

# Surviving the Fall of a King: The Regional Institutional Implications of Crisis at Fiat Auto

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In the fall of 2002, Italy's one truly giant industrial company fell into the deepest crisis in its troubled history. Faltering under an enormous debt load and rapidly falling market share, Fiat Auto announced mass layoffs and the closure of 18 plants worldwide, including two in Italy. In Turin, the automaker's historic home, the news was particularly alarming: on 12 October 2002, a headline in the Italian newspaper *La Stampa* read: 'According to the provincial government, "every Fiat worker corresponds to three or four more in firms in and around Turin"'. With nearly four thousand announced layoffs at the automaker's plants in the region, and more anticipated, the article suggested that somewhere between 11 and 15 thousand jobs could be lost at automotive suppliers in the province of Turin.<sup>1</sup>

Crisis at a major employer is unwelcome news anywhere, but for Turin and the surrounding Piedmont region, Fiat is far more than just a major employer. In this city built around — and in part *by* — Fiat and the auto industry, perhaps the Fordist world's most prototypical one-company town, a substantial crisis at the center brings legitimate fears of larger systemic effects in the regional manufacturing economy. Turin is home today to a sophisticated multi-firm automotive production system, consisting of both small and large automotive supplier firms, automotive design firms and niche producers such as Pininfarina, Bertone and Giugiaro, a highly specialized machine tool industry, large Fiat-owned research and technology transfer and training organizations (CRF and ISVOR), and university programs providing research and technical training. Sustained by this system, the Piedmont region has relatively smoothly absorbed steady declines in the automaker's regional employment and production since the beginning of the 1990s, with regional automotive suppliers diversifying and exporting as they become increasingly independent of Fiat.

However, although this articulated system was born very much of an *interaction* between Fiat, its suppliers and other regional actors, it has *always* had Fiat at its center in a directive role, as the sole actor with both the interest and the ability to provide key collective goods. The Piedmont region today is thus faced with an essential and unanswered question: What will happen to the networks of relationships

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1 All quotations originally in Italian – including this one – are translated by the authors.

and diversity of productive services if the crisis extends beyond the already substantial lowering of Fiat production volumes to include significant reductions in Fiat's local investment in higher-level research and other directive activities? The livelihoods of thousands rest on the answer to this question, and there is thus great debate in the region over what, if anything, should be done. In this article, we critically engage this debate, drawing on comparative political economy, theories of institutional path dependence, and the Italian literature on industrial district models of production to identify possible futures and feasible strategies for key actors in the Piedmontese regional political economy.

The article is in four sections. The first outlines the conceptual apparatus we use to analyze the challenges faced by the Piedmontese productive systems, drawing on literatures in economic geography and political economy. The second speaks to those aspects of the current crisis at Fiat Auto most relevant to our story, and discusses the regional implications of this and previous crises at Fiat. Our third section, the empirical core of the article, recounts the development of the regional manufacturing economy, describing its evolution from a sort of absolutist productive monarchy in the post-war period to today's relatively open system. In closing, we sum up the implications of our argument by looking at what can be done to stimulate the growth of new institutional forms to help direct the system following the weakening of its one-time monarchical player.

## Path dependence and the institutional governance of the economy

The rise of subnational regional and local agglomerations as *the* locus of productive organization has been described many times in many ways in a narrative arc that has often had at its center the celebrated industrial districts of central and northeastern Italy.<sup>2</sup> This narrative, however, has all too often ignored the historic Fordist manufacturing areas in Italy's northwest (i.e. Piedmont) — they have often served in analysis only as the something their sexier central Italian co-nationals so decidedly are *not*.

However, with the maturation of the 'institutional turn'<sup>3</sup> in literatures concerned with regional economic development, this neglect makes ever less sense. This turn, Amin (2001: 1238–9) explains, has pushed economic geography to actively concern itself not only with 'institutional settings which might encourage local economic dynamism' but also to be attentive to the 'path dependencies and collective practices which circumscribe economic potential and creativity (for example, monopoly practices, governmentalities of preservation and order, lack of business support institutions)'. This allows a more general 'meso-level understanding of the economic life of different cities and regions, their relative prosperity, their trajectories, their potential for development'.

Regional institutionalists meet from below those in the so-called 'comparative capitalisms' literature in political economy who have been building institutional counter-arguments to the proposition that globalization necessarily forces convergence on a single form of economic organization. Well-known edited volumes by Crouch and Streeck (1997), Hollingsworth and Boyer (1997), and most recently by Hall and Soskice (2001b) use evidence of variation in the governance and coordination of economic transactions to explain differences in the organization and performance of capitalist economies. Much of what has been written focuses on the national level, but the general approach applies readily to subnational regional economies (Hall and

2 This literature is extremely vast. For a review, see Whitford (2001).

3 On this institutional turn, see especially the 2001 special issue of *Environment and Planning A*, edited by Andrew Wood and David Valler, containing contributions from Amin, Jessop, MacLeod and others, as well as Amin (1999) and the rebuttal by Lovering (1999).

Soskice, 2001a: 16, see also Herrigel, 1996; Hollingsworth and Boyer, 1997; Crouch *et al.*, 2001).<sup>4</sup>

The words 'institution' and 'governance' are used often and in many ways in each of these literatures, so it is worth clarifying our own usage. We follow Hall and Soskice (2001a: 9), who follow North and others: 'a set of rules, formal or informal, that actors generally follow, whether for normative, cognitive, or material reasons, and organizations as durable entities with formally recognized members, whose rules also contribute to the institutions of the political economy'. As to our understanding of relevant variation in institutional forms, we rely heavily on the notion of 'governance'. This, Le Galès and Voelzkow (2001: 5) explain, 'refers to the entirety of institutions which co-ordinate or regulate action or transactions among (economic) subjects in an (economic) system' (see also Hollingsworth and Boyer, 1997).

Like many in this approach, we focus particularly on the governance of the strategic interactions between firms (Hall and Soskice, 2001a). However, we also draw on the key insight in Crouch *et al.*'s (2001; 2004) work on local economies in Europe: the operation of local economies with large concentrations of small and medium-sized firms cannot be adequately understood without also investigating regionally specific external economies — which they term 'local collective competition goods' — that are governed and provided in different ways in different places. Le Galès and Voelzkow (2001: 3) extensively discuss the concept of collective competition goods, distinguishing between the intangible and the tangible. The former 'have to do with cognitive and normative resources, such as tacit knowledge, specialized languages and conventions and trust'. The latter are infrastructure and services to: 'equip a section of the workforce with new skills', 'to procure orders', to 'get help with management problems', 'to raise capital', and so on.

Finally, in terms of our typology of theoretically relevant governance institutions, we (like others) go beyond the simple Coasian distinction between unconstrained market governance and hierarchical control internal to organizations. We expect that some regions will depend also on mechanisms of negotiated non-market governance through either networks or associations, on informal cooperative coordination in communities, and on hierarchical control by state actors (Hollingsworth and Boyer, 1997; Crouch *et al.*, 2001; Hall and Soskice, 2001a).

A key point of agreement across most institutionalist political economy is that all real capitalist economies depend on multiple forms of institutional governance, but that when a certain combination of governance forms has become established in a particular economy, it has some tendency to persist over time — what is often called *path dependency* (Swedberg, 2003: 63). There are, however, still disagreements over the mechanisms by which path dependencies are maintained and/or overcome (Crouch and Farrell, 2004).

This lack of consensus is what makes the Piedmontese case theoretically and politically interesting. The region has long been dominated by market and especially hierarchical modes of governance, with Fiat able to control the actions of many suppliers but also with the interest and ability to provide them with important collective competition goods. The sudden weakening of the automaker's regional dominance thus

4 We recognize that the comparative capitalisms literature has generally been applied to *national* models of capitalism; nevertheless, the potential objection that we are applying observations about apples (nations) to oranges (regions) is unsound. Even Hall and Soskice (2001: 15-16) make clear that their focus on national level variation is not taken *a priori* but is 'justified by the fact that so many of the institutional factors conditioning the behavior of firms remain nation specific', and is in any case 'congruent' with work arguing that 'differences in corporate strategy can be conditioned by the institutional support available to firms at the regional or sectoral levels'. Note also that the Italian case is one in which regional level variation is famously important, going back to Bagnasco (1977) and to Piore and Sabel (1984).

offers at once a natural experiment and a political laboratory for those interested in the role of coordinating institutions in manufacturing economies and in the prospects of actively changing those institutions — that is, in ‘breaking the path of institutional development’ (Crouch and Farrell, 2004: 5).

### Institutions, regional production systems and institutional change

A substantial academic literature argues that many manufacturing industries are more competitive in global markets when firms have access to institutional supports that help them to maintain collaborative relationships and to solve the prisoners’ dilemmas inherent in the creation of collective goods. For example, Crouch *et al.*’s (2001) volume on local production systems in Italy, Germany, France and the United Kingdom shows that between the 1970s and 1990s, the regions of greatest economic growth relied more on manufacturing for that growth than they did on services, and that ‘local production systems based on small firms have played a crucial role in this dynamism’ (Crouch and Trigilia, 2001: 215; Rodríguez-Pose, 2001). Real production systems, the volume shows, generally depend upon a mix of governance modes; however, a substantial associational component is important for sustainable and long-term growth in regions. Likewise, though writing about national economies, Hall and Soskice (2001a: 39) argue that ‘co-ordinated market economies’ characterized by substantial institutional support for non-market coordination are advantaged in incremental innovation industries. In these industries, which include the automotive sector, firms must ‘maintain the high quality of an established product line [and] devise incremental improvements to it that attract consumer loyalty’, and are favored by a corporate organization that ‘provides workers with secure employment, autonomy from close monitoring, and opportunities to influence the decisions of the firm, but require as well close inter-firm collaboration [that] encourages clients and suppliers to suggest incremental improvements to products or production processes’. This requires associational and state coordinating institutions that help sustain collaborative relational ties within and between firms.

This literature becomes especially relevant in light of recent research specifically on changes in the spatial organization of automotive production. In an *IJURR* symposium on the subject, Frigant and Lung (2002: 743) note that trends in automotive production, especially the use of ‘modules’, often require ‘co-location of the modules producers [which are generally first-tier suppliers] and the vehicle assembly plant where modules are delivered’. This might seem to suggest a grim future for Piedmontese producers, given the decline in the number of assembly plants in the region. However, as Frigant and Lung (2002) and Larsson (2002) also note, a closer look at some of the many ‘modular’ assembly plants in Europe shows otherwise. Frigant and Lung (2002: 751) write that at these plants, first-tier suppliers rarely make more than a limited local commitment; they generally maintain their research and development activities at other sites, and ‘have no incentive to search for second and third tier suppliers in the region in which they are located with the vehicle maker’. Larsson (2002: 768) adds, ‘in terms of function, the “typical” supplier in [his] study is a small local unit belonging to a large multinational corporation. Its main role is to act as a point of delivery’. The real manufacturing and design relationships, in short, usually lie elsewhere, meaning that demands for co-location of first-tier suppliers’ plants alongside assembly facilities notwithstanding, there is ample space for an autonomous automotive production system in Piedmont premised on the design and export of components.

There is, however, a fear that the progressive withdrawal of the hierarch could mean more than just the elimination of assembly plants: it could also undermine necessary institutional supports for the provision of collective goods and for the maintenance of collaborative relationships between firms, given what Florida (1996: 315, 317) describes as the ‘large body of contemporary theorizing [that] emphasizes the institutional rigidities and so-called lock-in effects that constrain and limit the process of regional change’.

These concepts — lock-in and path dependency — are most famously applied to technological lock-in (see Arthur, 1994), but, as Wolfe (2003: 23) notes, they have ‘been applied with increasing frequency to studies of the social and political environment that influences and facilitates innovation’. They are also at the center of much recent writing in comparative political economy, where, Amable (2000: 656) explains, the basic hypothesis in work positing the existence of multiple possible institutional architectures for modern capitalism is that ‘several institutions — in the broad sense — taken together reinforce each other [increasing returns] so that they form coherent and stable but not everlasting structures’.

Work emphasizing the stability of established institutional structures undoubtedly helps to explain, as Crouch and Farrell (2004: 5) write, why ‘actors may fail to respond to changes in the environment, even when such responses would lead to a better overall outcome’. But Crouch and Farrell (2004: 8) also make another point — on which we rely heavily in our own argument. There are costs to the ‘recent tendency in the social sciences, and in political economy in particular, to emphasize how institutional systems tend to crystallize around coherent logics of ordering’. This, they argue, leads authors to ‘systematically overlook fruitful incoherencies within empirical social systems’ and to too quickly dismiss ‘modes of action which do not fit their overall characterization of a given . . . system as untheorized empirical “noise” which needs to be disregarded in the interests of an elegant and sharply profiled account’ (Crouch and Farrell, 2004: 8, 33). The remedy, they argue, is to pay more attention to the *full* implications of the concept of path dependence, as the concept *per se* ‘implies the existence of alternative paths of development than the one taken, which may be “rediscovered” when actors face a changed environment which makes new demands’ (Crouch and Farrell, 2004: 6). In short, theirs is ultimately a methodological call for institutionalist accounts to leave sufficient space in their analysis for ‘incongruities, incoherence, and within-system diversities’ that can and do ‘frequently provide the means through which actors — whether firms, policy entrepreneurs or others — may seek to tackle new exigencies’ (Crouch and Farrell, 2004: 33, 8).

We follow this call in our analysis of the Piedmont case. The regional productive system has historically been dominated by just market and hierarchical governance modes, but we will nevertheless argue that there have been numerous historical ‘incongruities, incoherence, and within-system diversities’ and that these do indeed provide tools that regional state actors can use to stimulate new institutions premised on strong public–private associational coordinating capacity. Such institutions could usefully ensure the continued engagement of the region’s many territorially rooted small supplier firms, which have been, and can continue to be, essential to the system’s great flexibility. In short, we argue that the region could break, at least to some degree, the ‘chains of path dependence’; but we also recognize that the burden is on us to explain *how*.

To meet this burden, we tell the story of the uneven passage of the Piedmontese productive system from absolute monarchy to today’s articulated multi-firm system, giving particular attention to fundamental contradictions in Fiat’s monarchical role in an increasingly open world. We show that Fiat has cultivated in its suppliers a relative dependence on a single client and that this has led to a largely technical orientation at many of the smaller firms lower down in the supply structure; but at the same time, Fiat’s investments in collective goods, selection pressures, the push for co-design, and the pulling of nationally focused firms into the international arena have strengthened the regional industry and led it to generate substantial independent capabilities and associational resources that could be harnessed in the service of real institutional change. These tools, however, will not necessarily be used. The region is at a crossroads, in which firm and state actors are making decisions that will strongly mark the future of a regional productive system that has the potential to become a sort of productive ‘republic’ with directive power shared across a broad swath of public and private actors,

but that might well simply become a productive ‘oligarchy’ in which hierarchical and market modes of governance continue to dominate.

This focus on Fiat, we emphasize, is not taken *a priori*, nor is it simply because we are responding particularly to a theoretical literature that regards the behavior of firms as both a (partial) determinant and (partial) outcome of the dominant mode(s) of coordination and collective good provision in an economy. Even in that literature, it is by no means necessary that private actors will have taken the lead — public actors can be both independent and influential in these spheres (Glassman and Voelzkow, 2001). Nonetheless, it is empirically the case that in Piedmont Fiat has been so dominant for so long that public actors have primarily been followers in decisions taken by the ‘monarch’. Indeed, our very point is that although it *has* been this way, there is reason to think, or at least to hope, that it need not remain so.

In our telling of this story, we thus begin near the end, recounting the most important aspects (for our argument) of recent crises at Fiat Auto and how they have impacted the regional productive system to date.

## Fiat and Turin are no strangers to crisis, but this time it’s different

Fiat is no stranger to crisis, lurching from the most famous strike in Italian history — the ‘35 days struggle’ — of 1980 to financial battles in the early 1990s that pitted the founding and controlling Agnelli family against Cesare Romiti and Mediobanca. But the company’s present difficulties are unprecedented in their magnitude. From a 13.8% European market share in 1990, Fiat had by December 2004 fallen to just 7.6%, from second highest to lowest among European automakers (excluding niche producers). Even Fiat’s position of absolute dominance in Italy was lost: in the early 1990s, Fiat still made more than half the cars sold in Italy; by February 2005, the company’s brands made up just 28% of the Italian market.<sup>5</sup>

Pressured by a huge debt totaling nearly two and half times its assets, a generally precarious financial position, and very weak sales in its auto division (which was operating at just 70% of capacity), the Fiat Group in December of 2001 reorganized Fiat Auto into four relatively independent business units, each responsible for its own economic and financial performance. It also began a series of rationalizations, restructurings and plant closures (Pessa, 2002). The spring of 2002 brought workforce reductions of 3,468 in Italy (2,445 were in Piedmont). In December 2002, after negotiations with the government, the company announced that another 5,600 workers (1,350 in Piedmont) were to be laid off immediately, with another 2,500 to follow in June 2003.<sup>6</sup>

5 We do not go into substantial detail on the crisis — since the emphasis here is on the implications of Fiat’s difficulties for the larger productive system — but point the reader to other treatments specifically on the strategic and structural factors leading to Fiat’s current situation. See Enrietti and Lanzetti (2002a; 2002b) and Volpato (2002).

6 In speaking of layoffs by Fiat Auto, we include employees of joint ventures and subsidiaries — specifically, Gesco, Sepin, GM-Fiat Purchasing, GM-Fiat Powertrain, Comau and Magneti Marelli. The first workforce reduction used early retirements and other such ‘soft’ means of worker ‘mobility’ (as it is euphemistically called in Italian). The second group of 5,600 were covered by the *Cassa Integrazione Guadagni Straordinaria* (CIGS), a long-term benefits program that pays workers 60% of their previous wage levels from funds contributed by the state, workers and other companies. It can be used only under particular conditions, such as crisis or restructuring, and is designed to make redundancy socially acceptable, (succeeding only partially). Workers can be put onto CIGS for a maximum of 36 months, after which those who have not found other work must be rehired. Because Fiat’s crisis has continued, the company has since resorted to the systematic use of ‘ordinary’ *Cassa Integrazione*, although this is intended only to cover ‘temporary’ disruptions to an employer’s ability to generate sufficient work. This use of mobility instruments has been and is a point of considerable contention between Fiat and the unions.

Though hardly the first crisis in the company's history — 1969, 1980 and 1993 are other notably dark years — the troubles that came to a head at the end of 2001 were unprecedented in that they threatened the very *industrial* structure of the automaker (Comito, 2002). It was, in the words of the Italian academy's best-known authority on Fiat, Giuseppe Volpato, a *crisi che viene da lontano* — a 'crisis that comes from afar [in time]' — with strategic and structural causes that go beyond just the debt load and the albatross of a historic specialization in small cars where international competition has most compressed profit margins (a legacy of the somewhat particular Italian market). Perhaps most fundamentally, Fiat Auto invested less in the 1990s as a percentage of sales, both generally and in R&D, than did its competitors, so it should come as no surprise that the company also has older factories, higher inventories and a relatively low return on sales (Enrietti and Lanzetti, 2002b; Volpato, 2002). The automaker also 'lost' (at least so far) what seemed (at the time) a reasonable but big bet: in the early 1990s the company invested heavily in new factories in emerging markets — especially in Argentina, Brazil, Turkey and Poland — that have not yet emerged nearly so well as hoped (Bodo, 2002; Gavosto, 2002).

When the crisis hit, regional anxieties were already somewhat on edge, due to a 2000 alliance signed between Fiat and GM that had created two joint-ventures for all European and South American operations — Fiat-GM Powertrain and Fiat-GM Purchasing — with the stated goal of sharing technology and economies of scale to create common platforms. The deal also involved a stock-swap, in which GM obtained a 20% ownership stake in Fiat, while Fiat got both a 5% stake in GM and a *put* option that gave the controlling Agnelli family the legal right to force GM to purchase the remaining 80% between 2004 and 2009 at a price considerably higher than current share value. Hence, with the company in deep crisis and reason already to think that some in the Fiat Group might already have eyes elsewhere, the death first of long-time patriarch Giovanni Agnelli in January 2003 and then of his succeeding brother Umberto Agnelli in May 2004 generated considerable speculation that Fiat would be broken up and sold in parts.

At the time of writing, however, this speculation seems to have been misplaced. Following the arrival of a new CEO at Fiat Auto, Giuseppe Morchio, in 2003, the company had announced a plan to return to profitability by 2006 (which has since slid to 2007) by re-centering the company around its key automotive assets with numerous new models, and by staving off the crushing debt load through a sale only of non-auto assets (i.e. Fiat Avio in airplane parts, Toro insurance, FIDIS in automotive finance) and raising new capital from shareholders through a stock issue.<sup>7</sup> And although Morchio resigned after the death of Umberto Agnelli, following his failure to secure the chairmanship of the owning Fiat Group due to his rebuffing by the Agnelli family and by Fiat's creditor banks in favor of Luca Cordero di Montezemolo (elevated from the chairmanship of Ferrari), the general contours of his plan remain largely intact under the new regime. Also, after some legal wrangling, the company has finally resolved what the Italian newspaper *La Repubblica* (27 October 2003) had described as Fiat's 'armed peace' with GM. The American automaker, with troubles of its own, had been openly hostile to the outright purchase of Fiat's debt-ridden auto business, and in February 2005 agreed to pay some \$2 billion for Fiat's renunciation of the *put* and a near total severing of formal ties between the companies. Though there will remain some industrial cooperation, the joint venture in purchasing and powertrains is to be unwound, and GM is to return its remaining 10% share of Fiat Auto to Fiat group (*Automotive News*, 14 February 2005).

The upshot of these events is that Fiat's future seems clearly tied to the automotive industry, with the cash from GM, the recapitalization and the sale of other assets

7 Note that by 'automotive industry' as regards Fiat, we mean cars (Fiat, Alfa Romeo, Lancia), Trucks (IVECO), agricultural and construction machinery (Case-New Holland) and automotive components (Marelli, Teksid) and production systems (COMAU, specialized in the automotive industry).

**Table 1** Auto production and manufacturing employment in the Province of Turin

	1993	1997	2001	2002	2003	% Change 2003/1993
Auto production, Turin	571,472	568,368	374,379	306,000	250,000	-56.25
Auto production, rest of Italy	593,128	1,059,232	897,384	819,769	776,454	30.91
Percentage Piedmont/Italy	49.07%	34.92%	29.44%	27.18%	24.35%	-50.38
Workers, Mirafiori & Rivalta	40,061	31,399	25,285	21,909	15,695	-60.82
All workers in province of Turin (000s)	880	879	916	912	924	5.0
Mfg workers, province of Turin (000s)	309	306	292	297	288	-6.8
Italian industrial employment (000s)	5,431.5	5,294.9	5,339.6	5,375.1	5,380	-0.96

Source: Fiat Auto and FIOM

mitigating fears of the automaker's medium-term disappearance. Nonetheless, the implications of this *crisi che viene da lontano* are not to be underestimated. Not only is it the first time that the very future of Fiat Auto has been in doubt (and, consequently, so also the fates of those who depend thereon), its problems remain both profound and structural. Fiat is, at the time of writing, losing millions of Euros daily, is still saddled with excess productive capacity, and still has poor sales figures driven by a product portfolio that poorly matches market tendencies. This does not mean that some sort of recovery is off the table; but, as we will make clear in the remainder of this article, it does mean that Fiat is unlikely to play nearly so strong a directive role in the future of the Piedmontese automotive production system as it did in its creation.

### Turin is no stranger to Fiat's crises, but again, this time it's different

Turin and its hinterlands are also no strangers to fears of employment crises driven by decisions taken at *Lingotto* (Fiat's historic headquarters). The company's southward migration of production began long ago, with the building of eleven factories in central and southern Italy between the late 1960s and the 1970s, five of which were connected to car production. These investments initially employed 17,000, but that doubled by 1981 with the aid of financing from the Italian state to encourage investment in Southern Italy (the *Cassa del Mezzogiorno*). These factories remained, however, largely 'castles in the desert', with few local linkages or even efforts to stimulate local component production (Conti and Enrietti, 1995). But in the 1990s, the process both accelerated and changed, marked particularly by the 1993 founding of the Fiat-Sata greenfield plant in Melfi (Basilicata), a highly productive and state-of-the-art plant, alongside which Fiat has successfully encouraged numerous first-tier suppliers to co-locate facilities.

Since 1993, Fiat's local production has fallen by 56% (as of end 2003) against an overall reduction of just 12%. In 1990, more than 60% of Fiat's production was in the three plants in or near Turin — Mirafiori, Rivalta and Chivasso. By 2002, less than 30% remained. Chivasso was shut down in 1992, Rivalta in 2002. And Mirafiori, which employed as many as 60,000 in the 1980s and 25,285 in 2000 was down to just 11,500 in December 2004 amid discussions that it too could eventually be closed (it is, at the time of writing, operating at just 60% of capacity). Yet what is most notable about the transfer of such an enormous portion of Fiat's production and employment away from



Turin is that it did *not* devastate this famously automobile-centered regional economy. As can be seen in Table 1, manufacturing employment in the Province of Turin (where 60% of regional auto component employment is concentrated) fell just 6.8%, from 309,000 to 288,000 between 1993 and 2003, and was offset by employment growth elsewhere — overall employment in the province grew by 5% (and the unemployment rate actually fell, from 9% to 5.9%).<sup>8</sup>

This quick adjustment to such a potentially crippling blow was aided in no small part by Piedmontese supplier firms' impressive diversification into new markets — both in and out of the automotive *filière* — in the last 10 years. A core of Piedmontese suppliers had been active in international markets for nearly the entirety of the post-war period (i.e. Pininfarina, Bertone, Saiag, Cornaglia), but there is evidence that the 1990s saw the regional industry become much more fully integrated into global automotive supply. A survey of 56 first-tier suppliers in Piedmont (contacting the same suppliers in 1990 and 1997) conducted by Bianchi, Enrietti and Lanzetti (2001) showed that these firms — historically dependent on Fiat — were increasingly likely to export and also to serve foreign OEMs and assemblers. Sampled firms supplying Fiat in both 1990 and 1997 had increased sales to Fiat by an average of 17%, but also increased exports to other OEMs by 52% (to 10.5% of sales) between 1990 and 1997. Overall, as of 1997, sampled firms exported 25% of production, with 60% of this to Germany, France, the UK and Spain (that is, countries in which Fiat does not produce). Between 1990 and 1997, independent (not foreign-owned) firms more than doubled their share of the export market, also showing substantial growth in non-automotive sectors — essential diversification for a group that otherwise sold 50% of its product to Fiat. Importantly, in sampled firms, overall employment increased by 17.5%, and by 21% in white collar and managerial staff, indicating that they are taking on the personnel required to handle more complex demands such as design and the management of subsuppliers. A recent survey of automotive component suppliers in the province of Turin by the *Unione Industriale di Torino* found a similar pattern of international diversification, with 57.9% firms reporting increased export sales relative to 1995 (just 12.3% had falling export sales, the rest were stable). Overall, sampled firms sent just over 40% of sales to national auto producers, and 54.7% of sales to the domestic market in general.

For the regional economy, this is all relatively encouraging. But it must also be remembered that the Piedmontese automotive industry's relatively clean absorption of the out-migration of Fiat production is not a mere matter of good fortune. The region today does boast an articulated and flexible multi-firm system that substantially diversified both clients and markets in the last years of the twentieth century. But the growth, development and even current operation of this system have been fundamentally shaped, often quite consciously, by Fiat's contradictory interaction with the territory. The system evolved from a sort of 'absolute monarchy' after the war, when Fiat dominated Italy's largest one-company town, into a period in which an evident unsustainability of vertical integration in increasingly open and differentiated world markets pushed Fiat not only to aid and encourage, but also to coordinate, supplier investments in new competencies in the 1980s and 1990s. Faced with a crisis that is not of degree but of kind, in which the very existence of an autonomous and *Torinese* Fiat Auto has been put into question, the regional productive system faces an altogether new sort of challenge: companies, associations and the regional state are wrestling with the difficult question of just what — if anything — should replace the capacity for coordination and collective good production once offered by a now weakened and distracted monarch.

8 Turin Auto production provided by the FIOM (metalworkers union). Other numbers from Fiat Auto. See also Enrietti and Lanzetti (2002b).

## The evolution and revolution (about Fiat) of Piedmontese automotive supply

In this section, we detail how the multi-firm Piedmontese production system developed both because and in spite of Fiat. In so doing, we provide the evidence for our claim (developed in full in the final section) that there are in the region at least some of the tools to create new associational institutions to partially replace some of the coordinating and collective good provision capacities historically offered by the now-faltering monarch.

### Post-war absolutism

The rapid post-war growth of the Italian economy, already a major car producer before the war, helped Turin grow into the western world's foremost 'one company town'. The *Fabbrica Italiana di Automobili Torino* commanded workers, suppliers and state as unquestioned and absolute monarch of a regional production system that absolutely dominated the national market for small cars.

In the years immediately following the second world war, the national market for small and medium-sized models expanded rapidly, and Fiat concentrated production in a few large vertically integrated factories focused on quantity above all else. These were all located in and around Turin, which relatively quickly became one of the most sectorally specialized regions in the western world, comparable to Detroit or the West Midlands, but with the essential difference that the region was dominated by a *single* large corporation (Conti and Enrietti, 1995).

Fiat's internal organization and territorial importance in the post-war period have been well-studied — no surprise given that the company employed some 125,000 people by the end of the 1960s. Considerably less attention has been paid to the network of component suppliers, though it is known that through the 1960s Fiat acquired roughly 50% of its turnover from external companies, and estimates at the time suggest that another 125,000 worked at production units either directly or indirectly a part of Fiat's network of subcontractors (Conti and Enrietti, 1995). In the lone detailed study to date of the growth of these subcontractors and their interrelationships with Fiat during the years of the immediate post-war economic boom, Angelo Michelsons (2001: 106, emphasis added) describes a period in which 'Fiat, to a certain degree, *suffered* the impetuous growth of its industrial supply system: it was an uncontrolled process, in contradiction with the principles of the internal strategy of vertical integration' of its powerful chairman, Vittorio Valletta.<sup>9</sup> Fiat had strong internal competencies in mechanical industries, but was necessarily dependent on outside firms for electromechanics, plastic and rubber parts, and numerous services (Volpato, 1982). In an effort to mitigate this dependence, Fiat acquired some key suppliers and also either licensed technologies from foreign multinationals or convinced them to locate facilities in Piedmont (i.e. Valeo for brakes). But despite efforts to produce internally, Fiat was simply unable to meet an effectively limitless domestic demand for its products, and thus came to rely on a vast network of subsuppliers. Rossignolo (1971) estimates some that there were some 3,500 units linked in some way to the automotive industry, of which 1,200 were direct contractors. Most of these were quite small and very often directly spun off from Fiat. The model, Michelsons (2001) explains, was very much that of the classic putting-out system, with an almost total dependence of suppliers on the commissioning automaker, which supplied the design, machines, primary and semi-finished materials, and even the credit and other financial resources. Suppliers were to guarantee only delivery times

9 Michelsons draws on the relatively sparse official documentation and secondary sources available, but adds especially information from a series of *inchieste operaie* (worker studies), which are in some cases the only documents available for the analysis of particular transformations in the period on which he writes.

and flexibility. These small shops were often in the hands of 'Fiat men', department foremen near their pension, skilled workers, and so on.

In this period of extremely tight dependency relationships, Fiat's effective financial control of many of these suppliers meant that the centralization of property and capital in Turin exceeded even the city's considerable sectoral specialization (Conti and Enrietti, 1995). It was a context, Michelsons (2001: 121) writes, in which 'many of the Turinese entrepreneurs that had spun off from Fiat, precisely because they were somewhat protected from the market, were pushed to develop only technical functions at the expense of a more managerial and market-focused orientation'. These suppliers, Michelsons (2001: 111) explains, were essentially 'dependent', but, not in a simple way: 'The problem is that when speaking of the relationship between Fiat and suppliers one gives a falsely unitary impression. In reality, Fiat, though very hierarchical, is not a unitary subject; there were a plethora of entities and individuals who had dealings with suppliers: from the varied levels of the hierarchy, divisions, sections, single plants, product lines, shops . . .' In short, this was ultimately a period of relative chaos. With Fiat unable even to determine its own real production costs, the internal structure for selecting suppliers gave managers very decentralized discretion, and, especially for semi-finished goods, the company would buy the same part from numerous suppliers — ostensibly to control price and to guarantee against stoppages of the assembly line. But this also left ample space for graft and small-scale corruption as suppliers owned by former Fiat men, their relatives, and so on were taken care of. This, of course, further encouraged and protected the spinning-off of small sub-suppliers (Michelsons, 2001).

When Fiat later began to outsource more strategic aspects of production and generally to depend upon suppliers for new product development, this purely technical focus of a substantial portion of the supply base forced the company — still clearly in the guise of monarch — to invest resources in the professionalization of key suppliers.

### Rationalization and the slow growing of independent suppliers

Already beset by low productivity because of underinvestment in product and process technology and extremely conflictual industrial relations, the post-oil crisis slowdown in economic growth in the 1970s made it obvious that Fiat simply could not remain a highly centralized conglomerate, mass-producing undifferentiated small cars as quickly as possible. Losses in the auto division had long been compensated by profits in other sectors, but, Locke (1995: 107–8) writes, 'following the divisionalization of Fiat in the late 1970s and the creation of an autonomous automobile division with a separate balance sheet in 1979, Fiat's crisis became completely visible . . . Suddenly, Italy's largest privately owned firm appeared to be on the verge of bankruptcy'. Fiat Auto thus began in 1980 a reorganization aimed at raising productivity and providing a more diverse product palate.

Internally, the automaker sought to resolve its industrial relations and productivity problems by modernizing capital goods and developing what was called the 'HAF' (highly automated factory) model. A heavy investment in robots was made to permit the production of multiple models in the same factory at the same time, in a 'hypertechnological' solution to the rigidities of the Fordist model (Bonazzi, 1994). Fiat also encouraged managers to reassert control on the shopfloor, problematized job classifications and proposed massive layoffs. These changes — particularly the layoffs — were resisted by the unions, leading to what is known as the '35 days struggle', a strike that culminated with the so-called march of the forty-thousand (against the union) and a defeat from which unions at Fiat have perhaps never fully recovered (Locke 1995).<sup>10</sup> The layoffs and reorganization went forward, with Fiat reducing its labor force

10 While the important – and difficult – reorganization of industrial relations is outside the scope of this article, there are interesting parallels to our arguments regarding the Fiat's contradictory external relationships (see Locke, 1995: 126–7).

in Turin for the first time. Nationally, the company laid off 23,000 workers in 1980 in a series of reductions that would bring Fiat's employment down from 135,000 in 1980 to 78,000 in 1986. Importantly, though the relative geographic distribution of employment shifted southwards (from 16% to 20.3% between 1979 and 1985), strategic functions — including top management, research and purchasing — remained in Turin (Conti and Enrietti, 1995).

Externally, Fiat was limited by a technologically underdeveloped supply base that had difficulty meeting the needs of a market that — following the Japanese revolution — privileged technological innovation and more rapid model transformations. Hence, starting in 1980, the automaker began a drastic selection process, cutting some 30% of direct suppliers (down to 850) in just two years. These cuts were mostly of small process specialists, and were undertaken very quickly in a 'brutal' manner to keep suppliers from organizing any sort of resistance (Enrietti, 1987: 120). With the remaining suppliers, Fiat substantially reorganized relationships hoping to contain costs and to garner supplier help in innovation. To this end, the company began establishing so-called 'development contracts' with makers of complex components. In these, Fiat contributed a portion of the investment for the development of new products in exchange for the property rights to designs; suppliers were to get returns on piece price through guaranteed contracts of three to five years (Enrietti, 1987).

The cost-containment efforts were largely successful, but by the mid-1980s it was clear that hopes of stimulating innovation had been considerably less impressive. Even with a willingness to co-invest, Fiat did not generate nearly so many development contracts as hoped. The company ascribed this failure to the limits of an Italian supply base more able to 'execute than to innovate', an assertion backed up by the fact that more than half the development contracts signed were with foreign suppliers (Enrietti, 1987: 126).

Notably, the limitations imposed by the overly technical focus of the Italian supply base were hardly exogenous — not only because of the way in which many were spun off from Fiat (see above discussion of Michelsons' research) — but also because Fiat had long been one of the most vertically integrated automakers in the world for both production and design, and remained so through the 1980s (Enrietti, 1995). As a result, by the late 1980s, with expectations of slow growth in European markets for small cars boding badly, both the HAF and vertical integration were rejected as insufficiently flexible and unable to meet rising world quality standards. Fiat Auto again changed direction, reorganizing internal and external relations and investing heavily in the developing world.<sup>11</sup>

Internally, the solution to rigidities and quality problems was sought in the 'integrated factory', a variation on cellular manufacturing that borrowed from ideas from Japanese producers, though with adjustments to account for the very different institutional and cultural context (Bonazzi, 1994). The Sata plant in southern Italy (Melfi), built in 1993, was the prototype for the new strategy. To ensure just-in-time delivery and flexible manufacturing practices, Fiat induced 22 first-tier suppliers to build plants on the site and forced the adoption of common organizational practices and labor relations for all the firms — the assembler included — inside this *comprensorio* (Negrelli, 2004). The new organizational model, Camuffo and Volpato (1998) explain, showed that Fiat had 'learned the lesson that advanced technology had to be carefully matched with innovations in organizational and human resources practices' and had recognized that there had been costs to the harsh industrial relations approach taken after the strike.

11 A full discussion of the changes in the once-sprawling Fiat Group is beyond our scope here, as the focus is on the consolidation of the automotive components district. We refer readers instead to the interesting discussion published by the former finance director of Fiat, Giorgio Bodo (2002), in *L'industria*.

**Table 2** Ever fewer Fiat Auto direct suppliers

Year	1987	1989	1991	1993	1995	1997	2001
Firms	1,200	990	670	520	380	350	330
Normalized	100%	82.5%	55.8%	43.3%	31.7%	29.2%	27.5%

Source: Fiat Auto

**Table 3** Fiat Auto: dramatically reduced levels of vertical integration

Year	1982	1987	1992	1996	1998	1999	2000
External Production	50%	52%	65%	70%	70%	73%	72%
External Design	30%	30%	45%	59%	70%	73%	72%

Source: Fiat Auto

For the consolidation of today's internationally competitive Piedmontese automotive components district, however, other elements of this second reorganization are much more relevant: the real devolution of responsibilities created a genuine demand for higher-order capabilities from Piedmontese suppliers. Recognizing this, Fiat actively promoted the formation of new capabilities through investment and training; also, the internationalization of Fiat's production had the useful side effect of pulling nationally focused suppliers into the global arena (Gavosto, 2002). Fiat's relatively greater technological dependence on suppliers had begun in the 1980s, when they had also given more autonomy to the internal components divisions (Teksid, Magneti Marelli), but it was not until the 1990s that Fiat genuinely departed from its historically high levels of vertical integration. The company radically devolved first productive and then design responsibilities to outside suppliers. This required in turn a quantitative and qualitative reorganization of the company's external relations: the number of direct Fiat suppliers fell drastically, from 1,200 in 1987 to just 330 in 2001 (Table 2), even as the company consistently reduced its level of vertical integration (Table 3).<sup>12</sup>

The qualitative reorganization was also substantial: Fiat put forth a purchasing strategy premised on the formation of privileged 'partnerships' with a restricted group of suppliers, that, at least on the face of it, Zirpoli (2001: 19) writes, has 'more analogies with those described with reference to some Japanese OEMs than with the "adversarial" model in use in Western contexts until, at least, the last decade'. Along with a genuine devolution of substantial new responsibilities to suppliers, careful selection processes and a more tiered structure that moved many suppliers from Fiat's direct supply base to the second tier,<sup>13</sup> the new strategy was premised on risk sharing, co-design, parallel sourcing, early supplier involvement in price setting, target costing and so on.

The actual implementation of Fiat's new collaborative model, however, was quite contradictory, reflecting the complexities — both internal and external to Fiat — of trying to move from the relatively untrammelled hierarchical governance of relatively straightforward production to a situation in which greater cooperation is to be underlain by significantly higher expectations in quality, performance and innovation.

12 Note that this 1,200 is higher than the 850 of 1982. This is because the acquisition of Alfa Romeo in 1987 brought with it relationships to suppliers of key components in existing Alfa Romeo models.

13 Among firms sampled by Bianchi *et al.* (2001), those that had Fiat business in 1990 but did not in 1997 increased their subcontracting sales threefold. See also Vitali (2001).

### Unenlightened despotism

In a study of Fiat supply management practices built from interviews with Fiat personnel and suppliers, Zirpoli (2001; see also Zirpoli and Caputo, 2003) shows that despite Fiat Auto's formal choice of a collaborative purchasing strategy, its actual implementation was rife with contradictions that undermined its overall objectives. Suppliers showed a willingness to take on R&D responsibility and to differentiate their customer base, but were concerned with 'the sustainability of this strategy in the presence of constant cost reduction of component prices imposed by Fiat. The latter does not renounce its market power in order to reinforce the co-operation and strengthen the relationship with suppliers' (Zirpoli, 2001: 10).

As a part of its new collaborative strategy, Fiat, like other automakers, selectively borrowed target costing techniques from Japan, a practice that should involve joint exploration of production cost drivers. But, according to suppliers interviewed by Zirpoli (2001: 10), Fiat simply does not live up to its word. He writes that 'the Fiat approach, in this respect, is not only seen as unfair by suppliers but is also considered incompatible with plans of development of new technology and new Fiat dedicated components'. Despite a rhetoric of extensive information sharing, Fiat focused over time increasingly on cost aspects, often imposing cuts even without the technical discussions with suppliers presupposed by its own policies. Suppliers 'accept the fact that cost cutting is an industry necessity but would also like more emphasis by Fiat on practices such as *value engineering and value analysis*' and lament the absence of a formalized procedure for sharing cost reductions. Fiat's failures in these areas can lead to supplier unwillingness to reveal information, lest it be used against them in cost negotiation. Zirpoli (2001: 12) concludes that 'the absence of profit sharing techniques consistent with the risks taken by suppliers threatens their motivation, their attitude to co-operate and their willingness to continue investing and taking risks'.

### Enlightened despotism and its limits

In revolving our account of changes in the Piedmontese production system around Fiat, it is important to avoid a monocausal story premised entirely on decisions made in the offices and halls of *Lingotto*, so a word of caution is in order. We fully mean that Fiat's strategic choices have been a very big thing to which all other actors in the region have had constantly to react — but these reactions hardly occurred in a vacuum. Certainly, Fiat's forays into foreign markets had the effect of pulling previous entirely territorial Piedmontese suppliers into international markets (Balcet, 2002), and the cutting of some suppliers from the direct supply base gave an obvious stimulus to look to new markets (Bianchi *et al.*, 2001); but it is also important to recognize that these changes came as the global structure of those markets was itself changing and creating greater space for a more robust population of independent global component makers. Other major automakers began to outsource substantial production responsibilities earlier than did Fiat and there thus existed potential new markets. And though these did require considerable expertise in terms of quality and design, there were Piedmontese suppliers that were able to make that transition and were diversifying already by the mid-to-late 1980s. In some cases (i.e. Bitron, diversified already by 1984 across clients and across auto and appliance markets), these were particularly capable Italian groups; in others, the increased sophistication of global automotive supply had also led to the growth of multinational first-tier 'mega-suppliers', some of whom sought entry to the Italian markets through the purchase of Italian suppliers (i.e. the purchase of Sipea by TRW). These firms brought with them considerable managerial expertise and access to other markets (Enrietti, 1995; 1997).

Nonetheless, idiosyncratic changes in supplier strategy, the increased entry of multinational capital, selection processes, and changes in the character of global and domestic demand were not enough. Some limitations are, as alluded to above, likely traceable to Fiat's problematic implementation of collaborative strategy. But there was

also a recognition within Fiat that the automaker's ability to finally and genuinely devolve both production and design to a substantial degree depended critically on all of its suppliers *in fact* developing previously unneeded design competencies and meeting ever higher world quality standards, and that they were thus fundamentally constrained by the legacy of largely 'technical' capabilities in Fiat's supply base. The establishment of an important subgroup of more advanced firms in Fiat's supply base already by the 1980s was perhaps promising, but the population of available suppliers was by no means generally sufficient to meet the company's changing needs.

In this section, we thus discuss the degree to which Fiat has also been an 'enlightened despot'. Fiat as regional monarch has done more than simply make demands to which suppliers had to react. It was also the source of numerous and important collective competition goods, including especially the Centro Ricerche Fiat (CRF) and the ISVOR training organization. The CRF, founded in 1976, is the most important private technology research and transfer center in Italy; and ISVOR, created in 1978 out of existing Fiat-controlled schools, provides very high-level training and consulting to firms in the region. We focus particularly, however, on the automaker's very active efforts in the 1990s to reorient its domestic suppliers towards new production strategies congruent with the automaker's own needs — because these best show the fundamental coordinating role Fiat played in the larger system.<sup>14</sup>

Given the difficulty of further selection (see Table 2; an exhaustive survey of the process) and the prospect of costly switching, in February 1990 Fiat Auto stepped up squarely in its role as provider of collective competition goods, launching a project to help many of the remaining suppliers to develop new competencies to lower costs and to restructure production to improve response time and efficiency.<sup>15</sup> Called 'development and integration of the supplier system', but better known as 'Guided Growth' (*Crescita Guidata*), it piloted with eight firms in 1990, but by 1993, 55% of Fiat's direct suppliers (304 firms) had taken part (Follis *et al.*, 2004).

The issue of lower tier performance, however, continued to be addressed in purely contractual terms (Vitali, 2001). The viability of Fiat's productive strategy thus depended fundamentally on whether first-tier suppliers would be able to ensure that second-tier suppliers could meet the automaker's changing needs. And there is quite good evidence that there were important changes lower in the supply chain with many first-tier suppliers establishing varying degrees of 'partnership' with key second-tier suppliers. Vitali (2001) writes that despite the lack of formal long-term contracts, there are relatively intense relationships between first- and second-tier firms, especially in the evolution of technology and quality, and reports that in a sample of 79 Piedmontese second-tier suppliers, 38% had experienced a strong push from above to innovate, and a substantial majority delivers just-in-time to clients. Requests for design expertise are increasing as well. Sixteen percent of sales were of components co-designed with the customer (first-tier or assembler), showing the replication at lower levels of this increasingly standard practice between assemblers and first-tiers (Cerruti and Enrietti, 2002).<sup>16</sup>

The relatively advanced capabilities of even the lower levels of the Piedmontese automotive production system is perhaps best seen when this sample is compared to a

14 Information on Guided Growth in this section is taken from documents provided to the authors by ISVOR (which managed much of the process), and interviews by the authors with personnel at ISVOR, at Fiat, and with nine suppliers involved in the process.

15 The initiative began with the joint definition of a project, and then the constitution of a work group of personnel from both Fiat Auto and the supplier in question, along with experts from ISVOR. The parties jointly worked out a methodology to reduce waste and improve efficiency in design, operations management and financial management of the suppliers.

16 The sample of 79 second-tier supplier refers to the CESOS survey. Results can be found in Vitali (2001), Botticelli and Paparella (2002) and Cerrutti and Enrietti (2002). This study was a multiple level analysis comparing component production in Piedmont and Melfi.

similar (though smaller, 19) sample of second-tier suppliers around the Melfi plant in southern Italy. Sampled firms in Piedmont were capable of maintaining a direct relationship to the assembler, doing some of their own design, and selling in foreign markets. Around Melfi, one finds almost exclusively subcontractors with minimal autonomy that often get their raw materials or partially finished goods directly from the client, on whom they are extremely dependent (averaging almost 90% of their sales to a single customer). Firms around Melfi tend to be smaller, about evenly distributed amongst 'small' (<15 employees), 'medium' (15–50) and 'large' (50+), whereas in Piedmont, 42% of firms employ between 50 and 150 people, representing about 80% of employment and sectoral sales, with higher productivity and a higher investment/employee ratio. Finally, there are significant differences between the regions' technological and innovative capacity: in the southern sample, just 28% of firms have design capacities; in Piedmont, 60% of second-tier firms have a design department, as do 20% of those at the third tier.

However, the same survey also showed areas of continued weakness at the second tier, even in Piedmont. It identified three areas of particular need: creation of quality systems, process control and financial management. Small suppliers tend to be quite dependent. Vitali (2001) reports that sampled Piedmontese second-tier firms sold 43% of production to their top customer, and 69% to the top three; third-tier suppliers were similar, selling 65% to the top three customers. They tend also to be more reactive than proactive, often with no single functionary or department responsible for human resources, and invest minimally in training (Porzio, 2002). Indeed, in a sort of 'revealed preference' recognition of these limitations, Fiat in the late 1990s again stepped up to provide a collective good for the system by taking an active but indirect role in improving quality at the second tier of the supply: some ten years after its application to the first tier, Fiat returned to Guided Growth, but at the second tier.

Given the Piedmontese history of largely hierarchical and market coordination, this second instance of Guided Growth is particularly interesting. It was premised on Fiat's stimulation of a consortium of Italian first-tier suppliers to provide training services to second-tier suppliers. The initiative at once demonstrated Fiat's recognition of the increasingly *systemic* character of the regional supply network — they needed to manage relationships that extended beyond direct suppliers — and the existence of a core of well-structured first-tier suppliers able to take on more directive roles in that system. Fiat designed a project premised on stimulating first-tier companies to play the same 'mother-hen' role with their own subsuppliers that the automaker had previously played with them. With the goal of helping small firms develop production processes able to meet more robust quality standards, the Fiat-owned training organization, ISVOR, administered a program premised fundamentally on direct involvement of first-tier supplier firms at nominated second-tier suppliers, aiming to both leverage and strengthen the existing relationships between these firms. To govern the initiative, Fiat drew on a consortium — CONSAF, made up of first-tier suppliers and the three largest Italian automotive companies of the Fiat Group (Fiat Auto, Iveco, New Holland) — that had been founded in 1998 in cooperation with ISVOR to aggregate training needs of first tier suppliers.<sup>17</sup>

The initiative called on first-tier suppliers to select subsuppliers important to their own supply chains, and to ask them to undertake three training modules — on the regulation of the production process; on production quality and error prevention

17 CONSAF was founded with the dual mission of: (1) horizontally aggregating the needs of first-tier suppliers to reach scale economies in training; (2) resolving logistical and bureaucratic difficulties in obtaining public training subsidies where available. Though governed privately, it does seek out public financing for training where available, identifying programs for which member firms are eligible (the regional and national state, as well as the European Union all provide training subsidies, often with various strings attached).



techniques; and on quality improvement methodologies — each consisting first of a 10-day course addressed to the owners and/or the top managers and quality personnel of the firms involved, and then of a one-month test run during which subsupplier firms were to select an internal process to which to apply the methodologies and procedures taught. The novel wrinkle is that the implementation phase was supervised and aided as necessary by personnel from the nominating first-tier supplier. At the end of the six-month period, client companies were to evaluate their nominated subsuppliers, using a process quality audit jointly defined by Fiat Auto and several suppliers. The criteria in the audit track were those of ANFIA, the Italian association of companies in the automotive industry, which includes the Fiat Group companies as well as all the main first-tier supplier companies. The cost of the program was kept low (about 1,000 Euro per person) so that most subsupplier firms could afford it and even perhaps send multiple people. The costs of support activities in the implementation and evaluation phase were to be borne by client companies.

The project was initially presented to some 130 first-tier suppliers (excluding suppliers of raw materials, and firms without any establishment in Italy), and to about 700 of their subsuppliers. It ultimately began with 102 first-tier suppliers, who brought with them 428 second-tier suppliers,<sup>18</sup> generally the small process specialists whose role in the supply chain is to increase the flexibility of their larger product specialist customers.<sup>19</sup> Indicative of the intertwining of Piedmontese component supply, some 50 subsuppliers were nominated by multiple first tiers, a number that interviewed suppliers said significantly underestimates the sharing of subsuppliers: prior discussion among some first tiers had led some to elect not to nominate particular second-tier suppliers only because they knew they were already ‘covered’ by other first tiers.

The two Guided Growth initiatives are neither the only nor the most important cases in which Fiat Auto has provided the components system with an important collective good; but they are particularly exemplary of the changes in Fiat’s monarchic role in an increasingly open world. The automaker was limited by the largely technical competencies of the very supply base they had themselves sown, and Fiat’s position as sole dominant buyer undermined the likelihood that market mechanisms alone would push suppliers to reorganize operations as Fiat’s needs changed (due to classic hold-up problems). But the assembler also had the power and the interest to push needed organizational changes down the supply chain and reason to bear some of the costs of those changes, even for firms at the second tier (Fiat’s ability to capture externalities at the end of the chain solves the collective action problem). Indeed, the implicit conflict of interest that might prevent first-tier companies from investing in the improvement of their own suppliers’ performances when the latter also produce for other first-tier companies is resolved by the particular structure of the initiative: consortial, but with Fiat ultimately in an arbitrage position able to induce suppliers to share the expenses incurred by one first-tier company with other beneficiaries.

The most interesting aspect of the second Guided Growth experience, however, is in the details of its eventual demise, which is emblematic of the changed nature of Fiat’s relationship to the regional supply system and showed the need for — and possibility of — establishing alternative sources of directive capacity.

18 Of the original 428, 53 quit the project relatively quickly (a substantial portion of these were wire harness subsuppliers; shortly after the project began, Fiat began purchasing wire harnesses from offshore suppliers).

19 Size data is only available for a subsample of 57 firms, concentrated in injection molding, metal stamping and machining (technologies that cover 60% of the firms involved in the project), but of this subsample, 88% have less than 100 employees, and just over 60% have less than 50. ISVOR personnel say that their anecdotal impressions of the size distribution of the full group are in line with the distribution of the subsample.

Initiatives like Guided Growth help to solidify the organizational structure of second-tier suppliers and thus to allow the local productive system greater independence from Fiat Auto — recall that in the 1990s Piedmontese suppliers, particularly at the first tier, significantly diversified their client base both in the auto industry and to other (non-automotive) markets. Nonetheless, the death blow came not from the weakening of Fiat's structural incentives to collective good provision, but rather from the concentration of Fiat Auto's resources (especially in purchasing) on the much bigger fish of defining and implementing the joint venture with GM for purchasing and for powertrains. The training initiative was ended in November 2000, scuttling initial plans that it be extended to include many more suppliers at both the first and second tier.

Despite its premature truncation, the clearest single finding from interviews and analysis of documents relating to the initiative was the commitment of a subgroup of first-tier suppliers to making the project work. Of the 102 first-tier suppliers invited, 30 first-tier firms showed a strong early commitment, bringing four or more subsuppliers. And though, as of December 2000, just 120 second-tier suppliers had completed the program, a rapid completion of the process with a positive evaluation and corresponding certification of the second-tier supplier was strongly correlated with the interest and effort put forth by first-tier suppliers. One hundred and twenty subsuppliers (32% of the total) were evaluated by 45 first-tier suppliers (41% of the total); just 18 first-tier suppliers evaluated and certified 77 subsuppliers (64% of the 120). Most of these 18 firms were among those bringing at least four subsuppliers to the initiative, a group that brought fully 80% of the suppliers nominated all the way through the process.

The discontinuation of Guided Growth 'II' did not, however, mean that the need for continued organizational growth among the many small firms in Piedmontese component supply had suddenly disappeared. Rather, it meant only that the heavy reliance of the program on the interests of a single private firm ultimately proved a flaw, something that bears noting in the current debate in the region over industrial policy.

## Beyond the monarchy: oligarchy or republic?

Fiat's long dominance of Italian automobile production was matched, at least until the 1980s, by its unchecked status in the arenas of collective interest representation, including especially the national employers' association (Bodo, 2002; Comito, 2002). This resulted in a now discredited sort of industrial policy — as regarded the automotive industry — that was often virtually made-to-order for the company. Its three basic themes were: protectionism (especially against Japanese competition); hand-outs and bail-outs (i.e. Fiat's acquisition Alfa Romeo); and incentives for investment in southern Italy, with the building of the Melfi plant only the most recent example.<sup>20</sup>

Today, the issue of what — if anything — state actors should do in the arena of industrial policy is back at center stage, but against a political economic and legal backdrop that has changed in two very significant ways.

First, the EU now contravenes all direct government subsidies to automobile production — which does not eliminate all avenues of intervention, but substantially limits Rome's options — and Fiat simply no longer holds the sway it once did as Italy's only truly large company (Bodo, 2002). Thus, although the state has absorbed some of the costs of the crisis, particularly for the layoffs incurred in the 2002 restructuring through the *Cassa Integrazione Guadagni* and other means of financing worker mobility, and has made attempts in the 1990s to stimulate automotive consumption through

20 For a discussion of the relationship between the automobile industry and government economic policies current through the early 1990s, see Conti and Enrietti (1995). Note that Fiat's investments in the developing world have also benefited from such subsidies. See, for example, Rodriguez-Pose and Arbx (2001) for a discussion of Fiat's investment in Betim in Brazil.

'eco-incentives', Fiat's sale of key assets and other efforts to finance its considerable debts have been, by all accounts, conducted on open markets at real prices (unlike, for example, the group's sale of its steel businesses — part of the Teksid subsidiary — in 1982 to the Finsider state enterprise; see Scotti, 2003). Indeed, calls for a state takeover were heard in some quarters when the crisis first broke, but they are rarely heard today. Rather, there is a general recognition that the only way in which the automaker can survive is by reinvesting in research and development, and in its marketing and sales network.

Second, owing much to the attention garnered by the success of partnerships between firms and local and regional state actors in the central and northeastern Italian industrial districts in the 1980s and 1990s, the Italian constitution was changed in 2001 (article 117), redefining the roles of the national and regional states as regards industrial policy and devolving most responsibility as regards industrial policy for small and mid-sized firms to the regional level (Forti and Viesti, 2003).

In combination, these changes mean that a substantial portion of what can be done to support employment in the automotive industry in Italy — which remains important — will take place at a subnational level. This shift in focus, notably, has highlighted a particularity that followed from Piedmont's long revolution about a single dominant actor. The norm in automotive-heavy European regions in the 1990s was to establish organizational structures to represent specialized automotive supplier firms that could take a territorial and systemic approach to stimulating continuous product and process innovations through cooperative projects involving firms, research centers and universities (Enrietti *et al.*, 2003); Piedmont, however, has no such entity. There have been attempts in the recent past to bring greater formal coordination to the region, most notably, in 1999, in conjunction with the preparation of a 'regional development pact' (*Patto Territoriale*). This effort to legally define Turin as an 'automotive technology district' would have brought central state subsidies for the delivery of various services to firms in the region, in cooperation with the universities and the Fiat-owned collective good providers (ISVOR in training, CRF in research and technology transfer), with the idea that they could draw on the lessons learned in the Guided Growth initiative. Fiat did show some interest in this initial foray into a more formalized governance of the system, but ultimately the automaker — which would have been required to cede some control to representative organizations — and the *Unione Industriale* (the association of industry, generally representing larger firms) scuttled the proposal.<sup>21</sup>

The gravity of the crisis at Fiat, however, has put the issue back onto the table, generating substantial new debate in the regions as to how and whether to develop new associational institutions to direct the system and to ensure the continued provision of collective competition goods originally created by Fiat-as-monarch. Still, these debates remain marked by the long shadow of the monarch. The beginning of 2004 saw the most prominent proposal for public-private cooperation in the wake of the crisis — called the *La Management Company per la filiera dell'auto Piemontese* — declared officially dead. This was just a year after announcements made amid much fanfare that a committee that included major industrialists, the regional, provincial and local state governments, the chamber of commerce, and all of the major employers and artisans associations had engaged Roland Berger (an international consultancy active in the automotive industry) to develop a coordinating management company to 'manage the resources necessary to finance joint activities and co-ordinate activities as a reference point for the entire filière'.<sup>22</sup> The plan included the general provision of collective goods, but it was particularly motivated by industrialists fearful of the possibility that Fiat's difficulties could threaten the existence of the CRF (the important technology

21 Personal communication from Pietro Marcenaro, the Regional Secretary of the *Democratici di Sinistra* (Left Democrats) who was privy to the process. See also Pichierri (2002).

22 See *La Management Company per la filiera dell'auto piemontese*, press briefing, 7 May 2003.

transfer agency owned by the automaker). Thus, when a Fiat restructuring plan in 2003 redirected the company's strategy to ensure investment in the CRF but also to focus it more tightly on innovation for Fiat, the automaker pulled the CRF's cooperation in the regional project. Having lost the nexus around which the project had been organized, the proposed coordinating management company quickly lost steam. After a brief flirtation with classic notions of public good provision, still in the areas of technology transfer and helping firms to compete on quality rather than price, the proposal was folded in December 2003 when the regional state made it clear that no money would be forthcoming unless matched by substantial private financial support.<sup>23</sup>

This failure, and Fiat's decision to withdraw its cooperation in the form of the CRF, underscores that institutional change, if it comes at all, does not come quickly. The emergent industrial future of Piedmont may well be one that is strongly continuous with its past, in the form of a weak productive oligarchy dominated by relatively pure modes of market governance. The region does have an important subset of companies already well integrated into global markets that could disconnect from the local system, leaving behind many of the more territorially rooted smaller suppliers that, though technically capable, have historically depended on clients for their ability to export, and who are likely to be in greater need of substantial access to collective competition goods.

We wrote at the beginning of this article that the weakening of Fiat's regional dominance makes of Piedmont a natural experiment, so the failure of the management company might seem to suggest that oligarchy is a foregone conclusion and that the path of institutional development will not be broken. But to pronounce the experiment over would be to ignore other aspects of the region's historical-institutional development, and to misunderstand the degree to which the region is *also* a political laboratory. There is still a very real possibility of a more 'republican' future for the territorial productive system premised on the borrowing of ideas from the established Italian literature on industrial districts (and leaving aside the misunderstanding of some that industrial districts must consist only of small firms). This future, in the words of Sebastiano Brusco (1992: 195), requires viewing the productive system 'not only as a unit of analysis but also as a unit of initiative: as a fully-fledged and organically unified organisation, whose development is slowed down or impeded by bottlenecks that public action must turn into opportunities' to resolve problems the private sector would be unable to solve alone. Put another way, it would require policy-making that enables the region's many small and mid-size firms to act *as a system*, not merely *in a system*, a distinction often and importantly made in that well-developed literature (Whitford, 2001).

Notably, this approach is entirely continuous with our analysis of the historical-institutional development of the regional productive economy. We have held throughout that not only must the Piedmontese automotive industry be seen as more than the sum of its parts, but that its development has been driven substantially by the interaction of a powerful coordinating actor, Fiat, with the often unintended consequences of decisions taken in years past amid new challenges posed by an increasingly open and global world economy. The initial decentralization of Fiat production in the 1980s, for example, was both underlain and constrained by the existence of a vast network of regional suppliers that had grown as a result of the automaker's particularly chaotic expansion in the 1960s and 1970s. And the solidification of the system and its greater integration into global markets was heavily influenced by the problematic decentralization of the 1980s, which led suppliers to seek external markets and Fiat to seek ways to ensure that those same suppliers could meet increasingly stringent world standards of design and quality. What

23 Information in this paragraph is drawn from interviews with personnel at the Turinese economic development agency, ITP.

is different this time around is that there is no single private actor with the incentive or the wherewithal to push the system to resolve its current collective action dilemmas; but there are also important unintended consequences, in the form of capabilities and established relationships between firms at lower levels that give reason to think that coordinating policy entrepreneurship by actors in the regional state could push things towards the establishment of an at least somewhat democratic productive republic.

Important steps have been taken in this direction. For example, as a part of a project called *From Concept to Car* (financed also by the regional state), the Chamber of Commerce surveyed the population of suppliers in and around Turin and selected a subset of 150 deemed to have the technical and design capacities to compete independently in global markets but to be in need of marketing help. For this group, the Chamber developed a program to jointly market these firms and to bring them together regularly with representatives of automotive system suppliers and assemblers in worldwide markets. This program, however, is only the beginning of what would be necessary to truly establish stronger associational institutional governance of the Piedmontese productive system. Indeed, it leaves out many of the region's second- and third-tier suppliers, the firms most likely to suffer an excessive dependence on few clients. Many of these firms do have quite strong technical competencies and are thus potential contributors to regional employment and dynamism, but they are too often relatively disconnected from the wealth of information and productive services available in the area (Botticelli and Paparella, 2002; Enrietti *et al.*, 2003). This suggests in turn that — if possible — Piedmont would be well-served by returning to experiences such as 'Guided Growth' that both offer concrete services and use existing relationships as a means to deliver them.

The key issue in such policy-making is not whether the regional state can found an organization for such an undertaking — it certainly can, at least formally — but whether or not it can in fact mobilize sufficient support from key actors to effectively sustain collaborative projects between firms — what Hall and Soskice (2001a) refer to as 'business coordinating capacity'. The failure of the Management Company project underscores the difficulty of stimulating horizontal cooperation between firms unused to working together, but this need not be the last word in regional institution building in Piedmont. Rather, as argued in the first section of this article, policymakers seeking to foment institutional change should look for something to build on, for inconsistencies or latent subsystems that can perhaps be strengthened when existing institutional arrangements become suboptimal (Crouch and Farrell, 2004).

It is in this sense that we believe Piedmontese policymakers do have some tools to break from the path of a hierarchical institutional history by building on the many changes that have occurred in existing *vertical* relationships between firms in the region, using the Guided Growth initiatives as a model. There, as we have consistently stressed in this article, contradictions between Fiat's hierarchical role and global pressures to improve quality and time to market have led to significant changes and especially to efforts to stimulate collaborative relationships and organizational development at multiple levels of the productive systems.<sup>24</sup> Because this project, though truncated, had a concrete objective around which to organize and showed the common interest that a core of first- and second-tier suppliers do have, it could be taken up again — though this would require some other organization, such as the regional state, taking on the entrepreneurial role of organizing first-tier suppliers to work jointly with training organizations to help their lower tier suppliers identify needs and reorganize their operations. But it is from such existing relationships and defined problems that the region has its best hope of establishing support for the sorts of territorial structures found in other regional economies centered on the automotive industry, able to articulate

24 On the possibilities of building new coordinating institutions by leveraging existing vertical cooperation, see Whitford (2005); Whitford and Zeitlin (2004).

and promote initiatives for a systemic approach to helping otherwise disconnected component suppliers to compete effectively in world markets.<sup>25</sup>

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25 See Enrietti *et al.* (2003) and Enrietti and Lanzetti (2003) for a detailed call for the public authorities to take a very active role in governing and financing a proposed organizational structure. The proposed 'Agency for the Promotion and Development of the Piedmontese Automotive Components Industry' would coordinate existing associations, perhaps help form new ones, and deliver some services directly.

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