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# **The Two Upward Movements in Small and Medium Sized Firms Acting as the Driving Forces for High Economic Growth in Japan's Postwar Boom**

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## **1. Introduction:**

### **An Overview of Economic Dualism or the Dual Economy in Postwar Japan**

As is well known, economic dualism has attracted a great deal of attention both from academic circles and policy makers in postwar Japan. There is too much existing literature on the subject to review this subject thoroughly. The literature, however, is not so difficult to summarize, since most of it makes the assertion that the Japanese economy is composed of two sectors, one being a pre-capitalist sector centering around small to medium-sized enterprises (hereinafter referred to as SMEs) and the other being a modern sector composed of big companies. It further goes on to claim that the pre-capitalist sector is a backward sector, the existence of which is a feature of ten pointed out when Japan is unfavorably compared with other countries. Therefore, modernizing the pre-capitalist sector has been regarded by many people concerned, particularly government agencies, as an important national and political goal. In the 1950s and 1960s, the Japanese government regarded the duality of its economy as a drawback which imposed a heavy burden on the Japanese economy which therefore should be addressed. This view of the government was stated in the "National Income Doubling Plan" formulated by the Economic Planning Agency in 1960: "the dual structure is so deeply rooted in the economy and society of this country that it is not something that will fade away of its own accord in a rapidly expanding economy." The fact that the "National Income Doubling Plan," the most famous economic plan ever made by the Japanese government, described the situation in this way indicates that the economic dual structure was considered to be a formidable problem that economic growth would not resolve.

What was used as the index of the dual structure was basically the substantial wage

differential between the above-mentioned two sectors. As the dual structure was derived from the under-employment of the Japanese economy, it could be also assumed that the wage differential would be narrowed if the wages of SMEs rose at a higher rate than those of big companies as the result of wage competition with the modern industrial sector. The wage differential between big companies and SMEs was not something that had existed from the beginning of Japan's industrialization, but had emerged during the inter-war period and widened in the 1950s (Okada 1984). The wage differential then appeared to narrow from the 1960s to the early 1970s. Many researchers in the 1960s to the 1970s, however, regarded the substantial wage differential as something structural which would be difficult to change. This view continued to strongly influence researchers of the next generation, convincing them that the dual structure was a chronic disease of the Japanese economy or that the dual structure showed a basic flaw in the Japanese economy.

It was believed that what caused the substantial wage differential was the dual structure of the labor market. According to empirical research in the 1950s and the 1960s, there existed two broad divisions in the labor market: one was the market for big enterprises, while the other was the market for small firms. A study of the labor shift between these two markets, revealed movement from the first to the second, but no movement from the second to the first. Based on this fact, Ujihara schematized the existence of these two markets, which were different from each other and thus in a hierarchical relationship (Ujihara 1966). Ujihara described the dual structure of Japan's labor market in his thesis in 1966, earlier than Doeringer and Piore, who identified and carried out a theoretical analysis of the dual structure model of the labor market which was composed of the primary market and secondary market (Doeringer and Piore, 1971). Ujihara's work (1966), however, did not elucidate the internal mechanism of the pre-modern style labor market for SMEs, which were put in a lower rank of the hierarchical market, under the higher-ranking, modern labor market for big companies.

On the other hand, some foreign researchers like Broadbridge, who studied Japan's SMEs, pointed out that economic dualism was not a characteristic unique to the Japanese economy, but that "in its essentials, it was remarkably" similar to the Italian economy (Broadbridge 1966). According to Broadbridge, the dual structure was created, as "traditional and modern methods were mixed in new industries" (Broadbridge 1966). This statement helps to clarify the difference of the mechanism between the two labor markets, which Ujihara failed to elucidate, with the difference in production methods as a starting point. Specifically, SMEs, which were considered to make up the pre-capitalist sector, produced and supplied indigenous consumer products; and indigenous production survived in many spheres because of the ingrained nature of traditional consumption patterns (Broadbridge 1966). Broadbridge emphasized that indigenous consumer

products would not change so quickly and easily, since they had developed based on each nation's pattern of factor-endowment. It was appropriate for him to point out the importance of the traditional pattern of consumption, as is exemplified in the Japanese pattern of consumption: it has clarified by historical research that most of the clothes and food the Japanese consumed in 1955 were identical to those which the Japanese consumed one century earlier, at the end of the feudal period.

In addition, according to Broadbridge (1966), the indigenous production system employed labor-intensive methods. On the other hand, big companies adopted modern production methods. Therefore, he argued, big companies and SMEs were not in a competitive relationship, but in fact complemented each other. Broadbridge's conclusion was half correct. He was right in recognizing the importance of indigenous consumer products in that they determined the features of the production system as already stated and also correct in drawing attention to the complementarity between big companies and SMEs. If the assertion in the first half is further expanded, it can explain why machines made of metal were introduced, replacing the traditional wooden production tools, to modernize the production systems of such indigenous consumer products as Japanese rice wine and Chinese medicines, which improved working conditions and eliminated the wage gap for the young workforce after the 1960s when shortages of young workers became evident.

However, he is not correct in saying that the wage gap, which was considered to have widened in the 1950s in Japan, was based solely on the differences between traditional and modern industries. In Italy, as was clarified by A. Graziani, the large firms in the North competed in an open market, while small firms in the South produced their products mainly for the local market and were protected by the idiosyncratic tastes of the southern population. "In the North, competition brought efficiency, unionization and high wages, while in the South the lack of it generated inefficient, non-unionized firms, and wages remained low" (Rabellotti 1997). In Japan, however, although industrial districts where indigenous products were produced existed as in Italy, it was not that there was a clear-cut distinction between big and small firms in terms of regions and type of industries. Even in modern industries such as the machinery industry and synthetic fiber industry, there was a wage gap between big companies and SMEs.

In Japanese research, as will be described later, the wage gap was considered to a direct result of the subcontracting relationship between assemblers, or big companies, and parts suppliers, or SMEs, in their parts transactions. Therefore, it was this subcontracting relationship which constituted the main theme as well as the central area of research on SMEs on which these researchers' interest in Japan was focused. It is commonly accepted by researchers on SMEs that assemblers, which are big companies and parts ordering entities, have exploited their

subcontractors, SMEs and order receiving entities. In such research, though, the complementarity between big companies and SMEs was neglected. Although complementarity needs to be understood in a different way from that suggested by Broadbridge (1966), it is important to recognize this complementarity when examining the relationships between big companies and SMEs.

In Italy, after the mid-1970s, research on SMEs started to stress "a new perception of small firms as independent and efficient economic entities, actively contributing to the process of the country's industrial development" (Rabellotti 1997). Likewise, in Japan, the conclusion which was analytically reached by Asanuma (1984) drastically changed the conventional wisdom on the subcontracting system. Asanuma made a detailed analysis in his work, published in 1984, in which he stated that manufacturer-supplier relationships were economically rational relations based on relation-specific skills and featured business relationships which could quickly respond to such environmental changes as technological progress and changes in consumer behavior, and called the relationship a kind of creative adaptation. This view of the subcontracting system is now more widely accepted. In addition, Nishiguchi interpreted the manufacturer-supplier relationships as strategic industrial outsourcing and examined how that particular system developed (Nishiguchi 1994). In this way, these days, with more attention being drawn to the efficient aspects of Japan's supplier system, the importance of both the subcontracting system and the role played by SMEs in Japan's economic growth has been emphasized as a general pattern (Whittaker 1994).

