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Industrial reorganisation in France: changing relationships between large and small firms

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discussion paper

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Industrial Reorganisation in France

Changing relationships between
large and small firms

Bob Hancké

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Zusammenfassung

Vertreter einer einflußreichen Argumentationsrichtung in der neueren Forschung über die industrielle Reorganisation in modernen Industriegesellschaften sehen im Aufbau zwischenbetrieblicher Vertrauensstrukturen und im "relational contracting" mögliche Wege, die betriebliche Organisation an die vom Markt geforderte Flexibilität anzupassen (Sabel, Gambetta).

Über die zwischenbetrieblichen Beziehungen in Frankreich besteht traditionell die Vorstellung, daß es für große Unternehmen und ihre Zulieferer sehr schwer ist, auf Vertrauen basierende Netzwerke aufzubauen. Unterdessen ist das Verhältnis jedoch von Sub-Contracting geprägt: Die großen Unternehmen geben spezifizierte Informationen über die von ihnen geforderten Leistungen, welche die Subunternehmer detailgetreu auszuführen haben. Berichte und Veröffentlichungen der letzten Jahre deuten darauf hin, daß sich das distanzierte Verhältnis der großen Unternehmen und ihrer Zulieferer zunehmend in eine "Vertrauens"-beziehung wandelt. Dieser Arbeit liegt die These zugrunde, daß die Beziehungen zwischen Zulieferern und großen Unternehmen zwar gewaltige Veränderungen erfahren, daß die Kategorie "Vertrauen" allerdings das Wesen dieser Veränderungen nicht hinreichend erfassen kann. Die großen Unternehmen haben Macht und Einfluß auf dem Markt und politische Ressourcen auf ihrer Seite, was sie in eine starke Position gegenüber ihren Zulieferern versetzt. Bei diesem nach wie vor asymmetrischen Kräfteverhältnis bleiben die großen Unternehmen nach wie vor die stärkeren Partner.

Abstract

An influential position in the contemporary study of industrial reorganisation discusses the construction of "inter-firm trust" or "relational contracting" as ways to adjust the organisation of firms to the flexibility required by the market. The conventional picture of the relation between large firms in France and small firms who supply them, suggests that it is very hard for them to construct such trust-based networks. Instead, it is one of atomised sub-contracting: the large firm gives very detailed specifications for the job that needs to be done, and the subcontractor executes. In recent years, however, several accounts have suggested that this arms-length relationship between larger firms and suppliers is changing.

The argument of this paper is that, while the relationships between suppliers and large firms are indeed undergoing tremendous changes, the category of trust does not appear to capture the nature of these changes very well. The combined use of their market power and the political resources that large firms have at their disposal, allow them to remain the stronger partner in what always was an asymmetric power relationship. The argument is supported by detailed discussions of just-in-time delivery, quality issues and the role of the large firms in organizing small firm finance.

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Introduction

The changing terms of world competition are raising the pressures on firms to adjust rapidly to volatile market conditions. An influential position in the contemporary study of industrial reorganisation discusses the construction of inter-firm trust“ or "relational contracting“ as ways to adjust the organisation of firms to the flexibility required by the market. The idea at the basis of this argument is that large firms need to open up and become the aggregate expression of a series of decentralised production units and develop links with the firms that supply them with parts, goods and services. The end result is that an industrial network emerges, organised concentrically around the producer of final goods, in which all participants share local knowledge. This new, flexible and relatively loose structure is frequently portrayed as one of the core recipes for economic success in the new world after the crisis of the 1970s and 1980s.

France is an interesting place to study this type of innovative organisational models. The conventional picture of the relation between large firms in France and small firms who supply them is one of atomised sub-contracting: the large firm gives very detailed specifications for the job that needs to be done, and the subcontractor executes: inter-firm Taylorism, one influential research report in the mid-1980s called this situation. It is —unsurprisingly— very similar to the relationship between workers and management, which relies on detailed instructions from superiors, and workers' tasks are limited to those instructions. Both pictures are so similar because essentially the same mechanism is at the basis: lack of trust.ⁱ

In recent years, however, several accounts have suggested that this arms-length relationship between larger firms and suppliers is changing, alongside, and perhaps propelled by, changes in the relations between workers and shopfloor management.ⁱⁱ The recent literature on French industry in effect abounds with discussions of the development of trust between large and small firms,ⁱⁱⁱ the creation of partnership relationships between suppliers and final producers,^{iv} and even the emergence of industrial districts.^v Most of these accounts agree that these changes are the consequences of the search for increased competitiveness which followed the French economy's relative opening up to the international economy since the early 1970s.

The main purpose of this paper is to systematize some important elements in that debate in light of both this new literature and field research on industrial reorganization in France between 1993-95.^{vi} The argument this paper attempts to make is that, while the relationships between suppliers and large firms are indeed undergoing tremendous changes and that there is little doubt that these changes

reflect the pattern of industrial reorganisation in France and contribute to the general economic performance of France, in many ways, the category of trust does not appear to capture these changes very well. The combined use of their market power and the political resources that large firms have at their disposal, allow them to remain the stronger partner in what always was an asymmetric power relationship. Because of the dual nature of the new ties, the way the large firms are reorganizing their relationships with small firms seems best captured in words ascribed to Lenin: *"trust is good, control is better."*^{vii}

The remainder of the paper consists of five parts. Section 1 locates the paper in the wider debate on political-economic adjustment in the 1980s and 1990s, and discusses the general theoretical points regarding inter-firm relationships. The empirical sections which follow, deal with three areas of change: new patterns of sub-contracting (sec.2), issues of quality control (sec.3) and the role of large firms in financing their suppliers (sec.4).^{viii} The fifth and final section summarises and concludes.

1. The politics of industrial change: large and small firms in France

There are essentially two views on SMEs in France: institutionalist and relational contract-based. For the first one, they are weak, underfinanced and atomised firms, kept alive solely by the goodwill of the state to protect and subsidise them. Paradigmatic examples of this view are the companies where the combination of isolation with poorly designed government policies towards them, has weakened and isolated them even further. Typically, for example, these cases are found in the machine-tool industry, who have very few large firms among their clients, and textile firms, directly inserted into product markets where they are, except for a very small number, incapable of competing with low-wage countries. As a result, the sectors vanished in France and gradually relocated in other countries.

The intellectual roots of this view are found in a large body of literature on the French political economy, which emphasises its path-dependent development. Because of the historical evolution of France's institutions, all parties involved in industrial change are simultaneously incapable of imposing their own view of industrial society yet capable of blocking any changes that impinge on their interests. Hence the need for a strong state to step in and guide the actors on the correct path of adjustment. The consequence of this reliance upon central authority was the weak development of the social actors themselves, and therefore of their possibilities to adjust to the imperatives of the post-1970s world.

The second view, which is considerably more open to the possibility of change, discerns within the French context a process that is very similar to what is going on in other OECD-countries. In response to the changing international economic context, firms are gradually revising their ways of doing things, mutually open up, and, as a consequence, blur the boundaries between them. The basic mechanism for this change is trust: the expectation that, because of the mutual dependencies, no firm is able to hold up the other, and all combine their resources in order to find their way into the new world. The intellectual ancestors of this view are game theory and the new economics of organisation, combined with new, more discursive strands in current political economy. The typical cases are the companies which, in one way or another, are integrated into larger collaborative networks, usually as suppliers to large firms who have redefined their relationships with their suppliers.

The analysis of the relations between large firms and their suppliers which follows, suggests that neither of these two positions on French SMEs wholly captures the phenomenon. The historical-institutional view, which emphasises the structural impossibility of SMEs to break out of the counterproductive dependencies, is fundamentally incorrect. The self-organising capacities of French industry (sometimes with help from the state) have created an industrial landscape which is, in most relevant respects, the opposite of what the historical-institutional views predict: there are strong relational links between large firms and their suppliers, universally certified quality standards allow suppliers to compete internationally as well as domestically, and the companies are organised around extremely complex just-in-time delivery networks. However, the other interpretation, which relies precisely on these new elements and characterises them as foreboding new types of organisations, runs up against empirical limits as well. French firms simply never moved toward the model of institutionally embedded trust associated with the industrial districts in Italy and Germany: as I will discuss in great detail later on, large firms continue to hold extremely tight reins on their suppliers.

France can, on the basis of these data, alternatively, be interpreted as the first European country to converge on Japanese “best practice,” forced in many regards to do so by the particular historical development of its social and political institutions. As in Japan, large firms are at the core of the production network, suppliers are technically, organisationally and financially integrated into this network, and the standard production model is “flexible mass production,” i.e. lightly customised products of high quality (Piore 1994; Regini 1995 discuss this). All these elements are typical of the inter-firm relationships in the Japanese *keiretsu*.

