No 2/2006

Japan – what can we learn?

CLR News

NOTE FROM THE EDITOR

At the beginning of 1992 the European Commission ordered a British consultant, W.S. Atkins, to study the competitiveness of the European building industry. The result of the study has been criticised in two early issues of CLR-News (0/1993 and 2/1994). Part of this strategic study on the building industry (later on named the SECTEUR-study) was dedicated to the construction sector in Japan.
Last year we decided to prepare an issue of CLR-News with subject articles on the Japanese construction sector. Therefore it is of course worthwhile to go back to some of the findings and forecasts formulated in the period 1992-1993.

Before EU-enlargement the US, Japan and the European Community had a large home construction market of an almost similar size (with output figures ranging in 1992 from 510 to 550 billion €). However, the total population being served with that output was remarkably different, with 124 million people in Japan, 249 million in the US, and 347 million in the European Community at that time.

15 years later the shift in these figures can be called substantial. The EU population has grown after enlargement to 457 million people, the US to 292 million and Japan to 127 million people in 2004. Output figures in Europe almost doubled to 1.000 billion €, went up in the US to 833 billion € and in Japan to 665 billion €.

The comparisons in the SECTEUR-study deal with the main differences between the three markets:

1. Basic characteristics of the industry.

- The US construction market was seen as fairly homogeneous in terms of standards, procedures and methods. There was the benefit of a common language, currency and culture. Economics of scale were within reach. Nevertheless an important part of the industry was locally oriented towards 51 different states, the underlying territories and/or major cities.
- The European construction market (of then 15 countries) was seen as much more heterogeneous in several important respects: with

separate nation states, local building traditions and distinct cultures, and with a dominance of small scale and fragmented practices.
- The Japanese construction market was glorified as having no internal barriers or regional differences. The strong cooperation between government and industry provided predictable demand, fair prices and created at the end a much-protected construction market, difficult to enter for foreign contractors and suppliers.

2. Strengths and weaknesses.
- US construction was seen as strong and efficient in standardised, component-based buildings. Another strength was the presence of the world's largest heavy engineering specialist contractors. Infrastructure was well designed and planned for future growth. The standardised approach resulted in dull architecture and a relatively short life cycle of construction products. Liability issues and consumer protection had a serious, conservative impact and formed a disincentive to innovation.
- The European market was praised for its world-class architecture. The division into separate national industries was seen as offering distinct strengths as well as weaknesses. Europe lacked world-beating contractors. The dominance by too many weak and very small firms kept the quality level low.
- Japan was said to have a high consistent quality with exceptional concern for time performance. It had some of the world's largest contractors with excellent research and training facilities. The manufactured housing industry was seen as highly industrialised. On the other hand architecture was dull, with as a result unattractive cities, poor quality of urban life and inadequate housing by western standards.

The assessment of the situation in the Japanese construction sector could have been more critical and tended to ignore its negative aspects. The dominant presence of the government made the Japanese industry sensitive to bribery and corruption. Financing was not a problem because of the aggressive strategy of Japanese banks. Competitiveness was highly dependent on long working hours with questionable working conditions and extraordinary commitment.
Next to the (cartel of the) big five on the market with high quality and R&D, local level construction techniques could be labelled as very

traditional. The Japanese construction industry at the beginning of the nineties of the last century could be characterised on the one hand as a sector dominated by a handful of key contractors, at the top of a triangle of subcontractors, specialised contractors and suppliers and, on the other, by a large section of many small firms using mainly traditional methods.

Other authors were much more critical and did not support the tendency to idealise the 'harmonious' Japanese system. The principal criticism amongst those pinpointed is the system of *dango*, or price ringing (Kurosaki 1994) which led to a virtual implosion of the contracting system and the fall of the Liberal government. The main reason why the system appeared to be so harmonious was that contractual relationships were collusive, and that disputes were resolved under the table rather than openly. Idealisation was even more surprising in the absence of any evidence that the Japanese industry has been more efficient, and anecdotal indications that the competitive advantage of Japanese contractors internationally derived mainly from access to relatively cheap capital rather than greater effectiveness in construction. A study of a Tokyo social housing project (Reeves 1995) did not confirm the supposed superiority.

The major influence of Japanese construction on the European market was expected in the imports of highly advanced construction equipment, components and IT systems. These expectations were based on the existence of powerful research institutes. The general feeling was furthermore that the innovative approach trickling down from the top, combined with a very active role of government in planning and coordinating research programs, would bring the whole of Japanese industry forward.

Our German colleague Stefan Hochstadt made several study trips to Japan. In this issue of CLR-News he reports about his experiences. The contributions from Stefan and other authors will provide the reader with new findings. It gives us the opportunity to assess from a historical perspective the projections formulated 15 years ago.

Jan Cremers, 2006-07-11

An assessment of the Japanese construction industry

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The Japanese construction industry is said to be a high-tech industry. Therefore, it is used to show how the European construction industry could try to develop to overcome obvious problems (lack of productivity, competitiveness, employment). Apart from this mere conjecture, the Japanese construction industry is widely unknown in Europe. I intended, thus, to have a deeper look at building reality in Japan. In October 2004 I went to Japan to start a scholarship at Hitotsubashi University in Kunitachi in the West of Tokyo. Granted by the Japanese Society for the Promotion of Science (JSPS), I had the exceptional chance to do research work within an international framework.

The construction / building industry in Europe is changing its structure in terms of skills required, the organization of work (long-term vs. short-term contracts, hierarchy of work chains, crew of workers), company size and fields of activity, structure of the whole sector (general contractors, supply chains, from carrying out to "total facility management" and service), and the structure of employees (skills, age, ethnics, status [migrant or resident], use of machines). Even the line between planning and building, between use and maintenance, does not work in the way it used to do for the last decades anymore.

The consequences for the workforce especially cannot be underestimated. Already for some ten years now the number of employees has been decreasing in Germany and in Europe, whilst the sector's share of the GDP is growing smaller, too. As a result, it can be said that the sector's economic (and social) position is falling off rapidly and heavily. In the German (and European) debate (including my own work) some keywords are used to highlight the sector's characteristics, actual problems and dynamics: "skills trap", "skills pyramid", "anticipating qualifying", "hierarchy trap", "reversed factor of mobility", "dilemma of the view narrowed to business administration", "new rationalism: atomising or co-operation",

"shortening of exploitation's horizons", "reductive spiral", "double change of structure", "stigmatising of the construction sector".

Additionally, on the one hand, the influence of sector agreements is decreasing and, on the other, the agreements tend towards plant level. This has a big impact on the position of both sector trade unions and employer's federations. This must not be seen as a phenomenon existing only in the building sector, but here it is of greater importance due to the specific character of the sector that is deeply dependent both on the general economic situation and development and on a common form of organisation.

Japan is a symbol of a high-technique building and construction sector. Japanese firms in this sector have been the biggest in the world (until the end of the "bubble economy"); only some French companies could compete in terms of size. But obviously this is only a small part of Japanese building reality, which is very much a traditional sector dominated by small firms just like the European building sector. But, while small firms in the European construction sector do not suffer from a significant lack of productivity, the small Japanese firms seem to do so. Therefore the dominance of this type of company might create a sector that is very much different to that in Europe (no wonder, that the Japanese construction sector is said to be the national unemployment insurance!). Additionally both the few global players and the many very small companies cause major problems for the Japanese trade unions which are hardly known in the international organisations (such as the International Federation of Building and Woodworkers; IFBWW) and which are very much company-related.

Thus we are confronted with a double-faced problem: First there is much indication that the Japanese building and construction sector is not constructed in the way it was claimed to be in the European debate only few years ago. Secondly industrial relations in Japan are still widely unknown outside of Japan. Both cause a major lack of scientific and political knowledge.

The expected outcome of the proposed research focuses on two different fields. First I hope to restart an exciting debate. In the 1980s (and the first half of the 1990s) Japan in general, Japanese production

systems and construction in particular were heavily discussed in Germany and Europe; in sociology especially the *Japanese way* (i.e. lean production, *kaizen*) was near to a new paradigm. But of course this discussion was dominated by the "modern" industries, only very rarely was a deeper look taken into the construction industry. Therefore it is no surprise, that the view of this sector was reduced to the very few MITI supported high-tech building sites; the complexity of Japanese building reality was not recorded – not to mention reflected. I think therefore it is worth having a second look to Japan and in particular at productivity, machinery and skills in the construction industry (this necessity is underpinned by structural changes due to the deep economic crisis in the second half of the 1990s). This debate should be established both in a scientific and in a political manner.

Secondly I hope very much that we can learn from each other in relation to a particular social field. I assume that industrial relations in Japan are different from what we know from Germany (and wider parts of Europe). The gap between big and small firms in terms of codetermination, commitment and communication is far bigger than in Germany (and to a certain extent in Europe). The trade unions mostly exist only at firm level; they are rarely found in small firms and have only weak headquarters at sector level. Employers' confederations are hardly to be found at all. Now this seems to go together with certain conditions of working: these are good where trade unions and employers' confederations exist; they are poor where they do not exist.

In the following remarks I will try to give an impression of the situation / the characteristics of the Japanese construction industry as it seems to me. All I know / assume I have learnt by firstly watching building sites and workers and secondly interviewing experts within several institutions; e.g. trade unions, research institutions. Apart from the likely possibility that I did not always get things right, the outcomes of the interviews should describe reality correctly because all the interviews were made with 3 to 5 interviewees who first discussed the questions and possible answers in Japanese before giving me an “official” consensual answer in English.

The interviews I made were based on a questionnaire, which was intended to be used as a guideline rather than as a strict list of questions to be answered. But mostly the interview partners did not want to stick at all to the questionnaire. They preferred to run a dynamic and open discussion using technical equipment such as white and black board, figures, and official data. Therefore, the interviews were very lively and not standardised at all. Although it was difficult to learn the "objective status" of the sector, it was really fruitful, because I learned things I was not able to ask before and which, consequently, did not appear on my questionnaire. In the end most of the results are of a qualitative rather than quantitative nature.

A few words only on the quantitative dimension of the Japanese construction industry: In 2003 the sector's turnover was approximately 80 trillion Yen; the sector's investment in the same year was at 56 trillion Yen and, therefore, 2/3 of the turnover figure. GDP was at about 500 trillion Yen, so that the construction sector accounts for more than 11% of GDP.

From 1980 on there were remarkable changes regarding the level of investment. From almost 60 trillion Yen in 1980 this dropped by more than 4.5% to 57 trillion Yen in 1984. Then a recovery took place, which lasted until 1990, when the investment grew enormously - by 50% - to more than 85 trillion Yen. A period of instability followed until 1996, when investment was at almost 83 trillion Yen. But from 1996 to the most recent data in 2003 a constant fall in investment took place. In this period, investment dropped by a third to only 56 trillion Yen, which is the lowest level of investment in the whole documented period (1980-2003).

In these 24 years the respective shares of public building, private housing, and private non-housing have changed remarkably following the Japanese government's Keynesian policy, resulting in an increasing share of public construction when the crisis began at the beginning of the nineties. Recently a shift in government policy can be observed, as Keynesian policy seemed to come to an end in 1998. Although the crisis is still ongoing, as expressed in decreasing investments, public expenditure has now been cut back sharply for

five years already (in total by a third), but nevertheless the share of public construction is still higher than throughout the eighties.

In the interviews it was said, that 3,000,000 people actually work on sites and another 1,450,000 in the administration of building companies. Compared to a total workforce of 53 million in Japan, this means a share of almost 9.5%. Other sources indicate that the number of workers in the construction sector is even bigger. In the interviews it was said that the number only a few years ago was smaller, but it is government policy to promote public engagement in order to keep unemployment low. This is the reason why in Japan the construction sector is called 'the labour office'. Other sources, again, state that the number of workers in the sector has decreased recently due to certain complaints by the Japanese people against government efforts; they no longer supported large building sites constructed on the public behalf.

Yet other sources refer to some 6.5 million working in the construction sector, which would mean a share of more than 12%, which is extraordinarily high, even if the obvious level activity, which is indeed amazing, is taken into account.
Official data show that almost 6.1 million people worked in the construction sector in 2002, which is more than 11% less than five years earlier when the sector employed almost 6.9 million people, and still almost 2.5% less than in 1992, when more than 6.2 million people worked on site. In 1987, in contrast, the number of workers was smaller than in 2002, only a little more than 5.6 million people worked on sites, indicating an increase in employed persons over this long run of more than 8%. In total the construction industry employs one in nine workers (compared to one in 20 to 30 in Europe).

Other figures from the same source come up with different data. These show that the total workforce was some 5.5 million in 1980, but only 5.3 million in 1984. From this year on until 1997 the number of persons employed increased constantly to 6.85 million. The year 1997 was the end of a expansion period, as the number of people working in the sector decreased to only a little more than 6 million in 2003.
Less than 1% of the total workforce on sites are women. The reason for that – according to trade union officers, all male – is the hard work on sites, which demands physical power.

The Japanese construction industry suffers from an increasing age of the total workforce. From 1990 to 2003, the share of workers younger than 25 decreased by 20%, whilst the share of workers of aged 50 or older increased by 25%. One in two workers is at least 45 years old.

Age	1990	1997	2000	2003
15-19	2.2	2.0	1.4	1.2
20-24	6.8	9.2	7.5	6.0
25-29	7.8	10.8	11.6	10.6
30-34	9.2	8.2	9.8	12.1
35-39	12.9	8.6	8.6	9.4
40-44	15.6	10.5	9.3	9.1
45-49	12.9	15.2	12.6	11.1
50-54	11.6	11.4	14.5	14.6
55-64	17.5	18.1	18.5	19.9
65 +	3.4	6.0	6.3	6.1
Total	100	100	100	100

Though this was not answered in the interviews, I think that productivity cannot be very high. There are lots of workers on site not working in production itself but, for instance, organising transport circulation. And I have often seen workers staying around doing nothing, while a small number of workers were digging etc. This seems to be the same either in building and construction.

Taking investment per worker as a weak indication of productivity (without asking for working time), there has been a very sharp deterioration in the last 15 years, when investment per worker dropped almost constantly every year, by a third in total from 145 million Yen in 1990, when a total investment of more than 85 trillion Yen was realised with a total workforce of 588,000, to 93 million Yen in 2003, when a lower investment of only a bit more than 56 trillion Yen was made with 604,000 workers (different data following the sources used).

In the interviews it was stated that wages do not differ very much. Neither the level of skills nor the market has a big influence. There seem to be two major reasons for different wages. First the size of the company is most important: the larger the company, the better the

wage. This is linked to the company's position in the production hierarchy and, therefore probably, to its productivity or its possibility to claim a bigger piece of the cake. The second important reason is the age of the worker and the time he has already spent in the company, which is called the 'seniority principle'. Putting the wage of a young worker as 100, the wage of the same worker will have risen to 170 after 30 years due to the time spent in the company.

On average the wage is between 16,000 and 18,000 Yen per working day, which would amount to between 350,000 and 430,000 Yen per month, on the basis of 22-24 working days per month, and per year to between 4,200,000 and 5,200,000 Yen. To this latter a yearly bonus of one to two monthly incomes would have to be added, so that finally the yearly income of a full time worker would be between 4,600,000 and 6,050,000 Yen, including bonuses and housing support. (In comparison, our secretary at university has a yearly net income of approximately 5,500,000 Yen and, if you take average taxes and social costs at 35-45%, she earns about 9,000,000 Yen gross per year; she is a well-qualified secretary, but to me it seems a bit unbelievable that she earns 1.5 times more than a well paid construction worker!)

But this estimated monthly income of a construction worker seems to be too high, because the average working days of a construction worker are clearly not that many. Union members in the construction sector in Tokyo (city and vicinities, in total 13,814) did work on average 20.5 days in June 2002 but 18% did not work more than 15 days, 28.5% worked between 16 and 20 days, and 22.4% between 21 and 24 days. 22.5% did work 25 days and another 8.5% worked between 26 and 30 days, but not everybody on a building site works the whole day. The differences between the different parts of the construction sector are not significant.

Working time does not differ according to company size and location but very much according to company need. I don't know how long the average working day is, but it seems to be really long, because construction sites usually keep busy until late evening / night.

The working time is about 8 hours a day, 6 days a week. But unpaid overtime appears to be absolutely normal, so that the average working

time could be up to 50 or more hours a week. It is not clear whether there are significant changes according to the season. But as temporary or casual work could be more important than officially shown, it is quite possible that workers do not work every day, but only once in a while as work is offered.

