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Organizations, Networks,
and Network Organizations

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Introduction

"The term "network" has become the vogue in describing contemporary organizations..... Typically, the term "network" is used to describe the observed pattern of organization. But just as often it is used normatively: to advocate what organizations must become if they are to be competitive in today's business environment." (Nohria[1992, p.1]) This statement, with which Nitin Nohria begins his introductory chapter for the conference volume on "Networks and Organizations," confess his view of the present state of the debates on the term "network."

"[T]he network concept "has become fashionable and trendy," which,...,"of course is a mixed blessing." For those have been advocates of a network perspective, this period may well be their day in the sun. On the other hand, the faddish popularity of the network concept has created a situation where an observation made by Barnes in 1972, and reiterated a decade later by Burt(1982), is more probably more on target than ever: Anyone reading through what purports to be network literature will readily perceive the analogy between it and a "terminological jungle in which any newcomer may plant a tree." This indiscriminate proliferation of the network concept threatens to relegate it to the status of an evocative metaphor, applied so loosely that it ceases to mean anything." (Nohria[1992, p.3])

Coupled with such a traditional image of Japanese economy as keiretsu tradings, predominance of corporate groups, and cooperative behavior of firms, there is a tremendous increase of interests among sociologists, organizational analysts, economists, and business practitioners in "network organizations" in Japan.¹

I have been strongly interested in the structure and working mechanism both of intrafirm organizations and interfirm relations, especially of Japanese firms. Recent writings on the organizations of Japanese firms with the concept of "network," however, have never attracted and persuaded me very much. Charmed with this trendy phrase, I tried to read some of them, and almost always ended with the impression that it was "applied so loosely that it ceased to mean anything." The invitation to this conference gives me the chance to study deeper, to confirm whether my previous judgement is to the point, and to think what is the proper way to follow of network research for understanding the working mechanism of organizations.

In the paper that follows, I neither intend to "plant a tree" as a newcomer, nor try to "advocate what organizations must become." The purpose of this paper is to review prior studies critically, sometimes presenting and emphasizing confronting views, and search for a clue to the next step for the study of the working mechanism of organizations in Japan. In the following, I

¹ For example, Dore[1983, 1992], Gerlack and Lincoln[1992], Imai[1990, 1992], Kiyonari[1993], Lincoln and Kalleberg[1985], Teramoto[1990].

will not confine my attention to "network" aspects of organizations. This is because, firstly, this term is so loosely defined, and, secondly, our final concern is to understand the working mechanism of organizations and "network" is selected by many only as a key word for this purpose.

This paper is divided into three parts. In Part I, I focus on such phenomena as keiretsu and corporate groups which are traditionally thought to be the most peculiar of Japanese industrial organization. I review the dominant view critically, and present another view that those phenomena should be understood as more market oriented phenomena, depending on "the transformed view" of organizations.² In my view, the dominant view on the roles of keiretsu and corporate groups is that they are tremendously important and characterize the working mechanism of Japanese markets, and sometimes said to symbolize the peculiarities of Japanese economy. Many "network" advocates find this view quite charming and welcome it as the target for their "network" view. I will insist here that this view is wrong, and their roles have been negligible, if any. Therefore, this part will help readers stop to follow further the wrong way.

In Part II, emphasizing the importance of small business in Japan, I will focus on their roles, and study the structure and the working mechanism of interfirm relationships both among them and between they and large firms, which are often recognized as "networks." I will pick up not only that famous subcontracting system of Toyota-type but also the other types of production system and the other systems in such other fields as distribution. In so doing, I look closer the precise contents of the following statement of Donald Dore[1983, p.463]. "Transaction costs for large Japanese firms may well be lower than elsewhere. 'Opportunism' may be a lesser danger in Japan because of the explicit encouragement, and actual trading relationship of mutual goodwill./ The stability of the relationship is the key. Both sides recognize an obligation to try to maintain it." An economist's intuition leads us to a simple fact that there are no heaven even for large Japanese firms and to look closer how the stability of the relationship is maintained and what are their costs.

In Part III, I will summarize the preceding discussions, and pick up one peculiar aspect of Japanese industrial organization as an example for further study, that is, long-term relationships with non-exclusive character.

Part I: Keiretsu and Corporate Groups

[A] Introduction: The Predominance of Small Business in Japan

²See, for example, Kochan and Useem[1992], which states on page 5 as follows. "In the transformed conception..., organizations are composed of and therefore responsible to multiple stakeholders."

In Part I, I focus on such phenomena as keiretsu and corporate groups which are traditionally thought to be the most peculiar of Japanese industrial organization. For this purpose, the following discussion focuses on large firms and views the Japanese economy as represented by large firms and their surrounding firms which are organized into their subordinate groups and controlled by them. Before proceeding to the study of such phenomena, I will comment on two points in this introduction.

"Firstly, on the large share of small business and their predominance in Japan. In discussing Japanese firms and industries, most readers have in mind as their representatives such firms as Toyota, Nissan, and Honda in automobile industry and NEC, Hitachi, and SONY in electronics industry. Some readers may have the image that such large firms like Toyota, and therefore their production system which is famous as "kanban-system," cover most part of the Japanese economy. On the contrary, most of the Japanese firms are small, most of the Japanese workers are employed by small firms, and more than the half of the value added are produced in small firms. Such dominance of small firms in Japan has a long history, and their share has not changed at least for these 30-40 years.³

The total number of establishments in the whole private sector of Japan (not including agriculture and fishery) is 6.5 million in 1986, and 99.3% of them are small and medium enterprises (hereafter, SMEs). The total number of the employees there is 49 million, and 80.6% of them are in SMEs. Limiting our attention to the manufacturing sector, we find almost the same picture. There are 874 thousand establishments there in 1986, and 99.5% of them are SMEs. The total number of employees there is 13.3 million, and 74.4% of them are in SMEs. The corresponding figures in the manufacturing sector in 1957 are 99.6% and 72.3%, which suggest the stable predominance of SMEs. Throughout these 30-40 years, more than 55% of the value added has been produced in SMEs, and therefore less than 45% in large firms." (Miwa[1993c])⁴

³For example, Patrick and Rohlen [1987] had to begin their "Small-Scale Family Enterprises" with the following statement. "All too frequently big business has dominated popular perceptions of the Japanese economy. Large firms are deemed to have powered Japan's growth through their successes in generating output, raising productivity, absorbing and creating innovations through large-scale R&D, and creating and developing the "Japanese management system" of industrial relations.../...small enterprise is the economic, political, and social heart and backbone of Japan. In particular, small-scale family enterprises have long been and continue to be a large and dynamic element in the political economy of Japan.."(p.331)

⁴For the details of these figures, see the tables in the appendix of White Paper on Small and Medium Enterprises in Japan, each year. Here I use the 1965 and 1991 editions. These figures are originally made from "Census of Establishments" and "Census of Manufacturing." The standard definition of SMEs in Japan derives from Article 2 of the Small and Medium Enterprise Basic Law enacted in 1963, and depends on the type of industry. In manufacturing,

Secondly, on the "slimness" of large Japanese firms. As is often pointed out,⁵ a comparison of large Japanese firms and their American and European counterparts reveals that Japanese firms have far fewer employees in relation to sales. Table 1 gives some examples. For example, Toyota's annual sales amount to some 1/2 that of General Motors and 1.3 times that of Volkswagen, but it employes (72 thousand) less than 1/10 the number of workers of GM (751 thousand) and less than 1/3 that of Volkswagen (266 thousand).

---Table 1. A Comparison of Size of Large Firms:
American, European, and Japanese-----

Thus, in Japan large firms occupy rather a small portion of the economy, and large firms are relatively slim and depend more on transactions with outside suppliers.⁶

[B] Definitions: An Introduction to the Concepts of Organizations and Networks

"..[T]he term organization refers to the complex pattern of communication and relationships in a group of human beings. This pattern provides to each member of the group much of the information and many of the assumptions, goals, and attitudes that enter into his decisions, and provides him also with a set of stable and comprehensible expectations as to what the other members of the group are doing and how they will react to what he says and does. The sociologist calls this pattern a "role system"; to most of us it is known as an "organization.""(Simon[1976], p.xv of "Introduction") I quote this statement from Simon[1976] only to suggest that there are various types of organizations and that "firms" are not the only one type, therefore, it is not appropriate to begin the study of organizations with "firms."

"Economic organizations are created entities within and through which people interact to reach individual and collective economic goals. The economic system consists of a network of people and organizations, with lower-level organizations linked together through higher-level organizations./ The highest-level organization is the economy as a whole." Beginning their discussion on "economic organizations" with this statement, Milgrom and Roberts[1992] proceeds to the next level or entities which are "more traditionally regarded as organizations" such as "corporations, partnerships,...

mining, etc., it includes enterprises with 100 million yen or less in paid-in capital, or 300 or fewer employees.

⁵See, for example, Komiya[1990, p.174].

⁶In some cases, for example, in the case of Toyota, most of the direct trade partners the number of which is less than 200 are large firms, one of the largest one of which is Nihon Denso with 40 thousand employees.