However, compared to the ideal-typical situation in Japan, large firms in France have considerably more control over their suppliers, and both parties in the contracting relationship regularly reaffirm their independence from one another, which can eventually lead to a breakdown in the relationship (i.e. non-renewal of the contract). Since large firms and their suppliers share almost no joint product development responsibility, the price that the large firms pays for a breakdown is, in

contrast to what is the case in the Japanese model, in which the supplier is in a position to hold up the large firm, a relatively inexpensive act for the buyer.^{ix}

Because of these differences, it would be incorrect to see French industry as copying other models—even though that was often the stated goal. Instead, French industry appears to have found its own, “unique” way out of the crisis of the 1970s. Instead of copying or transferring institutions from Germany or Japan in order to catch up, French industry found a series of functional equivalents to the German or Japanese solutions to the problems of advanced capitalism.

A short theoretical exposition will clarify what is meant here. Recent work in political economy, following in large part from a combination of historical institutionalism and game theory, sees firms not any longer as the black boxes they are to conventional economic theory, but as a combination of problematic relationships, in which they are engaged simultaneously: with customers (i.e. on markets), with owners (i.e. via banks or equity markets), with workers (via training systems and labour relations), and with other firms (as suppliers of capital goods, parts or services)^x. The claim regarding these four relationships is that choices in one inevitably has consequences for the other: bank financing in Germany, for example, implies longer-term product market horizons, which allows for adjustments where cost-cutting is of relatively secondary importance; that, in turn, makes labour relations both more open and more peaceful. Conversely, well-developed training systems and stable labour relations make quality-oriented product market strategies possible since they provide the highly-skilled workers necessary for such an adjustment. Because national institutions provide differential sets of incentives and constraints for the solution of these functional problems, firms in different countries will tendentially follow different paths of adjustment when faced with similar problems. Adjustment paths should therefore be seen as “systems,” in which changes in one of the relationships either propels changes in another or, inversely, where the “systemic drag” is too strong for *intentional* change is one of these composite relationships to succeed.

It is therefore extremely difficult, both theoretically and empirically to simply “reinvent”, construct or copy a national model. Attempts at reorganising workers’ participation in the firm on a German-style footing in the early 1980s, for example, not only miserably failed in their stated goals, but ended up decimating the very labour unions they were meant to empower.^{xi} Financial deregulation and privatisation of large banks and firms in the second half of the 1980s and early 1990s ended up creating not the dispersed ownership of shares the legislation—inspired by the Anglo-Saxon model—envisioned, but a government-orchestrated system of cross-shareholding among large firms.^{xii} As a result of these failures, the analyses that end up evaluating how close French industry has come to the German, US or Japanese model it tried to emulate, end up, almost with exception, concluding that French industry scores very low. Institutional drag was simply too strong.

However, this approach, which compares French companies with its shining examples, and concludes that France failed to adjust, has its limits. The most important one, and the critique which is the basis for the analysis which follows, is the assumption that change is always *revolutionary*, i.e. dramatic and in a relatively short time span, and *intentional*, i.e. as the result of explicitly stated goals. Almost all analyses of attempted changes in France in the 1980s and 1990s, which end up concluding that the obstacles to change were simply too strong, consider only the effects of grand designs for policy changes: for example, the Auroux laws on work organisation and labour relations, the legislation on administrative decentralisation, on nationalisations and de-nationalisations, or on the deregulation of the financial system. The relative failure of these policies then at best (or worst) gave way to a new hybrid situation, but which usually appeared to reproduce most of the shortcomings of the old model. The changes that have taken place are, in other words, usually interpreted not so much in terms of how much changed, but in terms of how strongly they reflected the old system that was supposed to be changed through the policies.

Many of those small changes, however, *did* create new situations. Reorganising the shopfloor in teams, for example, however limited their responsibilities may be when compared to the stylised (but also idealised) German or Swedish workplaces, does allow for new methods of quality control, which translate into productivity increases^{xiii} and into new delivery patterns by suppliers, since the causes of quality deficiencies are more easily retraceable to their roots in a team-based system. What initially appeared as a failed reform project in industrial relations and skills (the Auroux laws), thus potentially had major organisational implications.

Sometimes the new opportunities and constraints follow from what are for the purposes of this paper *exogenous* changes. Extremely high interest rates in the early 1980s forced firms in France to shed debt rapidly—a process in large part financed by the state—and think of ways to reduce their inventory. Large firms thus began to experiment with just-in-time delivery methods, which they borrowed from Japan, well before large firms in other countries, which then set in motion movements toward a reorganisation of the shop floor.^{xiv}

A proper understanding of industrial change needs to give proper weight to such small steps and to the unintended consequences of “rational” patterns of adjustment.^{xv} The idea at the basis of this is that firms learn—they improve their understanding of how to make and do the things that are valued in markets.^{xvi} Yet learning is very rarely a revolutionary process, involving rapid changes in short periods of time. Instead, it is an evolutionary process, whereby acquired knowledge is stored and subsequently becomes the basis for new learning. Firms, like people, do not learn everything at once: they accumulate small bits of information that, once integrated (an integration, it should be noted, that does not have to be by design), allow for different practices in many different and sometimes unexpected areas. In

firms, the knowledge is stored in the routines and practices adopted to provide goods and services: the organisation acts as a collective memory.^{xvii}

This theoretical detour finally has taken us to the empirical body of the paper. Viewed from the vantage point of the late 1970s, the type of inter-firm relationships that I am about to describe is no less than revolutionary. Instead of relying on arm-length contracts with under-financed, technologically backward suppliers, large firms in France today have extremely tight links with their suppliers: they are involved in sustained joint quality control and training programs, support SMEs in finance and technology acquisition, and force them out on international markets instead of giving them protective shelter. However, none of this was by design. The changes were the result of small pragmatic adjustments that were solutions to entirely different problems than the ones they ended up solving and were made possible by other small adjustments that had preceded them. Taken individually and at the time of their introduction, none of these steps were as monumental as they appear together, today. Instead, the choices made were shaped by and in their own ways reproduced, the institutional framework the firms were embedded in. Accumulated over time, however, the small pragmatic steps gave way to revolutionary change.^{xviii}

The next section, which details the link between large firms and their sub-contractors, presents empirical material that supports this general theoretical point. Suppliers are important for two reasons. The first is theoretical: supplier firms simultaneously provide us with cases of inter-firm patterns that illustrate the limits of the historical-institutionalist view and are the quintessential category of firms for the “trust” argument.

Second, suppliers are by all measures important firms. The national statistical office, the *INSEE*, distinguishes between manufacturers of *intermediate* goods (U04, a proxy for suppliers), *equipment* goods (U05, a proxy for machine-tools) and *consumer* goods (U06). In 1990, the distribution of firms with a size between 50 and 500 employees over these categories was: producers of intermediate goods (U04) 3217 firms (33% of total), equipment goods (U05) 2708 firms (28%), and consumer goods (U06) 3805 firms (39%). In contrast to other European countries, a larger proportion of SMEs in France are suppliers: in 1991, 43% of the small firms realised over one-third of their turn-over as sub-contractors —the corresponding figures for the UK and Germany are below 20%.^{xix}

What follows gives details on three fields that are crucial in the relationship between large and small firms. The first is the emerging new patterns of sub-contracting, which require —the second theme discussed— a new organisation of quality control links between firms. In both these instances, adjustment in large firms determines the general contours of the changes. The final theme discusses the *quid pro quo* for the supplier: support in finance. In all three fields, major institutional constraints excluded some patterns of adjustment and favoured others; combined, however,

they demonstrate how these institutional constraints in fact led to new organisational forms instead of precluding change, as the historical-institutionalist literature on France suggests. In this new setting, large firms and their suppliers have become much more strongly integrated than before, but the end result looks neither like an adapted version of the German or Japanese models. French industry, it is argued, adjusted along a path which is unique, and which reflects its own institutional heritage. The links between large and small firms are far from relations among equals, the state's guiding --but enabling this time, instead of leading-- hand is critical in this re-definition of the boundaries between firms, and the French political-industrial elite is a critical actor in the background. Ironically, however, all of these continuities are visible only when the changes that have taken place, are taken seriously.

2. New Subcontracting Relationships

Since at least fifteen years, but really starting after the social upheaval of 1968, large French firms have massively moved toward subcontracting. In part, this is, as Berger and Piore's seminal analysis suggested,^{xx} related to the labor problem that large firms face. As a result of their Taylorist organizational heritage, French firms were, up until very recently, highly vertically integrated corporations, in which minor disturbances could usually be accommodated with buffers, but where larger ones had tremendous effects on production. Strikes and other social unrest, not uncommon in a highly politicized and polarized society such as France, immediately paralyzed large parts of production that were dependent upon the supply of parts from other sections in the company. Subcontracting, many large firms learned, was a solution to this problem.