As described so far, the evaluation of SMEs and the subcontracting relationship has changed drastically. What is important here is to make clear whether this change was brought about by the historical transformation of SMEs themselves, or whether it took place as a result of changes in the analytical methods employed by the researchers and shifts in the researchers' focus of interest, though the companies themselves remained unchanged. Miwa, who is well aware of this question, states clearly that he takes the latter view (Miwa 1996), though he did not make any close survey of the history of the development of SMEs. What is more, some researchers have pointed out that there has been an upward movement in Japan's SMEs.

Therefore, what I wish to investigate in this paper is the historical evolution and development of the subcontracting system, in particular that for the manufacturing industry, by focusing on the upward movement which existed both among employers and employees of SMEs. In the course of my argument, it will become clear how the growth of SMEs which were under the subcontracting system changed the relationships between SMEs and their parent companies. I will also describe the contribution made by SMEs to Japan's high economic growth. My analysis will be chiefly based on the results of a large-scale survey conducted by the Small and

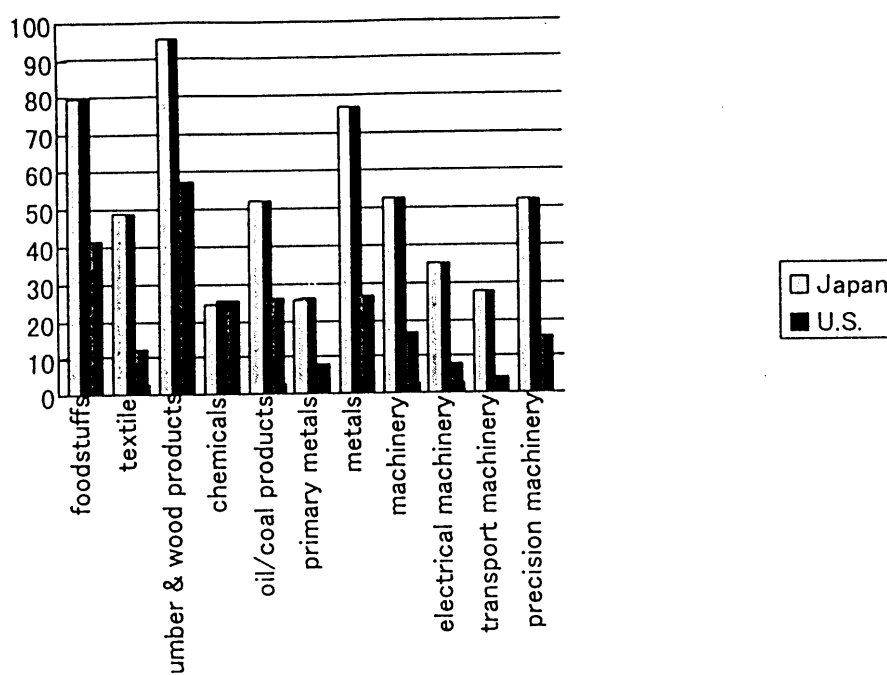
Medium-sized Enterprise Agency of the Japanese Ministry of International Trade and Industry.

This paper is composed of the following. In the second section, the high percentage of SMEs existing in Japan's postwar economy will be first reviewed. Then, the definition of a subcontractor as well as the prevalence of the subcontracting system will be discussed. In the third section, how the subcontracting system has been understood will be again examined, based on which the need for reevaluating SMEs will be pointed out from the viewpoint of their efforts to realize two upward motivational forces: one to become independent from the subcontracting relationships; and the other for employees to become self-employed or entrepreneurs in their own right. In so doing, the details of becoming an independent business owner will be discussed. In the fourth section, a survey by the Small and Medium-sized Enterprise Agency is used to examine how small and medium-sized subcontractors changed their relationships with parent companies during the high economic growth period after World War II. What has become clear is that during the 1950s to the 1970s, the percentage of SMEs placed under the subcontracting system continued to rise, in spite of the fact that their dependency on specific parent companies for their orders was declining. In other words, the tendency of SMEs to become independent from specific parent companies can be observed. In the fifth section, I will draw some conclusions.

## **2. The Wide Distribution of SMEs and the Prevalence of the Subcontracting System**

One of the features of Japan's postwar economy has been the existence of a great number of SMEs. Figure 1 compares the percentages of employees working at business establishments with fewer than 100 people according to sectors in the manufacturing industry against the total workforce between Japan and the US in the early postwar period. As can be seen, Japan's figure is larger in all sectors except the chemical sector. This means that small to medium-sized businesses accounted for a large portion of total employment. Although this data was prepared based on a survey of businesses and not companies, it can be assumed that this difference between Japan and the US may also be applied to the entire spectrum of company sizes. In other words, what should be understood here is that there was a wide range of SMEs in Japan compared to the US.

**Fig. 1 Percentage of Businesses with fewer than 100 Employees in Japan and the US**



Source: "Statistical Handbook on Small to Medium-sized Companies" (1958)  
by the Small and Medium Enterprise Agency

Note: Data on Japan was taken in 1952, while that for the US in 1947.

The percentage of small to medium-sized businesses in Japan continued to rise until the mid-1980s, both in terms of the number of employees and total value-added production. They played an important role in Japan's high economic growth. On the other hand, in the US, the proportion of small to medium-sized businesses had been decreasing in terms of both number of employees and total value-added production. This means that the paths of postwar economic growth diverged markedly between Japan and the US. In Japan, as has been already stated, SMEs occupied a high proportion of the total number of employees and total value-added production at the initial stage of postwar economic development, and SMEs further increased in importance as Japan's economic growth proceeded. This fact leads to the assumption that the course of Japan's economic development may have been different from that of the US, where big companies accounted for a larger portion of the economy.

More detailed surveys of the manufacturing industry show that the number of employees at very small businesses with nine or fewer employees increased only slightly after the 1950s, whereas there were rapid rises in the number of employees working at businesses with 30 to 99 employees and businesses with 100 to 199 employees. In other words, the number of

medium-sized businesses increased most, which may be interpreted as an upward shift in scale among small to medium-sized businesses. In addition, as it was the number of employees and not the number of business owners that increased, this can be considered not as a mere increase in the number of businesses but as a sign of the increased importance of SMEs. This upward shift in scale may be explained by two factors: existing companies grew in size as the result of corporate growth, and new entrants hired relatively large numbers of employees from the beginning of their operations (Takanashi 1963, Kiyonari 1970).

To put it another way, during the post-war economic period, Japan's economy underwent a change, namely the corporate growth of SMEs. This phenomenon was very closely related to that of employees of SMEs becoming business owners, which will be discussed in Section Three. Many of these widely-distributed SMEs were engaged in subcontracting transactions with large-sized manufacturers big wholesalers and general trading companies.

In 1959 a large-scale survey, used to investigate to what extent small to medium-sized companies were dependent on big companies, took place for the first time after the war.<sup>(1)</sup> In that survey, the respondents were asked if they had any buyers (customers) from whom they had been receiving orders continuously for one year or longer as of the end of 1957. The results of this survey are summarized in Table 1. In this survey, a company "which received orders from the same buyers for one year or longer" was defined somewhat ambiguously as a subcontractor. As is indicated in the table, export-oriented companies have a higher percentage of steady buyers than domestic demand dependent companies, which have a negative export ratio.

Therefore it is concluded that about 90% of SMEs were subcontractors. As for buyers, the ratios of wholesalers and retailers were higher than those of manufacturers. This means that both manufacturers and trading companies and wholesalers were collecting and exporting the products of SMEs.

**Table 1 Ratio of Small to Medium-sized Companies With Steady Buyers  
(as of the end of 1957)**

|               | Has steady buyers |      | No steady buyers |      | Total number of companies |
|---------------|-------------------|------|------------------|------|---------------------------|
| export ratio  |                   |      |                  |      |                           |
| less than 0%  | 223,252           | 78.0 | 63,022           | 22.0 | 286,274                   |
| 25%           | 8,166             | 93.1 | 601              | 6.9  | 8,767                     |
| 50%           | 2,789             | 89.5 | 327              | 10.5 | 3,116                     |
| 75%           | 2,664             | 87.3 | 387              | 12.7 | 3,051                     |
| more than 75% | 5,527             | 91.7 | 500              | 8.3  | 6,027                     |

Source: "Report on Comprehensive Basic Survey on Small to Medium-sized Enterprises (Summary)" by the Small and Medium-sized Enterprise Agency, MITI, published in 1959



As the definition of a subcontractor given in the survey of Table 1 is rather unclear, it is difficult to come to a definite conclusion. Yet, judging from the high percentage of companies which had "buyers from which they had continuously received orders for one year or longer," it can be assumed that almost all of the small to medium-sized manufacturers were in some way or another subcontracting transactions. Indeed, as has been pointed out, as the "sub-contracting system had been regarded as one of the prominent, distinguished characteristics of Japanese industry, but we could find out the same system in Italy and Spain" (Broadbridge 1966), the subcontracting system can not be called a feature unique to Japanese inter-company transactions. In Japan, however, it is also true that many widely-spread SMEs developed subcontracting relationships with big companies. As such, the dual structure should be redefined to describe the relationships between parent companies and their subcontractors under the subcontracting system in Japan in the 1950s and the 1960s.

A subcontracting transaction is defined as a transaction in which "a parent company directly orders products from a given company, designating specifications, quality, performance, shape and so on." In this transaction, the company which receives the orders is called a subcontractor. This transaction represents a type of order-made production system. Since the parent company designates the specifications, quality, performance, shapes, designs and other details when giving orders, it is assumed that the subcontractor is not usually allowed to sell its products directly into the market, even if the parent company refuses to accept parts and components which were produced by the subcontractor. Therefore, there are many cases in which buyers enjoy a monopoly. What is more, orders placed by a parent company are not usually based on a written contract which specifies the terms of the transactions strictly and in detail, but are based on a verbal promise in most cases or on a roughly described contract at best. If there is no document to prove the contract, a subcontractor is not able to sue its parent company for not performing the contract. Therefore, it was believed that small to medium-sized subcontractors were liable to be forced to accept unfair terms of transactions with their parent companies.

When this subcontracting system is combined with the previously mentioned dual structure, the following conclusion may be drawn: the Japanese economy combined an extremely modern element with an extremely backward element into a single structure. This feature can be found even within a single industry such as the automobile industry. T. Yamanaka (1963) insisted that "small scale enterprises in Japan were characterized by their closely interlocking relationship" with parent firms. Specifically, it was considered that the subcontracting relationship represented the dependency of "pre-modern" SMEs on orders from modern big companies, with the former becoming an object of "exploitation" of the latter. The "exploitation" meant that parent companies, or big companies, exploited their natural advantage in transactions with their subcontractors, as

has already been mentioned, and deprived small to medium-sized companies of their profits by unfairly imposing unfavorable transaction terms (e.g. forcing down prices, delayed in payments) on them so that the parent companies could secure their profits. It has been said that big companies often passed the "adverse effects" of business recessions on to their subcontractors by shifting the burden onto them. The Japanese Ministry of International Trade and Industry (MITI) repeatedly stated that it would adopt a priority policy designed to promote the modernization of SMEs, which always had to bear the "adverse effects" of business recessions (MITI 1989).

The Fair Trade Commission in 1953 defined "an unfair transaction" that violated the Anti-Monopoly Law as "a transaction taking place under extremely unfair terms for the opposite party in the light of ordinary commercial practices," also acknowledging delays in payment to be an unfair practice in subcontracting transactions. In addition, the Law on the Prevention of Delays in the Payment of Subcontracting Charges and Related Matters was enacted in 1956. This law prohibits a parent company from refusing to accept parts for reasons not attributable to fault on the side of the subcontractor, delays in payment to the subcontractor, and reducing subcontracting charges for reasons not attributable to fault on the side of the subcontractor, while obliging parent companies to record their subcontracting transactions in the form of documents issued to their subcontractors as a precondition for realizing fair transactions. What is more, the Small and Medium-sized Enterprises Basic Law established in 1963 stated "optimization of subcontracting transactions" to be one of the most important policies to be addressed. It is safe to say that these laws reflect ideas which were developed based on the same recognition of the dual economy as was shown in the National Income Doubling Plan mentioned earlier.

The number of the companies sued for violating the Law on the Prevention of Delay in the Payment of Subcontracting Charges and Related Matters and investigated by the Fair Trade Commission increased from 65 in 1956 to 666 in 1965, while the number of cases which were recognized as unfair transactions and in which violators were warned to conduct their transactions appropriately also went up, from 19 to 301, during the same period. There is a study which considered this increase in corrective measures as indicative of the widespread practice of unfair subcontracting transactions (Arita 1990). In fact, as the number of investigations by the Commission tends to go up when the economy is in recession, the increases in the number of the cases which violated the Law on the Prevention of Delay in the Payment of Subcontracting Charges and Related Matters may have been acting as an index showing deteriorating ability to pay. During business recessions, as some parent companies may fall into financial stress and be on the verge of bankruptcy<sup>(2)</sup>, such problems as deteriorating terms of payment do exist. The number of investigations, however, represents less than 1% of the total number of subcontracting

transactions. This is a very small figure indeed. There is an assertion that most of the SMEs were plagued with widely-practiced delays in payment based on the assumption that the actual number of violations was several times higher than the number of lawsuits and thus represented a calculated risk (Arita 1990). This evaluation, however, exaggerates the actual facts.

Unfortunately, there is very little detailed data on violations in the 1960s. Therefore, the data prepared by the Small and Medium-sized Enterprise Agency in the 1990s will be used as a substitute. The Agency and Fair Trade Commission conduct an investigation (investigation in writing) every year by making subcontractors and their parent companies submit documents related to business transactions to find out whether there are any cases of delays in payment. The number of cases of investigation stands at an average of 146,000 per year, covering about 40% of subcontractors in the manufacturing industry. When it is suspected that delays in payment are common or when it is found that the transaction contracts are illegal, an on-the-spot inspection is implemented. About 40,000 on-the-spot inspections have been carried out, whereas there were as many as 3,000 cases in which corrections were ordered because of delays in payment or improper contracts. The number of subcontracting relationships subject to corrective measures represents merely about 2% of the number of cases surveyed. Therefore, it is not correct to say that subcontractors are merely exploited by larger parent companies. This point will be discussed later, drawing on other evidence.

It should be noted that subcontractors, usually called SMEs, even if not, are an extremely diverse collection of companies. To give examples of both extremes, Denso Corporation, which is the world's largest electric and electronics auto parts maker, falls into the same category as a family-run plating company, since they are both subcontractors of automobile assemblers. Likewise, a business producing, wholesaling, and retailing Tofu (bean curd) and deep-fried bean curd which sells those goods in small quantities to nearby residents and supermarkets and the Tofu Division of a big dairy company supplying their products in large quantity to big supermarkets are considered as subcontractors of large-sized retailers. Therefore, even though the subcontracting system is an important factor in examining the activities of SMEs and their role in Japan's economy, it is necessary to classify SMEs first and then examine what motivates their business.

Concerning the classification of SMEs, Kiyonari (1990) divides small firms into four groups on the basis of management type: enterprise-type businesses, enterprise-type family businesses, livelihood-type family businesses and side-businesses or house-based piecework-type businesses. The ratio of these four types has changed over time. Focusing on the first two types, which are thought to have contributed to Japan's economic growth, Kiyonari estimated that the first two types accounted for fewer than a third of all small businesses in the late 1960s, but the proportion

progressively rose to over half during the following two decades (Whittaker 1997). Therefore, in the following discussion, the first two types, in particular the enterprise-type business, in other words, SMEs which employ full-time employees on permanent basis will be taken into account.

If big companies exploited SMEs or passed the "adverse effects" of business recessions on to them, there should be a difference in the profit rates according to size between SMEs and big companies: the ratio of gross profit to total assets (ROP) of big companies would be high, while that of SMEs would remain low. However, their ROPs clearly indicate that in reality there is no such difference. What is more, the appearance on the scene of an increasing number of SMEs cannot be explained if their profit rate is low (Miwa 1996). In fact, small firms opened up new businesses at a yearly rate of over ten percent in the 1950s to the 1960s, while three to five percent of all small firms either went out of business or withdrew from business during the same period. In other words, small businesses are characterized by "high start-up rates and high failure rates" (Kiyonari 1970). However, SMEs have prospered their birth rate has been more than double their death rate. This was one of the contributing factors that has made it possible for small businesses to increase their proportion of employees and GNP as was discussed previously.

Then, why was the birth rate of SMEs so high? If this is examined in terms of the profit rate by company size, the only available data is the statistics on taxation published by the Ministry of Finance. When this is analyzed, it is found that the average income of directors at SMEs was 20 to 50% higher than that of employees working at big companies, though there was a fluctuation from year to year between the 1960s and the early 1970s. In addition, the average total family income of owners of SMEs<sup>(3)</sup> was almost the same as the average of directors of big companies (Hashimoto 1991). This means that there was a chance of earning a high income by starting an SME, even though there always was a risk involved as is evident by the high death rate of small businesses. Therefore, it is difficult to claim that profits of small businesses declined or the owners of small businesses suffered from low income due to exploitation by big companies.

Then, did owners of small businesses adopt any strategies to suppress wages?

It may be already clear that this is a central point to the theory on the dual structure. Here, Table 2 shows a comparison of the average wages between big companies with 500 employees or more and SMEs with 30 to 99 employees.

**Table 2 Narrowing of the Wage Differential by Size**

(The wage index of companies with 30 to 99 employees when the average wage at companies with 500 employees or more is taken as 100)

| Month, Year  | Mean Value | Corrected Value A | Corrected Value B |
|--------------|------------|-------------------|-------------------|
| October 1948 | 69.3       | 70.9              | —                 |
| April 1954   | 63.4       | 70.7              | 73.6              |
| April 1958   | 61.2       | 73.3              | 76.4              |
| April 1961   | 70.8       | 79.3              | 82.1              |
| April 1964   | 81.4       | 88.7              | 91.1              |

Source: Akira Ono, "How wages were decided in Japan after the war," published by Toyo Keizai Shinposha

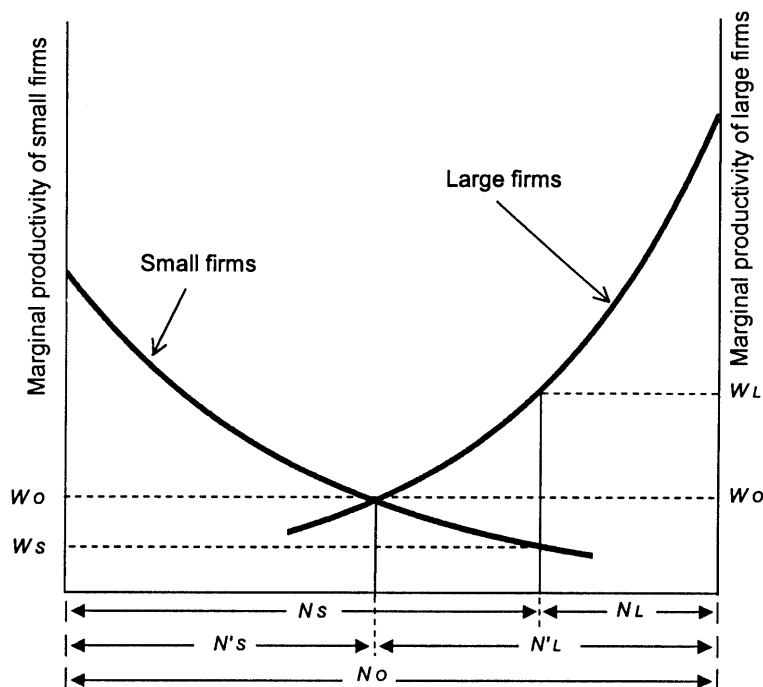
Note: The corrected data A is prepared by keeping gender, job descriptions and employees' age structure the same regardless of company size, whereas the corrected value B is made by keeping gender, job descriptions and industrial composition the same.

The mean value in Table 2 is data which is usually used to show the wage differential according to company sizes. However, this mean value neglects other factors that affect the average wage: male/female ratio, spectrum of kinds of job, and employee age profiles, which vary from one company to another depending on its size. This means that things which are thought to be attributable to the wage differential by size may be in fact dependent on other factors like difference of composition of men and women or difference of spectrum of types of jobs. Therefore, the data was adjusted to eliminate the influence of differences in terms of male and female composition, kinds of jobs, and age structure, resulting in the corrected value A, whereas the corrected value B eliminates the wage difference by industry in addition to those factors. If the corrected values represent the real wage differential by size, then what can be read from Table 2 is, first of all, that there is little difference between the real wage differential by size and the apparent differential as of 1948. In other words, it is not a misunderstanding to say that there was a big wage differential according to company sizes in 1948. Secondly, however, the increasing divergence in the 1950s, which was argued based on the dual structure theory, was a superficial phenomenon. The gap had in fact been narrowing since the 1950s and the rate of convergence accelerated between 1958 and 1964, though the gap did not narrow so much between 1948 and 1958. If the fact shown in Table 2 is added to, the gap by company size disappeared by the early 1960s in terms of starting wages of junior high and high school graduates. By the mid 1960s, due to the growing shortage of a young workforce, the trend reversed and starting wages at SMEs became higher than at big companies. "In fact, income distribution was equalized during the 1960s" (Nakamura 1981). Thirdly, even in 1964 when the gap narrowed down even when represented by the corrected values A & B, a gap of about 10 % still remained.

It would be a highly dangerous judgment and could result in misunderstanding of the facts

according to the above mentioned analysis, if it were simply believed that owners of SMEs took advantage of their positions and forced their employees to work for lower wages. How can the existence of the real wage gap by company size and its reduction be explained? When it comes to the reduction of the real wage gap by company size, the simple Nakamura model may be persuasive. Figure 2 is used to explain the Nakamura Model.

**Fig. 2 The Formation of a Wage Differential under Conditions of Total Employment**



Let us assume that the workforce is homogeneous and the entire workforce must be hired. If the labor market works perfectly, the wage will be determined at the level ( $W_0$ ), which is equivalent to the marginal productivity of "No" workers. However, it is assumed that the wages in large firms must actually be determined at the level " $W_1$ ," which is higher than " $W_0$ ," for institutional reasons such as the demands made by the long-term employment system, the seniority wage system based on length of service, and pressure from labour unions. Accordingly, with " $W_1$ " as the marginal productivity of labour, the number of workers hired by large firms ( $N_I$ ) must be determined at a level lower than the number hired ( $N_I'$ ) when " $W_0$ " is regarded as the marginal productivity. On the other hand, since total employment is a precondition of this calculation, the small firms must absorb all the labor ( $N_0 - N_I = N_s$ ) except for " $N_I$ " hired by the large firms. It naturally follows that " $N_s$ " will be larger than " $N_0$ " and its marginal productivity " $W_s$ " will be less than " $W_0$ ." This is how wage differentials ( $W_s/W_1$ ) arose (Nakamura 1981). This suggests that the labor market in the 1950s to 1960s was a kind of buyers' market for large firms.

Specifically, if total employment, which is not equal to full employment but means that the

entire workforce must be hired, is a given condition, SMEs can hire workers at lower wages when there is no increase in employment on the part of big companies. On the other hand, when labor shortages occur and employment by big companies increases, SMEs will find it very difficult to hire young workers unless they increase wages and pay higher starting salaries than big companies as has been already mentioned. This is a reason why the young workforce was called "golden eggs" in the mid-1960s when there was a shortage of young workers.

The Nakamura Model, however, cannot explain fully why the real wage differential by company size persists, even during labor shortages. It is because even though his model considers the institutional elements affecting big companies at the time when wages are decided, no attention is given to the institutional elements which influence SMEs when they decide their wages. If this is the case, it is necessary to examine under what working conditions and with what kind of incentives for workers at SMEs worked.

Needless to say, working conditions of SMEs were not better than those of big companies. Let me quote from the statement made by a worker for a small business. This refers to the situation around the early 1950s at an SME: "I had to come to the factory by 7:30 in the morning. Operations started at 8 o'clock. Two senior workers came and stood in front of the lathe when a siren sounded from a nearby, bigger factory as a sign to commence work. For me as an apprentice, there was work I had to complete before they started working. After oiling the machines and completing other work that needed to be done before work proper began, I started to help my seniors and worked like a madman. At five o'clock, the siren of a factory somewhere went off. But this did not mean our operations finished either. I had to keep standing for two or three hours in the factory until the soles of my feet became numb and my knees started wobbling. It was only after I finished all these chores that I was at last regarded as a fully-fledged apprentice" (Tomohiro Ozeki, 1984). At SMEs, a fully-fledged workman had to work for 11 to 12 hours, which was two to three hours longer than workers at "bigger factories," whereas apprentices had to stay and work even longer. As the average working hours at manufacturers with 30 employees or more were 9.5 hours per day in those days, their working hours were two hours longer than the average. Generally speaking, long working hours were common in Japan. In terms of average working hours, during the process of Japan's high economic growth, working hours gradually fell from 2,800 hours per year in the 1950s, to 2,500 hours in the 1960s and to 2,200 hours in the 1970s.

Something we should pay close attention to here is the great difference in length of service between workers in small businesses and workers at big companies, where workers are not dismissed in principle and a quite high percentage of them work until the mandatory retirement ages. The average length of service of workers at small businesses was only three to four years,

making the labor turnover rate extremely high. This high labor turnover, however, was not the result of dismissals. At small to medium-sized companies, there were overwhelmingly more cases of voluntary retirements than cases of dismissals. Why did they retire voluntarily? With regard to this point, the formerly quoted statement by Ozeki is worth rereading: "It was only after I finished so many chores that I was at last regarded as a fully-fledged apprentice." He tried to improve his skills voluntarily, which can be regarded as an investment in himself. Although Ozeki worked as a skilled artisan at a small business throughout his life, there have been many cases, even since the pre-war period, in which a worker in a small business became independent and started his own business as an owner of a small to medium-sized company or as an owner of a very small business which depended on the help of other family members (Ujihara & Takanashi 1965). The fact that workers at small businesses became independent and started up on their own was one of the reasons why a steady stream of SMEs were established. According to 1960s statistics, the smaller a company size was, the greater the percentage of its employees became independent (Koike 1981). On the other hand, a high average of 63 percent of people opening small businesses had previous experience of working as employees of small firms (Kiyonari 1970). This fact was observed not only in the 1960s but also in later years. According to a survey conducted by the Tokyo Metropolitan Government on SMEs which started their operations between 1987 and 1993, it was found that when they were classified according to their previous work experience, 70.4% of owners of SMEs had in the past been either directors or employees of other SMEs. In particular, 47.2%, almost half of the respondents, answered that they had experience of working as employees at other SMEs (Tokyo Metropolitan Labour Bureau, 1994). This kind of survey on owners of SMEs shows that it was people with 11 years or longer of working experience at SMEs who decided to become independent as business owners.

As is well known, when the comparison is made among male factory workers in the manufacturing industry in terms of size of the company and age of workers, it was found that the higher their ages became, the wider the wage gap by company size became. This fact has made it possible to assume that there must be "difference in work quality" which cannot be ignored as a factor that affects wages, besides such characteristics of workers as gender, age, academic background and kind of job which are controllable statistically and quantitatively (Okada 1984). This "difference of work quality" seems to be the factor that determines the real wage gap among different sizes of companies.

Incidentally, the fact that workers at SMEs with 11 years or longer working experience became independent indicates that it was at the time when this gap started to widen that those workers left employment and started up on their own. This indicates that a different type of labour management is carried out between big companies and SMEs. Although SMEs develop workers'



skills by job rotation, the kinds of jobs covered are narrower and the workers targeted are proportionally fewer than in big companies (Koike, 1981). Therefore, from the viewpoint of workers, the chances of developing themselves as skilled laborers doing knowledge-based work in wide areas are poorer at SMEs. In other words, an SME is a company that offers a narrow range of jobs. The chances of developing various skills are somewhat limited at SMEs. Therefore, when workers at SMEs reach the age of 40 to 50, they cannot expect to further develop their skills through multi-skill development programs, and thus their wages level off, resulting in the clear development of a wage differential by company size. If workers in their 40s to 50s were employed by SMEs, it would on the one hand definitely cause a size based wage gap. On the other hand, workers who cannot expect their wages to increase any more will aim at becoming independent SME owners. To put it another way, the early leveling off of wages at SMEs motivates workers to start their own businesses.

The question here, however, is why workers at SMEs become or can become independent after their mid-30s. According to various surveys concerning the opening of businesses as previously described, one advantage of workers at SMEs is that they are able to accumulate techniques and know-how while working, both for their own job and related jobs, which are necessary for starting up on their own, since jobs at SMEs are not so specialized. In other words, working at an SME itself serves as OJT (On the Job Training) for becoming independent as a business owner. Needless to say, however, whether a worker decides to start up a business depends on his motivation to become independent. People employed by SMEs have the alternative of starting their own businesses to working at the same SMEs for a long period of time. Therefore, unlike big companies, investment in training and education of employees with more than a certain number of years of service is unrecoverable, and what is more, wages of employees with over 20 years of service are not expected to rise so sharply, since their skills do not improve by much, as has been mentioned earlier. Thus, in the SME wage scheme, the wages of workers in their 40s stop rising and remain flat. Therefore, if workers fail to accumulate the know-how necessary for independence, as an example of a medium-sized company located in Omori district of Tokyo in 1960 shows, another form of retirement also took place: "much of the work involved repetitive, semi-skilled operations, and the operatives were the type who would constantly be on the lookout for such jobs as lorry- or taxi- driving" (Broadbridge 1966).

Even if workers at SMEs successfully accumulate the necessary know-how to enable independence, whether they can make use of it and start their own business depends on such external factors as the market environment and other factors including their ability to raise funds. It is generally believed that the market environment was favorable and business opportunities abounded during the high economic growth period. However, restrictions on fund-raising were

strict due to intensive competition, as can be seen from the fact that excessive competition was frequently identified as a problem to be resolved. Therefore, the external environment, which is a demand-side condition, is not necessarily a decisive factor. What is more important is the high percentage of young workers at an existing SME, which is a supply-side condition.