----- Table 1. A Comparison of Size of Large Firms:
American, European, and Japanese -----

Number of employees(thousands) and sales(billion yen): 1991

American	European	Japanese
General Motors	Volkswagen	Toyota
(no. of employees) 751	266	72
(sales) 15357	6282	8564
General Electric	Philips	Hitachi
284	240	82
7516	4167	3925
Du Pont	ICI	Toray
133	128	10
4832	2902	599
Dow Chemical	Bayer	Mitsubishi Chemical
62	162	10
2347	3490	727

(*)Sales are converted at the rate of Dec. 31 1991.

and other formal organizations. A key characteristic of the organization at this level is their independent legal identity, which enables them to enter binding contracts, to seek court enforcement of those contracts, and to do so in their own name, separate from the individuals who belong to the organization."(pp.19-20)⁷

Then, Milgrom and Roberts[1992, p.20] rightly comments as follows. "Although the legal aspects of organization are important, a full description of organizational architecture involves many more elements: the pattern of resource and information flows, the authority and control relationship and the distribution of effective power, the allocation of responsibilities and decision rights,...../ Once our focus becomes the elements of organizational architecture, defining a formal organization simply by its ability to contract as a distinct legal entity can become quite inappropriate because it can easily misidentify the effective boundaries of the organization."⁸

Here comes the time to move to "networks," putting aside as a problem to be discussed in the next section the applications of the above discussion to the study of industrial organization in Japan.

Nitin Nohria[1992] suggests that the following "five basic premises underlie a network perspective on organizations," "which define the core features"(p.4, p.8, respectively) of it.

(1) All organizations are in important respects social networks and need to be addressed and analyzed as such.

(2) An organization's environment is properly seen as a network of other organizations.

(3) The actions (attitudes and behaviors) of actors in organizations can be best explained in terms of their position in networks of relationships.

(4) Networks contain actions, and in turn are shaped by them.

⁷As, Milgrom and Roberts[1992, p.20] continues, "this ability to enter contracts is critical to one of the major approaches to the economic analysis of organizations. In this view,.. an organization is regarded as a nexus of contracts, treaties, and understandings among the individual members of the organizaions. The firm itself is then a legal fiction."

⁸Also from March and Simon[1958]: "The distinction between units in a production-distribution process that are "in " the organization and those that are "out" of the organization typically follows the legal definition of the boundaries of a particular firm. We find it fruitful to use a more functional criterion that includes both the suppliers and the distributors of the manufacturing core of the organization (or its analogue where the core of the organization is not manufacturing). Thus, in the automobile industry it is useful to consider the automobile dealers as component parts of an automobile manufacturing organization."(pp.89-90) They listed, as the chief participants of most business organizations, the following five classes: employees, investors, suppliers, distributors, and consumers(see, p.89).

(5) The comparative analysis of organization must take into account their network characteristics.(pp.4-8)⁹

Here, as Nohria[1992, p.5] states, "a social network....can be defined as a set of nodes (e.g., persons, organizations) linked by a set of social relationships (e.g., friendships, transfer of funds, overlapping membership) of a specific type." He also emphasizes the importance of informal and "emergent" relationships, in addition to formal or prescribed relations, in understanding networks in organizations, and concludes as follows: "From a network perspective,....the structure of any organization must be understood and analyzed in terms of the multiple networks of relationships in the organization (both prescribed and emergent) and how they are patterned, singly and in various combinations."

As Nohria[1992] points out, one of the "major reasons of the increased interest in the concept of networks among those interested in organizational phenomena....is the emergence over the last decades of what Best(1990) has labeled "the New Competition." This is the competitive rise over the last two decades of small entrepreneurial firms, of regional districts...., of new industries...., and of Asian economies.... the model of organization that is considered characteristic of the New Competition is a network, of lateral and horizontal linkages within and among firms./ ...Established firms are trying to restructure their internal organizations along the line of networks."(p.2) Agreeing with his following comment, however, I will not go further into this direction. "It is here that the failure to adopt a coherent network perspective becomes most problematic. It is precisely the lack of a clear understanding of a network perspective that has led to the rampant and indiscriminate use of the network metaphor to describe these new organizational forms. In some cases, this tendency has gone even further and the network organization has reified as a new ideal type of organizations, that will replace the bureaucracy as the basic model that all organizations, in due course, will adopt if they are survive and flourish."(p.12)

Really, from "a network perspective, all organizations can be characterized as networks and indeed are properly understood only in these terms. So to say an organization has a network form is a tautology."(Nohria[1992, p.12])

[C] Are Organizational and Behavioral Characters of Large Japanese Firms Different?

Over the past several decades, especially the last one a considerable economic and management literature has been produced both in Japanese and English dealing with various aspects of Japanese firms and with comparisons

⁹In explaining the fifth premise, Nohria[1992, p.8] states as follows: "...the structure of competition in markets is typically compared using a variable such as concentration ratios; but....such a measure misses the very stuff of competition in markets, which can be understood only by directly modeling the pattern of interaction among market players."

with their Western counterparts.¹⁰ Here, I will not try to add a new tree to this jungle. With commenting on the impressive and penetrative paper by Professor Donald Dore (Dore[1992]), I will focus on one specific aspect of Japanese firms, that is, "the controlling group" (Simon[1976, p.119]) in large Japanese firms and the roles of the shareholders.

The essence of Dore[1992]'s argument is in the following statement.

"In the conception of the firms --- or at least of the large corporation --- which is overwhelmingly dominant in Japan, among union leaders as well as in the business class, the one stakeholder whose stake is seen to be of paramount importance is the body of employees. The primary definition of the firm is a community of people, rather than a property of the shareholders, and this conception shapes business practice./...The economic behavior encouraged by these underlying conceptions is more conducive to business efficiency....than behavior based on the assumptions embodied in American --- or for that matter Japanese --- corporation law."(p.18)¹¹

I agree with Dore[1992] that the body of employees is the stakeholder of paramount importance in most of large Japanese firms,¹² which means that "the controlling group" is the body of employees.¹³ In such firms, the

¹⁰For a review of the literature in English, see Aoki[1990]. There is a wide variety of views on the peculiarities of Japanese firms, and one of the extreme view is expressed in Miwa[1990] which criticizes the traditionally dominant view on almost every front. Some of the literature, of course, tries to characterize them with the concept "network" as is mentioned in the last section.

¹¹Dore[1992] does not assert that this community nature is peculiar only to Japanese firms, stating that "[t]here would be sure, these days, in our post-Peters and Waterman world, be nothing very unusual in an American CEO emphasizing the community nature of the firm."(p.18) In the corresponding commentary, Harold E. Edmondson, a Vice President of Hewlett-Packard, writes that "[w]hile the entity is important in Japan, but feeling is present in many American companies, too," and that "I feel that there is a fair amount of the cooperative or Japanese approach to things in our industry."(p.26) Not a few literature emphasize the importance of the discrepancy between the actual behavior of corporate directors of American firms and the assumptions embodied in American corporation law. See, for example, Mace[1971, 1979]. About the significance of stockholders' power in the corporation, see Alchian and Demsetz[1972], especially, pp.787-789, which states that "[i]nstead of thinking of shareholders as joint owners, we can think of them as investors, like bondholders, except that the stockholders are more optimistic than bondholders about the enterprise prospects."(p.789)

¹²For the reasons for my judgement, see Miwa[1992].

¹³The controlling group is "the group that has the power to set the terms of membership for all the participants," and selects for the organization

directors and managers are selected among employees, and are almost always able to expect a strong support of the majority of the employees, on condition that their decision-making is made for the employees.¹⁴

The question to be answered here is how this controlling group secures their stable position, defending from the attacks of other stakeholders, especially that of stockholders. The most basic and important reason is the same as the one for their position of the controlling group, which implies that such attacks are generally not for the benefits of other stakeholders. As an additional reason, in my view, the role of that Antei-Kabunushi (stable and friendly stockholders) is important for the defense of their position against noisy stockholders, especially takeover bidders. Dore[1992, p.20] writes that "[a] large part of a firm's equity is in the hands of friendly, corporate stockholders: the suppliers, banks, insurers, trading companies, dealers it does business with. The holdings are frequently mutual."¹⁵

One more step further to this direction leads us to the following three logical results, which are compatible with our observed features, although contrary to those of the traditionally dominant view, of Japanese economy.

The basic point readers should keep in mind is the fact that the controlling group is the body of employees. It implies that they have the power to select the Antei-Kabunushis and also the sources of funds they use.

(1) The Antei-Kabunushis are selected just because they are supposed to be friendly to the present body of directors and managers.¹⁶ Therefore, even large stockholders are friendly to the present body of directors, and once they become or appear to be noisy the directors change their selection of Antei-Kabunushi. Cross holdings or group holdings (e.g., among "corporate groups") are only a result of such voluntary selection. Accordingly, the stock-holding pattern and the names of stockholders give us not so much

"[t]he basic value criteria that will be employed in making decisions and choices among alternatives in an organization."(Simon[1976, p.119]) This concept corresponds to Alchian and Demsetz[1972, p.778]'s "the centralized contractual agent in a team productive process."

¹⁴This relationship is what Simon[1976] calls "authority." See ch.VII of Simon[1976].