As far as I could notice, there is quite a lot of new building work, especially housing, but also renovation of public buildings, civil engineering (street works) and private non-residential building. It is apparent that the level of activity is much higher than in (Western) Europe. It also worth noting that private houses (with in most cases two stories and 80 to 120 m^2, on a ground of very often less than $100m^2$; a Tokyo Act says that the ground to build a house on must not be smaller than $50m^2$) do not seem to be built for eternity. The quality both of the construction itself and the standard of equipment is quite poor. There is almost no insulation and basic equipment such as central heating is almost unknown. Such houses are being rapidly built. First the groundwork with a concrete flooring and necessary connections (electricity, water, …) is constructed within a few days to weeks, then the building itself is erected and assembled within one to two weeks; the fixing, finishing and interior work then takes another few weeks depending on the total size of site and the number of sections (phases). The roof is normally completed after the erection of the wood frame or the wood construction. All the construction is made of wood, but the inside covering is made of gypsum; the outside covering could be made of fibrous material. This 'lack of quality' (I would call it from the German and/or the European perspective) could result from the extremely high costs of land (in and around Kokubunji, Kodaira, or Tachikawa in Tama Area as a part of the metropolitan region and some 30 to 40 km distance from downtown Tokyo, an average plot in an average neighbourhood easily doubles the costs of the house). It reduces the importance of the house itself, but also from the different cultural access (in combination with different climatic conditions). But I suspect that the most important reason for it is the lack of qualification. Market activity with regard to larger dwellings, with very often six to ten or even more stories, is also remarkably high. One can see everywhere new buildings under construction or recently finished. Here not wood, but steel and concrete is the most

usual material. The quality seems to be higher, but I am not certain about this.

Differences exist between rural and urban sites, large and small sites. Thus, there is not the one typical Japanese building site. But with regard to house building, which is very much the building of small wooden houses with two (or – rarely – three) stories, it is typical to work with machines for the groundwork, but (almost) no machines for the assembly, fixing and finishing. Here you have typically three 'professions' on site: carpenters, painters, and sheet metal workers. They are skilled workers, although there is no general system of vocational training.

The firms serving the housing market are called 'house makers'. They start their work on site with the groundwork. They offer a financing bargain to buyers, but there is almost no production chain. The 'house makers' work with their own (but little) machinery and own workers. There are not only small firms active but large ones as well.

With regard to large building sites, there is again a certain pattern to be found: All the machinery we know from 'Western' sites is used here, too, e.g. tower-cranes, mobile cranes, bulldozers … on these sites you hardly find any skilled worker; they are unskilled or semi-skilled (steeple-jacks). The Japanese interview partners called this an 'Americanised' system.

On such sites you regularly find a highly fragmented production chain with a general contractor on top, which can be the building section of one of the huge Japanese business groups (though you find these sections more as the client). This general contractor does not have its own workers on site but is only busy with management and financing. Normally the client pays a fixed amount of money and the general contractor's duty is to run the project with the money available. Thus, it employs the first level of subcontractors, which then employ the next level and so on. At the end of this commonly existing long chain, you find to a large extent those who are self-employed (officially there are half a million self-employed workers on Japanese sites).

The differences between sites in the metropolitan region and the countryside result first from the ground available and second from the size of the buildings. The first makes it more difficult to organise sites in cities. Though Japanese firms have clearly learnt to deal with this, my impression is that the result is not a particular form of organisation (at least one that is obvious to me). The second seems to disappear more and more, because both in cities and in the country side there is big housing market for smaller houses and a tendency to bigger buildings for all other needs (offices, factories …). Thus, technically speaking, the differences do not seem to be very big. Socially (i.e. skills, work organisation …) it seems to be, roughly, the same.

In the Japanese construction industry only few large companies exist. Most of the firms are very small (with less than 20 employees). There are also some labour-only contractors and self-employed working on the sites. Additionally you have about the same amount of so-called 'freelance' workers, who work probably in design, consulting, etc. According to recent research and statistics the share of the smallest companies (i.e. self-employed, freelanced) is not particularly high, but the interview partners considered that there is quite a lot of clandestine work (and probably illicit work, too) at this lower end of the production chain.

Construction companies working on the market for large buildings start their work with the design of the building, but are not involved in site operations. Those companies serving the housing market also begin with the design (but there is a small number of standardized houses [the share of standardized house seems to be big, but it varies only little], for which massive advertisement is made on TV, in [weekly] papers, and in public transport).

According to the interview partners at Kenseiken (Kensetsu Seisaku Kennkyuusyo – research institute for construction industry policies) the share of smallest companies (mostly self-employed and labour-only contractors) must not be underestimated, because it is still usual in Japan to use a system of independent gangs, created "off the cuff". The client, a general contractor or a subcontractor asks a self-employed worker to take care of a trade. To do this he collects workers on the market to meet the time-schedule. I assume, therefore,

that these workers are under-employed; otherwise it would not be possible to collect them. But this could be one of the things run by *Yakuza* (very surprisingly my interview partners did not have obvious problems to admit that *Yakuza* plays an important part in the construction industry). Additionally neither general contractors nor house makers employ their own staff. Both types of 'leading' companies concentrate themselves on the management of (and little on supervising) the construction process. But while, in the first case, it seems that the process is undertaken by a long and complex production chain from the general contractor (with a close link to the client) at the top to the smallest companies (again very often self-employed) at the bottom end. In contrast, in the housing market there is not such a long chain of production. Either (but rarely) there is direct link between the client and an independent foreman (who can be an engineer or an architect or an experienced building worker), who then directly employs all the necessary workers, all working at the same level, or house makers start the process by buying or managing the development land and building houses on it, for which they do exactly the same as the private client. Again, no production chain exists. While the first case normally only appears when clients own their land and want to build a unique house on it (which for several reasons happens only very rarely), the second case is the usual one and works like we know it from other countries. That is, a certain number of different pre-designed houses is offered by the house maker (which often directly employs architects or designers), but the client can influence the design (not the construction itself) to some extent.

Again, one major difference between general contractors and house makers is not the way they work themselves, but the materials which are used: steel and concrete with the former and wood with the latter. This goes together with the size of the projects: general contractors normally run bigger projects than house makers. But it is not necessarily the size of the project itself, but the size of the building, which is taller in the first, and smaller in the second case. But the number of buildings under construction can be quite high in housing projects as well.

Regarding vocational training there used to be the so-called *Totei*-system, which was widely used until the sixties, but which has lost

most of its importance since then. In this *Totei*-system an experienced worker, who mostly worked independently (i.e. as a self-employed) agreed to employ and to teach young workers on the job. Obviously they had to pay for the vocational training, but they got some money for good work. In a way it was a team or a gang, which offered its common power of work to a site manager or a company. But since this arrangement hardly exists anymore, the system of training has changed.

There is no general system of vocational training, but there are 202 schools (120 run by Zenkensoren, the by far biggest trade union in the construction industry, 80 by Zenkenren and organised by the employers' federation, and 2 by the big companies), where young workers can learn the basics of the trade, which is normally one of the three trades mainly used on sites. Those schools train about 20 to 30 workers, who have to attend a course once a week. All the rest is learning on the job.

According to the interview with Kenseiken, poor skills result in a high number of accidents with some seriously hurt and even dead victims. According to the colleagues at Rengo-Rials, the sector's bad performance (including low productivity) is mainly caused by this situation. There seems to be a growing will to change the system of learning-by-doing or to build up a system of vocational training to improve the economic performance of the sector. But I am not so sure about the sector's capability to meet this will.

The share of skilled workers in the total workforce (on sites and in administration) is small in the market of large buildings, bigger in the housing market. But it is difficult to talk of skilled workers, because the system in which they become skilled is totally different from most of the systems we know – a bit reminiscent of the British system.

In the interview it was more than once stated, that the system is "Americanised", which means, that there are not so many skills and not so many skilled workers on the sites. But there are skilled workers in the administration of the companies and in the supervisory and management bodies.

Other sources show that the use of machinery has been increasing for the last decade, and that standardisation has become more important. As a result the skills used have been deteriorating quantitatively and qualitatively.

There are three levels of skills: Level 1 is after 5 years experience on the job, level 2 after 7 and level 3 after 10 years on the job. To reach any level the worker has to proof his experience by passing a test, which is a practical one with little theoretical knowledge requirements. The dominating skills are carpenters, painters, sheet metal workers, steeplejacks, and plasterers.

There are 66 trade unions organising employees in the construction industry. In total their membership is less than 1 million, of whom 700,000 are members of Zenkensoren. Only one construction trade union is a member of RENGO (the Japanese TUC). Zenkensoren does not belong to a national umbrella organization but to an international one (which is not the IFBWW – BWI respectively). I had the impression, that there is not too much inter-union contact. But there is hardly any relationship between trade unions (namely Zenkensoren) and employers neither. The decision-making bodies of Zenkensoren meet regularly, but there are no regular meetings with employers or employer's organisations. It is a world apart.

The influence of the trade unions in the construction industry is quite small. Zenkensoren feels too weak to put any pressure on the employers. Thus, there is almost no action taken by the unions. But they do have an influence on the field of social and health insurance, where they manage a huge amount of money, which is distributed between members of the social insurance system. There is a sister organisation of Zenkensoren, owned 100% by Zenkensoren, which runs this social fund. Last year Zenkensoren organised the collection of more than 2 millions postcards asking the government for more money for social and health insurance, which they now indeed get.

There is almost no collective bargaining. Asked for the most important fields of action, it was said that social insurance is the core of activity, some 80%; the next is health insurance, at about 10%, and then come wages with 5%.

But asked, who decides on the wages, they answered, that it is the employer who takes that decision as well as the decision on working time. The trade union officers seemed to have difficulties in working the question out; it seemed to be quite normal to them that wages and working time are part of the employers' business. Probably this is attributable to the Japanese tradition of sharing profits and wealth more or less fairly.

The most important field of activity of Zenkensoren is the pension funds. Most of Zenkensoren's employees (the exact number was not known by the trade union officers who still attended the 5.5 hour interview – the general secretary and the chief executive officer had to leave a bit earlier – but was estimated to be some 2,000) work not as a union officer as understood in Europe but as a manager, or service-agent in Zenkensoren's sister-organisation.

Gender aspects are not discussed at all; there is no equal opportunity policy. The only reason given for this is the very low number of women working on sites.

But with regard to reports made by Rengo, this is not typical for any sector in Japan. In other sectors, the trade unions are involved in collective bargaining, so the question as to why the unions in the construction sector are so weak remains unanswered.

Structural Change of the Japanese Construction Industry under Shrinking Market

Toshikazu Nagayama[1]

1. Japan's economic policy.

Japan's economy has been on a recovery trend since 2004[2]. Although government did not declare the departure, disliking an interest-rate hike that would have had an impact on national bonds, interest-rates have actually been rising, with the rise in wholesale prices. The prices of natural resources such as oil have risen sharply. The business world recognises the government's non-admittance of the end of deflation as a convenient misconception, because a low-interest rate is a suitable condition for large companies to make profits. These businesses operate overseas with Japanese yen, purchase cheap products made in China, and then export these products to the U.S. market (dollar shift). From the beginning of modernisation, the Japanese government has set basic economic policy on: the national centralization of capital, government initiative investment in new heavy chemical industry, and subsidised privatisation of well-launched business enterprises. Along this policy, Zaibatsu (Konzern) has developed, centring on business concerns or banking institutions. Government money was concentrated in these big businesses over a century. From the end of the 20th century to the beginning of the 21st century, the amount of public financial aid for Zaibatsu-line banking establishments reached 70 trillion yen.

In the construction industry, we can also find new structural transformation in progress. I point out fundamental trends in this paper. In this respect, because the remedy bailed out big Zaibatsu institutions, it helped only large companies linked to Zaibatsu businesses in the construction industry. The precedence of Zaibatsu reflected the enactment of the Fair Trade Act after the WWII that among the advanced nations had the weakest regulatory enforcement on large companies. The construction industry centred Gene-Con (general contractors) also originated with this economic policy. In

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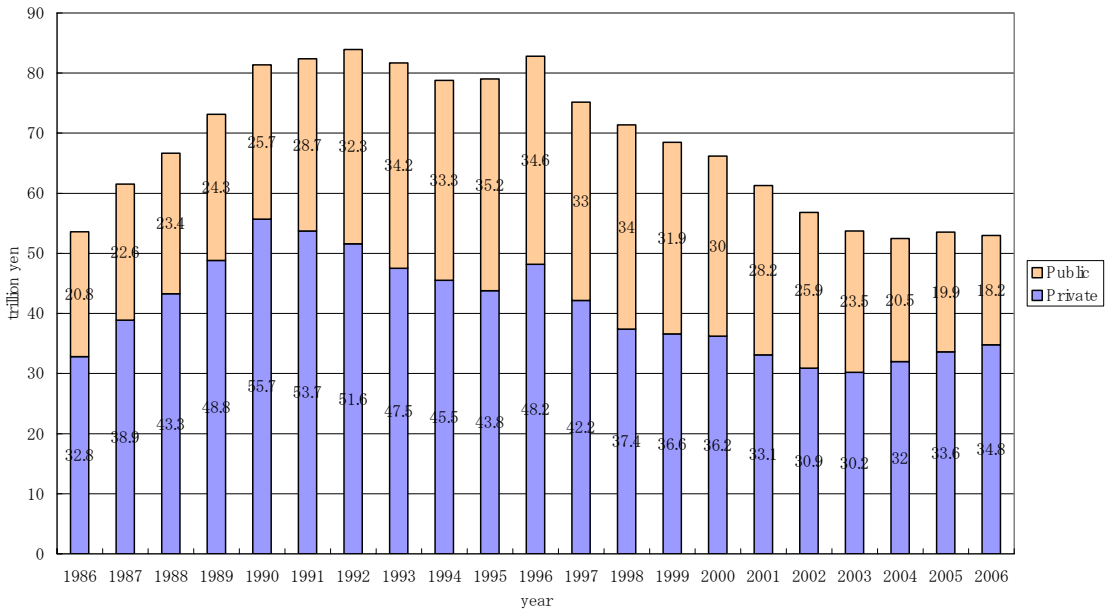
2 In 1999, Japan's economy downscaled to below 500 trillion yen (496.6 trillion yen). After a slight increase and decrease in net GDP, it showed continuous growth again after 2001. The increased rate has been minute, by 13.2 trillion for five years, by 2.6 percent, so that in the 21st century, Japan's economy has developed only 0.5 percent per year. The government has not indicated any breaking out of deflation.

2005 the revision of the Fair Trade Act at last imposed charge systems. Before that revision, bid collusion, which is an illegal price deciding agreement system, was practically allowed on the grounds of a soft landing of large construction companies facing long recession. Thanks to this system, large general contractors recovered their financial condition. However, the preserved habit of extra production and intensive competition still exist as conventional customs in the construction market. The industry still struggles to balance between competition and coexistence with medium and small size enterprises. The establishment of fair competition is just beginning. There are several changes in the spheres of national and local investment, shrinking public orders, recovery of business investment in the private sector, and expected increasing overseas investment and so on.

2. Shrinkage of the construction market in Japan

Figure1 Investment in construction



There are four stages in the transformation of the construction market (See Figure 1).

- The first stage started after the late 1980s when the Plaza Accord tolerated the high value of the yen, promoted the policy of expanding domestic demand that enlarged public and private markets, and accelerated the economic bubble. Recognising the increasing rate of the yen, the government responded to large companies' request for maintaining export competitiveness. The enterprises leading export

policy were Toyota, Nissan, Canon, Matsushita, etc. Due to the confusion of the trade cycle and structural change, the economic policy resulted in a monetary easing, massive influx of exporting expenses into the domestic market, and expansion of financial expenditure. These conditions caused the rise in land values as well as stock prices, and ended up with the economic bubble. The construction industry also enjoyed a huge amount of orders thanks to the boom in the core industries. During these five years (from1986 to 1991), construction investment increased by 53.7 percent, from 53.6 trillion to 82.4 trillion. 1992 marked the investment peak, with the beginning of the collapse of the bubble economy.

- The second stage ran from 1992 to 1998. Private investment began to decrease in 1992. It had continuously been downscaling for four years until 1995. In 1996, it showed a slight reverse, but it again turned to a decrease from 1997 to 2004. This long cutback in private investment caused the recession with a breakdown in land and stock speculation, and a banking crisis. In order to handle these problems, public investment showed the opposite trend during this period. The government poured in large amounts of financial funds, up to 35 trillion yen, as a conventional practice for any economic recovery policy. This policy was not simply meant as a measure to boost the economy. It was grounded in a treaty with the U.S., the decade-long social investment plan that amounted to 630 trillion yen. This policy formed the largest construction market in Japanese history (84 trillion yen in 1992). The economic policy of that period inherited the previous deviation to large companies. When interpreted favourably, the government was afraid of an economic crash, that if it economised in terms of construction investment, the banking institutes related to Zaibatsu would get into trouble with bad debt and uncollectible loans for construction projects. As those banking institutes also take the role of a central nervous system for large companies, government feared scale expansion as a financial remedy. The treaty with the U.S. provided the legitimate basis for enlarging investment.

- The third stage is from 1999 to 2004. From 1999 public investment finally began to decrease along with private investment. It was the beginning of full-scale reduction in the market. Compared to the peak of 84.0 trillion in 1992, investment was cut back to 53.2 trillion, and

decreased by 37.5 percent in 2004. Because the huge investment of the second stage caused the worst and unprecedented scale of government debt, government could not but recognise its defective function in economic and financial policy. Setting the recovery of national and local government functions as the emergent theme, the policy turned to financial reduction. It now began to concentrate on effective utilisation of the public works budget with various attempts such as cutting down the expenditures of each order, introducing a competitive bidding system, readjusting estimate standards, or preparing for the policy of more flexible labour market. These challenges for reducing construction investment stood at the core of the structural reform of the Koizumi administration. The expansion of the huge markets both of the U.S. (increasing consumption with residential boom) and China (expanding economy with investment boom) also supported Japan's economic recovery. There is at least the sign of a departure from Japan's habitual reliance on public projects.

