OVERSEAS PROJECTS FINANCED BY INTERNATIONAL INSTITUTIONS FOR JAPANESE CONSTRUCTION FIRMS

By

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ABSTRACT

This thesis analyzes the relationships between Japanese construction firms, and overseas projects financed by international institutions, such as the World Bank Group, United Nations, ADB, IDB, JBIC, and JICA. Japanese construction firms have as large revenues as other international construction firms in the world. However, the scale of overseas business is quite small compared to that of their domestic activities. Today firms in the Japanese construction industry suffer from the shrinking Japanese construction market. To survive in the future, exploring overseas construction markets is an option for Japanese construction firms. To expand their business overseas, Japanese construction firms should explore the possibilities of increasing contracts financed by international institutions, because payments and contracts for these projects are more secure than those of other financing sources, such as governments of developing countries. As the first step in increasing overseas revenues, projects financed by international institutions become appropriate starts for Japanese construction firms.

On the other hand, today the Japanese government is one of the largest sponsors of international institutions. It contributes substantial funds to multilateral financing institutions as well as to Japanese bilateral financing institutions. The government has made extensive contributions to constructing projects in developing countries through these international institutions. However, the number of projects awarded to Japanese construction firms from these international institutions has been extremely small, compared to the substantial contributions made by the Japanese government to those countries.

In this paper, we study the current tendencies of international institutions, analyzing data of projects they finance. By analyzing these data, we can determine the identity of major players as well as the position of Japanese construction firms in these markets. Based on these analyses, we also discuss how Japanese construction firms may increase their international business in the future.

Thesis Supervisor: Fred Moavenzadeh, Professor, Department of Civil and Environmental Engineering

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Masashi Kojima
Cambridge, Massachusetts
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1. INTRODUCTION

In the Japanese construction industry, the top five Japanese construction firms have a large lead on their sales compared to other companies, occupying an 8% share of the domestic construction market. Since their revenues are substantial, they are ranked in the top ten of large scale construction companies throughout the world. However, the scale of overseas business is quite small compared to that of their domestic activities. Today firms in the Japanese construction industry suffer from the shrinking Japanese construction market, and moreover, they are struggling against debt repayments from investments during the Bubble Boom in the 1990s. To survive in the future, exploring overseas construction markets is an option for the Japanese construction firm.

To expand their business overseas, the Japanese construction firms should explore the possibilities of increasing contracts financed by international institutions, because payments and contracts for these projects are more secure than those of other financing sources, such as governments of developing countries. As the first step in increasing overseas revenues, projects financed by international institutions become appropriate starts for Japanese construction firms.

On the other hand, today the Japanese government is one of the largest sponsors of international institutions. It contributes substantial funds to multilateral financing institutions, the World Bank, United Nations, Asian Development Bank (ADB), Inter-American Development Bank (IDB), European Bank for Reconstruction and Development (EBRD), and African Development Bank (AfDB), as well as to Japanese bilateral financing institutions, Japan International Cooperation Agency (JICA) and Japan Bank for International Cooperation (JBIC). The government has made extensive contributions to

construction projects in developing countries through these international institutions. However, the number of projects awarded to Japanese construction firms from these international institutions has been extremely small, compared to the substantial contributions made by the Japanese government to those countries.

In this paper, we study the current tendencies of international institutions, analyzing data of projects they finance. In analyzing these data, we can determine the identity of major players as well as the position of Japanese construction firms in these markets. Based on these analyses, in the end of this paper, we discuss how Japanese construction firms may increase their international business in the future.

Chapter 2 outlines the Japanese construction industry and firms, including the history, features, current situation, and overseas activities of Japanese construction firms. Chapter 3 explains Japanese bilateral and multilateral financing institutions. In particular, it explains from the point of view of construction activities, including how much these institutions contribute their funds to construction sectors. Chapter 4 describes the current status of investments from the Japanese government to international institutions, including some features of its contributions compared to other donor countries, and some details of its contribution system. Chapter 5 describes details of international contracts awarded to Japanese construction firms, including features of contracts by regions, details of contracts from international institutions, and award ratios of international contracts. Chapter 6 shows major players in construction markets of international institutions, taking the World Bank Group and Inter-American Development Bank as examples. Also, current shares of Japanese firms in these markets are shown. Chapter 7 concludes with discussions on strategies of future international business for Japanese construction firms.

2. JAPANESE CONSTRUCTION INDUSTRY AND FIRMS

2.1. HISTORY OF JAPANESE CONSTRUCTION FIRMS

The Japanese construction firms were formed in the 1890s, and today about one hundred construction firms have histories of over one hundred years. Before the 1890s, almost all construction projects were executed by direct management methods, by which owners directly manage their projects and procure manpower and material through private firms. After that, some firms started to receive contracts for whole building constructions, which was the beginning of contract methods and contractors. The 1890s was the beginning of the Japanese modern era, and it was just 30 years after opening Japan to foreign countries (1858). In 1868, the new government (Meiji government) started, and it strongly promoted Japanese modernization. The government also engaged foreign engineers and designers to establish the modern government by using western technologies. In these circumstances, the original form of Japanese construction firms was shaped. To catch up with western countries, the Japanese government rapidly constructed many modern infrastructures such as railways, subways, western buildings and dams. Additionally, the Sino-Japanese war (1894-95) and Russo-Japanese war (1904-05) broke out in this era, and demands for military facilities, such as military ports, railways and bridges, increased. This war boom also helped the construction firms grow. Since such projects increased, the contractors increased their number and expand their business scales. Today's top five Japanese construction firms formed in this era.

After the Great Kanto Earthquake (large earthquake of 1923 in Tokyo area), a banking crisis was caused

by earthquake costs. Moreover, the worldwide financial crisis started in New York (1929) spread to Japan. This depression had a large effect on the construction industry, and construction demands dropped sharply. Under this circumstance, the Japanese government started controlling construction material and company activities, and the government headed into World War II (1941-45).

After the war, the general construction companies in Japan had to start from zero again. However, they recovered rapidly, and became even bigger than before the war. Also, the construction industry had heavy responsibility for the whole reconstruction of Japan after the war. Two features distinguish the Japanese construction industry after the war from construction industries in other countries. First, uncountable projects had to be constructed. The Japanese government had leadership to reconstruct infrastructures in Japan, even borrowing the funds from the World Bank for some projects; the High Speed Railway is a famous World Bank Loan project. Many waves of prosperity after the war helped developments of the construction firms. The construction firms constructed almost all new facilities such as highways, high speed railways, factories for other industries and buildings. Also the construction firms developed their original technologies of constructions. Before the Bubble Boom burst recently, the history of Japanese construction companies was generally a win-win story.

Second, the construction industry could accept many unemployed people after the war. The construction industry required extensive manpower but not skilled workers. The Japanese government also tried to keep unemployment rate low by controlling budgets for public construction. