini and Charles Sabel, eds , Strategie Di Riaggiustamento Industriale, forthcoming

Table 6
Changes in Composition of Workforce (%)

	<u>1980</u>	<u>1982</u>	<u>1984*</u>	<u>1986</u>
Managers	0 76	0 86	1 06	1 33
White Collar Workers and Technicians	30 96	33 98	37 47	43 93
Supervisors	8 04	6 93	5 21	3 00
Production Workers	60 23	58 77	56 27	51.74
TOTAL	100	100	100	100

Note *Enichem figures not included from 1984 on

Source Lorenzo Bordogna, "Strategie di Flessibilita' Imprese, Sindacati, Governi Locali Il Caso Del Petrochimico Montedison di Ferrara," in Marino Regini and Charles Sabel, eds , Strategie Di Riaggiustamento Industriale, forthcoming

Table 7

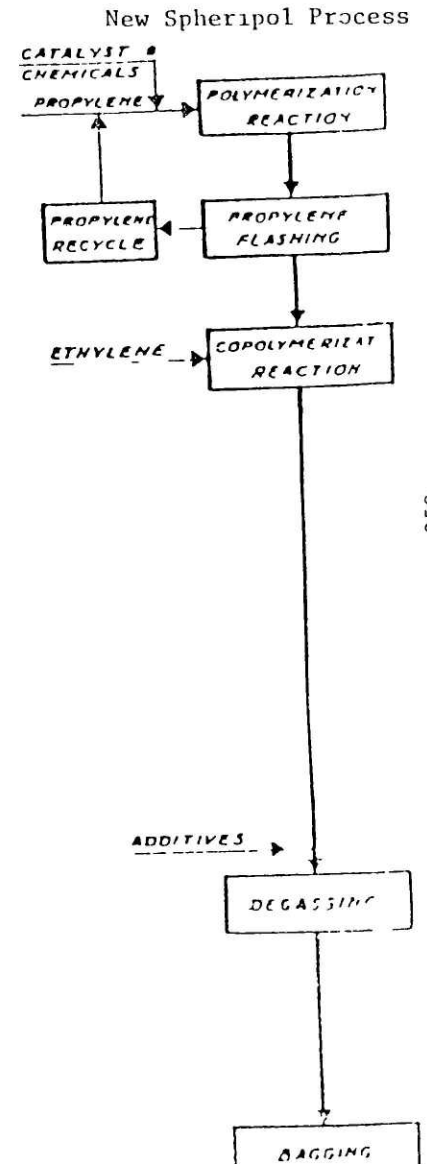
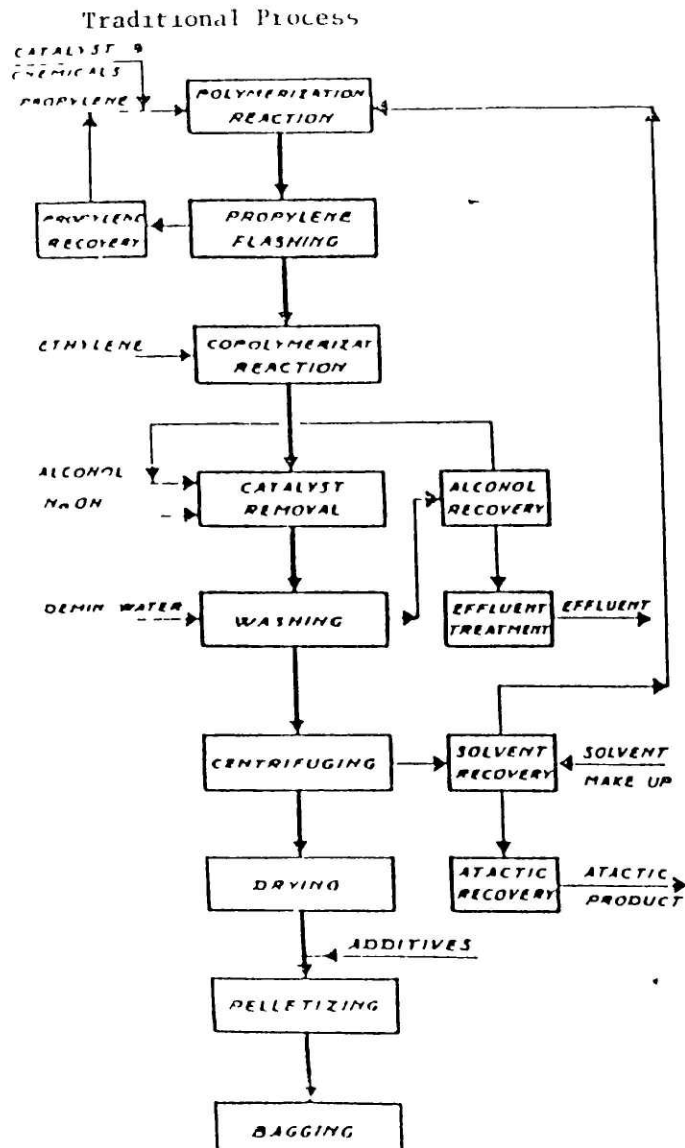
Unionization Rates by Job Description [December 1986] (%)

	<u>Himont</u>	<u>Dutral</u>	<u>Montedipe</u>	<u>Agrimont</u>
White Collar Workers and Technicians	60 38	44 15	51 52	39 28
Supervisors	66 67	66 67	61 11	76 47
Production Workers	79 71	88 61	75 17	88 37
TOTAL % n	69 42 (479)	64 65 (203)	63 97 (561)	73 76 (149)

Source Lorenzo Bordogna, "Strategie di Flessibilita' Imprese, Sindacati, Governi Locali Il Caso Del Petrochimico Montedison di Ferrara," in Marino Regini and Charles Sabel, eds , Strategie Di Riaggiustamento Industriale, forthcoming

FIGURE 1

CHANGES IN POLYPROPYLENE PROCESSES AT MONTEDISON



Conclusion : The Dynamics of Institutional Change --
Understanding the Links Between Local Actors and National
Regulatory Regimes

This study has argued that the configuration of the new industrial order in Italy is the result not of secular shifts in the international economy nor of institutional arrangements in national politics but rather the product of political struggles, alliances and compromises among different industrial actors (firms, unions, etc.) at the local level.