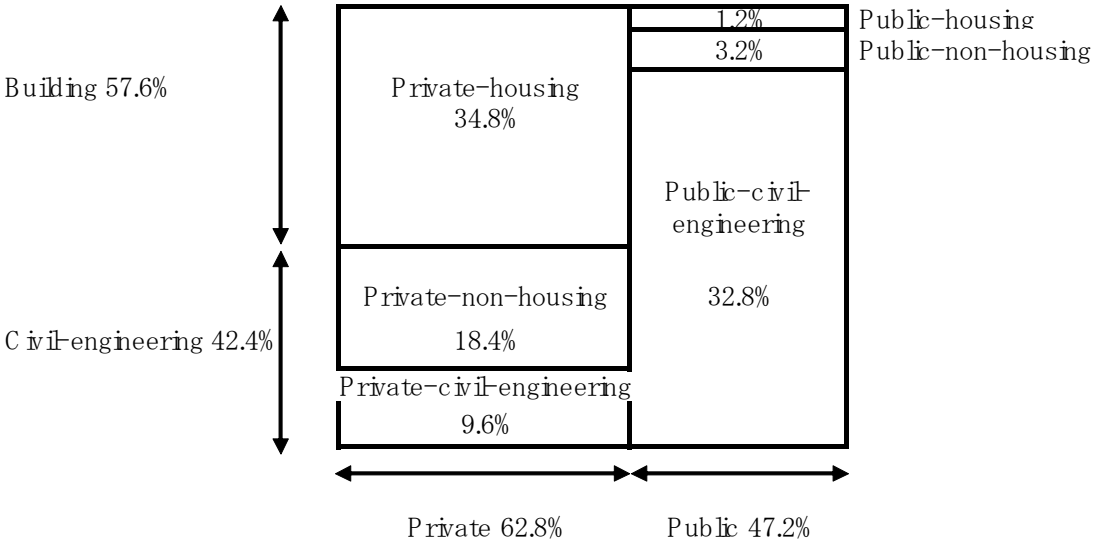
- The fourth stage is in progress. The trend seems to be expansion in the construction market by private initiative. Although the impetus is still weak, the different phases show the germs of a new order. Contrary to private investment, public investment continues to reduce. The new market is supported by private initiative construction investment markets so that policy is less visible compared to government policy. The government actually takes different measures on investment. That is, it concentrates on direct projects in the metropolis such as an international hub airport, port, highway, or railway, while promoting PFI (Project Finance initiatives) and deregulation policy for urban renewal on the other. These large projects with government measures intensify the trend of absorbing and inducing additional private funds. This is the transformation toward a software-like policy.

As seen above, Japanese construction has been in dramatic five year cycles, the first quinquennial was public-private expansion, the second public expansion with private cut back, the third public-private cut back, the fourth public cut back with private expansion.

3. Structural Change in Construction Investment

I want to point out some of the structural characteristics in construction investment in Japan with several explanations for each.

Figure 2 Composition of Investment in 2005



3.1. Civil-engineering state

Firstly, Japanese construction investment put emphasis on civil engineering rather than building construction. This originated from the historical development of the nation.

- Investment in building and civil engineering is in a ration of 6 to 4, which gives a higher priority to civil engineering compared to other developed countries (Figure2). That is because Japan has specific national land conditions with heavy rain, typhoon, steep streams, and long coastlines.
- From the middle of Feudalism to modern times, plains with river basins have been developed as agricultural and fishery, industrial, and urban development regions. Some developments co-habited with existing agriculture and fishery; other developments took the place of these. During these processes, necessary and industrial infrastructures such as conservation and sustainable projects of mountains and rivers, irrigations, land reclamation, bridge formation, coastal revetment gradually had weight in the whole investment.

- At the end of the Second World War, the infrastructure destroyed needed rapid reconstruction. This recovery meant large amounts of investment at a high pace over a long term.
- During the period of rapid economic growth after recovery from war damage, heavy and chemical industry played a key role in

national development. Based on the relative surplus population, the government maintained the promotion of industries by national projects after the war. Public transport facilities with new technology also developed and shifted from previous marine and rail transport to marine, road and flight transport. This entailed a huge amount of investment in road and rapid-transit railway construction.

These natural and historical conditions have established a so-called "civil-engineering state" where industrial development policy essentially absorbs public investment.

The definition of public investment depends on locality or historical phase. The historical conditions never remain unchanged; public investment has assumed a broad range. Recent claims for a smaller government fly in the face of prevailing support for public investment. The reasons for this weight given to public works seem as follows.

- The starting point of Japanese industries is historically agriculture. The agriculture of the rice paddy at its centre naturally requires remodelling of nature. This made for public works that related to industrial maintenance and modification of conditions, tolerated in the industrial private sector. This became the political climate in Japan. Up to the present, public investment in land improvement in the core industries such as heavy chemical industrial sectors, port, road and railway, electric and hydraulic power facilities, are taken for granted.
- Therefore, the range of public investment intrudes into the private sector. Not only the construction of ports, railways or roads, it covers construction of other related facilities. From the perspective of corporate management it helps the externalisation of project investment and expenditure.
- This leads to the cultivation of exporting centred industries with competitive power in the world market. It can be said that this policy established a kind of export subsidy system, which aims at the fixed capital of firms. It creates international disparity in corporate costs. In a sense, just as investment in roads supports Toyota, investment in ports supports whole companies as equipment investment. Therefore, investment in industrial infrastructures reflects the private nature of Japanese public investment, just as the EU supports its export competitive power through agricultural policy.

3.2 Investment sheet

Secondary, the proportion of private to public investment is 6 to 4. This places relatively more emphasis on civil-engineering construction as mentioned above. There has been a political debate about the adequacy of existing economic policy dependent on larger public investment. The issues are wide-ranging from who bears the cost, to what the decision-making process should be and how to carry out actual construction. The debate spreads out with the historical industrial organization of general-subcontracting relationship. Let us look at private and public investment more closely (See also Figure 2).

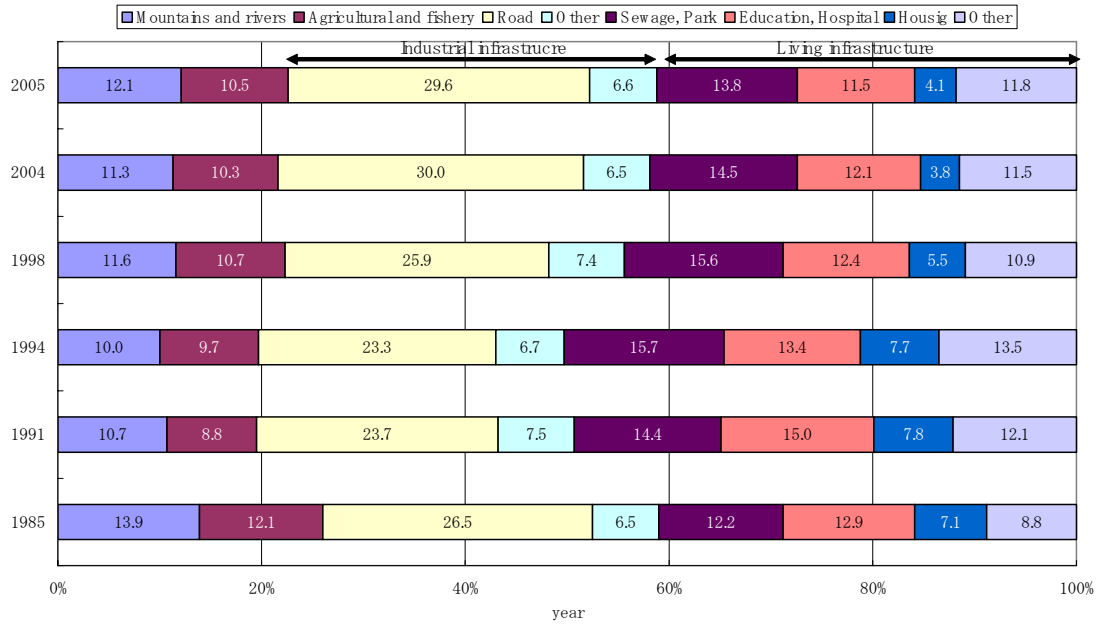
- Constitution of private investment

The largest part of the whole investment is private housing investment. The composition of private investment is housing (34.8%), non-residential building (18.4%), and engineering (9.6%). Non-residential building consists of commercial office building and industrial construction such as factories. This commercial and industrial initiative investment, which was suppressed after the bubble burst, regained renewed funds around 2004. However, private engineering, the central part of which is related to this construction, is relatively small.

- Constitution of public investment

The core of public investment is public civil engineering that dominates 32.8% of the whole construction investment. This is the second largest part after private housing investment. Public civil engineering plays a substitute role for private engineering in Japan. That is, the state or the municipalities undertake the construction of roads located in industrial facilities, ports and harbours, and so on. In recent years, the prominent projects are sewage plants for urban renewal programs, waste disposal infrastructure for mass production and consumption in the industrialized environments, and other terminal facilities, all of which are constructed in the name of environmental sustainability. However, the core investment still remains in the realm for conservation and sustainable projects of mountains and rivers, agricultural and fishery infrastructure, industrial infrastructure, and settlement infrastructure (the necessary infrastructure for human living, Figure 3).

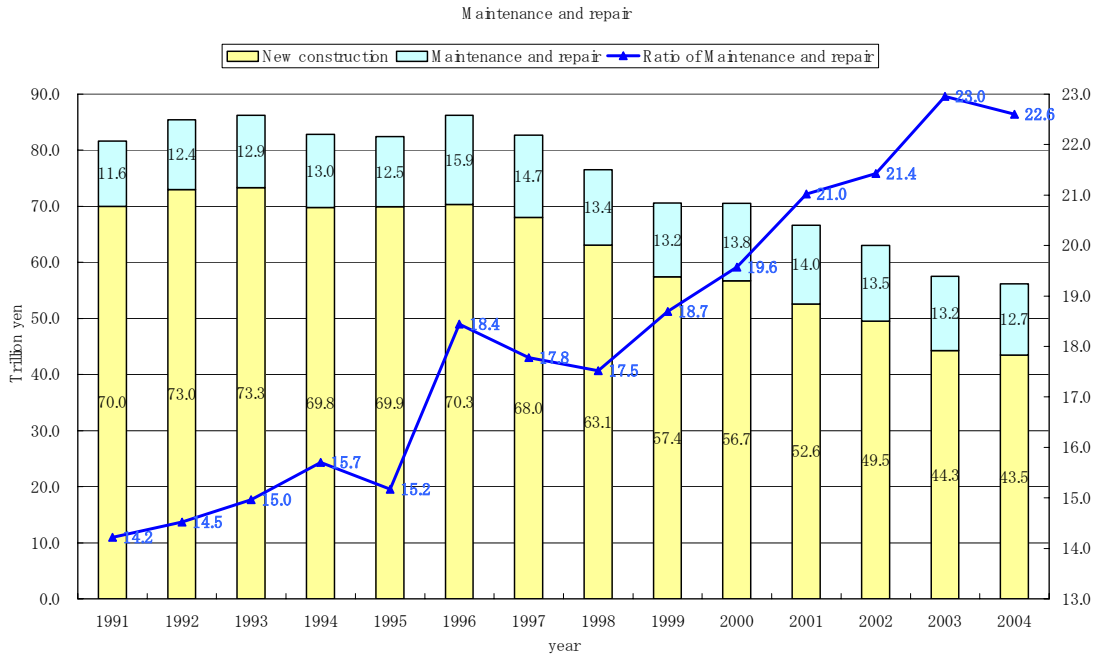
Figure3 Composition of construction types in Public investment



3.3 Proportion of maintenance and repair

Japan's construction investment has historically been biased towards new construction (80-85%, Figure 4). This trend has been recently changing. Until the mid 1990s, the proportion of maintenance and repair remained at the same level of 14 to 15%. These investments seemed prolongations for past new construction. From the year 1996, the proportion increased to the high 10 percent's. In this period, other new investment in both public and private decreased. In 2001, the proportion goes beyond 20% and this trend seems to continue.

The increasing proportion of maintenance and repair has an impact on changing technological development as well as a spillover effect on allied industries. The project size is shifting to smaller markets. There is a chance that large construction companies are confronted with the greater competitiveness of medium and small firms. The new business model with business groupings or enclosure of the skilled workforce can be observed in the recent development of Japan's construction industry.



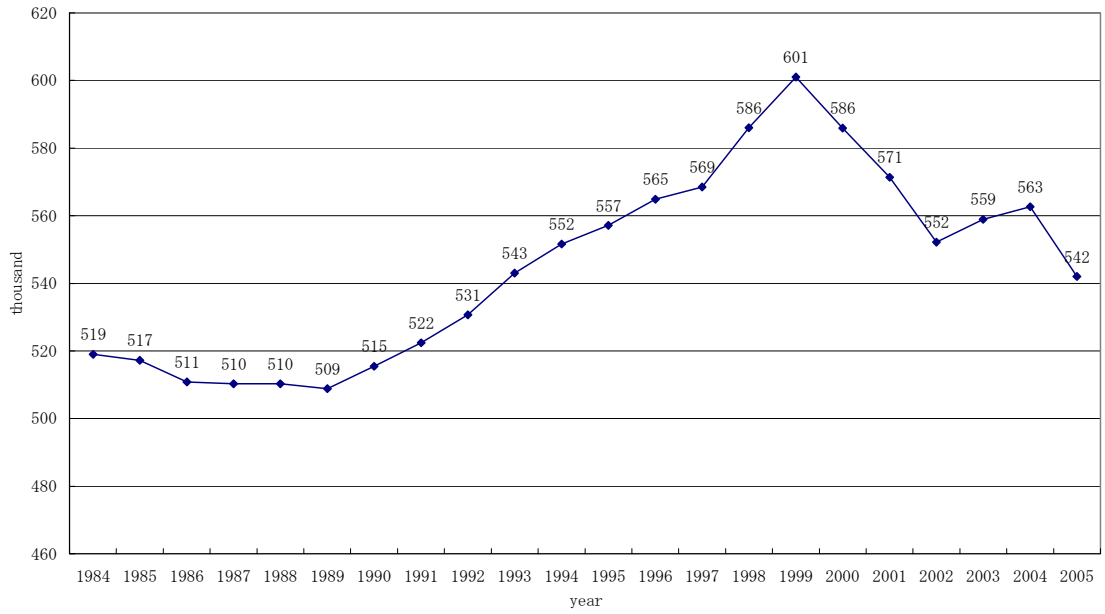
Construction investment has decreased in Japan. Although the total amount of construction and building investment has decreased, the market scale still accounts for 12.7 percent, and the total value for 10.6%, of GDP. This is still a higher rate as compared to other advanced economies, for instance, Britain at 10.4% and 5.2%, France at 10.0% and 5.2%, Germany at 9.0% and 4.5%, and U.S. 8.8% (available data only for the total value) etc. To summarise the characteristics, I list the following sections as the main areas of investment in Japan: commercialised private housing investment, private commercial and industrial investment for office buildings and facilities, and public direct and indirect investment largely substituted for industrial infrastructures.

4. Intensification of competition in a shrinking market: how to maintain the orders?

Long-term recession in Japan's economy has compelled the construction industry to transform dramatically. To put it simply, the construction industry can no longer manage to work as the pulling and regulating function of Japan's economy under globalisation. The industry cannot survive if it continues to depend on a national policy of economic stimulant. It cannot but seek a more self-sustained way and take a role of strengthening national policy. Private construction enterprises also need to aid the national fiscal crisis along private management lines. This is the opposite of what it has been done historically. Furthermore, increasing competitive pressure in the

shrinking construction market has caused not a little conflict in the structure of inter-corporate competition.

Figure5 Number of licensed firm



In Japan, construction enterprises need business licenses limited to a specific locality unlike businesses in other industries. The license requires enrolment in an administration in addition to some necessary conditions. The number of licensed enterprises in 2005 was around 542,264, which has decreased by 10% from the peak of 600,980 in 2000. However, although the largest peak in investment was in 1992 only eight years later the number of companies peaked. This is the distinctive, though not extraordinary, trait of the Japanese construction industry. The sub-contracting system inevitably effects changes in the number of companies. In this system, a customer passes a complete set of orders to a main contractor. A main contractor is nominally responsible for the completion of the construction ordered. Then a main contractor gives a separate order to specialist contractors (from groundwork construction, structural construction, interior, and equipment and furnishing) and takes on management and supervision in production processes. Each specialist contractor again gives a separate order to sub-contractors. The layers go as deep as third and fourth on building sites, and third on general in civil-engineering site. This system of sub-contracting necessarily requires medium or small sub-contracting enterprises holding specialist production functions and techniques.

The existence of sub-contracting reflects the fact that the amount of orders does not simply affect the increase and decrease of firms. The

period of continuous cut back of orders causes structural problems especially, for instance, intense competitiveness in bidding and a dropping-off of tender prices. The revision to bid-contract law in 1997 also spurred competition. The new law on adequate bid-contract enacts the following decisions: the increasing number of bid participants; the reduction in budgets; structural reforms in construction costs; and the advanced announcement of estimated prices. These changes promoted extreme low bid prices in order to make orders credible. Main contractors began to use more subcontractors for the purpose of ensuring profit. This again caused an increase in the number of firms and drove a strengthening in competition. 2001 showed the limit of this trend and the beginning of a decrease in enterprises as well as in the construction workforce.