At least as important as the social control dimension of the turn toward subcontracting were the costs associated with vertical integration and large buffers. Being able to physically relocate a large part of production and not having to bear the carrying charges for it in the shape of capital tied up in stocks during periods of high interest rates, made a large difference in the company results. In order to regain a measure of control over these problems of labor discipline and immediate costs, therefore, many large firms in France began to increase their subcontracting arrangements, both in numbers and in terms of intensity of the relationship.

Initially sub-contracting was also really only just that: a relatively inexpensive way out of a labor problem and tightening economic constraints. Over time, however,

changes appeared in the nature of the subcontracting relationship itself, which reflected changes in the relationship between the large and small firms. Individually, these changes appear as relatively modest *ad hoc* adjustments; together they suggest that for both the large firms and the SMEs subcontracting arrangements have, at least to some extent, redefined the boundaries of the organization.

2.1. Just-in-time delivery systems

French large firms were among the first in the West to turn to just-in-time delivery systems on a large scale.^{xxi} In the early 1980s, large firms in France found themselves caught in a squeeze: government policy, geared at fighting inflation, forced interest rates up — bank lending rates went from an already high 15.5% in 1977 to almost 21% in 1981, remained above 20% in 1982 and above 17% for at least three more years—thus making money extremely expensive.^{xxii} French large firms were also very dependent on bank credit.^{xxiii} As late as the early 1980s, French firms were the most highly indebted of all OECD-countries: the ratio of retained earnings over bank financing as a source of investment was the lowest in the G5.^{xxiv} The firms therefore immediately felt the effects of the anti-inflationary government policy both before 1981 and after the turn in the socialist government's economic policy in 1983. Inventory stored in large rooms is in essence nothing less than a large amount of tied-up and unused capital. Poor inventory administration thus became a very expensive management problem and firms realized that inventory reduction was a necessity in order to reduce financial dependence on banks in the short run. JIT became the logical solution to this logistical problem.^{xxv}

Over the last 12 years, large firms in France dramatically reduced their dependence on finance through the banking system. In 1984, the self-financing ratio (retained earnings/debt) was below 30%; in 1989, it had increased to almost 54%. And by 1993, the self-financing ratio had increased to the point where debt had become simply marginal as a means of finance: large firms today finance between 90 and 97% of investment with their own cash flow.^{xxvi}

JIT delivery systems survived the firms' revival of their financial health in the late 1980s and the drop in interest rates in the 1990s, because French firms discovered the other benefits of JIT delivery such as the discipline it imposes on the production process resulting from its increased fragility and transparency. When firms moved away from finance through banks almost entirely in the first half of the 1990s by issuing stocks and increasing investment from retained earnings, the JIT systems remained firmly in place as one of those inadvertent lessons learned as a result of solving other problems.

In implementing these new organisational models, however, French firms generally did not all follow the same patterns. Whereas Renault used the opportunities offered by JIT delivery systems to revise its relationships with suppliers in what can generally be described as a more collaborative stance, other French firms followed a pattern that looked far more familiar from the point of view of the conventional wisdom. Citroën, the smaller division of the PSA car group, followed a high-tech, labor-substitution route in modernising its operation: its final assembly plant in Rennes hand-picked its suppliers in the 1960s, disciplined them to fit its own production system, and currently forces them to meet very detailed technical specifications and a very stringent delivery schedule. Each of the supplier plants -all within a 50 km radius- has real-time computer links to the central assembly plant, and they follow the schedule imposed by Citroën. The company has been able to establish and exercise such control, because it is, in the low-industrialized Rennes area, the only large manufacturer.^{xxvii}

2.2. Forced supplier mergers

Large firms in most assembly industries have, in recent years, changed their expectations towards their suppliers far beyond just-in-time delivery. The reason at the core of this change is that assembly production can relatively easily be modularized, i.e. reorganized in such a way that final assembly is merely putting together a relatively small amount of pre-assembled systems. A typical example taken from the car industry is the dashboard and heating/cooling system. Under the old assembly system, the suppliers would bring the gauges for the dashboard, pipes for the heating and cooling system, the connections between dashboard and frame, etc; the main job would be done in the final assembly factory itself. Over the last ten years, this all changed: assemblers typically have begun to demand from suppliers that they deliver the pre-assembled dashboards *and*, if possibly its connections to the heating/cooling system, which can then relatively easily be linked to the engine and almost latches onto the frame. All in all, the total *final* assembly operation has been reduced tremendously. Something similar happened to chairs, drive train and gear box, exhaust systems, etc. Assembling a car, in short, has today become the orchestration of a series of sub-assemblies.

Beside the savings associated with "*system assembly*", as a result of the reduction of direct assembly hours, another, probably far more important source of savings has emerged for the large firms: the reduction of development costs. It is, in the car industry for instance, often so that more than one quarter of the total cost associated with a new model, is incurred *before* a single car is assembled. Between one quarter and half of the total cost of a car model is accounted for as development costs. All the parts have to be designed, functionally related, checked for interactions, proofed for energy, noise, etc. The new assembly method basically does away with those costs. Since the suppliers have become "*system suppliers*," they are themselves largely responsible for developing the systems that they

supply. They are told the functional requirements and dimensions of a "hole" in the car body, which they then have to fill without further technical specifications from the OEM.

Without surprise, for most of the suppliers to the car manufacturers, this has seriously increased the pressure they face to remain competitive. Even though large firms in France generally prefer relatively stable supplier relationships, as large firms elsewhere do, the impediment to truly developing deep-trust relationships is that the large firms operate in product markets where cost competition prevails. Hence long-standing trust or relational contracting relationships are hard to forge: cost reduction remains the primary goal, and suppliers will therefore be traded if they cannot meet the demands that the large firms impose. In fact, given the bimodal distribution of firm size in France, with concentrations in both the very large and the very small firms—a firm like *Bosch* typically does not exist in France—the system as a whole appears simply impossible to sustain.

Large French firms have, in order to solve this problem and simultaneously find a middleground between the advantages associated with long-term subcontracting relationships and price-based contractual relationships, forced the suppliers to merge so that they reach a critical size, thus assuring the necessary product development capabilities that the large firms require. In the car industry, for example, both the large firms—Renault and PSA—adopted a policy to reduce the total number of suppliers, turn them into systems suppliers and force them to merge (under those conditions they may even receive financial and logistical support from the large firms—see below). The aim is simply to reduce the number of suppliers with turnover figures below FF 50 Mio (roughly \$10Mio in 1993), which would allow the large firms to retain the benefits of the new supplier methods while dissociating themselves from the costs of product development. Over the last ten years, for example, the number of first-tier suppliers of the two large car manufacturers dropped from 2249 for PSA in 1985 and 1800 for Renault in that year to respectively 860 and 780 in 1995 (forecast), and the trend for the future is further downward.^{xxviii}

Large firms have also sought ways to reduce the dependence of the suppliers on themselves or even on their sector as a whole. The benefits of this move are twofold. First of all, suppliers survive business cycles and cost crises of single large companies more easily, while their innovative capacity in product development increases since they work for different firms at the same time—the idea being that "if they're good enough for the competition, they must be good enough for us." Most large firms now try to assure that their suppliers are dependent upon them for only some 15% of their total turnover; this typically raises the number of the supplier's customers to six or seven instead of the usual one or two.

One aspect of these changes usually associated with changing relationships between large firms and their suppliers, however remains largely untouched in France: joint product development. Idealtypically, the relation between large and

small firms tends to be either one based on arms' length subcontracting (a mode that is clearly disappearing), or one of systems suppliers. However, in neither of the two scenarios are suppliers important in the development of new products. The *Twingo*, for instance, Renault's latest car, provides a perfect illustration: even though it was developed by an interdepartmental project group inside Renault, according to the best analysis of this process outsiders, i.e. suppliers, were not involved in the beginning and only began to play a role when the specifications for the parts were drawn up.^{xxix} When the suppliers then raised price objections, Renault made it very clear that it determined the operation, and forced the suppliers to be inventive enough in order to meet the stringent price and other requirements that Renault imposed.

Why French car manufacturers did not go this final round after the miles they went toward integration of their suppliers, is relatively easy to answer. They are concerned, rightly or wrongly, that as an inevitable consequence of such joint product development, trade secrets will be exploited by other large firms with whom they share the supplier but with whom they compete head-on in their domestic and European markets. Renault and Peugeot, for example, jointly select their suppliers, but compete furiously in France and Europe. The joint selection procedure itself lays bare many of the technologies that would be kept more secret in exclusive, single-sourcing relationships, and in order to avoid the competition benefiting from this inside information, the firms simply side-step the problem by keeping development internally while still taking advantage of the economies of scale generated through joint sourcing.

Large firms thus retain a large amount of control over the process. Instead of tending toward *Moebius* strip organizations,^{xxx} where through the permanent renegotiation of the product the boundaries between the core firm and the supplier loses all practical meaning, the large firms keep a tight rein on their suppliers, even if the relationship itself changes tremendously, since they define —and only they do!— which product will be made. The reliance on the suppliers does, in all likelihood, not extend much beyond the quality assurances that the large firms seek and the insistence on the suppliers to become system suppliers -but within tightly defined criteria.

JIT is impossible without an increased sense of quality. Parts are delivered when needed, according to the client's specifications, and quality control at the point of delivery, i.e. when the parts finally change hands, is close to impossible. Usually, firms address this problem by trying to find ways to assess the suppliers quality potential ex ante.^{xxxi} This practice, as the next section will show, is crucial in the way the relationship between large and small firm is structured.

3. Quality control: Control through quality

As in every other OECD-country in this era of increased international competition, quality has appeared at the core of industrial organization in France as well. As such it appears primarily as an expression of increased international competition: increased openness to international markets forced French firms to address quality (and productivity) problems much more strongly than the protective economic regime that supported them during the Golden Age. Yet some specific elements of the French case suggest that this new orientation to the market is not the only element at the core of the increased attention to quality, but that quality is also being used as a instrumental tool which allows large firms to increase their control over the small firms while retaining the benefits of a co-operative relationship. The emphasis on quality in the relationship between the large firms and their suppliers creates a situation where the small firm simply has to accept, in order for the relation between the two firms to survive in the longer term, that the large firm collects all the information needed to negotiate from a stronger position inside its own walls, but does not commit itself to the long-term relationship envisioned in this exchange of information. The conventional information assymetries thus simply do not exist.

This section will discuss how quality structures the relationship in different ways: through the quality audits that large firms organize among their suppliers, through the *ISO* norm implementation in France and how this is related to the process of industrial reorganization more generally, and, third and finally, through the quality consulting programs that large firms organize for their suppliers. What characterizes the three mechanisms is that they are simultaneously a response to market changes and define the relationship between the large and the small firms. The quality audits are relatively straightforward means of control from the part of the large firms, since they re-establish what separated the buyer and the supplier all along, i.e. that the small firm is much more dependent upon the goodwill of the large firm than *vice versa*. *ISO* norms have a similar effect, with the additional benefit, as I will illustrate, that they are sanctioned, in a subtle and indirect way, by the state. The quality consulting programs that I discuss, finally, do the same: while securing quality, they also force the supplier to accept the reorganization measures proposed by the large firms. All three however, force the supplier to be open for the intrusive eyes of the large firms.

3.1. Quality Audits

The dual nature of the new collaborative relationships is most obvious in what is known in France as the quality audits. Large firms require from their suppliers that they meet certain minimum quality standards, especially in just-in-time delivery situations, where the final producer is simply unable to check every piece individually. In order to avoid quality problems, furthermore, after-the-fact checking can be very expensive if errors are found, since large numbers of final products may already have left the production facility. Finally, given the increased volatility of markets, specific product-oriented quality control by the final producer does not assure that the supplier will be able to meet the quality standards in the future. The buyer, for one thing, does not know which products will be needed in the future, and it is unclear if being good at one thing implies anything about a totally different product. Being able to make a particular type of glass today, does not assure that the supplier will also be able to make the tea cups that the changed market demands. In essence, only knowledge of *how* products are made can provide solid indications of the future capabilities of suppliers, even if that future is extremely uncertain.

The instrument of choice for the large firms to insure such quality guarantees in the future is the quality audit, a relatively wide-spread practice among large firms in France in their relation with SMEs. On regular intervals, the large firms send out a team of their own experts to examine the supplier's operations in great detail. The team examines all the processes that play a role in the production of the part or the service that the supplier delivers, and that bear on quality, delivery, price or other relevant aspects. By focusing on aspects of the production process instead of the spot-checking associated with product quality, the larger firm assures a proper understanding of the supplier's capability to follow the technological path that the large firm takes or may take with its products.

However, and much more importantly, the quality audit is not limited to what is immediately relevant for the part or service under the supplier's responsibility. During the exercise, the team also examines most other components of the firm's operations: training and recruitment, balance sheet, finance, links with other SMEs and larger firms, product development capabilities and market strategies, technology, etc. In short, the so-called quality audit, as should be apparent from this short list, is in reality a true audit of the entire company. This information, read through the eyes of the experienced auditors typically found in these auditing teams (all have many years of factory as well as headquarters and financial experience, which also explains why there are only few of them), will allow them to assess the potential of the supplier for long-term process and product innovation with relative confidence.

For the large firm, the audit solves three very different larger problems simultaneously. First of all, it alleviates the problems associated with the informational

asymmetries between large and small firms. There should, because of the audit, not be any relevant information hidden from the large firm. As a result, the large firm can discuss price, product and other changes with the SME using relatively complete information. Second, the audit reaffirms the distinct identities of the two firms. However strongly the links between supplier and buyer may have developed over time —through joint product development, just-in-time delivery systems, financial support, and technical exchanges— at the time of the quality audit, the two firms are very different and may even stand in an antagonistic relationship. Three, the audit provides guarantees that the supplier has the capabilities needed to remain a viable partner in the future, more or less regardless of the product strategies that the buyer pursues.

The quality audit thus can be interpreted from two angles. It is undeniably instrument of control of the large firm over the smaller one. Since the SME has no choice but to accept the inquisitive demands of the large firm without really being able to raise objections, limit the extent of the audit or demand a *quid pro quo* in the form of a commitment to a contract, the supplier is doubtlessly the weaker party in the relationship. Yet at the same time, the audit is also a help for the small firm: if the large firm assesses positively the prospects for future collaboration, the audit is also a tool that can be used to improve the SME's operations.

3.2. Quality Certification

For all the gains in information that accrue to the large firm, the audit is an expensive proactive tool, since every given time period (say every year), the supplier has to be appraised in order for the large firm to be reassured that the SME will continue to live up to its expectations. What has happened in recent years, therefore, is that many French firms adopted the *ISO 9000* quality standards and have drastically decreased their auditing of those firms which are ISO-certified.^{xxxii} ISO 9000 norms are, in contrast to for example DIN norms or the previous generations of ISO norms, almost exclusively procedural in character, i.e. they are based on an assessment of how a product is made, not what it is like, and therefore meet the requirements of the large firms in France.^{xxxiii}

Procedural norms such as ISO 9000 are of increasing importance in today's industry for two large sets of reasons: the internationalisation of production and the volatility of markets. As long as suppliers to large firms are primarily selected within the same country as the buyer, the buyer can take a large number of aspects of production for granted or is at least able to find out relatively quickly about them: the general level of technical know-how, quality assurance, shopfloor organisation and skill levels.^{xxxiv} In Germany, for example, Mercedes and BMW know the training systems at Bosch,

the quality control system at AEG, or the level of engineering expertise in Bosch, AEG or Siemens. They also know how workers' knowledge flows in an organised fashion into the production process. DIN norms, finally, also round out the pre-assumptions of the large firms: SMEs that are not DIN-certified can simply not be trusted to produce quality consistently. Large French firms share a number of pre-assumptions on the organisation and behavior of suppliers that are a product both of many years of experience and of projection of their structures onto the smaller firms. In short, nationally (or, as was before already the case, regionally but within one national system) organised supplier chains have the advantage for the buyer of a relatively high level of practical knowledge about how suppliers operate. This knowledge followed in large measure from an understanding of how relevant national institutions influence strategic fields such as workers' participation, worker training systems, links between development engineers and process designers, etc., and how these influence firm behaviour.

Cost-conscious purchasing departments have, especially since the moves in all OECD countries toward greater economic integration (true for the EU, NAFTA and the Yen-block), upset this stability. In their search for lower prices they frequently — and most accounts agree that this happens more and more often— look across the borders: in an average car, for instance, usually a small part, sometimes not more than 10% of the parts is made in the country where final assembly takes place.^{xxxv} The dense network of freeways in most European countries allows for pieces to be made in Hamburg and arrive in Munich, Paris or even Milan within one day. In fact, usually only the absolutely vital parts are located within a very short distance from the final assembler.^{xxxvi}

The internationalization of the production chain implies that large firms cannot rely anymore on the relatively high floor of practical knowledge about their suppliers that nationally organised production chains allowed for: further training is, for example, organized very differently in Germany and France, workers' skills are utilized in a very different way in England and in Germany, and engineers have different roles in product development in Sweden, Italy and Spain. Large firms who are unwilling to forego the savings associated with an internationalized production chain, thus need a new institution to compensate for the loss of knowledge about their suppliers.

The growing uncertainty of the large firms is aggravated by the increased volatility in their product markets. Since large firms are unable to predict the detailed nature of the products they will make tomorrow, the assessment of their suppliers necessarily cannot rely on how well they are able to produce high-quality parts for the products the buyer makes today.

Combined, the internationalization of production and increased market volatility thus make new types of norms a necessity. They are the only way for the large firms to compensate the loss of practical knowledge about their suppliers and insure themselves against sudden deficiencies in the suppliers' competence. ISO 9000

provides, for two reasons, such an instrument: the norms are not product-based, as DIN norms are, but process-oriented, i.e. they register *how* a product is made: the quality control, training systems, ..., etc. Moreover, they are the same all over the world: French ISO 9000 certificates are, in principle, entirely equivalent to Belgian, British, Greek or German ISO certificates. The ISO system thus indirectly compensates what firms have lost through the internationalisation of their production chain.

French firms are especially keen to be ISO-certified. In any international comparison, French productivity appears as among the highest in the EU, and because of the relatively low wages, unit labor costs are very low in France.^{xxxvii} This makes French products highly competitive in international markets, if product quality can be assured. Aware of this, the French state has used the economic clout which results from the ownership of large firms and the organisational savvy vested in the state bureaucracy to force suppliers to be ready for ISO certification.

The certification itself is left to a private agency, the *Association Française pour l'Assurance de la Qualité (AFAQ)*, sponsored by the industry federations and the large firms, and whose goal it is to test, audit and improve the quality system in the companies. The AFAQ, in turn, sends a team consisting of a certified quality auditor and a sectoral expert. For both of these, professional knowledge is the basis for their appraisal: quality norms are very different in a poultry farm than in ceramics or car parts, and hence the double angle of quality and sectoral knowledge. For their certification, the firms pay the AFAQ a fee.

One obvious problem that this system faces is how to legitimize such a structure, which consists solely of private agents, in a country like France with a strong "public" tradition, without the large firms resorting to brutal force (a move which would almost certainly be deemed illegitimate by the SMEs and their associations). The answer lies in part in a *quid pro quo* for the suppliers: if they accept the importance of the AFAQ certification, they will be rewarded with orders from the large firms, and can compete on an even footing with their European competitors. Even more important, however, is a subterranean transfer of authority from the state to the AFAQ. As a result of an agreement signed between AFAQ and AFNOR, the quasi-public agency responsible for the certification of product quality (*Agence Française de Normalisation*), all AFAQ quality certificates are also ratified by the AFNOR. The AFNOR, in other words, and outside the immediate purview of most firms, accepts the AFAQ as its partner and extends its publicly sanctioned authority (it is founded as an agency "*declared of public interest*") to the AFAQ. The legitimacy of the AFAQ is thus reinforced from two sides: the professional knowledge of the auditing team and the public agency responsible for the implementation of product quality standards.

As a result of these certifications, many large firms have entirely eliminated their quality audit for ISO 9000 certified suppliers, as a listing made public by the AFAQ

in May 1994^{xxxviii} illustrates. Of the 59 very large firms listed, over half have entirely eliminated their quality audits, and of the remaining ones, most have done so in part. With the partial exception of suppliers who provide parts critical to the safety of the production process, as e.g. in chemicals or the nuclear industry, the elimination of quality audits seems to be a process taking place across most sectors.

However, and very interestingly, this does not apply to the large state-owned enterprises. *PSA* and *Renault*, for example, who have set up a joint supplier selection and certification system over the last decades, have only reduced (not eliminated) the quality audits for the second-tier (and only the second tier) suppliers. The first tier suppliers remain, as before, subjected to an annual quality review. Similarly, *EDF* and *GDF*, the state-owned electricity and natural gas company, have retained their system of supplier evaluation, even for certified SMEs. Keeping in mind the role that the French state has generally played in industrial reorganisation in France since WW II, one might wonder if the large state-owned firms' refusal to drop the audit is simply one way the state tries to keep an eye on the evolution of quality among suppliers: because it controls so many of the large enterprises, it can permanently raise average quality standards and thus steer the process.

Yet whatever this implies, AFAQ and other similar certification programs for suppliers have had major consequences for the relationships between large and small firms. For many large firms, institutionalized quality certification through agencies with quasi-public authority such as AFAQ and AFNOR appears as the midway between the customized labor-intensive firm-organized quality audit and the selection of suppliers on price and contracts. However, that this does not imply an unequivocal repeal of the tighter links between large and small firms is illustrated by a practice which, to some accounts at least, appears to be growing in importance. The example below is borrowed from Renault, but it is easily applied to most other assembly industries, since reorganization in most of them takes a similar form as a result of similar market pressures.

3.3. Quality Consulting

Since a few years, and in large measure related to the draconian cost reduction programs that Renault initiated after its dramatic financial crisis in 1984, the French car producer has developed an internal service which provides consultancy to suppliers, the "*service consultant développement fournisseurs*." The main task of the service^{xxxix} is to help the medium-sized suppliers, with a turnover between FF 50 million and FF 1000 million, to streamline their operations and push them in "lean production" (sic). One of the suppliers, for example, was helped by these Renault consultants to improve its die-changing operations, in order for the company to be

able to reduce its stocks: the review of the supplier's production revealed that 30% of the total value of loans was bound up in the administration of stocks, so the gains had to be sought there.

The way this consultancy program works in practice is that after a deal has been concluded between the Renault purchasing department and the supplier, the Renault consultants take over entirely, without a presence of the purchasing department. These consultants, two or three at a time for three days or so, then try to get a general sense of how the supplier is doing, and check most of its operation. The end result of this diagnostic exercise is a true balance sheet, with strong and weak points, and a proposal for the supplier about where to take action to streamline its operations.

The consultants typically propose two types of actions: logistical and investment. Examples of the first are the stock reduction mentioned above or help in training for shorter change-over times for dies and moulds. Examples of the second type of action are new investments to raise the general technological level of the firm or, more specifically, automate some parts. The key rule for those investments is that the pay-back period for the investment should be less than one year. After six to eight months, finally, the consultants draft a long-term progress plan with the supplier for the next year and a half and beyond. This plan concludes the action of Renault's consultants. In the long run, the consultants hope to reduce the dependence of the suppliers on Renault while raising their general productivity and thus reduce prices.

Not all companies have such a benign and generally supportive attitude toward their suppliers. PSA, the other French car manufacturer, for example, has adopted a program that is much harder for the suppliers: its only aim is to reduce prices, its instrument hard bench-marking techniques, and the supplier is basically left on its own for changes, without consultants. *SOGEDAC*, as the PSA department is called, which deals with improvement in supplier performance, essentially follows the low-trust pattern conventionally associated with French production models. They send out a questionnaire about any part of the company they consider relevant: immediate competition, product strategies and market positioning, industrial strategy (logistics, investment, product innovation, work organisation, training and labor relations), and the firm's financial situation. After the questionnaire is filled out, a four-person team visits the supplier for three or four days and checks all the answers. The only goal, as said, is to reduce prices, and the information collected through the questionnaire is well-suited for that.

Since a few years, Renault and PSA jointly own an agency which selects suppliers and monitors their quality on a permanent basis. In principle, costs are irrelevant for the activities of this agency: the agency only deals with supplier quality. However, even though the initial reason for this is product quality assurance, in the French industrial landscape, it simultaneously performs a very different function. Through

this joint selection, the reputation of suppliers is shared knowledge in the network of large firms, and thus becomes a major sanctioning tool for them. It is as of yet unclear if this practice is found in other sectors as well —or at least as explicitly as in the car industry— since it appears that the regular quality audits or the quality certification does essentially the same. Within the car industry, however, the reliance of the firms on this method is so great that Renault and PSA figure among those firms for whom quality certification, even though it is welcomed, has not given way to abandoning their regular quality audits.

All three of these quality-related organisational innovations tell a similar tale: they redefine the relationship between the large firm and its suppliers, largely to the benefit of the large firm. First of all, they solve basic informational problems. Large firms now have a remarkably clear view of the operations of their suppliers, how they produce goods with stable quality, their cost structure and how they price them. The buyers also have a good idea of the technical capabilities of the supplier for future collaboration. The only way the large firms can do this, without crude coercion, is by emphasising the necessity of high-quality parts for their more and more fragile final operations.

4. Financing Suppliers

It is, from the account thus far, rather unclear what suppliers get out of this redefined relationship. In fact, most of this discussion can, without too much problems, easily be accommodated within conventional accounts of French industry. The benefits appear to accrue solely to the large firms who manage to simultaneously reduce costs and secure quality without sharing decision-making with their suppliers. The focus on the actual production arrangements, however, conceals an important element in the relationship that works to the benefit of the suppliers. It deals with the important role of large firms in financing their suppliers.^{x1}

For a variety of reasons, all related to fundamental information asymmetries, financing SMEs is a troublesome affair for all the usual actors involved. First of all, SMEs are, with few exceptions, in an extremely volatile product market situation, so volatile that it is almost impossible for banks to be able to assess the risks related to investment adequately. How would a bank be able to tell how well they are equipped, in today's competitive environment, to cope with their ever more demanding clients? Under a mass production regime, such assessments may be relatively unproblematic —even though it remains a big feat for banks (or anybody

else for that matter) to monitor small firms, merely because of sheer numbers— but in an era of increased competitiveness in the mass market segments and volatile markets even for big firms, assessing risks becomes close to impossible (this is very similar to what drove the large firms in reviewing their quality control procedures). The universal problem of monitoring small and medium-sized firms takes on a particular urgency in France where *Malthusianism* remains the dominant corporate ideology, even in the 1980s and 1990s.