¹⁵It is of critical importance to emphasize, although obvious for most of readers, that the view of organizations, especially of firms, those and the following discussions assume is not Kochan and Unseem[1992, p.4]'s "the traditional conception" of organizations, that is, "the central purpose of the corporation is to maximize shareholder wealth," but their "the transformed view," I mentioned in Introduction of this paper.

¹⁶As Dore[1992] writes, "the holdings are frequently mutual." They are not always mutual as the term Mochiai (cross holdings) suggests.

information, especially on the distribution of power, but on the names of friendly stockholders.¹⁷

(2) The sources of funds for the firm, including banks, are selected just because they are supposed to be friendly to the present body of directors. Therefore, even large lenders, including "the main-bank(s) (or "lead bank(s))," are friendly to the present directors, and once they become noisy the directors have the power to change their selection. The phenomenon that the largest lender often has a large share of the borrowers' equity is only a result of such voluntary selection. Accordingly, the names of larger lenders give us not much information, especially on the distribution of power, but on the names of friendly lenders.¹⁸¹⁹

(3) The member of the board of directors, and managers, are selected just because they are supposed to be friendly to the present body of directors, supported by the body of employees. Therefore, even the directors who are supposed to represent the interests of other stakeholders are friendly to the present body of directors, and they are able to remain on the present position so long as they are not noisy. The structure of the present board of

¹⁷For a critical review of the literature on corporate group in Japan, see ch.7 of Miwa[1990].

¹⁸This view is not incompatible with Dore[1992]'s following second feature of the Japanese economy(p.20). "One of the banks is generally considered a firm's lead bank. It may provide only marginally more loan capital than other banks, but it will own more of the firm's equity, it will put more effort into monitoring the companies performance, and it will be the prime mover in any brink-of-bankruptcy reconstruction." Often the supporters of this view proceed to suggest that this lead bank, usually called "main bank," has strong power and even controls the management of the borrower. Here, they should confront the question, "why do the controlling group" continue to choose it?" I am quite sceptical on the current flood of literature on "Japanese main-bank system," which implicitly assumes in common the existence of a tight cartel among Japanese financial institutions and its persistent dominance in Japanese capital market. For my view, see ch.6 of Miwa[1990] which was originally published in 1985. Also, see Miwa[1991b] and Ramseyer[1993].

¹⁹Thurow[1992] points out that, among the four factors (natural resources, capital, technology, and skills, where skills include the management skills necessary to coordinate these factors of production) traditionally contributed to making individuals rich, companies successful, and nations prosperous, "managerial and work force skills" are left "as the critical strategic variable in the competitive equation."(p.v) This view corresponds to the view of this paper, which suggests that what we are talking about large Japanese firms applies also to large firms in other countries.

directors is a result of such voluntary selection, and, accordingly, the number of directors who were formerly members of the other body of stakeholders, such as banks and trade partners, gives us not much information, especially on the distribution of power, but on the names of friendly stakeholders.²⁰

The view of organizations which underlies the preceding discussion need not recognize the legal definition of a firm, therefore, the actual boundary ("the effective boundary" (Milgrom and Roberts [1992, p.20])) as relevant and critically important to the decision-making of the controlling group, as I emphasized in [B]²¹. The legal definition of a firm is closely related to the assumptions embodied in both American and Japanese corporation law, which assume Kochan and Unseem[1992]'s "the traditional conception." Now that we recognize the boundary of a firm only as one of the constraints, not so strongly binding one, for the decision-making of the controlling group, we can go into the study of interfirm relationships and industrial organizations.²²²³

²⁰Even "parent companies" which hold more than the half of the equity of their subsidiaries may not have the power to enforce their will to the directors of the subsidiaries. Because of the critical importance of the management and work force skills, it is often for the interests of the parent company to be only a friendly equityholder. We find so many cases of such kind in Japan. For example, Hitachi Cable and Hitachi Metals, both of which were formerly divisions of Hitachi and Hitachi still holds more than the half of their equity, are notable examples of the independence of subsidiary firms. In my view, the relation between Toshiba and Toshiba Machine is another example. For the details about these cases, see ch.7 of Miwa[1990], especially pp.207-9.

²¹As Tirole[1988, p.16] points, the economists' contractual view of a long-run arrangement of its units has relatively little to do with the legal definition of a firm.

²²For example, in the field of marketing, the same kind of mechanism is discussed with another concept as in Stern and El-Ansary[1988, p.410]. "The ability of a channel member to exercise control stems from his access to power reserves. ...the accrual of such power generating resources to a channel leader may be the result of the specific characteristics, experience, or history of the firm and its management. Alternatively, power sources (or their absence) may reflect particular characteristics of the environmental forces impinging upon the channel (demand, technology, competition, legal constraints, etc.) and the channel member's ability to capitalize on these forces. Therefore, the power of a channel leader may reflect both the characteristics of his environment and his own characteristics."

²³This view also suggests that the legal definition of a firm is much larger than the bounds for decision-making of the controlling group, that is, in some case, a firm can be better understood as a collection of independent

In discussing interfirm relations in the following sections, we should keep in mind the basic premises which underlie a network perspective on organizations of Nohria[1992] mentioned in [3], especially the third that follows. "The actions (attitudes and behaviors) of actors in organizations can be best explained in terms of their position in networks of relationships."²⁴

Part II: Interfirm Relationships

[A] Positions and Roles of SMEs, and Their Interfirm Relationships

In Part II, I investigate the structure and the working mechanism of interfirm relationships, focusing on their relation to their efficiency and "flexibility." For this purpose, we should shift our focus of attention from large Japanese firms to small firms (SMEs) which, as I mentioned in [A] of Part I, occupies the dominant part of Japanese economy. Before proceeding to the study of SMEs, in this introduction I will comment on the traditionally dominant view of the positions and roles of SMEs, which has been far from the reality. The following comment will clear away this obstacle to our study.

The traditionally dominant view of the positions and roles of SMEs is symbolically connected with the term "dual economy," which suggests that large firms in the modernized industrial sector subordinate, control and exploit SMEs in the traditional sector. This view implicitly assumes that large firms have and can exercise power to exploit SMEs. The symbolic image of this view is large firms occupy the upper parts of the "pyramidal hierarchy" of Japanese industrial system and SMEs are in the lower parts, whose

decision units. Of course, the preceding discussion does not necessarily suggest that employees in a firm are strongly united and form the controlling group. In my view, employees are a collection of different groups of workers and one or some of them form the controlling group. However, this is not the place to go further into this point. For this point, see Miwa[1992], especially p.26-.

²⁴No one objects, as a general discussion, to the following three fundamental reasons of Granovetter[1992, p.25] why a well-conceived economic sociology can improve the explanation of economic action and institutions typically offered by neoclassical economics. "(1) The pursuit of economic goals is typically accompanied by that of such noneconomic ones as sociability, approval, status, and power. Analyses that abstract away from the latter as a matter of principle are handicapped at the outset. (2) Economic action (like all action) is socially situated and cannot be explained by reference to individual motives alone. It is embedded in ongoing networks of personal relationships rather than carried out by atomized actors. (3) Economic institutions (like all institutions) do not arise automatically in some form made inevitably by external circumstances; rather they are "socially constructed"." The difficulty lies on the choice of the next step to follow.

freedom of choice strictly restricted and in the situation of "hold-up." If this view exactly reflects the reality, what we should ask next is the causes of this power and its originating mechanism, and the limit of the "area of acceptance"(Simon[1976, p.133]). These questions will lead us to the clear understanding of Dore[1992]'s statement cited in Introduction of this paper, a part of which is as follows: "[t]ransaction costs for large Japanese firms may well be lower than elsewhere."

Obviously, the key issue here is the validity of the traditional view. In chapter 2 of Miwa[1990], I examined the relationship between the "image" and the "reality" regarding SMEs, and asked whether the "dual structure" ever really existed. The analysis was directed at the "image" that large firms exploit SMEs either directly or indirectly, or use them as a cushion. This image comports with the "image" of the subcontracting and affiliate system that has also been criticized as embodying a "dual structure." I reach a conclusion that a wide gap has existed between the "image" and the "reality" of SMEs, with the following three propositions.

(1) The assertion that a large majority of SMEs were "exploited" between the latter 1950s to the early 1960s is inconsistent with reality.

(2) The assertion that they have been exploited in more recent years is likewise inconsistent with reality.

(3) "Structural change," in the sense of a shift to the situation where the proportion of SMEs "being exploited" drastically declined from a situation in which a great majority of SMEs are "exploited," never occurred.²⁵

The view suggested by this conclusion denies the traditionally dominant view and requests to examine carefully the adequateness of its assumptions, especially the assumed power of large firms and the image of subordination of SMEs. Thus, even when we find the prevalence of interfirm long-term relationships among SMEs and between SMEs and large firms, we are not allowed to interpret it as a direct result of the subordination of SMEs to large firms in the "dual economy" situation. SMEs have wide freedom to choose, and we should regard them as results of mutually voluntary agreements. Therefore, large firms also need to offer incentives to induce their trade partners to make and maintain long-term relationships with them.

Accordingly, if the statement that "transaction costs for large Japanese firms may well be lower than elsewhere" is true, the question to be answered is the reason why their cost to offer incentives is lower for them than elsewhere. To emphasize the importance of prevalence of "moralized trading relationships of mutual goodwill" and strong tendency of most Japanese to "feel more comfortable in high-trust relations of friendly give-and-take"²⁶ may be a persuasive answer for some, however, it can not be the final answer to all and we need to ask further why, how, and even whether it is true.

²⁵For details, see ch.2 of Miwa[1990], and for brevity see Miwa[1993c].

²⁶See, for example, Dore[1983, p.463 and 472].

In the following sections in Part II, I will show various types of interfirm relationships in several industries in order to see how they are maintained and to examine whether transaction costs are lower than elsewhere. In so doing, I will not make haste in reaching a clear conclusion. Instead, the main purpose of the following sections is to provide materials to stop the mythifying tendency of oversimplifying Japanese economy and to stimulate further researches.²⁷

[B] Preliminaries for Case Studies of Interfirm Relationships

Two peculiarities of Japanese industrial organization I presented as comments in section [A] of Part I, that is, the predominance of small business and the "slimness" of large firms, are not incompatible with Dore[1983]'s argument that "transaction costs for large Japanese firms may well be lower than elsewhere." However, when we accept the view, following the discussion in Part I, that the boundary of a firm drawn from the legal definition is different from the actual one relevant and critically important to the decision-making of the controlling group, therefore, of the firm, we are faced immediately with the following two questions.

(1) Then, why do large firms exist? Transactions are thought to be brought within the firm when doing so minimizes the costs of carrying them out, implying that internalization of transactions occurs when the costs for carrying them out within the firm are relatively low. Therefore, we need some explanation of why carrying out transactions within the firm is still lower even when costs for the transactions in the market are low in Japan.²⁸

(2) Is Dore[1983]'s argument applied only to large firms? If yes, then, why is it possible and what does secure such privileged positions for large firms? As we have seen before, interfirm relations should be recognized as results of voluntary agreements between firms, even when they are the ones between a large firm and small firms.²⁹

²⁷"Trust" is so charming and inviting a word that without clear definition and understanding it creates so much confusion and mythification. As Granovetter[1992, p.40] rightly points, even "[t]o say....that such devices produce "trust" seems...to stretch the word too far, where it applies to all situation where individuals are willing to enter a transaction."

²⁸We should note, as Tirole[1988, p.20] points out in commenting the technological view which aims at defining the size of a firm, that it is not clear why economies of scale should necessarily be exploited within the firm, and that they could, a priori, also be obtained through contracting between legally separate entities.

²⁹Consciously or unconsciously, most studies and statements take this privileged position of large firms as self-evident, implicitly assuming the validity of "dual economy" view, I guess. However, we can no longer take this

Coupled with the following three facts, so many people, both of academics and practitioners, have now become interested in Japanese SMEs and interfirm relations of small firms both with small and large firms. First, the pace of economic development in Japan has been so fast. Second, the many small enterprises are thought to have contributed much to the Japanese economic development. Third, the relations of small firms both with small and large firms have recently gathered much attention as the key to understand the marvellous efficiency and progressiveness of Japanese economy and industrial organization.³⁰³¹

The following two questions are related to Dore[1983]'s "moralized trading relationships of mutual goodwill" whose "stability ... is the key"(p.463), and what is called "trust."³²

(3) Why and how these relationships and trust have emerged, maintained and reinforced? How they affect behaviors of firms concerned, trade pat-

view as valid.

³⁰Dore[1983]'s argument mentioned above is a symbolic example. He states as: "...yet there are some good reason for thinking that it might be because of, and not in spite of relational contracting that Japan has a better growth performance than the rest of us. There is undoubtedly a loss of allocative efficiency. But the countervailing forces which more than outweigh that loss can also be traced to relational contracting."(p.473)

³¹The type of interests stimulated by the third fact is symbolized by such terms as "flexible specialization, ""flexibility of production," and "high-trust relation." See Sabel[1989]. Also backed by the recent trend of interests, as Rockart and Short[1991, p.193] write as follows in answering the question, "why the networked firms now?" "[I]t is a major managerial thrust today as executives cope with the demands of both managing complexity and increasing responsiveness across the organization.../ The firm's ability to continuously improve the effectiveness of managing interdependence is the critical element in product, service, or strategy innovations in the marketplace....and in effectively responding to new competitive threats... Networks, designed and enabled by information technology, and are key to effectively managing this interdependence."

³²Although nobody regards the following Arrow[1974, p.23]'s observation as impertinent that trust "is an important lubricant of a social system. It is extremely efficient; it saves a lot of trouble to have a fair degree of reliance on other people's word." However, we should be careful not "to stretch the word too far", as Granovetter[1992, pp.40-41] rightly cautions, who "would rather specialize the word to refer to circumstances where one enters a transaction believing that transaction partners will behave properly for reasons that transcend pure self-interest."

terns, and both interfirm relationships and intrafirm organizations? What are their working mechanism? What are the costs for their creation and maintenance? If there is a variety of density in such relationships among industrial sectors, how and why does it appear?

(4) To where and to what degree should we regard the peculiarities of interfirm relationships in Japan due to such "environmental factors" as "cultural," "social," and "historical" ones? Too much emphasis on such factors leads us to an "oversocialized conception of man in modern sociology"(Granovetter[1992, p.28])³³ and a variety of mythification of Japanese society. Conversely, too little emphasis leads to "undersocialized conception."³⁴

It is the third question that should be kept in mind as the core issue in reading case studies in the following sections. A symbolic puzzle readers should challenge is how Japanese firms attain their efficiency "in spite of relational contracting "(Dore[1983, p.473]), which mutually assures a stable position to their tradepartner. Before proceeding to case studies, I will comment on the fourth question.

As I cited above in [B] of Part I as the fourth of five basic premises of Nohria[1992] which underlie a network perspective on organizations, "[n]etworks contain actions, and in turn are shaped by them." There cannot be a simple answer to the fourth question. Here, I only refer to one such phenomenon that suggests the importance of this Nohria[1992]'s premise.³⁵

Chapter seven of Trevor[1988], "The Importance of the Suppliers," reports the development and changing process of interfirm relations between

³³"[A] conception of people as overwhelmingly sensitive to the opinions of others and hence obedient to the dictates of consequently developed norms and values..."(Granovetter[1992, p.29]).

³⁴The view that "classical and especially neoclassical economics operate with an atomized...human action."(Granovetter[1992, p.29]) Dore[1992, p.23]'s suggestion that "the entity allegiance element is probably too important to be ignored" can be interpreted as a comment on this view.

³⁵Even "new institutional economics" does not pay much attention to such "environmental factors," and goes too far. Their core issue, for example, is as follows. "...[W]hat has to be done is to make contractual obligations credible; and credibility can be achieved by employing such devices as hostage giving, collateral offers, hands-tying, unified governance, self-enforcing contracts, etc. Which governance structure is chosen at any time by a business firm is thought to depend on the properties of transactions being undertaken - in particular, their specificity and frequency. Relational contracts, for example, when in addition to uncertainty, transaction-specific investments and high frequency of transactions characterise the economic situation. The parties will, presumably, shape the relational contract so as to minimize the total cost of supervision and adoption to the continuously changing environment."(Furuboth and Richter[1992, p.25])

Toshiba Consumer Products in Plymouth and its suppliers. This process began in 1981, just after the withdrawal of the partner of the joint venture, Rank Radio International. "Realising that management could not go on in the same old way, it committed itself to a new structure and style of work organization, employee participation and, last but not least, relations with suppliers."(p.5) "The absence in Britain and other Western countries of a well developed network of reliable suppliers with whom they can cultivate long-term business relations is seen as a serious disadvantage by Japanese companies."(p.141) Toshiba requested to British suppliers what it does to Japanese ones, and has succeeded in developing the same type of relations.³⁶

[C] The Case of Automobile Industry

In the following sections, I will show materials from case studies of five industries, of which three from textile fields, for further research on interfirm relationships. In this section, I will take, as the starting case, automobile industry which is so famous and thought by many to symbolize the industrial success of Japan.³⁷

The total number of passenger cars made by Japanese automobile manufacturers was only 20 thousand in 1955, when Toyota began their full-scale passenger car production with "Crown."³⁸ In ten years the number grew up to 696 thousand, and in twenty years 4568 thousand, of which forty percent were exported. At the beginning of this explosive development process, there were no history and experience of machinery industry of mass-production type, and manufacturers had to improve the defective and low quality of materials and equipments for production, and low level of process

³⁶By the same token, I hear on many occasions the complaints of managers of Japanese firms that one of the difficulties they are faced with in their foreign subsidiaries is the custom of "job-hopping." It makes their intensive on-the-job training and human capital investment unprofitable and unattractive. However, on many other occasions, managers say that it is not so difficult to overcome it by offering the chance of employee participation and training, and paying higher rewards.

³⁷Dore[1983, p.467] writes as follows. "Competition between Japanese firms is intense, but only in markets which are (a) consumer markets and (b) expanding.... What does concern us here are markets in producers' goods, in intermediates. And for many such commodities markets can hardly be said to exist." I cannot agree with him at all on this point, part of the reasons of my disagreement will be shown below. This view also is counter-intuitive to most economists who watch the industrial success of Japan, I guess.

³⁸However, there is a famous tale that, even a few years later, an exported car immediately broke down on the free way in US. See Wada[1991a, p.13] and Wada[1991b, p.36].

and product technology.³⁹ There were no such suppliers that could make parts of an automobile with satisfactory quality, which suggests that the situation of automobile manufacturers at that time were not much better than that of Toshiba Consumer Products in 1981 mentioned above.

Automobile manufacturers had to persuade and induce suppliers to make investment on human capital and accumulate technical know-how of the quality they requested, to invest on plant and equipments, and moreover to make efforts to build their own production network with their suppliers. It was not an easy task, because of the following two facts in addition to a simple fact that they had to create a large and complicated production system of new type. First, at that time it was rather a minority view that the future of Japanese automobile industry was promising. Second, at that time, financial situation of automobile manufacturers were not so good that almost nobody regards them as credible, large firms with stable future.

Even after the succeeding in establishing efficient production network of suppliers, automobile manufacturers have had to make efforts of the similar type for the maintenance and constant refreshment of the system. They always have to induce suppliers to make the similar kind of commitment, as they should follow and meet constantly changing consumer demands and rapid technical progress in production process.^{40,41}

Moreover, automobile manufacturers have had to make constantly efforts in giving technical assistances and advices to suppliers and in supervising the total system in order to keep their consistency and to upgrade the technical level harmoniously. Thus, the costs of automobile manufacturers for such efforts have been tremendous. If we include these costs as a part of "transaction costs," they are certainly not small.

What should be asked here is whether "[t]ransaction costs for large Japanese firms may well be lower than elsewhere." If yes, then, the next question is what has made it possible in Japan. I will not try here to make

³⁹For example, in 1958 Toyota made a successful bid for special procurements of APA(U.S. Army Procurement Agency in Japan), however, it needed special efforts to pass the APA's inspection as their quality requirement was so strict for Toyota at that moment. For this point, see ch. 4 of Miwa[1990], especially fn.16 on p.69 and p.75, Wada[1991a, pp.13-15] and Wada[1991b, pp.37-8]. For a brief history, see Miwa[1990, pp.67-76].

⁴⁰For details, see ch.4 of Miwa[1990] and Wada[1991a,b].

⁴¹What follows is a case that shows how it is difficult to acquire and maintain the "trust" of suppliers. One of the difficulties that Mitsubishi Motors at Mizushima confronted in establishing mass-production capacity was to wipe out the distrust of suppliers caused by the "trust" destroying actions (shiwayose) of Mitsubishi when their three wheel motors, their main product at that time, did not sell well in 1958 and 1959. See Miwa[1990, p.85, fn.40].

answers to these questions, however, readers should remember that such large and complicated systems were newly created in rather a short period.

I will make one more comment on the case of automobile industry. Impressed by the prevalence of long-term relations within the networks for automobile production in Japan⁴², readers may wonder what kind of magic could make such efficiency improvement and product innovations as actually happened. The answer to this puzzle is rather simple. Instead of the type of competition in spot markets, they make every effort to induce suppliers for efficiency and product improvement. What follows are examples. They adopt usually double sourcing policy, and use their rivalry as a stimulus. Each supplier does not make a single product, and a supplier with good performance can expect an increase in total sales for the next period. By supervising the production process of suppliers and through constantly held meetings and joint works for R&D, automobile manufacturers often have the ability to make accurate and detailed advices for efficiency improvement to suppliers.⁴³⁴⁴

[D] A Case from Distribution: The Case of Seven-Eleven Japan

Before proceeding to the cases from textile fields, I will show one more case in distribution, the success story of Seven-Eleven Japan, which is the franchiser of the biggest convenience store franchise chain and pioneered this business in Japan. The in-shop area of a typical store in this chain is 100m², where displayed about 3,000 items.

The success of Seven-Eleven Japan (hereafter, SEJ) is one of the most remarkable ones in the distribution field in Japan. The first store appeared in 1974, and the number of franchise stores is 4,752 at the end of February in 1992, when the number of employees is 1,814. The equity value of SEJ at the end of March in 1992 amounts to 38% of that of Toyota with 72 thousand employees and 150% of that of Nissan with 56 thousand employees. It is not too much to say that SEJ with other convenience chains has greatly changed the daily life of Japanese people.

This success could have been accomplished only with active commitments of both franchisees and supporting wholesalers. Here again, in order to create and establish well-functioning network of interfirm relations, SEJ had to make efforts in persuading and inducing related parties for commitments. Even though SEJ was established as a subsidiary of Ito-Yoka-do, one of

⁴²For example, it is said that Toyota has never broken off relations with its suppliers whose number is less than 200.

⁴³Not all relations within networks for Japanese automobile production are long-term character. As is reported in Takeishi et als.[1993], trade relations on the outskirts of the production systems, for example, relations between supplier's supplier and its suppliers, are not so stable.

⁴⁴For these points, see ch.4 of Miwa[1990].

the most successful GMS chains in Japan, the future of convenience chain store business at that time appeared at least to outside parties not more promising than Toyota at the time around 1955. SEJ was not a large firm, nor was it promised to become large.

Even now, Japanese distribution sector is famous and quite often criticized for its underdevelopment and inefficiency. Throughout the past several decades, the symbolic catchword of policies of the government for distribution sector has been "modernization." At least, we could have found in almost every related field such distribution network of stable interfirm relations, which are sometimes called keiretsu. What SEJ had to confront and challenge was this long-lived stable interfirm relations and the prevalent sense of stability among related parties, and it succeeded in making an effective bypass.⁴⁵

Here readers should pay attention to the following three points.

(1) Even when the stable distribution network of interfirm relations suggests that "transaction costs" for established large firms may be low, the costs for newcomers trying to enter and establish a new type of interfirm relations may be high.⁴⁶

(2) Confronting such established interfirm relations, SEJ could have made a great success, with acquiring cooperations and commitments of the parties involved in such established relations. This fact suggests that the established relations are maintained as a result of choices of the related parties, and that large firms in such relations bears the costs for its maintenance.⁴⁷

(3) The above argument implicitly assumes that the position of established large firms is quite advantageous. This assumption, the assumption of first-mover advantage, however, does not always hold. On the contrary, in many situations, instead of first-mover advantage, second-mover advantage holds. The above argument requires commitments of related parties, and "[w]hat is usually called commitment is the opportunity to restrict one's own set of future possible choices or action. It involves, in fact, credible warranties that some future choices are destroyed."(Caillaud et als.[1988, p.20])

⁴⁵It is a different question whether Japanese distribution system is actually underdeveloped and inefficient. For this point, see papers in Miwa and Nishimura eds.[1991] and Miwa[1991a].

⁴⁶Readers should remember that even a established large firm was once a newcomer, and had to bear such costs.

⁴⁷Another famous success is the case of Coca-Cola's entry into Japanese market. In 1950s, faced with traditional distribution network of established firms and expecting the coming age of automatic vending machine, Coca-Cola chose new type of distribution system, called "route sales system," that bypassed the traditional one and attained a big success.

[E] The Case of Synthetic Fiber Textile Industry

Most readers may quote as representative and symbolic examples of successful Japanese industries some of such mass-production type machinery industries as automobile and electronics products. Interfirm relations and division of roles among related firms in such industries, especially those in automobile manufacturing, have drawn so much attention. However, in the following three sections I take three cases from another type of industrial sector, the textile industry, which once was a representative export industry but has lost its strong comparative advantage.⁴⁸

In this section, I will show the case of synthetic fiber textile production, mainly nylon and polyester. The difficulties the pioneers in this case had to confront were quite similar to what automobile manufacturers and Seven-Eleven Japan had to overcome at the start as mentioned in the preceding sections.

Synthetic fiber production was introduced into Japan by two rayon producers, nylon by Toray in 1955 and polyester by Toray and Teijin in 1958, which were not the most prosperous firms of the textile industry of that time. What they had to challenge was two-fold, creation of the market for the products and creation of production system, and I will call special attention to the latter. Although their primary target was fiber production, they had to persuade and induce to use these new type of fibers the firms in the following stages such as weavers, dye-works, garment manufacturers, and retailers which were potentially both users and members of production system. They were large firms, large enough to be the licensees of Dupont and ICI patents, however, the future of the new business and the stability of these two firms did not appear at least to outsiders to be so promising. Moreover, the other firms had to commit themselves in adopting to different type of technology for the new materials. Thus, the same type of difficulties as automobile manufacturers.

They chose one specific local area, Hokuriku which includes Fukui and Ishikawa, and decided to form there their own "production team" for each. Interfirm relations in these production teams were different from the traditional ones in the textile industry in the following three points, and called keiretsu.

(1) A fiber maker behaved as the leader of the team, and played a great role in technological development and technical education of other members.

(2) The degree of risk bearing of a fiber maker was uncomparably large. Most of the works of other members were pieceworks.

(3) The degree of exclusiveness in interfirm relations was rather high, that is, other members belonged to only one production team.

⁴⁸Dore[1983, p.461] was inspired by studying the organization of the weaving section of Japanese textile industry. He studied "the small town of Nishiwaki ... whose industry almost wholly devoted to the weaving of gingham chiefly for export to Hong Kong to be made up into garments for Americans."

This shows high degree of difficulties of fiber makers, and they should be helped for their success by the luck of the depression of 1957-58, the most serious one in the postwar period, which attacked viscose textile weavers in the traditionally stable interfirm networks and forced them to search for another chance.⁴⁹

Large firms in this case had to bear the costs not only for the creation of the market for the products and production system, but also for the maintenance of the system with high degree of risk-bearing. At the time around 1970, fiber makers changed their strategy and persuaded other members to increase their independence by decreasing their trade-share with them, thus, the character of interfirm relations in production teams changed at least with respect to the degree exclusiveness or closedness.⁵⁰

One more point with this case is the recent success story of Shin-gosen, a series of new types of polyester fiber and its products. People in the industry comment that without close cooperations among firms in the industry such variety of products of fine characters could not have been created successsively in these ten years.⁵¹ This story may appear to suggest the efficient character of interfirm relations and low transaction costs for large fiber makers, however, readers should keep in mind the costs for them for the creation and maintenance of such efficient system. Moreover, seven or eight fiber makers are competing each other here, and only a few firms in dyeworks and finishing stage have the ability to cope with fiber makers requirements, thus the open character of interfirm relations in the industry contributes much to this story.⁵²

[F] The Case of Silk Dyeing

Following the newest sector of the textile industry, I will proceed to one of the most traditional sectors, the silk dyeing, where we can see seemingly complicated cooperative systems of work under extreme degree of division of labor in several local areas with long history.⁵³

⁴⁹See ch.13 of Tanaka[1965], esp. pp.349-353.

⁵⁰A manager of a fiber maker explains as follows: Such exclusive relations imply a high degree of assurance of stable business even under a severe depression, and they judged that such high risk-bearing realtions did not pay any more.

⁵¹Additionally, as some industry members comment, the fact that textile makers produce synthetic fibers in Japan, not chemical firms as most of fiber makers in other coutries, may contributes much to this success.

⁵²I will comment on this point in [B] of Part III.

⁵³What is written in this section essentially depends on Nakamura[1979].

Dye-works and finishing stage of Kohaba silk textile(silk cloth of single breadth), especially that of Kohaba-Yuzen, is recognized as a typical Japanese industry of the traditional type. Even at the present, using Kohaba silk textile of the traditional type as main material for processing, firms are organized and workers do their jobs, depending strongly on the technology and techniques inherited from the pre-capitalistic era.

Nakamura[1979] compares four local areas, called Sanchi, famous for Kohaba dye-works, three of traditional type in the urban area, that is, Kyoto, Tokyo and Kanazawa, and newly developed one in the rural area, Tokamachi.

The first point to be noted is that production system in three sanchis of the traditional type is formed on the historically inherited, widely-spread social division of labor. Although the modern technologies have been introduced, the fundamental character of production system has not changed.

The second point is that the degree of the division of labor in each sanchi is strongly affected by its size. The size of Kyoto sanchi, the total number of employees in 1978 is about 30 thousand, is by far greater than the other two with less than one thousand employees respectively, and characterized with the higher degree of division of labor. The size of firms on each stage, most of which are specialized in one specific work stage, is not large, but the variety of available technology and techniques is wider, therefore, the variety of products is greater.

The third point is that newly developed Tokamachi sanchi is characterized with its vertically integrated production system. Dye-works in Tokamachi began in 1963, in response to the explosion of demands for standardized, rather cheap

Kimono which can be produced with simple technology and unskilled workers under mass-production system. The most profitable period for the firms in Tokamachi was the second half of 1960s, and the number of employees began to decrease drastically in 1970, from more than 8 thousand in 1971 to less than 4 thousand in 1977. When we look at Kohaba dyeing industry as one industry, we can say that there was a big boom of vertically integrated large firms and their retreat. However, as the above discussion suggests, Kohaba dyeing industry should be regarded as a collection of two separate sectors with different demands which are provided by different firms with different technology.⁵⁴

⁵⁴Compare with Dore[1983, pp.461-2], who was inspired by a series of phenomena by 1980 in Nishiwaki such as: the larger mills had closed, the integrated firms had retreated to their original base in spinning, but still producing their own brand cloth, dyed and finished, through the co-ordination of the activities of a large number of family enterprises. Also, see Zeitlin and Totterdill[1989, p.161], which introduces as below the same type of observation in British clothing industry as Dore[1983]'s in Nishiwaki. "The British clothing industry's commitment to mass production and price competition ...left it unprepared for the onset of the world recession at the

The fourth point is that production system, therefore, the division of labor, even in Kyoto sanchi is recognized by many to be not so well organized, and need public support for change.⁵⁵ This simple fact reveals that the present system has not been flexible enough to reorganize and restructure by itself to the ideal, even though, by maintaining the high degree of social division of labor, it has introduced a lot of new technologies and marvelously adjusted to changing environment.

The last point to be noted is that firms in this sector are all small, but what has happened in this industry seems not so different from the three preceding cases with large firms. Thus, the amount and importance of "transaction costs" seems not to depend on the size of the firms.⁵⁶

[G] A Case from Wool Textile Industry: The Case of Men's Suits

As the last of case studies, we will see in this section the case of production and distribution of men's suits made of wool.⁵⁷ Readers should note as background informations: (1) Japanese have special preference to wool products. (2) Most of men's suits are made of wool, and the biggest market for wool textile is men's suits. More than 10 million sets of men's suits are produced and sold in Japan every year.⁵⁸ (3) Most of firms for textile production and related works gather and form one large specialized area, "Sanchi," in the northern part of Aichi Prefecture, "Bisyu," at the center of which is the city of Ichinomiya. (4) The demands for men's suits is highly differentiated and its delivery requires quite a long lead time, therefore, it is risky business to supply men's suits.⁵⁹

end of the 1970s..... The result has been a rapid decline in employment from 320,000 in 1974 to194,000 in 1984, with closures concentrated among large and medium-sized firms."

⁵⁵One example of such policies is MITI's (Ministry of International Trade and Industry) policy emphasizing the creation of "Linkage Production Unit," which appears to be affected by the trendy network arguments. For the policy of MITI, for example, see Nakamura[1993].

⁵⁶Therefore, if "[t]ransaction costs for large Japanese firms may well be lower than elsewhere," those for small Japanese firms may also be lower.

⁵⁷For the details of this industry, see Miwa[1993b].

⁵⁸For example, in US and UK only 38% and 56% respectively of men's suits consumed is made of wool, in contrast to 79% of Japan in 1988. (Data from Wool Facts(IWS).)

⁵⁹For example, trade negotiations between textile producers and buyers (typically, in Japan, apparel makers) for the spring-summer season in 1994 were carried out in April of 1993 on a sample basis. Retailers order for

Most firms in this sanchi are small, each firm specializing in one specific work stage, and form a well organized production system with wide spread social division of labor. This area has a historical background of cotton textile production, but it was only around the turn of the century that firms in this area began wool textile production, rather a short history when compared with silk dyeing mentioned in the previous section. Therefore, the present production system should be regarded rather as a result of rational and free choices of firms than a product of long history or a result of choices strongly constrained by it.

In the textile production stage, there are two groups of relatively large firms. One is in the finishing stage, and one of the firms, Tsuyakin, has especially large size. This remarkable size is understood to be because of economies of scale, and products of most of weavers are finished by them as piecework. The other group of large firms are vertically integrated textile makers, such as Miyuki, Daido and Chodai. They have own weaving capacity which are not located exactly in sanchi area but in its neighborhood, and at the same time each of them forms tight interfirm relations with independent weavers most of which solely depend on pieceworks of a textile firm. A manager of a textile firm argues that their interfirm relations are quite similar to "production teams" in the synthetic fiber textile industry, and textile firms provide wide range of technical assistance to weavers in the team.⁶⁰

The first point to be noted is that the relative share of vertically integrated firms has been quite stable, although there has been big changes of character of demands for their products, especially explosion and decline of demands for standardized products by mass-production technology and shifts of demands to the differentiated products of high quality.

The second point is that, although, because of the shifts of demand characters and the change of technological environment, leaderships within

products for the same season are in September and October, therefore, for their production of sample garments, textile has to be supplied to apparel makers in June and July. In order to show sample textiles in April, weavers have to gather information and decide their plans in the end of 1992 or at the beginning of 1993, 15 months before the market for the products will finally open.

⁶⁰Therefore, this case can be understood as the mixture of the preceding two cases, that is, newly created production teams in the synthetic fiber textile industry and historically inherited social division of labor in the silk dyeing industry. There is a basic difference, however, because in the synthetic fiber industry case teams are organized by fiber manufacturers which have not weaving capacity, and in wool textile industry case textile firms buy woosted yarn from outside. Additional difference is vertically intagrated wool textile firms hold their own dyeing and finishing capacity, however, only one of them is large enough to reach the minimum optimal scale of finishing works.

production-distribution channels for wool products have shifted from weavers and wholesalers in sanchi to apparel makers⁶¹ such as Kashiyama and D'urban, the structure of division of labor in production system has not changed greatly.

The third point is about the division of risk among members within production-distribution. Let me take an example of large department store channel which has been at the center of the traditional type of men's suits distribution. Trades between department stores and apparel makers are materially on consignment, and the whole risk of unsold dead stock are born by apparel makers. What I should call readers' attention to is trades between apparel makers and weavers. Apparel makers purchase textiles from weavers, on condition that they will not cancel their orders made in advance and are allowed to return the products only when they are defective. When this rule is observed strictly by all, the whole of the trade risk is born by apparel makers. As mentioned above, because of highly differentiated demands and long lead time, supplying men's suits is a risky business, and not all apparel makers strictly observe this rule. So much of orders are actually canceled and returned to weavers, the ratio of which differs much among weavers, and in many cases the ratio is said to go up to 30-40% of the total volume. In spite of this high ratio of canceled orders, most of trade relations between apparel makers and weavers, and the total supplying system in sanchi, are stable and long-term in character and should be understood to reflect this high ratio. The important point here is that, in such "high network density" situation, "there is more efficient information spread about what members...are doing, and ...better ability to shape that behavior" (Granovetter[1992, p.35]). All weavers know and can forecast almost perfectly the potential canceling ratio of each apparel maker, and apparel makers take this situation into consideration in trading.⁶²

The fourth point is about the revolutionary change occurred mainly in distribution stage in these ten years. There has been explosive growth of new type of retail chain stores for men's suits such as Aoyama and Aoki, which now occupy nearly 50% of the market in volume weight.⁶³ This is not the place

⁶¹For some products vertically integrated textile firms have leadership, and in other products new type of retailers have acquired leadership as will be mentioned below.

⁶²It appears to be not so easy to show that transaction costs for large Japanese apparel makers for wool men's suits "may well be lower than elsewhere" (Dore[1983, p.463]).

⁶³The rough image of their typical store is as follows. Location is on the side of main roads in the suburbs of cities. Their in-shop area is 400-500m², where displayed 1,000-1,500 sets of suits, with 5 or 6 salesmen including the shop master. The number of stores of the biggest chain, Aoyama, increased from 73 in 1986 to 362 in 1992 both at the end of March of each year. For details, see section 3 of Miwa[1993b].

to go into the details of the change, however, and I will call attention of readers to the following point. Although the change occurred mainly in the retail sector and the leading firms are retail chain stores, such revolutionary changes inevitably require fundamental changes and adjustments of manufacturing firms, and possibly wholesalers. Such changes could have happened in spite of stable and long-term relations, and, moreover, not accompanying such conspicuous confusion.⁶⁴

Part III: Long-Term Relationships with Non-Exclusiveness

[A] Introduction

Is Japanese economy different from other economies? Are Japanese firms and their interfirm relationships different from those in other economies? Are there any important peculiarities in organizations, networks, and network organizations in Japan? Will the studies of Japanese networks provide something instructive for restructuring organizations? The answers should be, of course, both yes and no.

As Harold Edmondson, a Vice President of Hewlett-Packard, writes, in commenting Dore[1992], "[w]hile the entity is important in Japan, but feeling is present in many American companies, too," and "I feel that there is a fair amount of the cooperative or Japanese approach to things in our industry."(p.26) Not a few literature emphasize the importance of the discrepancy between the actual behavior of corporate directors of American firms and the assumptions embodied in American corporation law.⁶⁵ Dore[1983, p.459] declares at the beginning of his paper that relational contracting which is predominant in Japanese business "are in fact more common in Western economies than textbooks usually recognize."⁶⁶ Readers who emphasize the importance of "the explicit encouragement, and actual prevalence, in the Japanese economy of ...moralized trading relationships of mutual goodwill"(Dore[1983, p.463]) should remember the following conclusion of an American lawyer. "[O]ne can conclude that (1) many business exchanges reflect a high degree of planning about the four categories -- description, contingencies, defective performances and legal sanction-- but (2) many, if not most, exchanges reflect no planning, or only a minimal amount of it, especially concerning legal sanctions and the effect of defective performances. As a result, the opportunity for good faith disputes during the life of the exchange relationship often is present."(Macaulay[1963, p.60])

⁶⁴Here again, someone may find a phenomenon which reveals the flexibility of "Japanese" system.

⁶⁵These are the points already mentioned in [C] of Part I.

⁶⁶"More like a marriage than a one-night stand as Robert Solow has said about the modern employment relation."(Dore[1983, p.464] See also Solow[1980], especially p.9.

Here I do not intend to assert that there are nothing peculiar in Japanese firms and their interfirm relationships. Each firm and each group of firms has its own peculiarities, and, therefore, can survive in the market economy. We have little to gain by asking only such questions as "is Japanese economy different from other economies," "are Japanese firms and interfirm relationships different from those in other economies."⁶⁷ Instead, we should ask "do such difference and peculiarities cause anything remarkable and important," "if yes, to what extent and how." What I intend here is only to point out one apparent and strong tendency and caution readers against falling into this trap. Given Japan's industrial success, many people are interested in what underlay this growth and how it was attained. Coupled with the traditionally dominant views of Japanese economy, symbolically phrased as "Japan Inc.," such as strong central government with effective "industrial policy", keiretsu tradings, predominance of corporate groups, and cooperative behaviors of firms,⁶⁸ there has been a strong tendency to pick up some of them and immediately assign to them the roles of the main engines of economic growth. Beginning with low level of economic development, dual economy and cheap labor, "social dumping," protectionism, and industrial policy are the list of the players in the past, and recent assignment is coming to Japanese industrial organization such as keiretsu trading, corporate groups, main-banks, and stable but flexible interfirm relationships. My caution here to readers is not to make haste in deciding the causes of Japanese economic growth and the "flexibility" of Japanese economy.⁶⁹

Until recently, the dominant view of Japanese interfirm relationships has been that they are "backward" and the fossil of the long era of feudalism and symbolize the underdevelopment of Japanese economy.⁷⁰ The situation reversed suddenly in 1980s, and people have begun to regard them as the secret of Japan's industrial success. In my view, this reversal occurred not through careful studies and with ample evidence, but with the fact of rapid growth of Japanese economy and impressive success stories of Japanese

⁶⁷The same is true, of course, to ask "are American firms different from others."

⁶⁸Probably, strongly backed up by exorticism.

⁶⁹Many writers, typically political scientists, for example, Johnson[1982, p.9] and Friedman[1988], criticize "non-miracle-occurred" school who assert that what did happen was not miraculous but a normal outgrowth of market forces, and ask, "then who has led, or what has made such a miracle" and will not accept economists' "invisible hand" view as a persuasive answer. Readers on the side of those writers are advised to make an answer to the question in 1920s of non-Americans, such as Europeans or Japanese, "who has led, or what has made such a miracle of rapid growth of the American economy since 19th century." My answer, like that of many economists, would be "invisible hand."

⁷⁰This view still prevails in distribution sector.

production system, especially of automobile industry (symbolically, Toyota Just-in-Time system with kanban.) Therefore, readers should keep in mind the possibility that the view will change drastically when they study other sectors carefully and when the speed of Japan's economic growth will slow down.

No one denies the possibility, as insisted in Granovetter[1992, p.25], of improving through well-conceived economic sociology explanations of economic actions and institutions typically offered by neoclassical economics. This view applies also to Japanese interfirm relationships. For example, because of "high network density" in sanchi, each firm takes into consideration the reactions of others who form their evaluation of reliability of trade partners in their social network and make corresponding decisions when some members behave not in the usual manner. The important point, however, is not in discussing whether this general principle is valid or not, but in studying further how and to what degree such social networks influence the economic actions and behavior of institutions. Without such further study, it has a great danger of ending researches only by "mythtifying" Japanese economy.

It is my view that most studies of Japanese interfirm relationships, especially those with the phrase "network," are too much making haste in drawing conclusions, and it seems to me that not charming results nor promising research agenda have been presented. For example, instead of discussing whether "transaction costs" for large Japanese firms are lower than elsewhere, it seems to be more fruitful to investigate how and what mechanism make them possible to lower "transaction costs," and how they differ in sectors or individual cases.

In the next section, I pick up and discuss one peculiar aspect of Japanese interfirm relationships, therefore, industrial organization, as a clue to further study.

[B] Long-Term Relationships with Non-Exclusiveness

One of the most striking and important peculiarities of Japanese industrial organization is the predominance of stable long-term interfirm relationships, the form of which is not one-to-one with exclusive character but one-to-multi or multi-to-multi with non(or not so)-exclusive character.

So much has been said about "closedness" of Japanese economy and "exclusiveness" of Japanese long-term interfirm relationships. Many people agree that Japanese market is closed in spite of its efficiency, and they argue that today it is necessary to accept some efficiency loss to survive in such "globally open economy". Therefore, I will show some information to persuade readers to stop in simply believing such currently dominant talks.

Let me begin with a tale of Toyota-suppliers relationships. Toyota has adhered to the double sourcing principle, that is, it has close relations with at least two firms, sometimes including Toyota itself, which have the ability to develop and supply some specific component. Conversely, Toyota has advised suppliers, even to firms the large portion of equity of which Toyata

holds, to do business with others, even with its rivals.⁷¹ As a result of such policy, so many members of Toyota's suppliers association(Kyoryoku-kai) belong to suppliers association of other automobile manufacturers, such as Nissan, Mazda and Mitsubishi.⁷² Thus, tight "production keiretsu" in automobile production is not so closed and exclusive as is usually understood. This is one of the reasons why Japanese automobile manufacturers could have attained economies of scale and efficiency, in spite of stable long-term relationships.

It is quite easy to find the same type of interfirm relationships in Japan. Let me take two examples in Semiconductor Manufacturing-Equipment sector. Most of the market for testers are occupied by two firms, and Fujitsu holds more than 20% of the equity of Advantest and NEC holds 50% of Ando, however, other semiconductor giants such as Hitachi, Toshiba, Mitsubishi and Matsushita do not meet any trouble because of these "exclusive" relations. The Market for lithography-equipments has been dominated by Nikon which is regarded as one of the core members of "Mitsubishi group," and there has been no trouble, either. Some markets for materials for semiconductor production, for example, silicon wafers and ceramic packages, are also occupied by a few firms, and no trouble, also.

On the contrary, it is rather difficult to find a case in automobile manufacturing and electronics sector where a manufacturer does not sell their products even when there are large outside market. For example, Matsushita, the largest consumer electronics products and robot maker in Japan, sells its component inserting machine to many rivals and contributes their high productivity. Key components for VCR and electronic oven are produced by a few firms and supplied openly, therefore, so many firms can purchase them and enter quite easily the markets as assembly makers.⁷³⁷⁴

⁷¹Toyota adopted this policy even at the beginning of its explosive growth. See Miwa[1990, p.83, fn.37] which refers to a Nihon Keizai Shimbun [Japan Economic Journal] article in 1963.

⁷²For this point, see Miwa[1990, pp.76-77, fn.32]. This is one of the reasons which make possible new firms such as Honda, Mazda and Mitsubishi to enter successfully the passenger car market around 1960.

⁷³Most of Japanese semiconductor manufacturers make computers, and for that purpose there is a huge market of semiconductors among them.

⁷⁴The same mechanism applies to photo-copier market and NC(numerical control) machines. As for the former, there are more than 10 manufacturers in Japan. See Komiyama[1993]. As for the latter, the markets for two core components, numerical controller and direct current motor, are dominated by Fanuc and any NC machine manufacturer can purchase them from it.

Such type of interfirm relationships is not limited to machinery industry. There are only a few large and powerful advertising agents in Japan, one of which is of predominant size. However, rival firms in the same industry do not find as clients any difficulty in such situation, and keep close relationships with the same advertising agent. When asked if trade secrets do not leak out to rivals, no history of such troubles is the usual answer. In the case of Shin-gosen mentioned in [E] of Part II, fiber makers has had to cooperate from the start with dyeing and finishing firms in R&D. However, there are eight fiber makers and only a few able dyeing and finishing firms. The cooperative R&D realtions can not be exclusive and actually open.

Thus, in many industrial sectors, there are stable long-term interfirm relationships, through which firms enjoy economies of scale, flexibility and efficiency.

What should be emphasized here additionally is that, in many cases, firms do not care about "spillovers" of the effects of their assistance and cooperative activities to rivals, which seems to contribute much to the efficient diffusion of technology and technical knowhow, and the improvement of product quality and economic efficiency of the industry. In many occasions, I hear the same type of answers as follows to my questions of why and whether they do not care the possibility of leakage and spillover to rivals: "We don't care about such possibility so much. We trust each other, and our partners put the top priority for our business. Moreover, rivals will do the same for us." Sociologists may argue, then, that the central questions are what this trust is and how it has emerged," however, before discussing such questions, let me summarize the preceding discussion.

As the result of the prevalence in Japan of stable long-term interfirm relationships with non-exclusive character, Japanese firms and industrial organization have the following three peculiarities.

(1) It is not so difficult to enter the market, at least in the production stage, that the number of competitors in each market is large and market competition is fierce.⁷⁵

(2) The large number of competitors and fierce competition is the result of the similar level of production technology and product quality among rival firms, which again is the result of above mentioned non-exclusive character of interfirm relationships.

(3) Through such non-exclusive relationships, economies of scale and economies of specialization both in production and R&D are realized.⁷⁶

⁷⁵Most businessmen and bureaucrats has have special preference to call such market situation as "kato kyoso [excessive competition]."

⁷⁶Probably, the next fourth should be added carefully. (4) By such non-exclusive character, firms can check and decrease the possibility of abuse of partner's monopolistic power potentially created through long-term relationships.

I have not much to say about the "trust" which underlie such interfirm relationships, and I show here only a few following comments.

What draws observers' strong attention seems to be the large size of and the components in "area of acceptance" in behavior within which only such interfirm relationships hold and a firm is willing to accept the decisions made for him by his trade partner.⁷⁷ At least, a firm in such relations trust his partner in that (1) it puts the top priority for his business, (2) it will be careful in keeping confidential his trade secrets and knowhow of top importance and never leak them to his rivals, (3) it will sell him out to his rivals by suddenly ending their relations.⁷⁸

The following two points should be noted for further research. The first point is as follows. Even if the prevalence of such interfirm relationships contribute much to improving the economic efficiency and rapid economic growth, the degree of importance of such contribution, therefore their effectiveness, to efficiency improvement differs greatly among economic sectors. As is emphasized in Komiya[1993, p.1], "[i]ndustrial fields where Japan now holds strong comparative advantage in international trade are limited to a rather narrow range of industries, which may be characterized as mass-production type machinery industries." This observation may lead us to a question of why and how such difference of effectiveness emerges, which suggests that "trust" underlying Japanese long-term interfirm relations selectively fits to machinery industries of mass-production type.

The second point is related to SMEs. Now there is a wide agreement among economists that the many small enterprises have contributed much to the Japanese economic growth, especially in machinery industries of mass-production type such as automobile, and electronics industries. What should be emphasized here is that "trust" may have played the role of "built-in-incubator" for SMEs, which have created constantly a mass of active SMEs.⁷⁹

[C] Concluding Remarks

⁷⁷See Simon[1976, pp.133-4], however, he uses this phrase in explaining the limit of authority.

⁷⁸This corresponds to the following Dore[1983, pp.463-4]'s observation. "If a finisher re-equips with a new and more efficient dyeing process which gives him a cost advantage and the opportunity of offering discounts on the going contract price, he does not immediately get all the business..... the common consequence is that the other merchant-converters go to their finishers and say: 'Look how X has got his price down. We hope you can do the same because we really would have to reconsider our position if the price difference goes on for months.'"

⁷⁹As I discussed in Miwa[1993c], government policies for small business have not contributed much to their creation.

The network concept has become fashionable and trendy, and now we witness a flood of articles and books on networks and/or organizations. This phenomenon is closely related to the following three points. (1) There is a long history, and therefore the accumulation of results, of research on organizations by sociologists and organizational analysts. (2) There is an increase and/or revival of interests among economists in economic organizations, and (new) institutional economics. (3) "[I]t is a major managerial thrust today as executives to cope with the demands of both managing complexity and increasing responsiveness across the organization,"(Rockart and Short[1991, p.193] which stimulates business practitioners' interests in organizations and networks.

This phenomenon has been amplified by industrial success of Asian economies, especially Japan, and Italy, however, we are now facing with a danger of searching for a set of anecdotes, instead of important real-world phenomenon to explain, to apply the accumulated theoretical results of research on organizations and networks.⁸⁰ In my view, Japanese firms and industrial organization, especially interfirm relationships, are exciting and charming research targets, but also quite dangerous ones, therefore, we should not make haste in drawing conclusions.

I, as an economist, agree with Simon[1991]'s following cynical and critical comments and will keep them in my mind hereafter. "A mythical visitor from Mars, not having been apprised of the centrality of markets and contracts, might find the new institutional economics rather astonishing. Suppose that it...approaches the Earth from space, equipped with a telescope that reveals social structures. The firms reveal themselves..as solid green areas with faint interior contours making out divisions and departments. Market transactions show as red lines connecting firms, forming a network in the spaces between them. Within firms (and perhaps even between them) the approaching visitor also sees pale blue lines, the lines of authority connecting bosses with various levels of workers. As our visitor looked more carefully at the scene beneath, it might see one of the green masses divide, as a firm divested itself of one of its divisions. Or it might see one green object gobble up another. At this distance, the departing golden parachutes would not be visible./.....[T]he greater part of the space below it would be within the green areas, for almost all of the inhabitants would be employees, hence inside the firm boundaries. Organizations would be the dominant feature of the landscape. A message sent back home, describing the scene, would speak of "large green areas interconnected by red lines." It would no likely speak of "a network of red lines connecting green spots."(p.27)

"In general, the new institutional economics has not drawn heavily from the empirical work in organizations and decision-making for its auxiliary assumptions....Nevertheless, it is appropriately subversive of neoclassical theory in that it suggests a whole agenda of microeconomic empirical work that must be performed to estimate the exogenous parameters and to test the theory empirically. Until that research has been carried out (and the exist-

⁸⁰See Ramseyer[1993, pp.2012-3].

ing literature on organizations and decision making taken into account), the new institutional economics and related approaches are acts of faith, or perhaps of piety." (p.27)

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