Micro-level industrial change has been portrayed as embedded within local contexts in the sense that patterns of industrial development in different localities in Italy had a major impact on the organizational attributes (worldviews, capacities, etc.) of the various actors. These historical legacies were at times, consolidated, other times, transformed through struggles between industrial actors over their competing strategic choices. The outcome of these struggles, whether in the form of complete victory of some actors over others, or the result of compromises and alliances among them, shaped both the subsequent structure of industry and the future patterns of relations among the various actors. This is why there is such diversity in industrial adjustment patterns both between industries as well as between firms within the same industries in Italy.

Moreover, the Italian case illustrates that significant industrial and institutional change can take place within the same macro-institutional regime or mode of regulation. Since such change is

continuous and to a certain extent subterranean, it often gets overlooked by conventional political-economic analyses which focus primarily on national institutions and arrangements. Yet, because micro-level industrial change is so extensive, the substance (if not the form) of the relationship between local industrial actors and the national institutions regulating them has been transformed over the last decade or so. This is true not only for Italy but also for other advanced industrial nations.

In short, this study has told a story of micro-level response to the industrial crisis of the 1970s by presenting various accounts of the massive industrial restructuring that has taken place in Italy in recent years. This story also suggests that notwithstanding the appearance of continued political stalemate and institutional blockage in Italy's political economy, the micro-level changes described in this study have slowly and subtly transformed even Italy's Byzantine institutions and structures.

In what follows I will first review the evidence presented in this study on the importance of local institutional-historical factors in explaining the diversity of industrial adjustment patterns in Italy. Then, I will attempt to outline a partial, and in many ways still tentative approach to understanding how micro-level changes have, in fact, altered the relationship between the micro and macro levels of Italy's political economy.

Reviewing the Evidence · Local Patterns of Industrial Politics

The three cases of industrial restructuring in the automobile, textiles, and petrochemical industries analyzed in this study elucidate different patterns of industrial adjustment in Italy. The adjustment processes differ in the sense that the various industrial actors held different conceptions both of what industrial adjustment entailed and how it should occur. They also possessed different organizational resources with which to promote their strategies. As a result, the outcomes of the political struggles among the various actors in the three different industrial settings were quite varied.

Special attention was given to the organizational attributes of and struggles between labor and management in all three case studies. Matched pairs within each sector were included in order to control for sectoral, technological and market factors that could influence these divergent industrial adjustment strategies. Moreover, while all three cases illustrate the importance of local historical and contextual factors, each one also challenges certain mistaken assumptions common to the standard literature on industrial change : reductionism, the existence of a single "best practice" or organizational pattern in industry, and unchanging national institutions and regulatory regimes.

Thus, chapter two on the restructuring of Fiat Auto argued that the firm-centered, unilateral adjustment pattern at Fiat in the 1980s was the result of the peculiarities of Fiat's industrial development and its impact on the strategic choices of the various industrial actors. In other words, over the course of Fiat's history, the firm's management and the local unions developed worldviews and organizational features which shaped both their strategic choices and

their capacity to implement these strategies. In essence, the unions developed into highly politicized but organizationally weak institutions and the firm grew into a highly integrated, hierarchical, and authoritarian enterprise.

The political struggles within and among these industrial actors over their competing strategic choices at certain critical conjunctures of Fiat's history (e.g., the factory occupations of 1920, the Valletta years, the late 1970s, etc.) reshaped not only the original worldviews and organizational features of these actors but also their future patterns of relations and the subsequent structure of the local industry.

This argument was made in opposition to other accounts which rely on reductionist claims about individual and organizational behavior and thus portray the situation at Fiat Auto in the 1980s as inevitable. Yet, the case study on Fiat illustrates that the firm-centered pattern of adjustment and antagonistic labor-management relations present at Fiat were not inevitable. Alternative, more cooperative patterns of change were attempted at Fiat but failed.

This failure was due to the limited range of strategic possibilities available to labor and management in Turin -- again a legacy of past political struggles and their impact on the subsequent understanding and organizational capacities of the different actors. In fact, notwithstanding the same ownership and unions at Alfa Romeo in Milan, more cooperative patterns were able to consolidate there since the historical development of Alfa Romeo in particular, Milanese industry more generally, was quite different and hence, the local

actors were endowed with very different worldviews and organizational resources.

The subsequent chapter on the restructuring of the textile district of Biella, only 75 kilometers from Turin, further supports the argument that the strategic choices of different industrial actors are shaped by local institutional and historical factors. In contrast to Fiat Auto, the process of change within the Biellese textile district was more collaborative. In Biella, different actors negotiated the process of industrial change at both the firm and territorial levels. Again, the particular restructuring pattern of the Biellese textile industry was the result of the peculiarities of its industrial development and the impact of this developmental model on the local industrial actors.

Over the course of the last two centuries, mill owners, skilled workers, small subcontractors, etc. shaped the range of possible strategies available to them. In other words, the particular development of the local industry did not occur at the expense of either smaller, more artisanal firms nor of the rather highly skilled local labor force. As a result of the continued existence of these two "backward vestiges", the transformation of the local industry away from large integrated firms to a network of smaller, more specialized enterprises working together, was greatly facilitated.

Likewise, various formative experiences of the local labor movement encouraged the unions to develop strong territorially-based organizations, a tradition of collective bargaining, and close

integration into a rather complex local community. These ideological and organizational features permitted the local unions to constructively negotiate the process of industrial reorganization in the 1970s.

The case study on the Biellese examines these more cooperative patterns of industrial adjustment by analyzing the restructuring process of the district as a whole as well as that of several individual firms. A comparison to the adjustment strategies of two other Italian textile districts (Prato and Schio) illustrates the salience of the local context.

The material presented in the chapter on Biella challenges another common assumption in the literature on industrial change. This assumption holds that there exists a single "best practice" and/or organizational solution for manufacturing industrial goods competitively. Underlying this assumption is a view which portrays industrial change as a Darwinian process of adaptation and competitive selection. The chapter on the Biellese presented evidence against this notion of industrial change. In Biella, a plurality of different organizational structures and strategies have historically co-existed and have evolved over time and through interaction with one another

The chapter on Montedison, like the other two case studies, illustrates the underlying importance of local institutional and historical factors in shaping the strategic choices of the various industrial actors. To illustrate this point, two plants : Montedison-Ferrara and Montedison-Porta Marghera, are compared. This comparison shows how two plants within the same company, sharing a single

management, operating in the same product market, and employing similar technologies developed radically different approaches to the process of industrial adjustment.