This is because the success of a small business depends not only on business opportunities but also on the owner's ability as manager. Therefore, becoming independent is a choice which carries a high risk of failure. As mentioned earlier, SMEs are often characterized by high birth rate and death rate, with the high death rate proof of the risks involved. Even if a given company fails, if its workers have a better possibility of starting over, such as starting their own business or finding a way to be employed by another company, another SME is likely to be born adding to the high birth rate. Needless to say, it is young workers who have a better chance of starting over. It is the percentage of such kinds of workers at SMEs that determine the proportion of workers becoming independent and the wage gap by company size.

This interpretation does not contradict what has happened to SMEs since the 1970s : along with the aging of the working population, the rate of formation of new SMEs has declined, the average service period of workers of small businesses has become longer and the wage gap by company size has widened. Namely, the wage gap among different sizes of companies does occur as an economically rational result even when SMEs are not exploited by big companies. As a result, people employed by SMEs have to decide in their 30s or early 40s whether they will take the high risk path of becoming independent or continue to work at the same place and accept low wages. During the high economic growth period, workers in small businesses were full of energy and with driven by ambition to start up on their own.

### **3. Diversification of Subcontractors' Order Sources**

Next, let us move on to examine the behavior of subcontractors. In the second and following surveys on subcontractors, subcontractors' dependency on their largest customers (the parent company) for sales was examined, as is shown in Table 3. According to these surveys, dependency on the subcontracting system is high among SMEs in textile and machinery industries.

In the machinery industry, manufacturing companies themselves place orders. In other words, a typical parent and subcontractor relationship developed in such machinery industries as electrical machinery and transport machinery where subcontractors' dependency on their largest customers was increasing in the 1960s (1962 to 1971).

**Table 3 Subcontractors' Dependency on their Largest Customers for Sales** unit: %

|                      | No. of Companies | less than 20% | 20-40% | 40-60% | 60-80% | 80-100% |
|----------------------|------------------|---------------|--------|--------|--------|---------|
| 1962                 | 476,058          | 16.2          | 17.8   | 13.8   | 13.2   | 39.1    |
| Textile industry     | 84,571           | 5.2           | 9.3    | 9.6    | 13.2   | 62.7    |
| Electrical Machinery | 10,410           | 7.8           | 13.9   | 15.9   | 17.1   | 45.4    |
| Transport Machinery  | 10,610           | 12.5          | 16.3   | 12.0   | 14.8   | 44.4    |
| 1966                 | 562,408          | 9.1           | 13.0   | 13.4   | 11.7   | 52.8    |
| Textile industry     | 101,983          | 2.8           | 5.6    | 8.4    | 10.4   | 72.7    |
| Electrical Machinery | 14,024           | 4.9           | 10.2   | 16.9   | 17.2   | 50.9    |
| Transport Machinery  | 12,953           | 5.9           | 9.4    | 16.6   | 14.8   | 53.3    |
| 1971                 | 605,163          | 10.9          | 13.1   | 14.2   | 12.2   | 50.2    |
| Textile industry     | 108,662          | 3.9           | 5.1    | 8.1    | 9.0    | 74.3    |
| Electrical Machinery | 17,350           | 7.8           | 10.3   | 16.4   | 15.4   | 52.1    |
| Transport Machinery  | 22,317           | 7.1           | 9.3    | 16.8   | 17.0   | 51.0    |
| 1976                 | 615,220          | 9.5           | 16.6   | 18.6   | 14.6   | 40.7    |
| Textile industry     | 103,531          | 2.0           | 6.4    | 12.5   | 12.3   | 66.8    |
| Electrical Machinery | 23,718           | 3.2           | 11.2   | 18.0   | 19.6   | 48.0    |
| Transport Machinery  | 17,501           | 4.7           | 9.1    | 16.5   | 20.4   | 49.3    |
| 1981                 | 710,476          | 9.3           | 18.0   | 19.4   | 14.5   | 38.6    |
| Textile industry     | 98,474           | 2.4           | 6.7    | 13.0   | 12.5   | 65.2    |
| Electrical Machinery | 31,959           | 3.3           | 11.8   | 20.5   | 17.1   | 47.1    |
| Transport Machinery  | 21,428           | 4.2           | 11.4   | 18.4   | 19.7   | 46.0    |

Source: "Report on Comprehensive Basic Survey on Small to Medium-sized Enterprises (Summary)" (The second and the third reports) "Report on Basic Survey on Industry's Actual State (Summary)" (The fourth to the sixth) by the Small and Medium-sized Enterprise Agency, MITI

This change may be interpreted as follows. Namely, development of car and home electrical appliance industries, which introduced the mass production system, gave rise to demand for parts in large quantities. Japanese assemblers opted to outsource their parts, resulting in the stratification of small businesses into those which grew into medium-sized companies in response to the increased demand for parts from assemblers and those which remained as small or very small self-employed companies, since they were not able to adjust themselves to the changes (Takanashi 1963). It was these growing medium-sized companies which developed subcontracting relations. Their dependency became high because their equipment and technology were appropriate for specific customers which placed orders from them, whereas these conditions did not apply to other companies.

When an investment is made in equipment and technology which is only relevant to a specific company, 'the risk of being accused of exploitation' occurs, in which the parent company which places orders has stronger bargaining power and forces its subcontractors to accept unfavorable transaction terms, since the equipment and technology serve as hostages (O.

Williamson, 1985). Increased utilization of the 'risk of accusation of exploitation' is said to be consistent with the theory of dual structure. In fact, during the rapid growth phase, a sudden increase in design changes took place, while order quantities decreased during the business slowdown phase, which worked unfavorably for SMEs. Therefore, SMEs with high-grade processing and molding technologies avoided subcontracting transactions, which proved that 'the risk of being accused of exploitation' did exist (Hashimoto 1996). With regard to accusations of exploitation under the subcontracting system, Ishikawa and Yee (1996) made it clear that the wages of subcontractors were destined to remain low regardless of their size, and that the higher their dependency on the subcontracting system, the lower the wages tended to become. That is to say, as smaller companies have a higher dependency on the subcontracting system, there is a possibility that the existence of the subcontracting system was another factor that determined the real wage gap by size which continued to exist even at the time of labor shortages.

On the other hand, subcontractors started to become stratified in the 1960s. A company dealing with an assembler directly is defined as a primary subcontractor, while a company supplying parts to the primary subcontractor is called a secondary subcontractor. Likewise, a company that bears part of the processing operations of the secondary company is defined as a tertiary subcontractor, leading to the development of a multi-layered subcontracting relationship structure (Nishiguchi 1994). What is important here is that subcontractors have become multi-layered by reason of competition among themselves, while trusting relationships between buyers-assemblers and subcontractors had formed during this stage of development.<sup>(4)</sup> In this process, for example, a primary subcontractor would integrate the processing and assembly processes and become a sub-assembler. Primary subcontractors would become sub-assemblers either through the transfer of necessary processes from final assemblers or through their own technological developments designed to integrate processes, resulting in production of parts that were close to finished products and close to being sellable in the market (Takanashi 1962). It is clear in the latter case that subcontractors have a competitive advantage: strong technological development abilities. Former subcontractors were given production processes from assemblers, as they won the trust of assemblers, in which the trust was, in many cases, developed based on competitive advantages. Subcontractors with competitive advantages were able to increase the number of customers owing to their high manufacturing competence (Takanashi 1962). Therefore, it is assumed that there was competition among SMEs to win the trust of assemblers.

On the other hand, an assembler would be able to convince its subcontractors that they would in turn share the results of technological development and benefit from long term transactions with the assembler, as the assembler's corporate growth would result in increased orders and high product development capability.

Even SMEs which were equipped with their own high processing and molding technologies and who therefore avoided subcontracting entanglements started to enter into close subcontracting relationships with assemblers, as they also recognized the future potential of the assemblers' corporate growth.

Transactions based on trust may be also observed in the relations between primary subcontractors and secondary subcontractors. However, it is still commonly accepted that these relations are regarded as relationships in which "parent companies always have the power to select subcontractors, making those subcontractors subordinate to the parent companies, as their bargaining power is weak due to the competition among subcontractors, resulting in the transaction price level becoming lower than the level that would be decided competitively" (Sato 1976). Or it is believed that in this relationship, parent companies would continue to place orders from their subcontractors at low prices, preventing the subcontractors from securing even average profits on a long-term basis (Watanabe 1983). Mitsui (1983), basing the subcontracting system on the "low-wage structure" of SMEs which is reflected in the wage gap, also asserts that "the nature of the subcontracting system as an exploitation mechanism which serves as an adjusting valve remains basically unchanged." If, however, we are allowed to elaborate on what has already been discussed, SMEs when viewed in terms of capital size have realized a higher ratio of gross profit to total liabilities and net worth (ROP) than big companies since the 1960s through a high capital turnover ratio, in spite of their low value-added productivity. Therefore, what has been argued by Sato (1970), Watanabe (1983) and Mitsui (1983) does not have sufficient grounds.

Yet, the assertion stressing the subordination of the interests of subcontractors to those of parent companies has been repeated, maybe because there did exist small to medium-sized subcontractors in such easy-to-enter fields as metal processing and plating, where those subcontractors acted as tertiary subcontractors but were not able to attain any competitive advantages. It is assumed that those subcontractors, which appeared to be "subordinate," existed at the very bottom of the previously mentioned multi-layered subcontracting relationships<sup>(5)</sup>.

One more very important thing can be read from Table 3: small-to-medium sized subcontractors' dependency on their largest customers declined after the late 1970s. The percentage of customers on which the subcontractors depended for 20 to 40% of their transactions increased, whereas that of customers on which they depended 60% and more for their transactions decreased. This trend was most noticeable in the textile industry, although levels varied from one industry to another. This decline in dependency on first customers suggests that subcontractors increased the number of their customers.

Unfortunately, the change in the subcontractors' dependency rate on largest customers in

the 1980s is unknown, as the 1987 survey did not investigate this point.

Instead, their dependency rate on their first to third customers was examined. Table 4 was made after adjusting this data so as to be comparable with the 1987 survey. It is clear from this table that the percentage of subcontractors which depended for less than 60% of their transactions on the first to the third customers rose, while that of subcontractors which had 80% or more dependency on the first to the third customers declined. In other words, it can be said that the degree of dependency on the first to the third customers decreased in the 1980s as well.

**Table 4 Dependency on the First to the Third Customers for Sales**

|                      | No of Companies | less than 20% | 20-40% | 40-60% | 60-80% | 80-100% |
|----------------------|-----------------|---------------|--------|--------|--------|---------|
| 1981                 | 710,476         | 2.9           | 7.1    | 8.8    | 11.3   | 69.8    |
| Textile industry     | 98,474          | 0.4           | 1.9    | 2.7    | 5.2    | 89.6    |
| Electrical Machinery | 31,959          | 0.9           | 2.3    | 4.6    | 9.5    | 82.5    |
| Transport Machinery  | 21,428          | 0.8           | 3.2    | 3.9    | 9.2    | 82.6    |
| 1987                 | 679,662         | 3.2           | 8.0    | 10.4   | 14.0   | 64.4    |
| Textile industry     | 82,593          | 0.6           | 2.4    | 4.2    | 7.2    | 85.6    |
| Electrical Machinery | 36,096          | 1.2           | 3.2    | 5.8    | 10.4   | 79.4    |
| Transport Machinery  | 19,132          | 1.1           | 4.3    | 5.8    | 9.8    | 79.0    |

Source: "Report on Basic Survey of Industry's Status" (Nos. 6 and 7)  
by the Small and Medium-sized Enterprise Agency, MITI

Although not shown in the tables, when a comparison was made between the two surveys of 1981 and 1987 in terms of the number of subcontractors' customers, it was found that the number increased in three major industries in both surveys, regardless of the number of employees. What can be concluded from this is that the subcontracting relationship underwent clear changes: the subcontractors decreased their dependency on their major customers and increased the number of their customers.

These changes clearly indicate that small to medium-sized subcontractors have narrowed down their business areas and promoted specialization. By becoming more specialized, the subcontractors upgraded their specialized abilities of sub-assembly, specific processing and assembly, and supplied to a larger number of customers. It may be said that the specialization enabled subcontractors to satisfy the minimum optimum production scale in their specialized business areas and thus to achieve economies of scale, while it also promoted the benefit of division of labor. The industrial structure, which took the form of a subcontracting system composed of an assembler, primary subcontractors, secondary subcontractors and so forth, developed division of labor and made it easy for late-coming assemblers such as Mitsubishi Motors, Mazda, and Sanyo to make their entry into a given field. One of the reasons that the

number of assemblers in the automotive industry and the electrical machinery industry centering around home electric appliance manufacturers is relatively larger than their counterparts in other developed nations may be attributable to the subcontracting system, which promoted the new entry of assemblers. In addition, there was competition among the comparatively large number of assemblers in terms of parts procurement and product development, enabling subcontractors to choose their customers from a larger number of candidates.

#### **4. Concluding Remarks**

Already by around 1955, what was important in selecting subcontractors was whether they had the necessary production equipment and technology for manufacturing parts which were suitable for the parent companies. Basically, parent companies viewed subcontractors as something that was complimentary to them. By the 1960s, small to medium-sized subcontractors started to become very active in capital investment and technological development, allowing some of them to become "approved drawing makers" (Asanuma 1984), while allowing some others to start sub-assembly work (production of unit parts). This indicates that the subcontractors' level of assembly has increased, resulting, if simplified, in the reorganization of the subcontracting system into the multi-layered subcontracting relationship which is typically made up of a sub-assembler, a single parts supplier, suppliers working on a piecework basis and so forth. From the viewpoint of an assembler, the development of the multi-layered subcontracting relationship meant drastically reducing the number of subcontractors and direct transactions, and providing know-how on appropriate, quick and less expensive product development and part design to primary subcontractors which were important for business transactions. In so doing, they were able to limit their object of monitoring to primary subcontractors, reducing the costs necessary for monitoring the behavior of subcontractors. This information transmission and monitoring system functioned between primary and secondary subcontractors as well as between secondary and tertiary subcontractors. This meant the subcontracting system acted as a refined inter-company business transaction system. A car maker established a cooperation association which was mainly composed of its sub-assemblers, of which some leading ones joined several suppliers' cooperative associations. This is one of the outcomes of the previously-mentioned customer diversification.

If a relation-specific investment is made in a given transaction, "the risk of being accused of exploitation" will occur. However, if a subcontractor does not make any investment, no product development will be achieved, making it necessary for the subcontractor to have a motive and a

type of insurance for continuing the transactions. As was mentioned earlier, what served as the motive for a subcontractor was that it knew it would receive increased orders and useful technological know-how by making an investment which guaranteed continuous transactions, while the insurance was the compensating loss policy its assembler would compensate for the cost of depreciation of special-purpose equipment invested in by the subcontractor for the assembler, even if the amount of the order fell short of the original plan (Asanuma 1984).

A group of this kind of subcontractors joined their customers' (assemblers') product development from the early stage. This sort of cooperation between an assembler and subcontractors in product development has been observed in Japan's assembly and processing industry, a typical example of which is the automobile industry. This product development method contributed to shortened lead times for product development and to increasing labor productivity per individual product development project (Kim and Fujimoto 1991). The extensive development of these parts' makers made it possible for newcomers to procure from outside top-quality parts production technology concerning metal processing and so on, enabling easy entry into the automobile industry. Namely, the subcontracting system incorporates a mechanism for facilitating competition not only among subcontractors but also among finished product manufacturers (assemblers).

In addition, the existence of a large number of parts suppliers equipped with a range of sophisticated metal processing and sub-assembly technologies worked favorably when new products such as electronic copiers were produced domestically for the first time in Japan, since establishing a presence in these new fields was fairly easily achieved. Subcontractors made a great contribution to the success of Japanese companies in commercializing such new products as facsimiles and VCRs ahead of foreign companies from the late 1970s to the 1980s. That is to say, the vitality of SMEs which aimed at becoming independent during the high economic growth period was one of the driving forces for economic growth. From the late 1980s to the 1990s, however, the starting-up of new SMEs decreased, against a backdrop of increased bankruptcies and closures. What is more, with the number of bankruptcies and closures having exceeded the rate at which SMEs start up, the total number of SMEs is now declining. Under these conditions, their energy and motivation to become independent has weakened. The ROP of SMEs has decreased to such an extent as to become lower than that of big companies. SMEs are in a worse business slump than big companies. As is well-known, since the bursting of the bubble economy in the early 1990s, Japan's economy has remained in a prolonged economic recession. Although it is commonly assumed that there is some relationship between this prolonged recession and the business slump of SMEs, I would like to examine that point at another opportunity.



## Notes

(1) The Ministry of Commerce and Industry held a large scale survey on outsourcing in the whole manufacturing industry in 1934. However, since the definition of a subcontracting transaction is not clear in that survey, it is difficult to compare it with the results of postwar surveys.

(2) In the case of listed non-financial institutions between 1965 and 1993, the average probability of registering deficits in two consecutive terms was estimated to be around 0.002%. This is an estimated figure which was calculated based on the samples of Kawai, Hashimoto and Izumida (1995).

(3) As top management owns companies in the case of an incorporated SME, two to four directors of the company are family members of the top executive. The total income of an SME owner's family was calculated on the assumption that three directors belong to the same household as the owner, sharing the same family budget.

(4) When Sako analyzed in-company relationships with regard to parts transactions of Japanese companies operating in the UK (1992), she used a concept of trust which was composed of three types, because trust was already established in parts transactions in Japan. The word "trust" was first used in the paper written by Dore (1983) with the same meaning as the word used in this paper.

(5) It is difficult to confirm this point chronologically in the reference data. According to Nakamura K. (1996), who regarded the subcontracting relationship as a multi-layered production system which was composed of an assembler, primary subcontractors, secondary subcontractors and tertiary subcontractors, and positively analyzed the production system and work structure, the tertiary subcontractors retained the traditional production system into the late 1980s, in which no competitive advantages were identified.

## References

- Arita T. (1990) Sengo Nihon no Chushu Kigyō Seisaku (Japan's Post-war Policies Concerning SMEs), Nihon Hyoronsha
- Asanuma B. (1995) The Contractual practice for Parts Supply in Japanese Automotive Industry, Japanese Economic Studies, Summer 1985
- Broadbridge S. (1966) Industrial Dualism in Japan: A Problem of Economic Growth and Structural

Change, Frank Cass & Co., Ltd.

- Doeringer P.B. and Piore M.J. (1971) Internal Labour Markets and Manpower Analysis, D.C. Health and Company
- Dore R. (1983) Goodwill and Spirit of Market Capitalism, The British Journal of Sociology, Vol.34, No.4
- Hashimot J. (1991) Shohyo Nippon ni Okeru Kigyo to Sangyo Soshiki (Book Review on Firms and Industrial organization in Japan by Y. Miwa), The Journal of Economics, Department of Economics, University of Tokyo, Vol.57, No.1
- Ishikwa T. and Yee S. (1996) Seizogyo Sitaukesei no Tingin Kouka (Wage Effect of Manufacturers' Subcontractors), "Roudo Kyoukai Zasshi (The Monthly Journal of the Japan Institute of Labour)" No.430
- Kawai M. Hashimoto J., and Izumida N. (1995) Japanese Firms in Financial Distress and Main Banks: Analyses of Interest-rate Premium, Japan and the World Economy, Vol.8. No.2
- Kim B. C. and Fujimoto T. (1991) Product Development Performance, Harvard Business School Press
- Kiyonari T. (1970) Nihon Chusho Kigyou no Kozo Hendo (Structural Changes in Japan's Small Business), Shin Hyoron
- Kiyonari T (1990) Chusho Kigyo Tokuhon (Small and Medium Size Firms Reader), Toyo Keizai Shinpo Sha
- Koike K. (1981) Chusho Kigyo no Jukuren (Skilled Labor at Small and Medium Size Firms), Yuhikaku
- MITI (1989) Tsusho Sangyo Seisakushi Dai 6 Kan (History of International Trade and Industrial policy, Vol. 6)
- Mitsui I. (1983) 'Kankyo Henka' 'Gijutsu Kakushin' no Moto no Gaichu Kanri Seisaku to Shitauke Kozo, "Keizaigaku Ronshu" (Policy on Outsourcing Management and Subcontracting Structure under 'Environmental Changes' and 'Technological Innovation', "The Journal of Economics"), Komazawa University, Vol.15, No.2
- Nakamura K. (1996) Nippon no Shokuba to Seisan Shisutemu (Japan's Production System and the Organization of Work), University of Tokyo Press
- Nakamura T. (1980) The Postwar Japanese Economy : Its Development and Structure, University of Tokyo Press
- Nishiguchi T. (1994) Strategic Industrial Sourcing, Oxford University Press
- Rabellotti R. (1997) External Economies and Cooperation in Industrial Districts, St. Martin's Press
- Sako M. (1992) Price, Quality and Trust, Cambridge University Press

- Sato Y. (1976) "Kasen Taisei to Chushu Kigyo" ("Oligopolistic System and Small to Medium-sized Enterprises"), Yuhikaku
- Takanashi A. (1962) Chusho Kigyo no 'Gijutsu Kakushin' "Chosa Geppo", Kokumin Kinyu Koko ('Technological Innovation' of Small to Medium-sized Enterprises, "Monthly Survey Report", The People's Finance Corporation) No.18
- Takanashi A. (1963) Gendai Nippon no Chusho Kigyo mondai (Present Problems Related to SMES in Japan), Shakaigaku Kenkyu, Vol.14 No.6
- Ujihara S. (1966) "Nihon Rodo Mondai Kenkyu" Tokyo Daigaku Shuppankai ("Research on Labour Problems in Japan", University of Tokyo Press)
- Ujihra S. and Takanashi A. (1965) Reissai Kigyo no Sonritsu Joken "Chosa Geppo" (Conditions for Survival for Very Small Enterprises "Monthly Survey Report"), The People's Finance Corporation, No.57
- Watanabe Y. (1983) 'Shitauke Kigyo no Kyoso to Sonritsu Keitai (Jo) (Chu)', "Mita Gakkai Zasshi", ('Competition and Form of Existence of Small to Medium-sized Enterprises <Vol.1>, <Vol.2>', "The Journal of the Mita Academic Society" ) Vol. 76, No. 2-3
- Whittaker D. H. (1994) SMEs, Entry Barriers, and 'Strategic Alliances', in The Japanese Firm: Sources of Competitive Strength, edited by M. Aoki and R. Dore, Clarendon Press Oxford
- Whittaker D. H. (1997) Small Firms in the Japanese Economy, Cambridge University Press
- Yamanaka T. (1963) Keizai Seicho to Chusho Kigyo (Economic Growth and Small to Medium Enterprises), Yuhikaku