The once-absorbing-the-unemployed industry now shifted to a 'discharging surplus workforce' industry, which the Japanese economy had never experienced since the end of the World War II. What has been happening during this period is the culling out of lower rank of sub-contracting production, especially that of small and individually owned enterprises. Large companies with membership in the largest association of construction businesses, the Japan Federation of Construction Contractors, also face a turning point. The market share of member companies reduced until 1998, and then began to regain orders around 2002 (Figure6). During these years, the historical practice of collusive bidding in large public construction drew public criticism. Numbers of structural changes followed: the revision of bid-contract law mentioned above; the revision of the Fair Trade Act with the strengthening of administrative penalties; the strengthening of the authority of the fair trade committee; and the rising public interest in these matters. In response to these changes, the top five of super general contractors issued a "declaration of withdrawal from collusion". This means that the super general contractors joined the market competition of attrition in a serious way. Statistics give evidence of a changing sub-contracting relationship. The composition of "construction of completion of sub-contractors" to "construction of completion of main contractors" has continuously reduced from 69.1% in 1997, 67.2% in 2001, to 62.4% in 2004 (Figure7). The market share of large companies grows at a steady pace.

Figure6 Market share of JFCC (Japan Federation of Construction Contractors) members

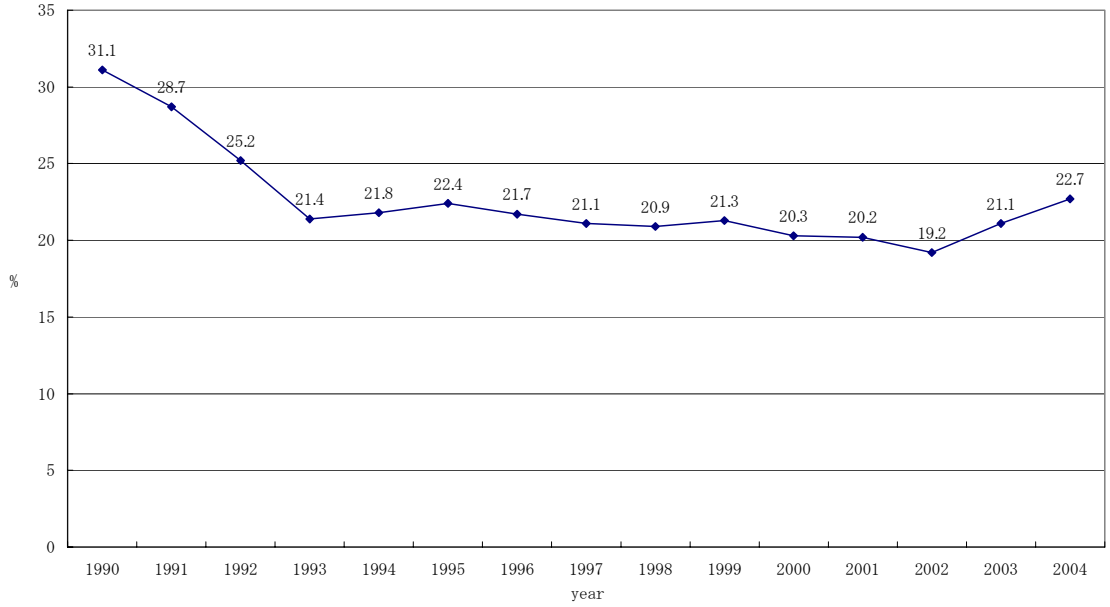
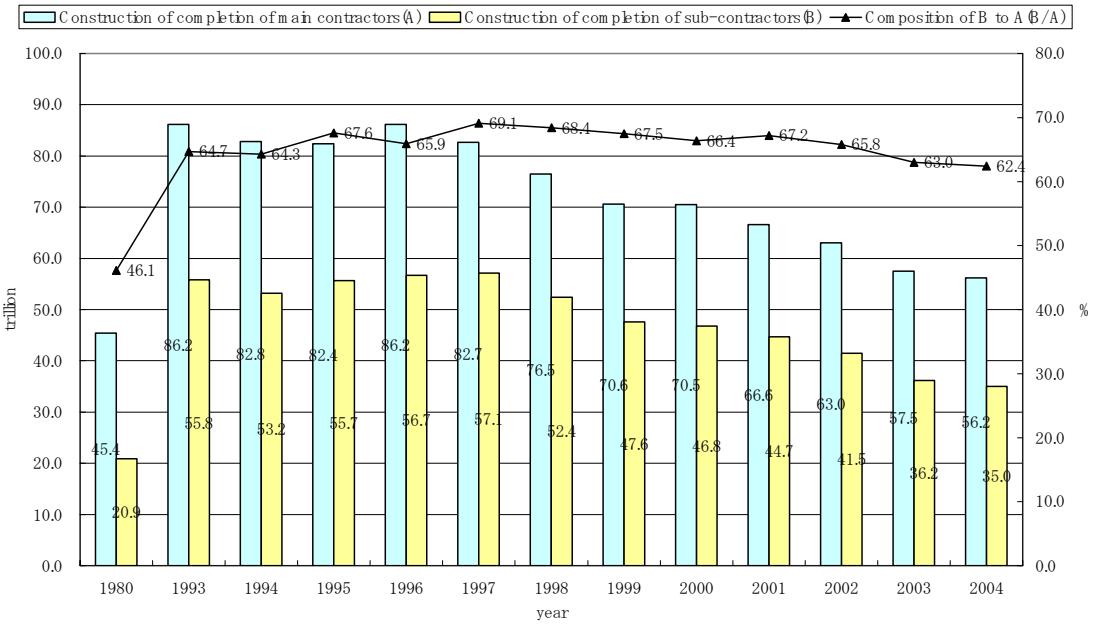


Figure7 Amount of completion of main contractors and sub-contractors



The latest change is the implementation of quality assurance law in public projects. This differs from conventional bid contract law in that it introduces design proposal and total cost cuts including not only building processes but also maintenance and management costs. With this procurement system, bidding participants do not necessarily take a strategy of intensive low price; nonetheless, large contractors still take advantage in respect of the high ability of design and engineering. Although the real effect of the new contract system is still unclear, a huge project, the Haneda airport expansion site, provides an example of the priority of larger firms. In this site, a coalition of fifteen big

enterprises, such as Nippon Steel Chemical Co., Ltd., Mitsubishi Heavy Industries, Ltd., Kajima Corporation, won a bid at the price of 0.7 trillion yen.

5. Conclusions

The recovery of Japan's economy is supported by a virtuous cycle based on an international reduction in financial costs under the export regime with the U.S., China, and other countries, not by a self-sustaining revival through domestic demand expansion. At the same time, the orientation of the Japanese construction industry has been through an oligopoly of large companies in response to this economic recovery.

Now that the economy develops with international trade at the centre, the construction industry does not seem to have a direct effect on new demand. Although the outgoing government has promoted overseas financial aid for "post-war peace" under the pretext of "reflection on war", this ODA (Overseas Development Aid) already began to reduce. The new issue for the Japanese construction industry is how to secure the overseas construction market and new project expansion especially in civil-engineering related sectors. The new target is to be the new overseas operations of the Japanese corporate. Of particular note is Japan's long-term strategy in Asia, approaching large-scale resource projects in coalition with the U.S.

The construction industry would never miss the trend of Japan's whole economy in relation to the Asian region. The intensification of competition in domestic markets also pushes Japanese construction to invest overseas especially in the spheres of new natural resources, natural materials, and the processing of those products where escalating prices and competition for resources become prominent. The international share of Japanese construction firms has begun to rise sharply in Asian and Middle Eastern areas since 2003. The Asianisation of the economy is getting on the move under the coalition with the U.S., towards ensuring a new opportunity for profit making. An economic growth rate of 10% attracts large firms faced with the shrinkage in the domestic market. This alternative way is essentially contrasted with the speed of decreasing numbers in employment in the domestic market.

Responsible Construction" and changing organisational forms in the Japanese construction industry.

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1. Historical Traits of the subcontracting system

For a long period after WWII, construction has been the key industry in the Japanese economy. Not only as a driving force in national reconstruction and rapid economic growth, but also as an economic buffer in the period of recession in the 1970s and of after-effects of the burst bubble in the late 1990s, it continuously played a significant role in national "Doken-Kokka" (civil-engineering state) policy, until the outgoing Koizumi administration made drastic policy changes toward national "structural reform". Though the government recently tried to cut down public investment, it still accounts for around 6 percent of GDP, a higher rate as compared to other advanced economies. This historically government-initiated establishment of the industry entails particular characteristics in the construction practices.

- Multi-subcontracting system

One of the main characteristics of Japanese construction is multi-subcontracting. This system originated from the traditional "Sewayaku" (stewardship)[3] in pre-war times, when "stewards" were subcontracting work per unit, borrowing capital, machines and materials from general contractors, collecting workers, and supervising sites. The subcontracting system has enlarged and deepened, with as many layers as 5 or 6 at times, as projects have become large during economic development. In the 1980s, the typical form already showed third tier subcontracting with self-employed individuals at the bottom layer. At present, the composition of the employers by scale shows a hierarchical figuration shown in Table 1: a relatively small number of general contractors in large firms on the one hand, and a quantity of small firms as specialist subcontractors on the other. Among the largest firms, a Top 5 of companies (Obayashi, Shimizu, Kajima, Taisei, Takenaka) is called "super GENE-CON" (general contractors). These companies have comprehensive divisions

[3] "Sewayaku" is not a technical term, but rather a common noun, which originally refers to a key person or manager who facilitates a process of any kind of groups or meetings. "Sewa"=take care, "yaku"=a role. There is another word "Shoku-cho" (head of a certain trade) for "foreman" in Japanese, and we nowadays use this term.

of architectural design, engineering, research and development as well as a main construction division. On the other hand, more than half of the firms hold less than 10 million yen as capital, and 23.7% is run by one person. Table 1 shows that the largest firms (only 0.3% of the total number) receive 45.4% of the order with an average order by firm that is hundred times the total average.

Table 1: Number of construction firms and amount of order by firm scale, 2004

capital scale (yen*) of firm	number of firms	rate	amount of order	rate	average amount of order per firm
Over 10 billion	1,632	0.3	24,731,691	45.4	15,154.2
1-10 billion	4,796	0.9	6,472,612	11.9	1,349.6
50 million – 1 billion	10,697	1.9	5,808,912	10.7	543.0
10-50 million	216,248	38.7	16,149,699	29.6	74.7
Under 10 million	192,809	34.5	1,250,602	2.3	6.5
Person	132,675	23.7	60,960	0.1	0.5
Total	558,857	100.0	54,474,275	100.0	97.5

Data source: Ministry of Land, Infrastructure and Transport, Policy Bureau
* 1 yen = 114 US dollar, 144 €

- Employment practice in a peripheral labour market

In labour research studies, researchers often note that construction projects inevitably entail subcontracting systems because of the vulnerability to seasonable and market demand or the specific needs for individual skills and workforce in a particular project. In Japan, in addition to these industrial traits in the production system, the construction labour market as a whole is destined to be a secondary labour market for absorbing redundant workforces from other industries, which means most workers have historically been recruited not from new graduates or younger apprentices, but from domestic migrants from rural areas or from the unemployed. On the one hand, public investment guarantees relatively stable market demand; one the other, there have been few regulations established for protecting working conditions or rights in subcontracting employment practices. This is quite a contrast to Japanese conventional employment practice of internal and lifelong employment in the primary labour market. Therefore, construction work is more or less stigmatised as a lower status job. This also reflects recent problems: the crisis of aging of

craftsmen without young successors. In recent years, more and more specialist contractors have externalised their function as employers and the number of self-employed craftsman has been rapidly increasing.

- Absence of collective agreements or labour clauses

In Japanese construction, neither collective agreements nor public labour clauses exist. Construction trade unions have successfully organised craftsmen or small enterprises, but only in the housing sector. Most workers in heavy industry or on civil engineering sites remain unorganised up to the present day. Unlike other developed countries, the government did not ratify ILO convention No.94, which assures the minimum wage standard for all engaged in any public investment project. Therefore, the wage unrestrictedly drops according to the market principle. Indeed, after the bubble burst, the wage rate continuously decreased to half the level in every trade with the increasing shifting of costs to lower layers of subcontracting.

2. Production system

- The development of "responsible construction" (Sekinin-seko).

In a broader sense, "responsible autonomy" means control of production whereby workers sustain discretion and autonomy in the labour process to some extent, with the management assuming hegemony in profit-making processes. As work is administered in construction on a non-bureaucratic, craft basis the responsible production system has enough ground to be reasonably accepted. Japanese construction is the most successful case. We call this system "responsible construction" (Sekinin-seko) or "subcontracting responsible construction" (Shitauke Sekinin-seko). The development of deepening subcontracting through economic growth is parallel to the shifting of any functions of management, technique, employment, etc, from general contractors to specialist contractors, from primary specialist contractors to secondary contractors, and from lower contractors to the bottom. General contractors receive orders, make a profit and pass the whole project to the main primary subcontractors for each trade. There are actually supervisors of the general contractors on each site, but these directors of projects emphasise profit making in a particular construction, not on the production process itself. As an architect interviewed said: "In Japan, a building

is constructed without blueprints. On construction sites, general contractors do not need to show how to build it; rather, the building is simply built based on each drawing by the skilled. This is the very unique and strange feature of Japanese construction. They inherently work in that manner without calling on the return, contrary to the normal business manner in other contract situations."

To summarize the history of this responsible construction, I briefly review how the organisation of production has developed in Japanese construction. In the early 1970s, technical innovation of general contractors forced the deepening of multi-subcontracting layers and alliance of enterprises. In the labour process, the standardisation of tasks and the demand for multi-skilling proceeded, with management-led workers taking responsibility for the quality of work by making small groups for each task. The significant function of foreman also shifted from training craftsmen to collecting un/semi-skilled workers. This process resulted in an intensification of labour and pursuit of the better productivity. In the 1980s, faced with a construction recession, general contractors intensified the rationalisation of production, reduced the numbers allocated on site, and began to place responsibility for management onto specialist subcontractors. Special enterprises with company-specific techniques also became responsible for management techniques in production processes. Companies, which mainly supply labour, became responsible for schedule control, allocating workers, processing tasks, and so on. In the late 1980s, dominated by orders through nominated contracts for huge projects, general contractors put more and more emphasis on "responsible construction" by specialist subcontractors, who sustain technologies and management skills. At the same time, the shortage of skilled craftsmen stimulated the inclusion of foremen by general contractors with company-based license systems. However, at present, most skilled workers are employed by small secondary or third layer companies, not even by the primary subcontractor, or they are self-employed. In the 1990s, contracting conditions changed in the economic recession after the bubble. The linkage of general contractor and primary sub-contractor weakened. The special contractor faced unstable market conditions with increasing pressure to reduce unit costs by the general contractors. Many specialist subcontractors began to seek orders from less intimate general contractors. This intensified the competition in construction and caused price dumping. Because

general contractors stopped recruiting young engineers, the industry at this moment critically lacks core supervisors in their 40s or 50s. Throughout the processes of "responsible construction" general contractors have cast away special techniques, management skills, processing control, recruiting and training functions, and now, the site supervisory agent who makes a profit in each production. Moreover, in recent years, specialist contractors have also had difficulty in recruiting and training workers, so that the aging of workers and the cutting off of particular skills is the most serious problem.

- Recent changes in large construction: the problems foremen face[4]

As a result of the pursuit of "responsible construction", the most essential person in production is the foreman. In general, primary subcontracting enterprises of each trade apply direct and indirect employment together so that foremen exist both as direct and indirect employees. In the latter case, secondary subcontracting holds one or several foremen, with 5 to 10 skilled workers comprising each team. The functions of foreman cover multiple levels such as: worker on site, head of a team training for and supervising the labour process, accountancy manager of secondary subcontracting firm, and sometimes head of a trade coordinating production processes with other foremen on site.

Nowadays, it is often said that the responsibility of foremen has enlarged because of the down-skilling of supervisors by general contractors. Young supervisors of general contractors do not receive the appropriate training as engineer, manager, or supervisor. Many workers complain about the inability of supervisors, pointing out that "they can't 'read' working drawings, needless to say 'draw' by themselves" or "supervisors don't understand the process, or lack the ability to take command." Thanks to the ignorance of supervisors, many failures are reported to regularly happen on site. For example, workers are at a loss because of impossible drawings; one trade overlaps with another trade in the wrong set-up; workers must do the

[4] This section is based on research conducted by the Non-profit Organization Institute for the Study of Construction Policy located in Tokyo, from Jun. 2001 to Oct. 2005, funded by Kenkoro (All Japan Construction, Transport and General Workers' Union). The research includes intensive interviews with special contractors and workers and reveals the critical conditions of foremen on site. The focus is on their function and recent changes in production processes.

task over again bearing the cost of repair, and so on. The pressure of a shortened work period also leads to deterioration in working conditions. Since foremen contract the work per unit, every problem that occurs on site increases the risk and the cost they bear. In conclusion, the foreman is required to be: a representative of specialist subcontractors, skilled and productive workers, a manager in the labour process, a coordinator of the production process, and administrator of the whole site with the ability to make a profit in a short period with a limited workforce and at the same time under incapable supervisors of the general contractor.