Due to the divergent patterns of industrial development at these two plants, the worldviews and organizational features of the relevant local actors were shaped in very different directions. Thus, while the Ferrara plant developed cooperative labor-management relations and became integrated into a complex web of local institutions and associations, the Porta Marghera complex developed into an isolated "cathedral" on the edge of the Adriatic Sea. In other words, Porta Marghera grew into a massive industrial center, isolated from the rest of Veneto with its traditional "white" institutions and unable to develop its own network of viable interest groups and associations

As a result of the different patterns of industrialization, the Ferrara plant developed a highly concerted approach to industrial adjustment and promoted very innovative strategies regarding the organization of labor and the reskilling of workers. In contrast, the Porta Marghera plant was rife with industrial conflict and stalled innovation. In fact, it became notorious for its experiences with terrorism, including the kidnapping and assassination of two plant managers by the Red Brigades.

The Montedison case also indicates how political struggles at all levels -- at the strategic level of the industry, the national labor confederations and the state; at the collective bargaining level between the firm and the chemical workers' unions; and on the shop floor between supervisors and employees -- take place simultaneously

and how these multi-level struggles, in turn, reshape the original boundaries between the different levels. As a result, we can begin to see that even when it appears as if institutional arrangements are stable and static, there is, in fact, substantial change occurring all the time.

Yet, how do we understand this local level diversity? And what exactly is the impact of this diverse and extensive micro-level change on the macro institutions of Italy's political economy? The evidence presented in this study clearly indicates that local historical and contextual factors shape divergent patterns of industrial adjustment. But the story of industrial change in Italy is not just one of local particularities. Local histories matter but they alone do not fully explain the wide variety of adjustment patterns discussed in this study, especially since this diversity appears to be a relatively recent phenomenon.

Thus, the next section will consider alternative ways of understanding the apparent re-emergence of local patterns of industrial politics and whether or not, and if so, how, they alter the links between local industrial actors and macro-level regulatory institutions.

Two Ways of Understanding Local Differences in Italy

We can understand the local level diversity described in this study in two basic ways. The first explanation emphasizes Italian "exceptionalism" and draws on the standard view of Italian political

development which underlines the incomplete integration and continued differentiation of various regions and social groups in Italy. The second explanation, in contrast, sees this local level diversity as a relatively recent phenomenon, indicating a fundamental shift in the institutional, social and industrial configuration of Italy's political economy.

The standard view of Italian political-economic development stresses how the existence of strong mercantile-capitalist states in the North, a powerful papacy in Rome, and a corrupt monarchy in the South all prevented Italy from uniting into a full-fledged nation-state until the middle of the nineteenth century.¹ Moreover, the way unification was eventually achieved, essentially the result of political compromises (between Northern and Southern ruling classes and between the House of Savoy and foreign leaders) and limited military activity (mainly under the control of professionals and to a large extent over the heads of the masses) led to the incomplete integration of vast areas and numerous social groups into the new Italian state. The preservation of traditional social structures after unification in 1860 and the fact that the new state did not promote political, agrarian, and/or other reforms are also cited as reasons for the missed consolidation of the Italian state.

Political factors were exacerbated by geographic difficulties which blocked easy communication and travel between different parts of Italy and thus, hindered the formation of a unitary national market. According to Tom Kemp :

Physically, then, the environment made for regional disparities and localized economies rather than for a homogenous and compact national market area. Given, too, that for many centuries different parts of the country had been separated politically under regimes of varying degrees of competence, which became, in the Kingdom of the Two Sicilies, downright oppression and corruption, it was not surprising that Italy was, in economic as well as political terms, "a geographic expression".²

Incomplete socio-economic integration and political unity at the beginning was not rectified but rather exacerbated by Italy's subsequent political history. Following unification in 1860, Italy experienced successive governments in the late nineteenth century which practiced the politics of trasformismo (exchanging favors, clientalism and local autonomy in return for political support of the governing coalition); the collapse of this regime under fascism; the break-out of World War II and the ensuing Resistance (which in many areas resembled a civil war); and the emergence of a highly polarized political system in the post-war era. All of these events reinforced rather than abated local and regional differences in Italy.

In fact, scholarly work on particular political parties ³ and the Italian political party system as a whole ⁴, the Italian state and its institutions ⁵, Italian economic development ⁶, Italian unions ⁷, and interest group politics in general, all stress the continuing salience of local and regional differences. For example, in his classic work on Interest Groups in Italian Politics, Joseph La Palombara writes :

We thus encounter, at the most basic level, political identification and allegiance that is local rather than national. Parochialism, while strongly evident in the traditional South, is also amazingly present in the North, where the localizing influences of the city-states and independent duchies are still very much in evidence...While such provincialism is

probably more intensive in a place like Florence than elsewhere, it is present throughout Italy.⁸

In short, local differences are expressed not just in industrial politics but in all arenas of Italian society. Moreover, they are not new to Italy but rather are the product of centuries of incomplete social integration, uneven economic development, late and impartial industrialization, and half-hearted nation-building. Italy's particular political development has had major consequences on its contemporary political economy. Political parties, interest groups, even state bureaucracies appear to be more an amalgam of local realities than fully coherent, national entities or institutions.

According to this approach, the local patterns of industrial change described in this study are nothing new but rather mere manifestations of long-standing differences inherent to Italy. This understanding of local-level diversity could thus explain Italy's recent industrial and economic turn-around as the product of its shifting fortunes. In other words, its highly fragmented and poorly integrated social, economic and political structures are responsible for both the severe crisis of the late-1960s and 1970s as well as the current period of massive industrial adjustment.

Thus, while Italy's traditional structures blocked attempts at constructing efficient large-scale firms, national markets, "moderate" unions, and neo-corporatist arrangements in the early 1970s, they also served as hidden resources in the altered international environment of the 1980s. In short, Italy was lucky. Its history endowed the country with industrial, social and economic

structures (e.g., areas of small, flexible firms, etc.) which happened to be well-matched to the present conditions of international competition. Whether or not they will continue to do so in the future, in a once again changed environment following the unification of European markets after 1992, is strongly contested by proponents of this view.

Yet, closer examination of the cases presented in this study suggests that while historical patterns of industrial development in different localities in Italy did, in fact, have a major impact on the worldviews and organizational attributes of the local industrial actors, these local patterns were not simply set in stone and reproduced in their entirety over the next two centuries.