Since SMEs are very frequently still family enterprises, owners prefer to keep all information on the operation of their firm from outsiders. The necessary information to assess the survival chances of the firm is often kept even from the work force, despite legal provisions for information dissemination to works councils. The problem is equally pregnant for the banks, who are supposed to extend loans on the basis of what can only be regarded as very thin information. As a result, SMEs have, in the past, not been the innovative high-growth firms, a situation which fed back —negatively— into the relationships with the banks. The result was a vicious circle of underfinanced SMEs who remained relatively traditional producers, and were unable to convince the banks to extend loans to them, which in turn blocked them from developing their innovative capacity.

The practical alternative to bank financing is the stock market. For three reasons, however, SMEs appear to be very unfavorable candidates for that. The first is the problem of Malthusianism and concurrent closed-ness of small firms. One could, in the limit, envision the *pater familias/company owner* discussing the future of the company with a banker, even though the fear of the omniscient French state checking the books as well (through the ownership of banks) will certainly create some hurdles to the depth of trust in this relationship. But it is almost impossible to imagine a French family-owned SME to "go public," issue shares and be subject to relatively strict accounting and publication rules. Second, SMEs are usually simply too small and unstable to be able to issue stock credibly.^{xii} If banks are unable to assess risks, how would others be able to do so? Finally, the stock market has up until very recently basically been entirely marginal in financing French companies — true for the large firms, but even more so for the small firms.^{xiii}

Yet small firms do have access to capital, of course, and in recent years financing sources have not tended to dry up, despite the predicament that appears to make smooth financing impossible. How, then, is SME financing organised? The answer is found in the key role that the large firms play in this process. In essence they act as the gate-keepers in the system.

The large firms who buy the products or services that the small and medium-sized firms provide as subcontractors, are the only players in this setup who do not face the problems associated with the structural information asymmetries. First and foremost, the large firms actually organize a tremendous information flow between them and their suppliers. Formally, they make regular quality appraisals, either

directly or through the quality certification, but they in fact know a lot about the *general* condition of their suppliers. Because of their new policies, they come as close as is possible to actually “*constructing*” their suppliers. It seems, although in principle they face the same type of informational problem that banks face in assessing the potential of their suppliers, that because of their power over and proximity to the SMEs, it is considerably harder for the suppliers to hide information from the larger firm. A parallel information circuit thus develops, with the large firms at its center: the large firms thus act as intermediaries in the relation between the suppliers and their financing sources.

The large firms, first of all, directly support the small firms financially by lending to them or by assuming large parts of investment costs. Training programs are organized collectively by large firms and their suppliers; help is provided, under the guise of quality consulting, to increase the suppliers’ competitiveness (a positive sum game since the large firms also benefit from that, as we saw above); and SME investments are written off in part through increased prices (or better: stable prices when they should drop because of improved productivity).

Frequently, large firms also lend money to SMEs when they take over parts of production that the larger firms intend to outsource. When the venture turns into a true spin-off, the large firms forgives the entire loan or a large part of it if the SME hires (part of) the work force made redundant by the reduced production in the mother firm.

The large firms are, as a result of their informational advantage, also trusted by the banks as sources of information on the SMEs. This information flows through the high-level networks of state, financial, and industrial elites that run the French economy at the highest level.

A short excursus explains what is meant here. As a result of the frequent moves by high-powered administrators between state agencies and industry, and given that business and state elites share an educational and social background in the *Grandes Ecoles*, a network exists where a lot of information —about companies and about people— circulates.^{xiii} Banks, the third party in the triangle, are therefore never totally without information about companies, since industrialists also serve in the Ministry of Finance, on boards of banks, etc. In practice, what happens is that the frequent moves in and out of industry and the state create a *reputational network*, since everyone's track record in these circles is quasi-public. In order to have a career in this network, which covers state, finance and industry, one has to retain a good reputation. Given the strategic significance of the network for individual careers, maintaining a reputation in it is of vital importance: this implies no bad loan advice or major errors as CEO of large companies.

Using the resources of this network, presidents of large firms provide “informal” support to the supplier in need of capital by providing the bank with its own

assessment of the supplier's capacities; this assessment is looked upon by the financing bank not so much as an objective evaluation of the SME, but as an element in this reputational network —it is, in fact, the decent equivalent of clientelistic patronage: the large firm CEO picking up the phone to call his "buddy" in the bank and telling him to lend to the small firm. Since no other direct source of information is available to the bank, and since the small firm has no alternative to obtain finance, the system depends crucially on the reputation of the large firm CEO. Because of the network organization at the highest level of the French economy, the large firm becomes the bearer of the SME's reputation and the safeguard to the entire system.

Finance is therefore the *quid pro quo* in what appears otherwise as a very asymmetrical relationship between large firms and their suppliers. But, as with all the other elements in the new relationships between large and small firms, it cuts both ways: at the same time that it delivers to the supplier in exchange for loyalty, it also reproduces the fundamental power inequalities between the large and the small firms. For it is at the time of relying on the large firm's goodwill to support loan requests that the small firm sees the benefits of allowing the large firm a lot of control over its operations in all other respects.

5. Conclusion: Rethinking industrial reorganisation

Large and small firms are not at an arms-length relationship, so much is clear from this account. In many strategic fields, they are interrelated in ways that go far beyond the traditional relationship that has characterized most of Western industry—but especially France. However, as the account presented here suggests, qualifying the changes as *trust* does not do justice to their complexity either. In fact, the much-hailed *partenariat* of large French firms and their suppliers does exhibit many of the characteristics that were traditionally associated with the French model of industrial organization. The suppliers remain, for a variety of reasons, the weaker party in the set-up and depend for all their vital operations on the goodwill of the large firms.

At the same time, however, the changed relationship is far enough away from what the old model presumed it to be in order to raise doubts on its validity. SMEs are more integrated in the large firms' operations and the relationship does have one extremely important benefit for the SMEs: they can make their operations more profitable and benefit from the entrance of the large firms into financial networks. If anything, the situation sits uneasily between the old model of the organization of

French industry and the new models that scholars see appearing all over Western Europe, the US and Japan, built around coordinated decentralisation.

If the general picture of the relationships between large and small firms that I presented in this paper is correct, several important consequences for the study of industrial restructuring follow. Firstly, French industry adjusted to the challenges of the 1970s and 1980s in its own way, not by emulating other, seemingly more successful national models. Instead of slowly collapsing under its institutional baggage, French industry went through a series of changes that allowed it to deal with the increased international competition —without relying solely on the state. However, none of these changes were meant to create a fundamentally new situation. Instead, they were designed to reproduce the existing arrangements. Over time, and combined, but invisible to most observers, they gave way to a fundamentally new situation. Much more important than the institutional obstacles to change, therefore, were the ways in which actors engage —sometimes unknowingly— institutional resources in a world of increasing uncertainty. Many small "rational" steps, frequently designed in an attempt to reproduce the institutional context within which difficult choices were made, eventually and ironically led to a new situation. With only a minor sense for overstatement, one could say that it was the desperate search for stability and continuity in a rapidly changing world which pushed the system toward the revolutionary changes that were documented in this paper.

However, while no "deep logic" was acting itself out —witness the discussion above on quality, which detailed three fundamentally different strategies to the same problem— not everything was possible either. This has to do with the sociology of knowledge of the actors. First of all, the adjustment to a problem may be "rational," but that does not mean that the initial definition of the problem was given. The definition of a problem itself is a highly political process, whereby interests clash, new coalitions are formed while old ones are dissolved, and whereby the identity of the actors can change as a result of these struggles. Reorganising workers in shopfloor teams, for example, and train them to deal with quality problems in order to raise productivity, inevitably involves lay-offs of unskilled workers. In the French car industry, teams could therefore only be introduced after defining the immigrant workers from former African colonies as obstacles to progress and negotiate plans for their return with the relevant labor unions (ref.). The definition of the problem as one of productivity therefore was both a condition for and effect of a definition of some workers as "problems." The counterfactual is helpful here: had the problem been defined as primarily one of quality, the strategies to deal with the crisis may have consisted of increased training programs and a devolution of responsibilities to semi-autonomous teams instead of lay-offs. In Sweden, for example, where by all accounts industry faced a productivity crisis far more serious than France during the 1980s, the problem was generally regarded as one of quality, and workplaces were reorganised so that full use could be made of the potential inherent in workers' skills. With unemployment as low as it was then, and labor unions strongly organised at the national and firm-level, it appeared simply impossible for Swedish

industrialists to regard their problems as pure cost problems, resolvable through sweat shop strategies.

What this view suggests is that institutions matter, but not, as in the old view, primarily because of the objective constraints they impose on a situation; they matter because of the way they limit, almost mould the possibilities for defining a problem. Whatever their origins, at some point institutions can acquire a legitimacy of their own, which makes it impossible to do ignore them, and they begin to impose themselves as "just ways of looking at a problem."^{xliv} Institutions thus pre-map, so to speak, the cognitive world of economic actors. Once such a redefinition has taken place, "rational" —but bounded— decisions^{xlv} force the system out of its initial equilibrium into another one, which may differ only marginally from the previous one. The same scenario repeats itself again and again, until the system as a whole is basically unrecognisable. The crux of the matter is that none of these watersheds were envisioned or perhaps even envisionable from the initial situation; yet they all bear the marks of the starting point. A lot more is therefore possible than the narrow interpretations of the role of institutions assume, but the sky is not the limit. Even the openness which is a part of the initial situation is contextualised, i.e. part of a system, which may set serious limits on its capacity to adjust.^{xlvi}

In short, this essay is a call to start rethinking institutional change: if even in an allegedly "rigid" situation such as the French political economy, dramatic changes are able to occur, then the categories developed to think about stability and change themselves may well be incomplete and even wrong. The dominant paradigm of change in the social sciences today is best captured in the "punctuated equilibrium" metaphor (see Krasner 1984; Steinmo et al. 1992): large periods of relative institutional stasis, punctuated by short periods of strife, conflict and fundamental change. Change, in this model, is exogenous and grand —else it is epiphenomenal, replicating the old order. What this essay on French industry suggests is that a different model of change is equally plausible: one in which actors, by reflexively adjusting to new situations, but doing so in desperate attempts to retain the old system, actually call into question the very fundamentals of the system they are defending. Change in this model is small, endogenous and, most importantly, unpredictable. Instead of revolutionary changes, the world is governed by small steps; instead of strong, purposeful actors, the world consists of weak ones, only just coping; and instead of a clear and sharp sense of interests, these are socially constructed and extremely malleable. By adopting this alternative view, which embeds organizational learning in its institutional context, we may finally begin to "unpack" the idea of institutions in order to be able to think of how companies and industries adjust to the instable world since 1973. But in order to do so, we have to —above all in the case of France— take seriously the changes taking place, instead of thinking about them as signs of the fundamental impossibility of national political economies to adjust.

NOTES

ⁱ There is a vast literature on the organisation of the factory in France which makes this point. Probably the most important ones are: Michel Crozier, *Le phénomène bureaucratique* (Paris: Le Seuil 1964); Alan Fox, *Beyond Contract: Work, Power and Trust Relations* (London: Faber and Faber 1974); Charles Sabel, *Work and Politics* (New York: Cambridge University Press 1982); Marc Maurice et al., *The Social Foundations of Industrial Power* (Cambridge MA: MIT Press 1986); Christel Lane, *Management and Labour in Europe*, (Aldershot: Edward Elgar 1989).

ⁱⁱ See, e.g., Danièle Linhart, *Le Torticolis de l'autruche. L'éternelle modernisation des entreprises françaises* (Paris: Le Seuil 1991); Danièle Linhart, *La modernisation des entreprises* (Paris: Éditions La Découverte 1994); Pierre Veltz & Philippe Zarifian, „Vers de nouveaux modèles d'organisation,“ (in) *Sociologie du travail*, no 1, 1993.

ⁱⁱⁱ For example Edward Lorenz, “Neither Friends nor Strangers” (in) Diego Gambetta (ed.) *Trust: Making and Breaking Cooperative Relationships* (Oxford: Basil Blackwell 1988) and Edward Lorenz, “Trust and the Flexible Firm,” (in) *Industrial Relations*, Vol. 31:3, Fall 1992.

^{iv} See Armelle Gorgeu & René Mathieu, “Dix ans de relations de sous-traitance dans l'industrie française” (in) *Travail et Emploi*, no 28, Spring 1993.

^v See, for example, Bernard Ganne, “Place et évolution des systèmes industriels locaux en France: économie politique d'une transformation,” (in) Georges Benko & Alain Lipietz (eds.), *Les régions qui gagnent* (Paris: PUF 1992); Danièle Linhart, *La modernisation des entreprises* 1994.

^{vi} The material was collected in a series of plant visits, interviews of large firm corporate and plant management and of their suppliers, through discussions with labor union staff and researchers in industrial sociology in 1993 and 1994.

^{vii} See Bennet Harrison, *Lean and Mean. The Changing Landscape of Corporate Power in the Age of Flexibility* (New York: Basic Books 1994) for a general discussion of production networks along the same lines.

^{viii} See Paul Milgrom & John Roberts, *Economics, Organisation and Management* (Englewood-Cliffs NJ: Prentice Hall 1992); Bernard Baudry, *L'économie des relations interentreprises*, (Paris: La Découverte 1995); and Steve Casper, “How Public Law Influences Decentralized Supplier Network Organization in Germany: The cases of BMW and Audi,” WZB working paper FS I 95-314, December 1995 for discussions of inter-firm relationships and for the relevance of the themes I discuss here.

^{ix} See Charles Sabel, "Learning by Monitoring" (in) Neil Smelser & Richard Swedberg (eds.), *The Handbook of Economic Sociology* (Princeton NJ: Princeton University Press 1994) on the Japanese system. There is a growing "revisionist" literature, which claims that this interpretation is not only highly (perhaps even over-)stylised, but also idealised. Many supplier firms simply do not fall into this tight-link category, and are used by Japanese firms as cheap suppliers of standardised parts. A good state of the art is provided in: Rajan R. Kamath and Jeffrey K. Liker, "A Second Look at Japanese Product Development," in *Harvard Business Review*, November-December 1994.

^x The basic idea for this paragraph and the example is taken from David Soskice, *Finer Varieties of Capitalism*, (Berlin: ms. WZB 1994).

^{xi} The best treatment of French labour is found in Chris Howell, *Regulating Labour. The State and Industrial Relations in France* (Princeton: Princeton University Press 1992).

^{xii} For more on how similarly the privatisations of these two eras worked out, see Michel Bauer, "The Politics of State-Directed Privatisation: The Case of France. 1986-88" (in) *West European Politics*, Vol. 11:4, October 1988; and Mairi Maclean, "Privatisation in France 1993-94: New Departures or a case of *plus ça change*?" (in) *West European Politics*, Vol.18:2, April 1995. Also, much of the financial literature --especially the Financial Times and The Economist-- spend a good deal of their pages over the last few years criticising the existence of these "*noyaux durs*" (see, for example, *The Economist* 1 July 1995).

^{xiii} In many assembly industries, higher productivity is primarily a matter of building something right the first time, not of faster pacing —see James Womack et al., *The Machine that Changed the World*, (New York: Harper and Row 1990) for a discussion of this in the car industry. In Japanese car plants, the assembly line actually moves slightly slower than in European and American car plants, but productivity is considerably higher, since less vehicles have to be re-worked after they come off the line.

^{xiv} Richard Locke, *Rebuilding the Italian Economy* (Ithaca NY: Cornell UP 1995), points out that FIAT was very early with the adoption of new methods as well: in the early 1980s FIAT too changed to JIT delivery systems —Italian firms, like French firms, faced roughly the same cost problems, the same debt and interest rate problems and had an equally sizeable small-firm sector to fall back on. See Suzanne Berger & Michael Piore, *Dualism and Discontinuity in Industrial Societies* (Cambridge: Cambridge University Press 1981) for that latter point.

^{xv} A short note here on the type of rationality implied in the text. The patterns of adjustment themselves may be "rational," but that does not mean that the initial definition of the problem is unproblematic. For example, defining the problems of firms as either problems of quality or of cost, is itself a political process, in part because it has very different implications for the parties involved. Take the wages of the workers. In a cost-reduction program, workers often have to come to terms with lower wages, in a quality-improving program, workers may, because of increased training and a re-distribution of responsibilities, in fact end up with higher wages. Yet, except in an extremely small number of very clear-cut cases, a problem can be seen as either of both, and the initial definition can therefore not be reduced to its "essence" (since the latter does not exist).

^{xvi} This definition of learning is taken from Charles Sabel, "Learning by Monitoring," art.cit. 1994. Parts of the argument developed here and later on in the text bear some resemblance to that argument.

^{xvii} This discussion of learning is greatly influenced by Stephen Jay Gould's discussion of Darwinian versus Lamarckian theories of change. The first are, in their modern version (in large part because of Gould's own work), a quintessential punctuated equilibrium view: rapid change in large populations between long periods of relative silence (Stephen Jay Gould, *The Panda's Thumb* (New York: Norton 1980: 179-185). Lamarckian theories see change as the result of the inter-generational reproduction of acquired knowledge (traits) —i.e. evolutionary learning as used in the text. As Gould points out in his essays on punctuated equilibrium models of biological change, for social change the Lamarckian model provides a better heuristic (see Stephen Jay Gould, *The Panda's Thumb*, pages 76-84). See also Stephen D. Krasner, „Approaches to the State. Alternative Conceptions and Historical Dynamics,“ (in) *Comparative Politics*, Vol. 16:2, January 1984 for how punctuated equilibrium models were introduced into the social sciences.