An association of foremen, meeting on site as the heads of each trade, is the essential organisation in managing production. This meeting originated from safety self-control action by the primary-subcontracting firms. However, the function has extended beyond its initial intent of safety to the whole management operation of production. In these years, the stability of this organisation determines the productivity of the particular site. Once assigned to "the head of a trade", foremen need to take part in various meetings and checking tasks, make smooth communication directly with other skilled workers using mobile phones (of course they pay for the phone bill on their own), do safety patrols, take on board procedures and the education of newly recruited workers, check parking fees in the early morning, and clean up the site at the end of the day. In addition to these accessorial services, they are charged to pay the fees for the member of the association. The workers get tied to this absurdity by the imperative demand for the profit of production, which is a synonym for their own profit related to a price unit within a limited period of work.

- Recent changes in small construction: the advent of "speculative builders" in the metropolis.

In contrast to the vertical integration on large construction sites, the production system in the housing industry is characterized as traditional and horizontal, with a contract between small local builders and the client. In general, clients who own real estate request a small builder to design and build, and often keep in touch in case of reform and repair. The small builder, often run by a skilled carpenter, makes a regular contract with other carpenters and their apprentices. Most of the houses built by these builders are timber-framed.

The organisational changes in the housing sector can be split in two aspects, one taking place after the 1970s, and the other emerging in the late 1990s. The former change is made by the large builder or "house maker" with a strategy to standardise housing units, innovate with pre-fabricated housing (including 2×4 wall method), and produce on a large-scale. The "house maker" derives from large companies in key industries such as chemical, electronics and forestry, as government housing policy also promoted their establishment and development. The "house maker" separated the production system by pre-fabricating in a factory. The advantage of the "house maker" was that they could put an emphasis on design and promotion. On the other hand, they integrated traditional local builders as their sub-contracting firms only in the interior part. The advent and development of "house makers" put local builders in difficult situations to sustain orders for new building, so that more and more local builders were subordinated to these large firms, with other builders shifting their orders to repair and maintenance sectors. At the same time, skills changed from open techniques to company-specialised methods with manuals and guidelines. Nonetheless, the largest share of the market by the "house maker" has been shown to be only 30%; statistics of the housing market show that many clients after all prefer traditional housing with timber-framed base.

The second phase reflects market change. In the 1990s, the demand of new houses decreased and sales of the "house maker" stagnated. We now find the new builder known as "power builder" growing rapidly from the end of the 1990s around the Tokyo metropolitan area. "Power builder" is similar to speculative builders in other countries. The strategy is to purchase real estate, separate and form the land by the same square, build standardised houses, and sell the estate at a relatively low price. Because new buyers, the second generation of baby boomers, do not possess their own real estate, they cannot but choose condominium or a house like this. Unlike the "house maker", the "power builder" does not integrate the local builders as subcontractors. Instead, they use local timber wholesalers as agents to recruit individual carpenters. "Power builders" make contracts with these agents. The individual carpenter subcontracts with timber merchants. Some builders have also begun to contract directly with carpenters. The main characteristic of this system is that the builders do not develop company-based techniques, nor own factories. They

outsource every production function. They depend on real estate agencies to find, purchase, and sell the real estate, on carpenters and other workers for building and equipment. Moreover, this system does not entail employment practices in any building process at all. The use of agencies and of direct subcontracts with carpenters reduces to a minimum the cost of recruiting and training workers. The unit construction cost unlimitedly decreases to the extent that workers cannot manage to earn a sufficient living and generally rely on others' help, so that there are many parent-son partnerships in this production system. Although the "power builder" has recently extended its market share in metropolitan areas around Tokyo, this production system is worth noting as opposite to traditional and "house maker" housing, though nonetheless of a traditional timber-framed style.

3. Dilemma of skill reproduction strategies: the case of the housing sector.[5]

- Absence of a stable training system and the aging of craftsman

As mentioned above, the non-unionisation of workers and the lack of protective laws are distinctive in the industry. It has failed too to establish a collective apprenticeship system. Responsibility for the training of successors in each trade rests with the system of becoming apprenticed to a certain craftsman on site (man to man on-the-job training). It is a person or a small subcontracting firm who pays the wage for the young apprentices hired and expends the time and cost to train them. Therefore, one of the biggest problems of construction since the 1980s has been how to secure the supply of young entrants to become the skilled workers of the future. By the end of 1980s, the number of seasonal workers from agricultural regions was reduced to a quarter compared to 1970 and firms were mechanising processes while using existing elderly workers. The economic recession after the bubble spurred the trend of cost cutting for long-term investment, making latent the actual lack of a future skilled workforce.

As a result, on-site apprenticeship has been on the verge of collapse since the early 1990s. A survey that was conducted to examine the current situation of craftsmen, though limited to trade union workers in Tokyo and other nearby prefectures, revealed that, as of 1993, more

[5] Most interviews in this part were conducted in 2001 for my master thesis project. Additional data related to "power builder" is the outcome of an ongoing research project, conducted by the Institute for the Study of Construction Policy.

than half of skilled workers (52.4%) who used to accept apprentices had already stopped taking trainees. There are two main reasons for the halt: aging and lack of jobs. Local independent contractors first began to withdraw from training in the 1980s, and then workers, who had been taking subcontracting jobs from large housing companies, also started to give up training apprentices in the 1990s. Consequently, no more than one fifth of union workers now go through a traditional apprenticeship.

- Skill changes in the rationalisation of production.

Prefabrication and unit-based building is one of the most significant changes in the construction process. For instance, take the case of small housing production.

In housing production, the "house maker" produces standardised housing parts, especially for the exterior of a building in their off-site factories, and then transports these parts to construction sites by truck. On site, such units as walls and ceilings are hoisted by crane and put together by the company's assemblers. Then, subcontracted carpenters appear and carry out the leftover structural processes. We can say that this construction process comes close to manufacturing except that craftsmen must complete the product at a certain location. Moreover, the significant change is that the new method separates what used to be a series of production processes on site into two steps: creating basic units off-site, and setting up the units and structuring the whole building on site. In the production process, there are some changes, such as using pre-cut wood and a controlled schedule by the supervisor on a "house makers'" site.

However, lately "power builder" have been adopting totally different strategies from "house makers." Firstly, pre-cutting now prevails all over in any production even in a traditional custom-built housing. Very few carpenters remain who saw and carve wood interfaces by hand. It takes too much time to do, in the shorter period of construction. This kind of existing production infrastructure - whether the pre-cut firm, a CAD system, a unit equipment supplier for bathrooms or kitchens - enables newly-established builders to make a profit from their business. Although it is true that the "power builder" adopts non-prefabricated forms of traditional timber-frame, they, instead, limit the variations in room layout. Clients select the floor plan only from few alternatives, or they just select these ready-made

so that any significant changeover will not happen. Carpenters interviewed answered in unison that "yes, this is the same traditional timber-framed house as I made before. But this is so simple. No variation. I only have to 'assemble' as the manual says." In this way, less and less clients order their customised house; they begin to purchase the commodity. It also has to be mentioned that on "power builder" sites, the supervisor plays a limited role compared to that of "house maker". The new builder leaves most of the production autonomy to the carpenter. However, carpenters do not necessarily strengthen their pride.

The skilled person, whether on a "house maker" or "power builder" site, has a very ambiguous feeling about their skills. The images of skills are contradictory. While the housing company has tried to integrate personal skills suitable for the production process by saying that they create company-based techniques, workers do not recognize these changes as skills. A local trade union worker interviewed said, "the workers of local independent contractors have a tendency to dislike the jobs of housing companies ('house makers') because they think such jobs don't require skills. They are used to the traditional way of erecting pillars. Building from several modules by standardising walls doesn't mean skill for them. At the same time, however, subcontracting jobs bring a stable and additional labour demand for carpenters, electricians, interior specialists, and other equipment workers. So young workers feel it is easier to enter this field." However, a carpenter on a "power builder" site said "although this is easier than the previous custom-made house, you can't manage to make it if you have no experience as a conventional craftsman. Because you need to finish one house to the next in a relatively short period. This is about gutting used to it and tips. Otherwise, you can't earn your living. After all, you can't be a carpenter starting your career in this place."

- Establishment of new training system

In the middle of the 1980s, large housing firms started to establish training institutions for their own workers, whose curricula put special emphasis on the company's own construction methods. The trainees of the institutions were newly recruited employees from exclusive housing agencies of the housing company and their local subcontractors. The dilemma of this training system is that the trainees

are likely to become supervisors who control subcontractors in the field. They take part in construction processes only by controlling schedules or by checking completed buildings. Still, as many firms pursue the rationalisation of building processes, they continue to depend on independent local subcontractors at the end of these processes to finish a completed house. This essential component is never created in the firms' training systems. It can only be cultivated through on-site apprenticeship, at the cost of productivity.

Another situation is the endeavour to establish training systems by trade unions. Although one of the main characteristics of the construction industry, as mentioned, is the non-unionisation of workers, the biggest union in the industry, the General Federation of Construction Worker's Union, founded in 1960 and originating from an organisation of local carpenters, organises about 70,000 construction workers. While working conditions are getting worse these days, one of the current aims of the union is to take over the initiative of skills in order to re-claim workers' rights, as they have been paid much lower than appropriate wages for their skills. In a test case challenge, a local branch of the Tokyo area established a new training school named Tokyo Construction College, after the model of the German Meister system in 1996. Its future goal is grand, with the following objectives: to extend the number of enrolments to a scale of one million a year, to open a wide variety of departments and to connect their attempt with local movements, in terms of educating skilled human resources. However, these objectives are out of touch with the reality of skilled workers. The target user of the college, at present, is a worker who has already been working in construction. As a result, six-tenth of the trainees have parents whose profession is also carpentry. Actually, it is these fathers who have their sons taking training courses. In most cases, these fathers, acting as their sons' employers, pay the tuition. Although the amount of fee is not so expensive, thanks to government subsidy, the more critical problem is that the lead craftsmen must provide a sufficient quantity of jobs to employ apprentices; this is in addition to the cost of lost productivity. This issue is going to be a barrier to more enrolments, since it places a heavy burden on employers to make stable contracts with customers in a time of recession. Although the trade union recognises the changes in skills demanded, the curriculum emphasises traditional skills. This reflects the fact that the main trainers are elderly craftsmen in their

sixties or seventies who have retired from business in traditional housing. The college's pamphlet states, "emphasis placed on housing, especially timber-framed"; "in practical courses, you will learn detailed traditional skills which are needed in building historical, purely wood-structured constructions, such as temples"; "you can learn what you cannot by training on-the-job"; "you can learn the basis of craft skills which you have not developed on site by now." As this indicates, traditional skills are the most significant component of the college's curriculum, and trainees will also find them valuable. Indeed, young apprentices are proud of their ability to structure a traditional building with only L squares. In the warehouse of the college, miniatures of various kinds of traditional dwellings can be seen as trainees' graduate work. However, gaps exist between such traditional skills and skills demanded in reality. A headmaster of the college said:"As a matter of fact, the skills acquired here are not useful on real construction sites. Subcontracting jobs from large housing firms don't need such skills. Moreover, these skills in any case never result in an increase in wages, whether you are an independent contractor or not". Actually, wages are a key problem for the union. As I mentioned, there is no protective law or cooperative agreement between firms and trade unions in the construction industry. While a multi-layered structure put greater and greater pressure on workers at the bottom of the layers, trade unions are forced to face other problems, rather than skill development. Their current challenges are articulated by three main goals. The first is to unionise a larger number of workers. The second is based on organised labour power, to obtain formal protection in the labour market by establishing public contracting laws, as well as license systems. The third is finally related to skills, that is reproducing skills through workers' initiatives. As we can easily imagine, the latter two goals presuppose achieving worker unionisation, which is the first goal. Thus, trade unions' strategies are unavoidably concentrated on its unionising schemes. The most significant measures to attract workers are insurance systems for injury or diseases and retirement benefits.

4. New license system: "The Site Supervisors" in large construction.

In 1995, the Ministry of Construction first picked up the theme of training craftsman in its Construction Policy Outline 1995. Reflecting

the policy, business associations of special contractors have set up a license system called “the Site Supervisors” of each trade for which subsidies are offered. The aim of this license system is to guarantee productivity on site. In fact, in addition to the conventional licenses assigned to each foreman, it requires them to have more ability in management and supervision, the most critical imperative for the associations, subcontracting firms, and self-employed craftsmen to survive in this industry in a situation of rapid restructuring.

Since last year, the core trade associations prominently promoted the system, which reflects the sense of crises faced by the business. The associations’ aim is to keep the quantity of orders of members and increase unit prices in circumstances whereby they lose more and more members due to financial difficulty or bankruptcy. Therefore, each trade has fair reason to halt the trend of deskilling of the craft or the latent shortage of future skilled workers in order to keep the status of the job in the occupational hierarchy on construction sites. However, to increase prices and thus wages is not so easy under the historical structure of the multi-subcontracting system. The managers of specialist contractors, of the association’s members, complain that the foremen often hesitate to spend time in taking courses, and that, even if firms or a person expend energy in taking out the license, there is no assurance that they will be rewarded by an increase in prices or wages. Furthermore, the government recently revised part of construction industry law to practically permit staffing activity in construction. Although this revision does not permit new employment for the purpose of staffing (because of its original purpose of activating surplus skilled workers already employed), some local associations feel so uneasy that they proposed an appropriate model. In this proposal, they claimed that the industry should be reconstructed for all who work on site, regardless of the skilled or apprentices. In this sense, certain trades began to regain solidarity despite the different layers of direct- or indirectly-employed in the multi-subcontracting system.

5. Migrant workers

The main characteristic of immigration law is that it does not admit unskilled workers. Since the late 1980s, however, labour migration termed “new comer” expanded along with the economic boom and the revision of immigration law in 1990. The 1990’s revision of

Immigration law allows residential visas for spouses of Japanese nationality and second and third generation descendants of Japanese ancestors and their spouses. Also in 1990 the Industrial Training Program for foreign trainees was established, which is supported by the semi-official organisation of the Japan International Training Cooperation Organization (JITCO)). The importance of this new system it that it opens the way for small and medium sized firms to accept immigrant workers legally. The conditions are that a firm with less than 50 employees can accept 3 foreign trainees per year, so if they accept every year, the maximum is to be 9 trainees at a time. 80% of trainees come from China, 72% youngsters of 20 years old.
As a result of the transformation in 1990, the composition of foreign residents according to nationality changed dramatically, with Japanese Brazilians, other South Americans and Asians rapidly increasing. Many Japanese Brazilians and other South Americans have entered the manufacturing industry as employees of contracting agencies. Compared to these legal residents, it is difficult to estimate how many migrant workers work in construction. During the late 1980s, it has often been reported that many South and Southeast Asians worked in construction as undocumented workers. On the basis of available data from the Immigration Bureau, the recent estimate is 40,000, which is only 0.7% of the construction workforce. 80% of these foreign construction workers have the status of undocumented workers with 20% having the status of “trainee”. The estimated number of undocumented migrants has been decreasing along with the governmental strengthening of deportation policy.

6. Conclusion

These days the Japanese construction industry faces a critical turning point. It becomes evident that the conventional government-initiated system can no longer sustain institutional regulation under pressures for structural reform. This also means that the industry is forced to move away from its dependency on development policy after the WWII and turn to the sustainable adjustment of the industry. At this point, I insist that the most urgent challenge is not simply to establish fair labour standards but to ask how to create the arena whereby each agency can discuss the same issue.

The Expansion throughout Asia of the Japanese Construction Industry

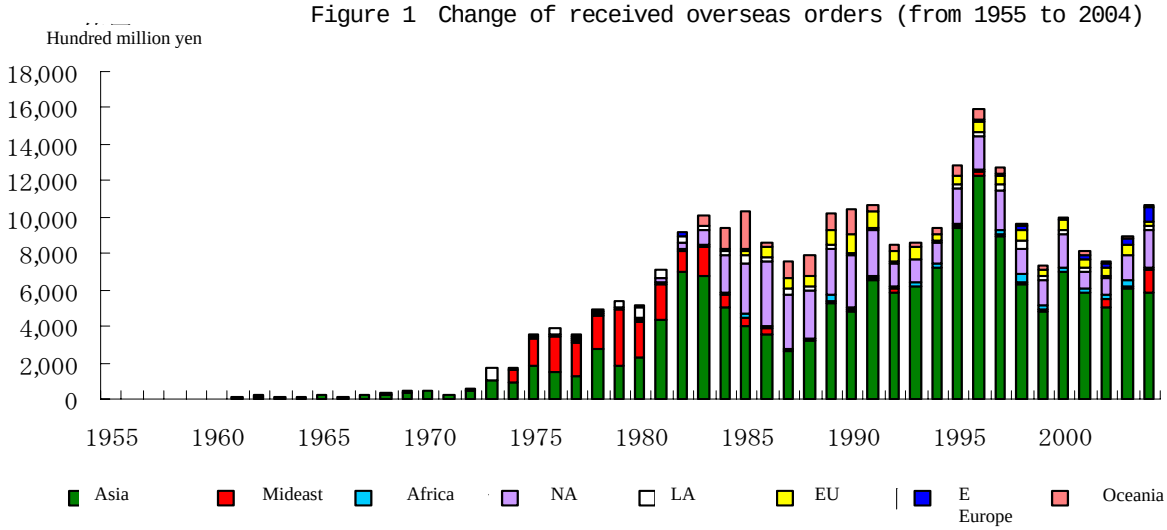
Kyoko Hirose

1. Introduction

After World War Two, the reparation construction of the 1950s began an expansion throughout Asia of the Japanese construction industry. Subsequently, starting in the late 1970s, Japanese manufacturing's relocation to East Asia was at the root of acceleration of its construction operations. With the exception of a short-term period of investment in the Middle East, the Japanese construction industry's direct foreign investment in Asia has continued to hold primacy (Figure 1).

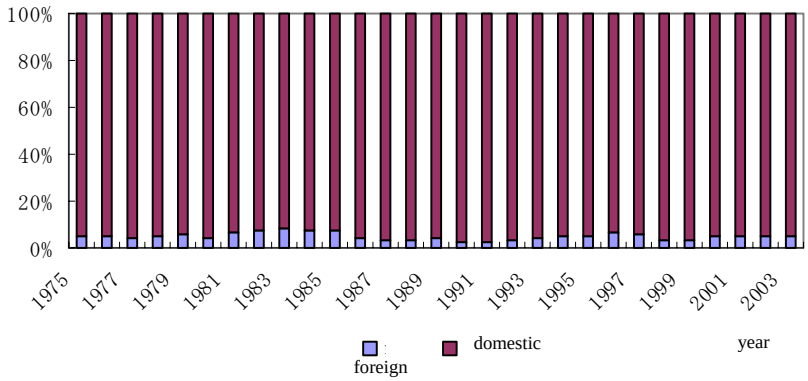
However the Japanese construction industry's overseas operations depend largely on the domestic economy. Also the proportion of direct foreign investment of the Japanese construction industry has been only about 5% of the whole of industry (Figure 2).

Figure 1 Change of received overseas orders (from 1955 to 2004)



Resource: overseas operations strategy of Japanese construction industry report

Figure 2 A change of receive an order for overseas ratio



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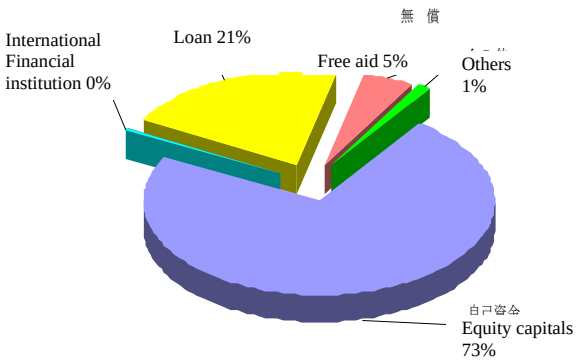
Today, domestic construction demand has declined as a result of the structural changes by the Koizumi regime that have reduced public works. Lead by the major and semi-major construction companies, the construction industry has looked toward large-scale construction in the Middle East, Eastern Europe and Asia to seek a way out of the quagmire. The Ministry of Land, Infrastructure, and Transport has prepared reports concerning overseas construction operations annually, from 2004 to 2006, setting up a research group on Asian infrastructure in 2005.
In this paper I wish to ascertain aspects related to the expansion throughout Asia of the Japanese construction industry.

Figure 3 Capital source in 2004

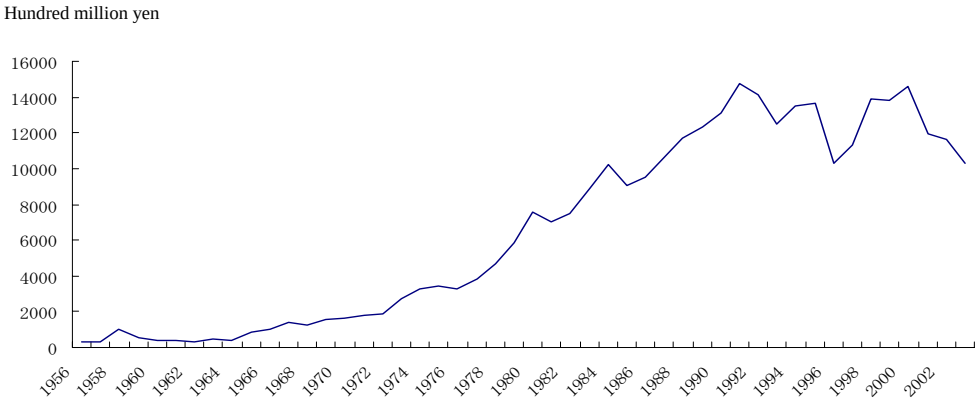


Resource: OCAJI

2. Breakdown of construction awards

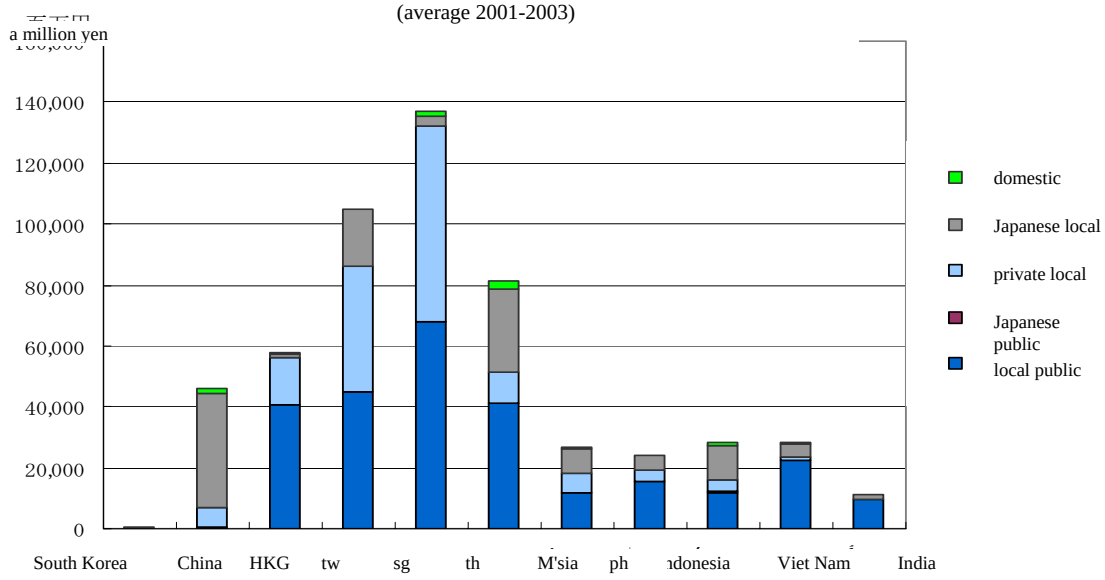
In terms of overseas orders for Japanese construction, the proportion of owned capital is the highest, followed by loan and free aid (Figure 3). If we look at orders procured for construction according to the region and country in Asia (as an average from 2001 to 2003), the Japanese construction industry has taken a number of the public and private sectors in NIEs, and local public sectors in ASEAN. Also in China, Japanese construction companies have taken a serious number of orders (Figure 4).

Figure 4 A change of ODA orders received



Resource: overseas operations strategy of Japanese construction industry report
Source: The Ministry of Foreign Affairs of Japan

Figure 5 Volume of orders in ten Asian countries
(average 2001-2003)



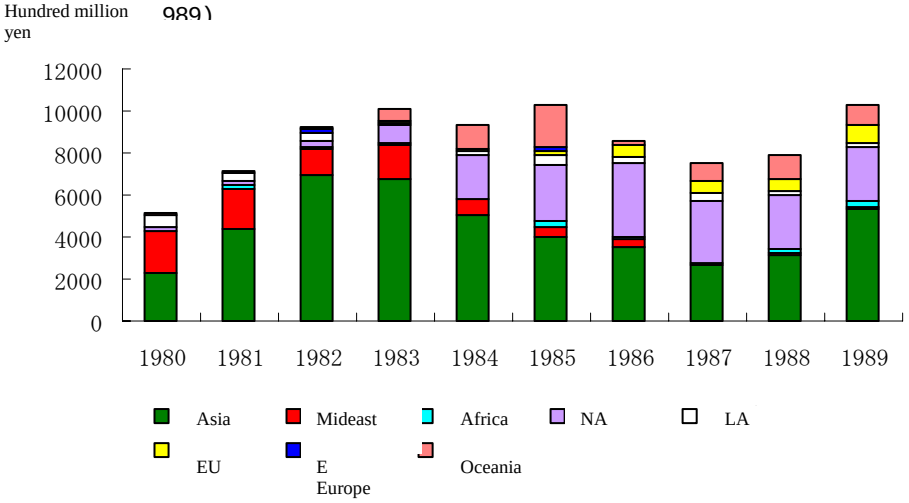
Resource: overseas operations strategy of Japanese construction industry report

According to an *Overseas companies bibliography 2005* (TOYO KEIZAI INC), the number of Japanese construction companies advancing in Asia is 29 companies, with 22 companies to Thailand, 16 to Indonesia, 16 to China, 12 to Malaysia, 11 to Philippines, 11 to Hong Kong, 9 to Singapore, 5 to Viet Nam, 4 to Taiwan, 2 to India, 1 to South Korea, Brunei and Myanmar. Entering the Asian market with Japanese construction companies moved up from 21 companies in 1970's, 33 in 1980's, 52 in 1990's, so with a peak between 1980 to

1993. Then there was a decrease to 11 from 2000 to 2004 (without calculating overseas companies).

3. **The Movement since 1980s**

Figure 6 Change of received overseas orders (from 1985 to 989)



Resource: overseas operations strategy of Japanese construction industry

In the 1980s, orders in the Japanese construction industry tended to increase till 1983, decreased from 1983 to 1987, and increased after 1988.

According to a report produced by a research group on Asian infrastructure, the main cause of the reduction from 1983 to 1987 was stagnation in the Asian economy, because ASEAN governments had reduced their public investment in order to reduce budget deficits, and of exchange fluctuations by the Plaza Accord in 1985.

Subsequently, according to the report, the factor of change that led to an increase after 1988 was that the ASEAN economy emerged from the recession. The relocation of manufacturing industries to move production units to other parts of Asia became active, seeking for low labour costs and reduced allowances. As a result, Japanese construction companies received building orders. After the late 1980s these orders for Japanese local corporations of construction were prolonged since, in addition, foreign direct investment had increased. For example, according to the Kajima Overseas Asia homepage, the number of factories and plants constructed by Kajima Corporation (that established a local corporation abroad) is 78 in ASEAN from 1988 to 1996. It is about 60% from 1973 to 2006.

At the same time, Japan had become the world's largest ODA donor country, surpassing the U.S from 1989 on, because of systematically working with a strong yen.

Figure 7 Change of received orders for Asia ODA/FDI (1980-1989)

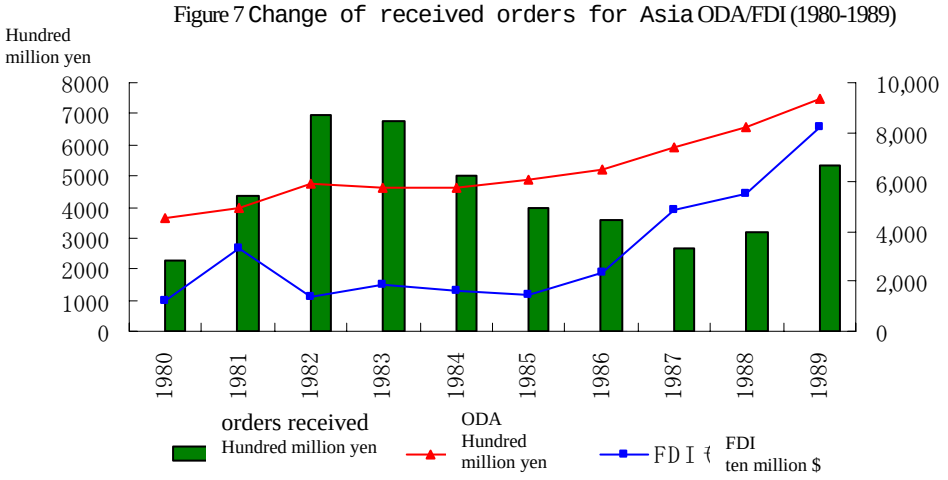


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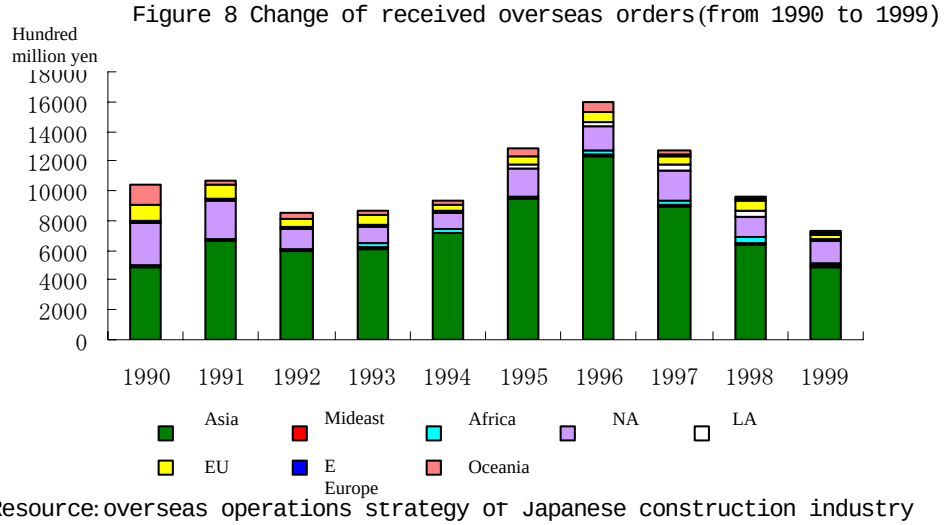
Figure 8 Change of received overseas orders (from 1990 to 1999)



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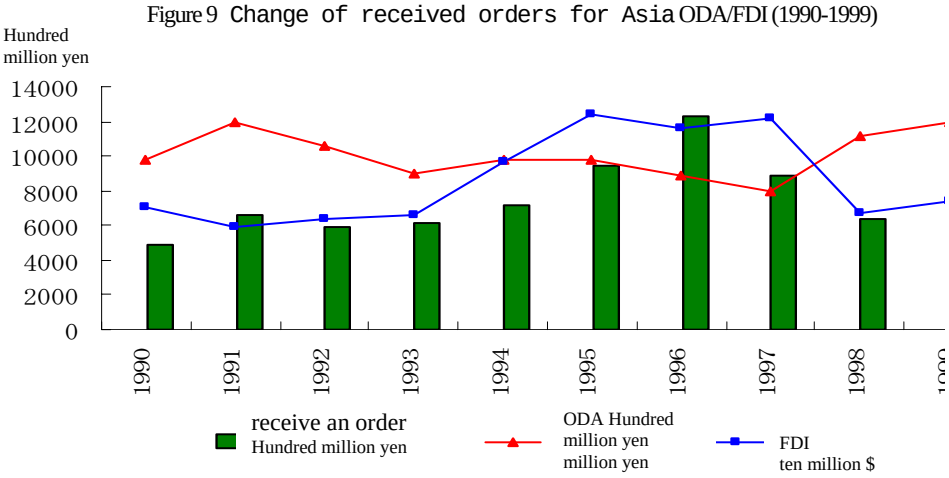
In the 1990s, the "bubble economy" burst in Japan and foreign direct investment slowed down. However, to remain in momentum from the late 1980s, orders received from overseas hit a record 1,5926 billions yen in 1996 and in Asia accounted for 77% of the whole.

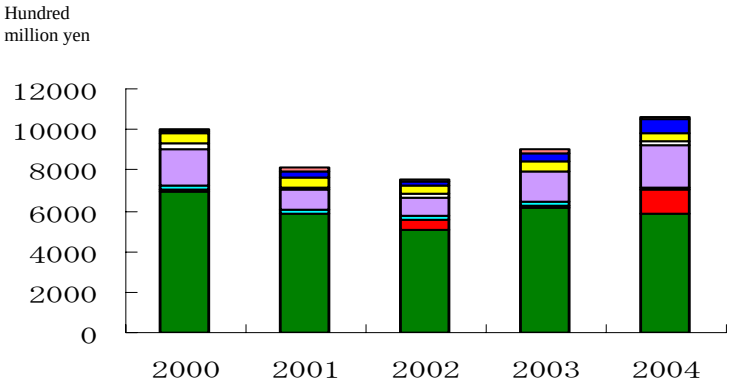
Later on this dropped, influenced by the Asian economic crisis in 1997, because the movement of overseas relocation of manufacturing industry slowed down and foreign direct investment had taken a sharp drop. Only ODA had shown a steady performance after the Asian economic crisis.