Instead, the industrial actors in the three cases struggled with one another over competing strategic choices during several critical conjunctures. During these moments, the possibilities for local industrial actors became momentarily more fluid or open. Yet, the outcome of these struggles, whether in the form of complete victory of some actors over others (e.g., Fiat), or the result of compromises and alliances among them (e.g., Biella, Montedison-Ferrara), once again re-established limits on the range of possible strategies available to the local actors by shaping the future pattern of relations among them and the subsequent structure of their industries.

Closer examination of localistic patterns of industry and industrial relations elsewhere in Italy also reveals that while they resemble in many ways past traditions and modes of regulation, they are by no means simple replications of these historical legacies.

Carlo Trigilia's study of two districts of small firms in Tuscany and Veneto illustrates how the original factors producing local patterns of industry and industrial relations are not necessarily the same as those which are responsible for their perpetuation and evolution over time.

In fact, while land-holding patterns and socio-political subcultures may have played an initial role in the formation of these local districts immediately following Italy's unification and industrialization, these factors were not sufficient to reproduce these patterns of industry in latter years. Political parties and unions in Tuscany and Catholic associations in the Veneto were much more important in the revitalization and transformation of both these districts in the late 1960s-early 1970s.⁹

A second way of understanding the impact of diverse patterns of local-level industrial change on macro-national institutions accepts the above historical account of the origins of local differences but nevertheless insists that the apparent re-emergence or renewed salience of local patterns of industrial politics is not merely a reproduction of the past. Moreover, this second account holds that these most recent developments at the local level are transforming in subtle and not so subtle ways the national institutions of Italy's political economy.

In fact, even a cursory look at certain macro-level institutions regulating industry, i.e., collective bargaining, labor law, labor market regulations, etc. as well as the organizational structures of the national business and labor confederations, reveals certain trends

suggesting a transformation of the relationship between local-level industrial actors and national regulatory institutions.

The evolution of collective bargaining in Italy helps illustrate this tendency. This evolution can be divided into four periods : 1) 1945-59; 2) 1960-67; 3) the strike waves of 1968-73; and 4) the years since 1973.¹⁰ During the first period, collective bargaining was highly centralized and weak, corresponding to the centralized and politicized system of Italian industrial relations at the time. While the national category unions (metalworkers, textile federations etc) were given bargaining rights and responsibilities in 1954, the confederations nevertheless remained dominant throughout this period. Bargaining at the plant level was unrecognized. Where it did exist, it took the form of informal agreements between management and the commissione interne (plant-level grievance committees). Union involvement in the implementation of agreements was minimal, as was the institutionalization of these accords.

Reasons usually given to account for this overly centralized and weak system of collective bargaining include an unfavorable labor market consisting of an abundant supply of cheap labor and persistently high unemployment rates; managerial aggressiveness which promoted highly centralized bargaining as a way of setting wages at levels tied to the most backward and unproductive sectors of the economy; and the political strategy of the labor movement which sought to enhance its political role at the national level rather than its bargaining activities within the factories.¹¹

During the 1960s, the modernization of the Italian economy encouraged the development of collective bargaining, especially among the national category unions and within the firms. Thus, over the course of the decade, the national federations increased their capacity to bargain and national category contracts became ascendent.¹² Confederal-level bargaining continued to exercise influence over broad issues like wage differentials based on sex and age. Factory-level bargaining began to take form through negotiations over the implementation of national contracts in specific plants. Yet, the development of decentralized bargaining was not universal but rather limited to the strongest union federations in the most dynamic sectors of the economy. Moreover, the institutionalization of bargaining at both the national and plant levels was precarious as it was based on no strike clauses, contractual "cages" which restricted the bargaining agenda, and other constraints on local union action.

The period between 1968 and 1973 witnessed a radical break with previous bargaining practices and left a long-lasting mark on the structure of collective bargaining in Italy. Anti-strike clauses and contractual cages were completely swept away while bargaining reached its maximum level of decentralization and minimum degree of institutionalization. This lack of institutionalization was due to the collapse of contractual boundaries and distinctive norms between the various levels. As a result, different levels of the union would often bargain (and not necessarily in coordination) over the same issues. With the creation of the factory councils, firm-level agreements multiplied. Agreements reached by strong unions in economically

dynamic firms were extended to other firms by patterned bargaining. Because of the climate of continual bargaining and mobilization, the local unions played an ever increasing role in the implementation of these accords.

Italy's political-economic crisis in the 1970s limited the unions' ability to negotiate improvements in wages and working conditions at all levels. A precarious situation developed in which the unions possessed enough power to disrupt production and veto unwanted changes but were not strong enough to launch new initiatives. The national confederations attempted to remedy this situation by recentralizing collective bargaining at the end of the 1970s with the EUR line (a union-initiated austerity program) But this effort failed.¹³ Local unions, in turn, responded to the stalemate in bargaining as best they could.

Thus, while some local unions were able to negotiate firm or regional-level collective agreements over restructuring¹⁴, others were less fortunate.¹⁵ The case studies on the different restructuring patterns in the automobile, textiles and petrochemical industries presented in this study provided examples of this local-level diversity. In sum, and regardless of the particularities of the outcomes of local bargaining agreements (or lack thereof), the 1970s witnessed an evolution of collective bargaining away from the national or sectoral and towards more local levels.

A similar development also took place in Italian labor law.¹⁶ Over the course of the postwar period, Italian unions were able to gain formal legal rights and recognition, on which they increasingly

depended as political-economic changes in the late 1970s undermined their organizational strength. Moreover, recent changes in particular legal norms have worked to encourage localistic tendencies within the union movement.

In the immediate postwar period, Italian labor had no formal legal protection. The Constitution consisted merely of vague principles (which took decades to implement by the Christian Democratic-controlled Parliament) and the old fascist legal codes remained in force. Prefects, judges and magistrates, many of whom were trained under the fascist regime, interpreted these codes to the advantage of employers. The fascist codes remained in force until the end of the 1950s, when the Constitutional Court was finally established and some previous norms were legally revoked.

The 1960s witnessed the steady development of progressive labor law. Following the long awaited establishment of the Constitutional Court, certain fascist legal norms like criminal penalties for strikers and the "law against urbanism"¹⁷ were struck down. New legislation promoted by the Center-Left governments confirmed this trend. The position of migrants improved with laws controlling subcontracting and temporary employment. Collective agreements were extended to cover all workers in a particular industry and not just those in firms with strong unions, and "just cause" was required for dismissals.

While labor law evolved in favor of workers, leading jurists were working towards a comprehensive labor code, the Statuto dei Diritti dei Lavoratori. The passage of the Statuto, in many ways the Italian

version of the Wagner Act, coincided with and was influenced by the strike waves of the hot autumn. This law, enacted in 1970, guaranteed the rights of workers as citizens and provided institutional guarantees for the unions. It also authorized unions to constitute their own structures on the shop floor as well as hold assemblies and collect dues within the plants. Thus, indirectly, the articles of the Statuto legitimated the structures (factory councils) and practices (plant-level assemblies) of the hot autumn.

In many ways, the only legacy left of the hot autumn consists of this legal framework. In other words, even though political-economic conditions changed in the late 1970s, it was difficult for employers to discriminate overtly against unions and roll back many of labor's gains. For instance, sections of the Statuto make dismissals nearly impossible. The legal guarantees also helped local-level union structures resist attempts by the central confederations to recentralize power in the late-1970s. In sum, the development of labor law, like that of collective bargaining, moved in a direction which accentuated rather than abated localistic tendencies among industrial actors in Italy.

Localism was also enhanced by changes in labor market regulations¹⁸. While national provisions regulating hiring and firing, training and apprenticeships, and wages have been in place in Italy since 1949, they were mostly ignored or circumvented until the 1970s. Until then and notwithstanding national norms, there were essentially three different labor markets in Italy, corresponding to the three major areas (north, central, and south) of Italy. Each of the three regional

labor markets responded to the needs of their respective industries (large, fordist factories in the north; small-scale firms in central Italy; clientalistic state-enterprises in the south) and modes of social regulation. With the advent of union strength after the hot autumn of 1969, unions enforced national norms and hence, increased labor market rigidities.

Following the second oil crisis, increased rates of unemployment (especially among youth) and firm needs to restructure (entailing increased labor mobility and generating large number of redundancies) forced changes in the norms regulating the labor market. In essence, these regulations have evolved in ways that are more attentive to firm- and territorially-specific labor needs and issues. As a result, like collective bargaining and labor law, labor market regulation has become more localistic in recent years.

Changes reflecting a tendency towards increased localism were not restricted to state regulatory institutions but to the other major actors in the political economy as well. A quick review of recent organizational changes in both the trade union movement and the employers' association reveal how these two actors have also become more attentive to and/or influenced by local-level developments.

Like American unions, the Italian labor movement consists of both vertical and horizontal organizational structures. The vertical structures are based on industries or branches of industry. Thus, each confederation has a chemical, textile, metalmechanical, etc. industrial federation. The horizontal structures are territorially based. During the 1950s, when the union movement was ideologically

divided, organizationally weak and politically isolated, the horizontal structures, especially the confederal organizations, were predominant. With the increase in collective bargaining at the industrial and plant levels during the 1960s, the vertical structures became ascendant.

Provincial unions are the primary intermediate structures linking the national unions to the workplace. While other structures (communal, zonal, and regional) exist, provincial unions act as crucial links between grass-roots action and central decision-making. As grass-roots action increased during the late 1960s and 1970s, provincial unions became increasingly influential and autonomous.

In the workplace, new forms of representation developed following the hot autumn. Before then, plant-level grievance committees (commissione interne) existed in which local unions associated with different confederations competed for seats. After the hot autumn, they were replaced by unitary structures, the consigli di fabbrica (factory councils), composed of delegates elected by all workers, and not just union representatives. These plant-level structures are officially recognized by the confederations and protected by the state.

Thus, by the mid-1970s the organizational structure of the union movement reflected its tumultuous and uncoordinated development. It also mirrored the strong pressures aimed at decentralization during this period. This decentralization translated into the growing importance of peripheral union structures over central ones and of industrial federations over national confederations.

With the political-economic crisis of the 1970s, the central union confederations sought to reverse this trend and recentralize power. As a result, they initiated a process of organizational reform in 1979 aimed at giving the central confederations greater power over both industrial federations and provincial unions. The aim was to create the institutional framework essential to the national-level concertation promoted by the confederations in these years. Yet, this organizational reform failed. Local, regional and industrial unions resisted these changes and instead, fought to augment their organizational power within the union movement. As a result, no division of power or specification of roles between the different levels was ever clearly established.

In fact, what one sees today in Italy is an array of patterns in which different actors from the different levels of the union movement (local, sectoral, national) play varying roles in different localities. For instance, in some localities (e.g., Biella), local unions have remained strong and continue to be the dominant players in the area. Elsewhere, (e.g., Turin) industrial or even national unions play the key roles. This diversity reflects the particular industrial/labor histories of the localities in which struggles between different union organizations resulted in the predomance of one level of the union movement over the others.

Confindustria, Italy's major private business association, also underwent various organizational reforms in recent years. Essentially, Confindustria transformed itself from a highly centralized, hierarchical organization into a federation of different

industrial associations. In this way, it was able to decentralize its structures and functions and thus, become more attentive to regional and local particularities.¹⁹ Again, how this policy was implemented in different ways among the various industrial federations and in different localities throughout Italy reflects the particular histories of the industries and local areas.

In sum, macro-level state, business and labor institutions have all evolved in a way that is more responsive to localistic patterns of industrial change. Notwithstanding Italy's longstanding tradition of local and regional differentiation, the above review suggests that increased attentiveness/responsiveness to local factors did not originally characterize these structures but instead reflect more recent political developments. In fact, collective bargaining, labor law, and labor market regulations were initially either non-existent or highly focused on the macro-national level of Italy's political economy. Only over the course of the 1970s and early 1980s did the institutions become more attentive to localistic patterns of industry and industrial relations.

The same is true for the organizational structures of Italy's business and labor confederations. Both were highly centralized in the 1950s and early 1960s but both have had to become more decentralized in order to accommodate the apparently growing importance of local-level industrial change. This move towards decentralization is far from certain and is strongly contested by segments of both the union and employers organizations who prefer to see more national, corporatist-like arrangements. Thus, while Italian social, economic

and political arrangements have always been characterized by local and regional differences, the national institutions regulating industry did not always reflect this reality. In fact, their attentiveness to local patterns of industrial politics appears to be a relatively recent phenomenon.