^{xviii} Horst Kern & Charles Sabel, “Trade Unions and decentralised Production: A sketch of Strategic Problems in the German Labor Movement,” (in) *Politics and Society* Vol.19:4, December 1991, use similar language in their treatment of changes in German industry, but because of its theoretical underspecification, it is unclear if the idea is really similar to the one I build here.

^{xix} see the numbers quoted in Sylvie Cieply, “Le financement bancaire des PME: l'apprt des modèles de coopération interentreprises,” (ms. Université Lyon Lumière II, Monnaie-Finance-Banque 1995).

^{xx} Suzanne Berger & Michael Piore, *Dualism and Discontinuity in Industrial Societies* (Cambridge: Cambridge University Press 1981)

^{xxi} See Armelle Gorgeu & René Mathieu, “Dix ans de sous-traitance,” (in) *Travail*, no 28, spring 1993 and Bennet Harrison, *Lean and Mean. The Changing Landscape of Corporate Power in the Age of Flexibility* (New York: Basic Books 1994) for France in comparative perspective.

^{xxii} A comparison with France's main competitors demonstrates the extent of the cost disadvantage:

Lending Rates in G5 countries, 1979-1985 (real interest rates in brackets):

	1979	1982	1985
France	15.5% (4.7%)	20.3% (8.5%)	17.8% (12.0%)
USA	12.7% (1.4%)	14.9% (8.8%)	9.9% (6.4%)
Jap	6.3% (2.6%)	7.23% (4.5%)	6.5% (4.5)
Ger	8.6% (4.5.%)	13.5% (8.2%)	9.5% (7.3%)
Italy	14.6% (0.2%)	17.4% (0.9%)	21.1% (11.9%)

Sources: calculated from IMF *International Financial Statistics* and *OECD Historical Statistics 1960-1990*

^{xxiii} This argument on France is the standard view; it is found in Andrew Shonfield, *Modern Capitalism* (Oxford: Oxford University Press 1966); John Zysman, *Political Strategies for Industrial Order: State, Market and Industry in France* (Berkeley CA: University of California Press 1977); John Zysman, *Governments, Markets and Growth* (Ithaca NY: Cornell UP 1983) and Peter Hall, *Governing the Economy* (Oxford: Oxford University Press 1986).

^{xxiv} See Dominique Taddéi and Benjamin Coriat, *Made in France* (Paris: Librairie Générale Française 1993), p.31

^{xxvi} Taddéi & Coriat, *Made in France*.

^{xxvii} Details can be found in *Auto-Hebdo* 1992, the Citroën house magazine.

^{xxviii} See *Le Monde* 7 February 1995 for details.

^{xxxix} See Christophe Midler, *L'auto qui n'existait pas* (Paris: Intereditions 1993) for more details.

^{xxx} See Charles Sabel, "Moebius Strip Organizations and Open Labor Markets: Some Consequences of the Reintegration of Conception and Execution in a Volatile Economy," (in) Pierre Bourdieu & James Coleman (eds.), *Social Theory for a Changing Society* (Boulder CO:Westview Press 1991). What is important here, is not so much that firms do not actually open up, but that in many regards they do precisely the opposite of what can be expected according to the metaphor: they redraw and redefine the boundaries between the participating organisations more strongly than the idealtypical image of Moebius strip organisations suggests.

^{xxxix} Charles Sabel, "Bootstrapping Reform: Rebuilding Firms, the Welfare State, and Unions," (in) *Politics and Society*, Vol. 23, Nr. 1, March 1995

^{xxxix} What follows about ISO 9000 and quality certification relies on material gathered through conversations with the AFAQ, the *Association Francaise pour l'Assurance de la Qualité*, in October 1994.

^{xxxix} A short technical excursus may be in order here to understand the role of ISO 9000 norms in today's firm. In essence, ISO 9000 norms are certified with the use of a checklist which determines if (1) firms measure quality performance, (2) do this in a relatively standardised way, roughly according to the ISO methodology, and (3) have put in place relatively standardised mechanisms that can correct registered problems. If firms can do this, i.e. when they have shown the ability to reflexively monitor their performance, they are certified by ISO (or AFAQ, as in France).

^{xxxix} See Marc Maurice et al., *The Social Foundations of Industrial Power*; Christel Lane, *Management and Labour in Europe*; and David Soskice, *Finer Varieties of Capitalism*, (Berlin: ms. WZB 1994).

^{xxxix} Toyota is at pains to point out, for example, that the *Camry* produced in its Kentucky plant contains more US-made parts than almost any American car.

^{xxxix} See Eike Schamp, "Towards a Spatial Reorganisation of the German Car Industry? The Implications of New Production Concepts," (in) Georges Benko and Mick Dunford (eds.), *Industrial Change and Regional Development: The Transformation of New Industrial Spaces* (London: Belhaven Press/Pinter 1991); see also Bennet Harrison, *Lean and Mean. The Changing Landscape of Corporate Power in the Age of Flexibility* (New York: Basic Books 1994) for a discussion of decentralised production systems.

^{xxxix} Article on social dumping and unit labor costs in EU; other pieces; Dominique Taddéi and Benjamin Coriat, *Made in France* (Paris: Librairie Générale Française 1993)

^{xxxix} The list is: Note AFAQ/DG/J/251. māj 1994.10.19

^{xxxix} The material for this section was gathered during interviews at Renault in Billancourt (Paris) in October 1994.

^{xl}This section on financing SMEs was seriously helped by discussions with Sylvie Cieply from the University of Lyon II. See Cieply, "le financement des PME."

^{xli} Since very shortly, some attempts are going on to create a separate *Bourse* for SME stocks in Paris. From all accounts, there are major difficulties with this new stock market model, for precisely the reasons outlined above (see *The Economist* 25 February 1995 for details).

^{xlii} Things appear to be changing now because the government is selling off the large state-owned firms through equity, which by its very nature increases the role of the stock market. However, as several assessments have concluded, instead of truly “privatising” the firms, what appears to be happening, both in the 1986 de-nationalisations and in those of the 1990s, is that a stable nucleus of shareholders emerged, consisting of a few other major large firms, which acted as a protective shield against hostile take-overs and overly demanding small shareholders. Not surprisingly, the political-economic elite which governs France’s administrative apparatus and its large firms (see the next note) plays a critical role in this reconfiguration of ownership in French industry. See Bauer, „The Politics of State-Directed Privatisation: The Case of France,“ 1988; Maclean, “Privatisation in France,”1995.

^{xliii} The literature on links between political and economic elites in France is extensive. These networks were noted already by Andrew Shonfield, *Modern Capitalism* (Oxford: Oxford University Press 1966); he called it “a conspiracy between big business and government” (p.128). The best works which discuss elites in detail are: Ezra Suleiman, *Les Elites en France* (Paris: Le Seuil 1979); Pierre Birnbaum, *Les Sommets de l’Etat* (Paris: Le Seuil 1977, new ed. 1994); and especially Pierre Bourdieu, *La Noblesse d’Etat* (Editions du Minuit 1989). See also David Swartz, „French Interlocking Directorships: Financial and Industrial Groups“ (in Frans N. Stokman, Rolf Ziegler, John Scott (eds.), *Networks of Corporate Power* (Oxford: Polity Press 1985). Since some ten years, two researchers are tracking French economic elites, and recently they finished a report which not only demonstrated that managers in large French firms still primarily originate from state bureaucracies —true for industrialists as much as for bankers!!— but also that the links between state, financial and industrial elites have grown stronger over the last decade. See Michel Bauer & Bénédicte Bertin-Mouroit, *L’Acces au Sommet. Des Grandes Entreprises Francaises, 1985-1994* (Paris: C.N.R.S. Observatoire des Dirigeants and Boyden, Février 1995) for the report, and *Le Monde* 7 February 1995 for a discussion of the report.

^{xliv} Michael Piore, *Beyond individualism* (Cambridge MA: Harvard University Press 1995) and Robert Solow, *The Labor market as a social institution* (Cambridge MA: Basil Blackwell 1990) make a this or a similar point in very different ways.

^{xlv} Herbert Simon, *Administrative Behavior*, (New York: The Free Press 1945/76) is the classical statement of this argument.

^{xlvi} Richard Locke & Kathleen Thelen, “Apples and Oranges Revisited: Contextualised Comparisons and the Study of Comparative Labor Politics,“ (in *Politics and Society*, December 1995, discuss this interaction between cognition and institutions in the context of labor politics.