Figure 9 Change of received orders for Asia ODA/FDI (1990-1999)



Resource: overseas operations strategy of Japanese construction industry report

Figure 10 Change of received overseas orders (from 2000 to 2004)



Resource: overseas operations strategy of Japanese construction industry report

After 1999, pulling out of the Asian crisis, overseas orders received for Japanese construction recovered, to reach the 1 trillion yen level in 2000. However, they fell to 75.84billion yen again in 2002, influenced, I think, by the IT recession in 2000, because as a result, Japanese electric equipment and electronic Asian activities slowed down. Japanese overseas construction activity recovered in 2004, extending mainly in Vietnam and China.

Final remarks: the Japanese construction industry is expanding throughout Asia, affected by the economic ups and downs of foreign and domestic markets. According to the report on *Overseas operations strategy of Japanese construction industry* in 2006, the industry is making positive efforts to carry on overseas operations and to gain business opportunities in the future. Today, the development of the Mekong area, including Asian highway projects, are important expanding opportunities in Asia.

Towards a Participatory Industrial Society: New Agenda of Japanese Trade Unions

Fujikazu Suzuki

Introduction

A trade union is a voluntary association organised by employed workers, aiming at improving their employment and living conditions. Like any other association, it has an objective aspect, in the sense that its fundamental nature or goals are restricted by the political, economic, and social environments of the era in which it operates. At the same time, it has another, subjective aspect which influences and transforms the environment (OKAMOTO, 1964). Needless to say, as employed labour is a major social force in an industrial society, a trade union which "voices" its members' concerns to an enterprise or society occupies a critical strategic position in the process of forming systems of employment relations, i.e. human resources management and industrial relations. This tendency will intensify in proportion to the modernisation of the employment structure and to increases in the ratios of the employed and the unionised. In fact, post-war Japanese trade unions have won their solid standing along just these lines. Considering the fact that trade unions were originally organised with an aim toward the creation of systems pertinent to labour at a grass roots level, it seems in a sense very natural for them to discuss the future of labour and to try to practice their strategic choices. Moreover, many recent studies on labour reveal that endeavours to create one's own future become more significant than ever under contemporary circumstances where the future picture of labour is getting more uncertain. This contribution, beginning with the reconsideration of what unions can do and how they actually function, addresses possible challenges facing trade unions in Japan as they seek a vision for the future.

1. The Distinctive Features of the Japanese Trade Union Organisation.

1.1 Enterprise-based unionism as the basic form of organisation.

The locus of the basic unit of most of the Japanese trade union organisations is the enterprise. Though there do exist industrial or craft unions organised beyond enterprise barriers, these represent only 15% or so of organised labour. Eighty-five per cent of organised

workers belong to enterprise-based unions. The enterprise-based union includes all regular workers at the enterprise irrespective of their job categories and no matter whether they are white-collar or blue-collar workers. This form of organisation helps to coordinate particular interests of white- and blue-collar workers and facilitates unionisation of white-collar workers. But this form of unionisation in many cases excludes part-time workers and other irregularly employed workers from union membership. Since irregular workers, subjected to substandard working conditions, are on a rapid increase, their unionisation is a major task facing Japanese trade unions. It should be noted that the enterprise-based union has to be strictly distinguished from the so-called "company union" in that the former is voluntarily organised by workers and maintains independence from management. The Japanese enterprise unionism is a historical product. Besides, various efforts have been made to overcome the major weakness of enterprise-based unionism: its scattered, centrifugal disposition. It is wrong to assume that Japanese unionism can be explained away by enterprise unionism alone.

1.2 Decentralized structure and low union density in SME's

Union organizations stay scattered and progress in organising at medium and small enterprises remains slow. Generally, individual unions are small in size and unrelated to one another. Another characteristic is that unions are concentrated on large enterprises. As of 2005, Japanese unions had an aggregate membership of 10,138,000 (18.7% of the total of employees) who were organized into as many as 28,279 unions. Unions are thinly dispersed over society. The rates of organisation differ widely between large enterprises on the one hand and medium and small enterprises on the other. While the rate of organization is 47.7% in large enterprises with 1,000 or more employees, the rate goes down to 15% in enterprises with 100-999 employees and to a meagre 1.2% in small firms with less than 100 employees. Since 70% of Japanese workers are working in enterprises with less than 1,000 employees, they are one of the major target groups for unionisation drives.

RENGO is tackling this task through organising drives run by its Organisation Bureau. It also set up the Centre for Small & Medium Enterprise Workers. This is to strengthen the unions' say in labour relations at medium and small firms.

1.3 Industrial Federation of Enterprise Unions

Though enterprise-based unions are highly independent organisationally and financially, they are not totally isolated from one another. In many cases, they are coalesced into industrial federations. Industrial federations are composed of enterprise-based unions in the same industry (such as the Japanese Electrical Electronic & Information Union, DENKI RENGO, and the Japan Federation of Iron and Steel Workers' Unions, TEKKO ROREN), which then are organised into the national centre, RENGO. Also operating are local industrial union organisations, which unite local units of large enterprise-based unions as well as local union councils embracing unions at local enterprises. The federations composed of enterprise-based unions are engaged in a wide range of activities that the enterprise-unions as such would not be able to undertake - organising the unorganised, making and implementing unified action policies which are binding on member unions, and adjusting dissimilar interests of member unions within and beyond the industries concerned. Mainly industrial union federations and the national centre undertake the formulation of strategies and policy recommendations supported by research and investigation. The organisations uniting enterprise-based unions, especially industrial federations, are playing an important role in complementing the widely dispersed state of operation of Japanese unionism. But we must admit that in spite all these efforts the said weakness still persists. RENGO alone has as many as over 80 industrial union federations as its members. In addition there are 100-200 similar organisations outside of RENGO. Under these circumstances, the important organisational task is up to RENGO to consolidate diverse unions in the same industries so that the size of each industrial federation will be enlarged for further empowerment.

2. Development of Trade Union Functions

2.1 Centralized coordination of decentralized collective bargaining

Given the union structure, collective bargaining is undertaken independently at the enterprise level. The negotiating functions are decentralized. However, this does not mean that negotiations are done totally separately. For what is called industrial united struggle links enterprise-level bargaining with one another, functioning to coordinate them. This system may be regarded as a functional equivalent of the

trans-enterprise or industrial negotiation practice of North American and European unionism.

The typical form of the interlinked negotiations is the Spring Struggle (*Shunto*) which functions as a wage decision mechanism at the macro level. Launched about 40 years ago, *Shunto* is defined as a "united struggle under the united leadership conducted in a specified period in spring every year mainly for wage increase in which as many industrial unions as possible are asked to participate." It is a sort of "pattern bargaining" in which otherwise isolated wage bargaining efforts are horizontally linked so as to have the effect of raising wage standards to the highest possible level. The standard thus established will spread across society and help to raise the general wage level.

Shunto-activities are not limited to the spring season alone. The *Shunto* policymaking begins in the autumn, following union conventions in the summer that evaluate the previous achievements and discuss policies of the following year. It is a whole year activity repeating this cycle every year. In this cycle information is exchanged among the participating unions helping them formulate final policies and crystallising a unified will to fight. A pattern-setter union, whose gains have broad ripple effects, benefiting even non-unionised workers, usually spearheads the *Shunto* campaign. Thanks to these ripple effects, the wage levels can converge on the level attained by the Spring Struggle. In this sense, Japanese wage negotiations, though basically decentralized, integrate in them a centralised coordination mechanism.

Without considering this mechanism it would be impossible to explain why the wage gap did not grow significantly even in the unprecedented long stagnation in the 1990s. Nevertheless, we have to admit that *Shunto* is at a turning point too. It must change in the face of the rapidly changing economic environment and aggravated international competition, which is causing yawning capacity gaps among enterprises. Aware of this, RENGO has begun discussing how *Shunto* can be revitalised in the new situation.

2.2 Joint consultation system as a channel of communication

Another characteristic of Japanese industrial relations is that along with collective bargaining the management joint consultation system is a widespread and generally accepted practice. Under this system, representatives of labour and management discuss matters related to

the company's business situation as well as matters involving employment and working conditions. The system operates at 80.5% of unionised enterprises and at 15% of non-unionised companies ("Survey on Management-Management Communication," Ministry of Health, Labour and Welfare, 2004).

The joint consultation system is not based on any law. Voluntarily run by agreement between representatives and management at individual enterprises, the system has various versions. The range of topics taken up as well as the degree of the union's influence also differs greatly company-to-company. Generally, the consultation at unionised enterprises has a more formal character, deals with a broader range of topics and ensures the union's stronger say than at non-union firms.

The agenda at the joint consultation is wide-ranging. It is of special note that in more than half of cases those business matters which are usually considered management prerogatives such as basic business strategies, production and market plans, company's organizational structure, and equipment investment are topics of consultation.

How far the voice of the labour side is heard again differs according to the nature of the matter discussed. Roughly there are four modalities of consultation with different degrees of the union's participatory strength: (1) management only reports on and explains the company policy, (2) management listens to the union but decides by itself, (3) management endeavours to come to accord with the union, and (4) management requires the union's consent before it takes a decision. On matters pertaining to wages, working time, and other basic working conditions as well as job transfer, transfer to other firms, dismissals and other matters related to employment, cases requiring prior consultation and/or consent of the union are more frequent than on other matters (See Table 1).

Though the joint consultation system plays a significant role in lubricating communication between the union and management, it does not guarantee the unions a large enough say in crucial matters. It is therefore necessary that the unions strengthen their influence on decision-making by increasing consultation and/or prior consent-requiring items of consultation. The Japanese Federation of Textile, Garment, Chemical, Mercantile, Food and Allied Industries Workers' Unions (ZENSEN), Japan Federation of and Steel Workers' Unions (TEKKO RORENN), Japanese Electrical Electronic & Information

Union (DENKI RENGO), Confederation of Japan Automobile Workers' Unions (JIDOSHA SOREN), Japan Confederation of Shipbuilding and Engineering Workers' Unions (ZOSEN JUKI ROREN) and some other industrial unions conduct joint consultations at their industrial levels. Linking with enterprise-level consultations, the industrial joint consultation is expected to help expand the degree of workers' participation. Fully developing and generalising industrial level joint consultation beyond enterprise barriers is one of the strategic tasks for the Japanese union movement.

2.3 Enterprise-based industrial relations and flexibility of internal management market.

The Japanese enterprise-based unionism emerged and has developed as a system of organisation harmonious to the internal management market. The idea of an internal management market is also integrated with the long-term employment practice and skill formation by intra-firm training. But for enterprise-based unionism to contribute to the stability of management relations and to be able to function harmoniously with the logic of the internal management market, there is a definite precondition to be fulfilled by the enterprise: the enterprise must have a particular character.

In the early post-war years, Japanese management unions rose valiantly for the abolition of status-based discrimination in the company and democratisation of management. They succeeded in achieving these goals in a relatively short period of time. Thus emerging as an effective countervailing power within the enterprise, the union, if not by design, contributed towards significantly transforming the character of the Japanese enterprise. In the employment practice established in this process, the enterprise is assumed to exist not just as a means of making profits, but as a kind of society in itself where management is required to guarantee its employees jobs and fringe benefits and the employees in return are expected to contribute to the prosperity of the company. This understanding has taken a sort of normative character. The implicit understanding that dismissal is the last thing to do even in recession reflects the operation of this social norm. Not that this social norm has been conjured up in a short period of time. It is a historical product of a long and fierce struggle between management and labour over dismissals, through which both sides finally learned that mutual trust

was the most precious asset they should share.
The management practice thus formed, strengthened by the nature of the Japanese capital market and government's industrial policies, cast the post-war enterprise into a model fairly different from the stockholder-oriented model in which the stockholders play the key role. This employment-oriented character of the enterprise has served as the basis of stable industrial relations at the enterprise level. This system of enterprise-based industrial relations eventually imparted to the internal management market the ability of flexible response to various changes caused by technological innovation, transformation of industrial structures, and regional redistribution of management force. As long as employment enjoys stability, and fruits of growth are distributed in a fair manner, the enterprise-based unionism is able to flexibly adapt to movement of workers within enterprises and changes in the nature of jobs caused by technological innovation (see Figure 1 and 2).

Now Japanese enterprises are forced to change under the pressure of the rapid transformation of economic environment in the wake of internationalisation and innovation in information technology. For survival in the sharpening international competition, Japanese employers have in the 1990s put into practice in rapid succession a series of new policies centering on business restructuring for cost reduction, managerial innovation, and organisational overhauling. They have also made employment "more flexible" for the sake of personnel cost reduction. In the same vein, many employers now propose to revise the wage systems in favour of strengthened capacity and achievement evaluation in order to facilitate the selection of the fittest.
In this situation, RENGO declares that for the sake of proper personnel upbringing and stable employment "flexible employment" should not be used as an excuse for the neglect of long-term employment stability, that in the evaluation of workers' capacity and achievement fair criteria should be established and that evaluation should be done in such a way that it is acceptable to the workers themselves as reasonable. Emphasizing the role of trade unions in protecting jobs, RENGO proposes that the wage system be revised from the point of view of making the concept of fair wage as seen by management compatible with that of stable living wage. Industrial

unions on their part have advocated industrial, employment, and wage policies taking their respective industrial situations into account. The trade unions are searching for ways that can make invigoration of their industries compatible with the protection and improvement of employment and working conditions.

It is also noted that at the enterprise level the unions make it their strategic task to more intensely work on management to persuade the latter to adopt the unions' alternative plans about business policy, investment, and organisational improvement. In the midst of this tug-of-war between union and management, some strategic choices have been taken as to where the Japanese employment system is going. Trade unions are expected to fully display their organisational, intellectual, and moral capacities in order to bring about compatibility between industrial revitalisation and quantitative preservation cum qualitative improvement of employment.

3. Towards a Participatory Industrial Society.

3.1 The basic conditions for reforming the unions.

Japan's industrial democracy now stands at a crossroad. Union density has continued to decline since the mid 1970s. In 2003, it fell below 20 percent. The latest figure for union density is 18.7 percent in 2005, which stands at 10,138,000 in terms of actual membership (Ministry of Health, Labour and Welfare, Rodo Kumiai Kiso Chosa - Basic Survey on Labour Unions, 2005). Non-union personal management is becoming more and more common in contemporary business. Democracy in "corporate society" is currently facing a crisis. To remove this crisis in industrial democracy, Japanese trade unions need to reform themselves to cope with the rapidly changing environment.

There are some major issues that must be considered when discussing the reform of enterprise unions (Suzuki 2000). First, before being able to increase their influence in managerial decision-making policies, unions must reinforce their strength, policy and action to force management to recognize their presence as a partner in an effort to create a management structure based on discussion and consensus. Second, in the light of the increase of non-regular employees, such as part-time and dispatched workers, it is necessary for unions to work even harder to ensure they receive fair treatment in corporate society while actively working to unionise them. Third, it is necessary to

consider a mechanism in which the interests of middle managers will also be heard. It is strategically important for the unions to hear the "voice" of middle managers, because they play quite important roles in the consensus formation at companies. Fourth, it is necessary to strengthen efforts such as negotiations and consultations at the corporate group-level in the light of corporate splits, the creation of subsidiaries and a shift to management based on consolidated account statements. Fifth, it is necessary to develop a more robust response to corporate reorganisations, such as creating holding companies and corporate mergers, while beginning to establish new rules on managerial relations.

3.2 The role of trade unions in corporate reform.

A new series of heated discussions is heard on possible forms of enterprise management, which give proper consideration to the interests of various stakeholders involved with a company such as employees, consumers, and local communities, instead of giving preference only to the interest of stockholders. In other words, it is desired to harmonise efficiency with fairness in the economy and society, not by having enterprises eat-up society, but by properly placing them within society.

If the experiences of Japanese trade unions are positively interpreted they could perhaps lead to true enterprise innovation and industry vitalisation. However, there is a hurdle in front of us to clear before that occurs. We have to work on the enhancement of trade union functions at the trans-enterprise level while inheriting the benefits of the stable labour relationship within enterprises accumulated by conventional enterprise-specific trade unions.

Enterprise-specific trade unions played a crucial role in the post-war democratisation of industry in Japan, but on the other side, their exclusive and closed nature (often pointed to as corporate egoism within enterprises) cannot be denied. This should be overcome in order to gain a real power to tackle the universal challenge of socio-economic reform.

Moreover, it will be tremendously hard, if the movement remains within the framework of enterprise-specific trade unions, to put the brakes on the continuous decrease in the union density rate after the second half of the1970s and make it turn around and begin to grow

again. Industry specific federations, national centres, and other locals made most of the effort to organize new unions. Any attempt to further expand, by providing more human resources or a more solid financial basis, without reinforcing organisation outside the existing enterprise-based unions is destined to reach its own limit.
Trade unions have undoubtedly striven greatly to establish an industrial democracy transcending enterprises. Functional enhancements of industrial unions were made, as well as efforts to devise linkages between enterprise-based collective bargaining through integrated industry-based offensives. Even today, however, the financial bases and available human resources for industrial unions and national centres are not always adequate.

In its "Organization Policy" adopted in 1992, RENGO (JTUC) clearly defined the roles and responsibilities of national centres, industrial unions, locals, and enterprise-specific unions and then called for the need for functional enhancement at every level of the organisation in order to lay a foundation for the labour movement of the 21st century.
This policy stipulates that national centres' most important role is to build up movements for all workers in the nation, such as enhancement of solidarity integrating all those employed, and to reflect the extensive interests of workers in government policies and institutions. Industrial unions are expected to be responsible for such areas as guidance and coordination of affiliated enterprise-specific unions, expansion of organisation, and action concerning policy-related issues such as industrial policies. Enterprise-based unions are requested to base their organisation on the workplace and make a louder voice heard on employment security and career planning for workers, while intensifying and consolidating their movements to encompass even checking of the management of enterprises.

3.3 Toward a better competitiveness and corporate model
RIALS, the think tank funded by RENGO (JTUC), has examined competitiveness models for business enterprises under the ongoing global and fiercer international competition, and proposes a "competitiveness model compatible with social progress".
This model is set against the behaviour of some corporations and management which intently seek to exploit labour at lower wages and in the form of short-term employment to enable it to be discarded, and

for their operations to be transferred from one place to the other, to locations providing even lower wages, that is the "low-road approach" directed toward "lower wage/lower productivity". The latter direction emphasises shareholders' sovereignty, looks at higher return on equity (ROE) as the sole criterion for successful management, and disregards workers' job security and the social aspects of corporate activity. They often try to retard effectiveness of public policy, evade public burdens, or deny trade unions. These behaviours can be called being committed to a "competitiveness at shareholders' value" model.
Against this, RIALS has proposed "the competitiveness at stake-holders' value" model in innovations in corporate organisation and technology, furnishing businesses with flexible power of deployment. This is based on long-term employment and makes better use of the higher adaptability of workers resulting from the development of human abilities and pressures for industrial democracy, including management/labour consultation,
This model stands on the historical path of the development of the Japanese-specific employment system, which was formed as a sustainable "social compromise" out of the fierce industrial conflicts in the early period of the post-war movements in Japan. This model can be positioned as a Japanese version of the "high-road approach". In this model, for the working public, too, the viewpoint emphasised is that throughout their working life, workers are expected to realise a chain of "high skills, high reliability, high quality, and high productivity".

3.4 Building a participatory industrial society

In the first place, trade unions are the torchbearers of democracy in the production area; they represent industrial democracy. A unionist, however, is actually a multifaceted subject who acts as a human who lives in the society, and also as someone who must ultimately integrate different roles. He or she belongs to the ecosystem as a natural person, engages in the production of goods and services as a producer, contributes to domestic demand as a consumer, is a citizen of local and global communities, expresses him/herself as an individual, and aims at a normal standard of life as a member of the public. He or she may hunt in the morning and philosophise in the evening. It is safe to say that it is a natural course of events for a trade union to behave in a sense as an entity to demand, negotiate, and

consult, while involved with various kinds of political activity, social movements, local initiatives, and cultural movements.

The democracy of today's society should not only be envisioned as a political democracy, but also as a combination of plural systems consisting of an industrial democracy, i.e. a producer's democracy, a consumer's democracy, and a democracy at the community level. As stated earlier, the creation of a mechanism that is devised to reflect the interests of diversified stakeholders concerning a company (shareholders, employees, consumers, and local communities) properly to the management of companies is a key when the innovation of enterprises and the vitalization of industries are envisaged for the 21st century. This applies, in the end, to the society as a whole.

Everyone, from various standpoints, has a stake, i.e. interest, as their "share" in society. "The stakeholder economy" or "the stakeholder society", which is much argued in the United Kingdom, envisages a society where these stakes are coordinated through a democratic process to lead to social consensus. The term is new, but the concept itself is actually nothing else than democracy as it was practiced in the old days. The rationale for pluralistic democracy lies in an individual who has various aspects as a producer, consumer, or local citizen and may have different stakes depending on his/her position, but yet ultimately internally integrates those various stakes. For that reason trade unions respond to the extended life of a labourer who lives as a consumer and a local citizen.

Japanese trade unions have accumulated plenty of valuable experiences and achievements in the "trust" building between management and labour through "voice and participation" in enterprises. Labour unions are required to expand these achievements at a trans-enterprise level, and further enhance their participation in social movements in a broader sense in closer collaboration with "Non-Profit Organizations or NGO’s" -- which is a rather new buzzword for consumer and citizen's organizations (Research Institute for Advancement of Living Standards, 1997b). In the direction of such movements, we can also envisage an industrial society where consensus making based on "voice and participation" is guaranteed under a pluralistic combined democracy, or "participatory industrial society". This will also involve the creation of the fundamental prerequisites for a new model of an economic society.

In fact, trade unions have been more involved with volunteer activities than ever. Many leaders engage in volunteer activities (Research Institute for Advancement of Living Standards, 1997a). A dedicated "Citizens and Volunteer Bureau" has also been established at RENGO (JTUC) which, in coordination with similar departments of industrial unions, shows the development in organisational approaches to volunteer activities. Efforts to expand and deepen Japanese industrial democracy to make it more open have been initiated.

The contemporary period is called the age of individualisation, differentiation, and diversification. The more these trends advance, however, coordination of diversified stakes to achieve social integration becomes more critical. In this context, too, realisation of a more open industrial society is a strategic challenge of importance. The new trade union movement should open its role to a civil society, overcoming the closed nature of enterprise unions. It is very much anticipated that the trade unions exert their organizational power to envisage a new social movement, as they have the largest organising ability and social influence among "non-profit organizations".

Many workers expect labour unions to play meaningful social roles, and a substantial portion is ready to respond to a call to join a union. According to the survey results on “What workers want for Labour Unions” by RENGO-RIALS in 2003, more than 20 percent (21.6%) responded that labour unions are absolutely necessary while 49.7 percent said that unions are somewhat necessary, i.e. more than 70 percent believe that unions are necessary.

Moreover, many workers hope that the presence of labour unions will help improve rights, working conditions, and the welfare of workers. In terms of the benefits to society as a whole, they cite protection of workers’ rights (73.8%), improvement in working conditions (50.1%), more gender equity over employment opportunities (24.4%), and closing the gaps in working conditions among different industries and companies (20.4%). Improvement in employee benefits, the welfare system and the work environment (53.6%), inclusion of employee opinions in corporate management (48.8%), reduction of unfair personnel evaluations (24.3%), curbing personnel reductions (23.1%), more gender equity over employment opportunities (20.9%) and maintenance of corporate ethics (15.2%) were noted as benefits for unionised workers.

Clearly, many workers see labour unions as a necessity. They believe

that unions can bring many positive benefits and expect unions to engage in many activities. Moreover, 13.2 percent of non-unionised workers are willing to join labour unions (would like to join at 3.2% and would consider joining at 10.2%). Examined by employment type, 13.4 percent of regular employees and over 20 percent (22.4%) of contract and dispatched workers are willing to join. About 10 percent (9.7%) of part-time and casual workers are also willing to join. Significantly, nearly one-third of those who believe labour unions are absolutely necessary want to join a union.

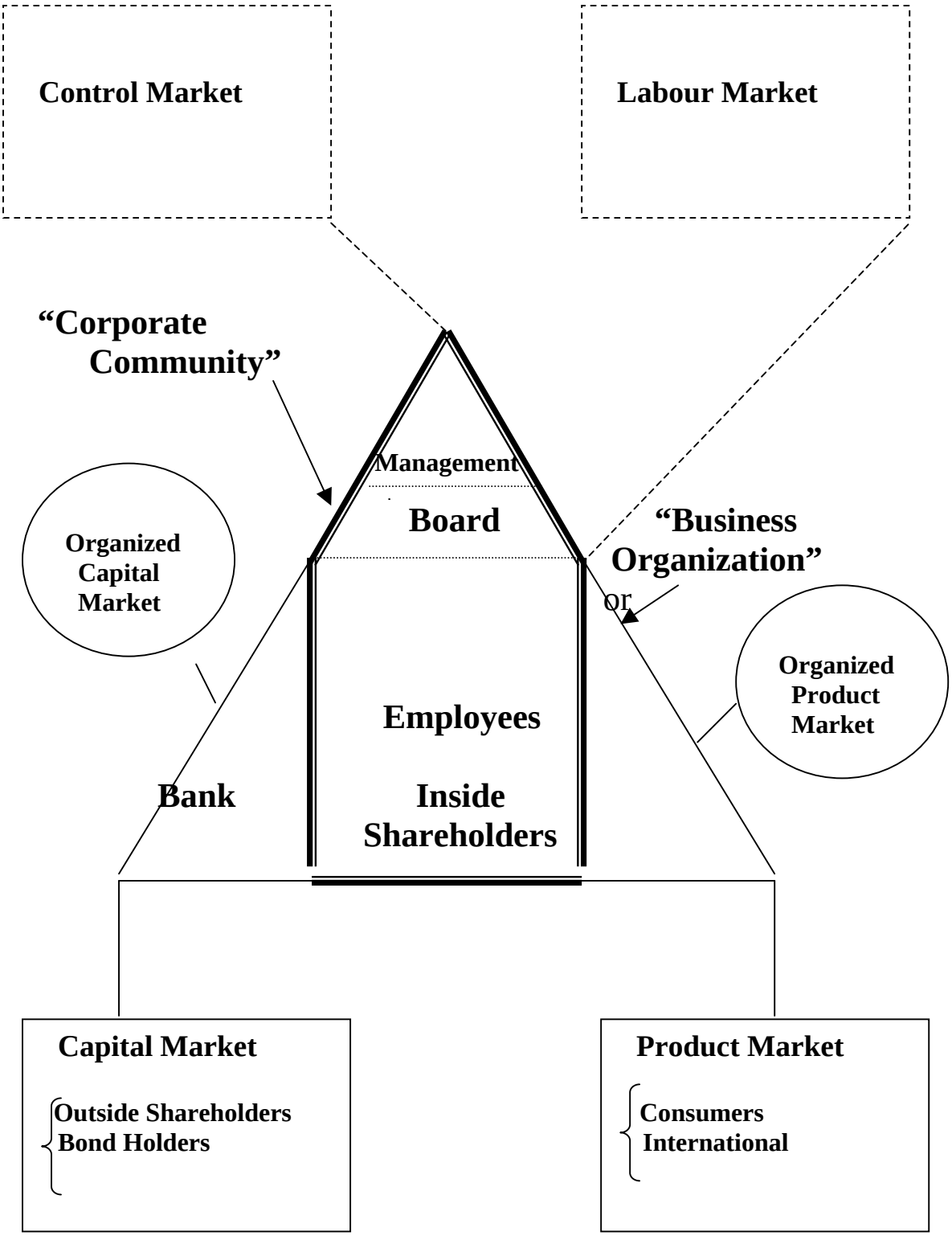
Perhaps, these three examples only amount to a very modest first step and a potential that is only latent. However, only by taking the first small step forward and fulfilling such latent potential will unions be able to change the status quo. What is demanded from labour unions now is a leadership that seeks out an opportunity for future development in the midst of a crisis. That opportunity is manifesting itself; it can be found in the desire for security and stability of vocational life amidst the upheaval that exists in corporate society. The Japanese trade unions need devote their entire energy to building a participatory industrial society, which must be the essential requirement to realise what workers want in their working lives.

Table I. Items Taken Up in Joint Consultation and Modalities of Treatment of Union Views 2004

	Item Covered By Consultation	Modalities of treatment of union views			
		Management Unilaterally Reports or Explains	Management listens to union views	Prior consultation required	Union consent required
[Management Policy]					
Basic business strategy	71,1	77,2	8,0	8,7	6,1
Basic production and marketing plans	67,0	67,3	12,4	13,5	6,8
Restructuring of company organization, Creation or abolition of company structures	66,0	64,9	12,1	17,2	5,8
Introduction of new technologies, new Equipment, Rationalization of production processes and Office work	53,1	48,3	19,1	23,4	9,2
[Personnel Management]					
Hiring and positioning criteria	59,8	51,0	16,6	23,6	8,8
Promotion and promotion criteria	65,5	41,3	18,9	26,0	13,8
Job transfers, transfer to other firms	69,5	36,2	16,0	28,9	18,8
Layoffs, personnel strength cuts Dismissals	72,7	14,6	4,0	53,0	28,4
[Matters involving working conditions]					
Change in modality of work	88,3	15,0	7,1	49,7	28,2
Working time, holidays, paid leave	92,6	13,1	5,9	51,3	29,6
Workplace safety and health	88,2	14,8	12,3	60,0	12,9
Retirement systems	78,1	20,9	4,6	43,3	31,2
Wages and allowances	86,3	16,8	4,4	48,9	29,9
Overtime premiums	78,6	17,5	4,1	48,1	30,3
Severance pay and pension standards	80,1	20,5	4,5	48,5	26,5
[Other matters]					
Educational and training programs	64,3	38,1	25,5	22,8	13,6
Intra-firm welfare and other fringe benefits	87,4	20,7	15,3	47,2	16,9
Cultural activities and physical training	69,9	22,7	16,8	45,1	15,5
Child-rearing leave and leave for the care of the aged	81,3	19,0	6,9	47,3	26,8

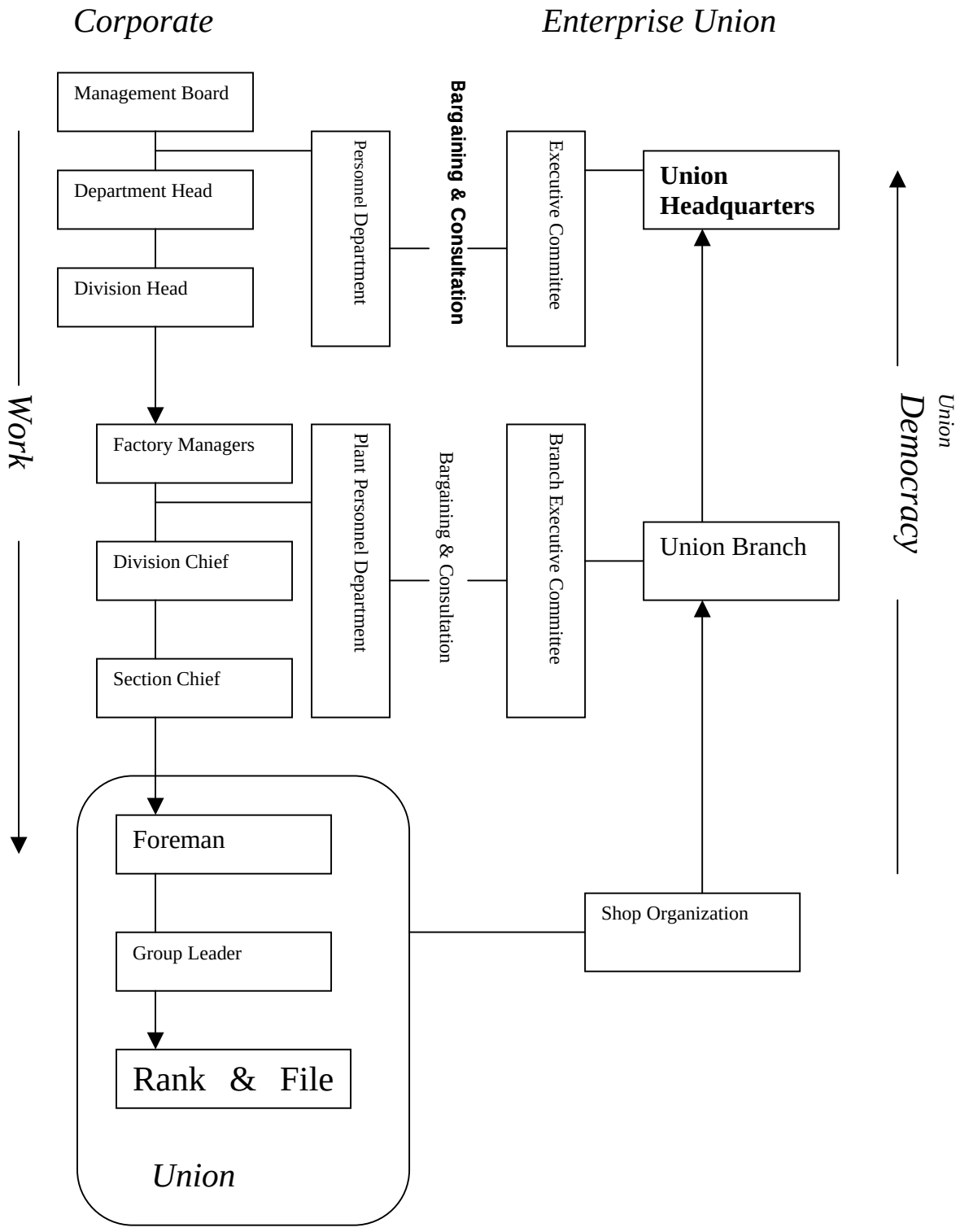
Source: Ministry of Labour(2005) "Survey on Communication between Labor and Management"

Figure 1. The Image of the J-Corp



Notes: The dotted line of "Control Market" and "Labour Market" indicates that its function is incomplete or very limited.

Figure 2. Corporate Organization and Union Structure
: the case of manufacturing firm



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Over the years IB has produced a steady stream of critical books. IB authors are experts - scholars and/or activists - in their field. IB is an independent publishing firm and determines its own publishing policies. Authors are also highly involved in marketing their own books - in the case of English-language books in close cooperation with the staff of *International Books* and a network of distributors throughout the English-speaking world.

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International Books - **http://www.antenna.nl/i-books/**

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