Another argument against the "Italian exceptionalist" explanation for diverse local patterns of industrial politics is that similar patterns seem to be emerging in other European countries with very different political and economic histories. For instance, recent work by Gary Herrigel suggests that the organization and administration of industry in Germany reflects different regional histories and institutional arrangements. Like in Italy, the mechanical engineering industry in Germany is organized along radically different lines in different regions of the country.²⁰ The increased salience of regional differences has also been analyzed recently by Charles Sabel. In this work, Italian-like localistic patterns of industry are described for a number of other European nations as well.²¹

The reality, ofcourse, is that the two alternative explanations for the diverse local-level patterns of industrial change are not necessarily alternatives. In fact, they complement one another. In other words, because of Italy's particular political development in which incomplete socio-economic integration and political unity preserved a variety of local and regional differences, its current patterns of extensive but diverse local industrial change is especially pronounced. In this way, the situation described for the

Biellese textile district in chapter three holds for other areas and industries in Italy as well.

This could be the case for other countries as well. In fact, one could argue that in other countries with different economic and political histories (e.g., the United States), national patterns of industry were able to more successfully eliminate, or at least subdue, local and regional differences. As a result, while localistic patterns of industrial change are manifest in these countries as well, they are less pronounced than in Italy.

All of this warrants further investigation, as does the exact relationship between the micro-level changes described in this study and the macro-institutional changes outlined above. While this study has been able to demonstrate the importance of local historical and institutional factors in explaining diverse patterns of industrial adjustment, and while it has suggested that these micro-level changes have, in fact, promoted notable changes in certain key institutions of Italy's political economy, it has not been able to clearly demonstrate a causal link or direct connection between these two levels of Italy's political economy.

As a result, one can either conclude that this is an interesting area for future research or dismiss these claims entirely and return to the conventional wisdom on Italy in particular, comparative political economy more generally. This wisdom underestimates the local-level changes described in this study and focuses instead on national-level institutions and arrangements in explaining industrial change. This study has sought to tell a different story about Italy

and in the process outline a different way of doing comparative political economy. If it has been at all successful, you will not return to the conventional wisdom.

Notes

1. See, for instance, Percy A. Allum, Italy -- Republic without Government?, (New York : W.W. Norton and Co., Inc., 1973); Perry Anderson, "Italy" in Lineages of the Absolutist State, (London : Verso, 1979); Derek Beales, The Risorgimento And The Unification of Italy, (London : Longman, 1981); Antonio Gramsci, "Notes on Italian History," in Quintin Hoare and Geoffrey Smith, eds., Selections from the Prison Notebooks of Antonio Gramsci, (New York : International Publishers, 1971); and Stephen Hellman, "The Emergence of the Modern Italian State," in Mark Kesselman and Joel Krieger, eds., European Politics In Transition, (Lexington, MA. : D.C. Heath and Co., 1987) · chapter 16.

2. Tom Kemp, "Italy -- the Disadvantaged Latecomer," in Industrialization in nineteenth century Europe, (London : Longman, 1981). See also Carlo Trigilia, Grandi Partiti E Piccole Imprese, (Bologna : Il Mulino, 1986) for an historical analysis of two regional economies in central and northern Italy.

3. See, for instance, various essays in Donald L.M. Blackmer and Sidney Tarrow, eds., Communism in Italy and France, (Princeton, N J. Princeton University Press, 1975); Alan S. Zuckerman, The Politics of Faction : Christian Democratic Rule in Italy, (New Haven, CT. : Yale University Press, 1979); and Sidney Tarrow, Peasant Communism in Southern Italy, (New Haven, CT. : Yale University Press, 1976).

4. See Samuel Barnes, Representation in Italy : Institutionalized Tradition and Electoral Choice, (Chicago : University of Chicago Press, 1977); Paolo Farneti, The Italian Party System, (London : Fances Pinter, 1985).
5. Stefano Bartolini, "The Politics of Institutional Reform in Italy," in West European Politics, 5, (July 1982); Gianfranco Pasquino, "Partiti, societa civile, istituzioni e il caso italiano," Stato E Mercato, n. 8, (August 1983); and Giuseppe Di Palma, "The Available State : Problems of Reform," in Peter Lange and Sidney Tarrow, eds., Italy In Transition, (London : Frank Cass, 1980).
6. Arnaldo Bagnasco, Le Tre Italie, (Bologna : Il Mulino, 1977).
7. Carol Mershon, "The Micropolitics of Union Action : Industrial Conflict in Italian Factories," Ph.D. Dissertation, Yale University, May 1986; and Miriam Anna Golden, "Austerity And Its Opposition . Italian Working Class Politics in the 1970s," Ph.D. Dissertation, Department of Government, Cornell University, January, 1983.
- 8 Joseph La Palombara, Interest Groups in Italian Politics, (Princeton, N.J.: Princeton University Press, 1977): 56-57
9. Carlo Trigilia, Grandi Partiti E Piccole Imprese, (Bologna : Il Mulino, 1986).
10. This section relies heavily on Gian Primo Cella and Tiziano Treu, "La contrattazione collettiva," in Cella and Treu, eds., Relazioni Industriali : Manuale per l'analisi della esperienza italiana, second edition, (Bologna : Il Mulino, 1984).
11. Gino Giugni, "Bargaining Units and Labor Organization in Italy," Industrial and Labor Relations Review, 10, (April 1957).
12. See F. Drago, et al , Movimento sindacale e contrattazione collettiva, 1945-1970, (Milan : Franco Angeli Editore, 1971); and Ettore Santi, "L'evoluzione delle strutture di categoria : Il caso Cisl," Prospettiva Sindacale, n. 48, 1983.
13. See Miriam Anna Golden, Austerity And Its Opposition, op. cit
14. See Ida Regalia, "Sindacati e governi periferici," Democrazia e Diritto, 5, 1985; and Carlo Trigilia, "La Regolazione Localistica Economia E Politica Nelle Aree Di Piccola Impresa," in U. Ascoli and R. Catanzaro, eds., La Societa' Italiana Degli Anni Ottanta, (Rome : Laterza, 1987).
15. For a discussion of this trend not just in Italy but in other advanced industrial states as well, see John H. Goldthorpe, "The End of Convergence : Corporatist and Dualist Tendencies in Modern Western Societies," in John H. Goldthorpe, ed., Order and Conflict in

Contemporary Capitalism, (Oxford : Clarendon Press, 1984).

16. This section draws heavily on Giovanni Contini, "Politics, law and shop floor bargaining in postwar Italy," in S. Tolliday and J. Zeitlin, eds., Shop Floor Bargaining and the State : Historical and Comparative Perspectives, (Cambridge University Press, 1985).

17. This law forbid people from changing residence without a guaranteed steady job in a the new town or residence. Thus, migrants often maintained semi-legal status and were open to exploitation by employers who could use this law as leverage against them.

18. This section relies on Emilio Reyneri, "Il mercato del lavoro italiano tra controllo statale e regolazione sociale," in Peter Lange and Marino Regini, eds., Stato E Regolazione Sociale, (Bologna : Il Mulino, 1987).

19. See Antonio M. Chiesi and Alberto Martinelli, "La rappresentanza degli interessi imprenditoriali come meccanismo di regolazione sociale," in Peter Lange and Marino Regini, eds., Stato E Regolazione Sociale, op cit.

20. See Gary Herrigel, "Industry And Politics : The German Case," Ph.D. Dissertation in progress, Department of Political Science, MIT

21. Charles Sabel, "The Reemergence of Regional Economies," unpublished manuscript, March 1988.

Appendix A : List of Interviews

1. Tom Deallesandri, CISL, Provincia di Torino, Turin, November 20, 1986.
2. Francesco Ciaffaloni, Camera del Lavoro-CGIL, Turin, November 19, 1986.
3. Angelo Airoidi, National Secretary, FIOM-CGIL, Rome, October 12, 1987.
4. Raffaele Morese, National Secretary, FIM-CISL, Rome, October 13, 1987.
5. Michele Figurati, Director of Industrial Relations, External Relations, Fiat S.p.A., Turin, October 20, 1987.
6. Cesare Annibaldi, Director of External Relations, Fiat S.p.A., Turin, October 20, 1987.
7. Fabrizio Carmignani, CesPe, Rome, October 13, 1987.
8. Cesare Damiano, Provincial Secretary, FIOM-CGIL Torino, Turin, October 16, 1987.
9. Giancarlo Trapparo, PSI Representative to the Regional Government, Ex-Industrial Representative, Turin, January 20, 1987.
10. Giorgio Rampa, Director of Strategic Planning, Fiat Auto, Turin, January 20, 1987.
11. Mr. Pollaro, Associazione Piccole e Medie Imprese, Turin, December 10, 1986.
12. Aldo Dutto, Ex-Delegate at Fiat Mirafiori, Turin, December, 1986
13. Matteo Rollier, Ex-Delegate at Fiat Mirafiori, March, 1987.
14. Gian Piero Carpo, IRES-CGIL Piemonte, December 2, 1986.
15. Bruno Manghi, Provincial Secretary, CISL, Turin, November 26, 1986.
16. Mr. Gaude, Factory Delegate, ITT-Altissimo, December, 1986.
17. Cesare Cosi, FIOM-CGIL, Provincia di Torino, Turin, December 9, 1986.

18. Aldo Marchetto, FIOM-CGIL, Provincia di Torino, Turin, December 9, 1986.
19. Marco Giatti, FIOM-CGIL, Provincia di Torino, Ex-Member of the FLM Coordinating Committee on Autos, April 29, 1987.
20. Carlo Bessusso, Director, Organization of Production, Fiat S.p.A., Turin, December 22, 1986.
21. Bruno Bottiglieri, Fondazione Giovanni Agnelli, Turin, December, 1986.
22. Flavio Iano, Agenzia Industriale Italiana, Turin, December, 1986.
23. Gian Maria Gros-Pietro, Director, Istituto di Ricerca Sull'Impresa E Lo Sviluppo, CNR, Turin, December, 1986.
24. Nicola Schiavone, Fondazione Giovanni Agnelli, Turin, December, 1986.
25. Corrado Paracone, Fondazione Giovanni Agnelli, Turin, November, 1986.
26. Graziella Fornengo, Laboratorio di Economia Politica, Universita' degli Studi di Torino, December, 1986.
27. Piero Gastaldo, Fondazione Giovanni Agnelli, Turin, December 18, 1986.
28. Mr. Mairano and Ms. Pinto, Industrial Relations, Fiat Auto, Turin, February 4, 1986.
29. Factory Council Group Interview, Altissimo-ITT, Turin, February 2, 1987.
30. Director of Personnel, Altissimo-ITT, Turin, February 2, 1987.
31. Aris Accornero, Turin, November 7, 1986.
32. Claudio Sabattini, Ex-Director of FIOM-CGIL Coordinating Committee on Autos, Presently, Director of Foreign Relations, CGIL, Bologna, April 28, 1987.
33. Mr. Tramontana, CEO, Alfa Romeo, Arese, November, 1987.
34. Mr. Riva, Provincial Secretary of FIOM-CGIL Milan, Sesto San Giovanni, November 10, 1987.
35. Group Interview with Alfa Romeo Factory Delegates, Milan, November, 1987.

36. Vito Milano, Regional Secretary, CISL Lombardia, Milan, November, 1987.
37. Gianni Alasia, PCI Parliamentary Deputy from Turin, Turin, March, 1987.
38. Ada Collida, Sinistra Indipendente Parliamentary Deputy, Rome, October, 1987.
39. Giacinto Militello, President of INPS, Milan, November, 1987.
40. Guido Bolaffi, FIOM-CGIL, National Coordinating Committee for Autos, Milan, November, 1987.
41. Alberto Archetti, President, Gruppo Tessile Niggeler and Kupfer, Capriolo, Brescia, June 11, 1987.
42. Mr. Pinna, Personnel Director, Gruppo Tessile Niggeler and Kupfer, Capriolo, Brescia, June 11, 1987.
43. Dino Greco, Provincial Secretary, Filtea-CGIL, Brescia, June 11, 1987.
44. Mr. Rossi, Factory Delegate, Niggeler-Kupfer, Capriolo, Brescia, June 11, 1987
45. Gianni Amoretti, National Secretary, Filtea-CGIL, Rome, October 13, 1987.
46. Bruno Ravazio, Regional Secretary, Filtea-CGIL Lombardia, Milan, July 6, 1987.
47. Paolo Ferla, Lanificio Egidio Ferla, Ponzone, Biella, May 22, 27, 1987.
48. Director of IPSA (automated re-processed wool factory), Prato, May 28, 1987.
49. Loradana Legabue, Director of CITER -- Centro Informazione Tessile Emilia Romagna, Carpi, May 29, 1987.
50. Marco Rivetti, President, Gruppo Finanziario Tessile, Turin, May 26, 1987.
51. Giancarlo Sivornino, Director of Women's Division, Gruppo GFT, Turin, May 13, 1987.
52. Ms. Giardini, Personnel Office, Gruppo GFT, Turin, May 8, 13, 1987.

53. Lorenzo Tossarelli, Director of Marketing, Gruppo GFT, Turin, May 26, 1987.
54. Ferruccio Tinghi, Director of GFT-USA, Turin, October 20, 1987.
55. Mr. Ongaro, Plant Manager, Leglertex, Crespi Ada, Bergamo, April 22, 1987.
56. Sergio Gambarelli, General Manager, Leglertex S.p.A., Ponte San Pietro, Bergamo, May 25, 1987.
57. Mr. Raccanella, Raccanella S.r.l., Palazuolo Sull'Oglio, Brescia, May 25, 1987.
58. Anna Botto, Istituto Tecnotex, Citta Degli Studi, Biella, May 22, 1987.
59. Bruno Alcaro, Associazione Dell' Industria Laniera Italiana, Milan, June 2, 1987.
60. Andrea Pinto, General Manager, Krizia, Milan, June 5, 1987.
61. C.G. Lovera, General Manager, SOMET, Colzate, Bergamo, May 25, 1987.
62. Mr. Bigagli, President, Bigagli, S.p.A., May 28, 1987.
63. Vittorio Argento, Unione Industriale Pratese, Prato, May 28, 1987.
64. Sergio Carpini, Promotrade, Prato, May 28, 1987.
65. Mr. Parenti, President, Unione Industriale Pratese, Prato, May 28, 1987.
66. Pier Giorgio Colombo, General Manager, Lanificio Emenergildo Zegna, Biella, July 16, 1987.
67. Paolo Botto, President, Lanificio Giuseppe Botto & Figli, July 17, 1987.
68. Pier Luigi and Sergio Loro Piana, Co-Presidents of Lanificio Ing Loro Piana and Co., S.p.A., Quarona Sesia, June 10, 1987.
69. Pierpaolo Pollari Maglietta, Associazione Italiana Industriali Tintori, Stampatori e Finitori Tessili, Milan, June 4, 1987.
70. Giancarlo Monti, General Secretary, ACIMIT -- Italian Textile Machinery Association, Milan, June 9, 1987.

71. Valerio Astolfi, Secretary General, Associazione Cottoniero Italiana, Milan, May, 1987.
72. Mr. Brovia, Associazione Abbigliamento, Milan, June 9, 1987.
73. Cleto Benucci, Director, Tessile di Como, Como, June 11, 1987
74. Enrico Ottolino, Director, Centro Tessile Cottoniero, Busto-Arsizio, July 30, 1987.
75. President of Istituto Tecnico Industriale Statale, Busto-Arsizio, July 30, 1987.
76. Francesco Cecchinato, Relazione Esterne, Nouvo Pignone-SMIT, Schio, Vicenza, July 21, 1987.
77. Chemistry Teacher, Istituto Tecnico Industriale Statale Di Setificio "Paolo Carcano", Como, July 17, 1987.
78. Mario Coda, General Manager, Tessiana, S.p.A., Adorno Mica, Biella, July 16, 1987.
79. Franco Perazio, President, Tessiana, Biella, July 16, 1987.
80. Luciano Locatelli, Plant Manager, SOMET, Colzate, Bergamo, May 22, 1987.
81. Pier Franco Marzoli, Sales Manager, Marzoli, Palazuolo Sull'Oglio, Brescia, May 25, 1987.
82. Oliviero Godi, Sales Representative, Marzoli, Palazuolo Sull'Oglio, April 22, 1987.
83. Mr. Ciampini, Secretary General, Federtessile, Milan, May 15, 1987.
84. Stefano Micoli and Paolo Lombardi, Associazione Maglialze, Milan, May, 1987.
85. Mario Agostinelli, Regional Secretary, CGIL Lombardia, Sesto San Giovanni, June 11, 1987.
86. Salvatore Barone, Provincial Secretary Filtea-CGIL, Como, June 11, 1987.
87. Agostino Megale, National Secretariat, Filtea-CGIL, Rome, October 13, 1987.
88. Donatella Canta, Regional Secretary Filtea-CGIL, Turin, October 20, 1987.

89. Ezio Becchis, IRES-CGIL Piemonte, Turin, October 20, 1987.
90. Mr. Parodini, Provincial Secretary, Filtea-CGIL, Busto-Arsizio (Varese), July 30, 1987.
91. Gaetano Sateriale, National Secretariat, CGIL, Ex-Regional Secretary Filcea-CGIL Emilia Romagna, Rome, October 20, 1988.
92. Gastone Sclavi, Montedison Manager, Montedison-USA, New York, Ex-National Secretary Filcea-CGIL, Cambridge, Ma. June 25, 1987.
93. Sergio Cofferati, National Secretary, Filcea-CGIL, Rome, October 14, 1987.
94. Enrico Di Giorgi, Director of Personnel, Montedipe, (Ex-Personnel Director at both the Ferrara and Porta Marghera plants), Milan, December 5, 1987.
95. Virginia Brancadoro, Ufficio Studi, Montedison, Milan, November 2, 1987.
96. Cesco Chinello, Provincial Secretariat, PCI Venezia, December 2, 1987.
97. Lorenzo Bordogna, December 1, 1987.
98. Antonio Cavaliere (CGIL) and Alfredo Anastasio (UIL), local union leaders at Porta Marghera, Mestre, December 8, 1987.
99. Mr. Gavagnin, Chemical Engineer, Montedison-Porta Marghera plant, Mestre, December 8, 1987.
100. Orlando De Toni, General Secretary Flerica-CISL Venezia, Mestre, December 8, 1987.
101. Mr. Giugliani, Director of Personnel, Himont, Marghera, December 8, 1988.
102. Evelina Codacci Pisanelli, Manager, Strategic and Market Analysis, Montedison, Milan, Cambridge, November, 1988.

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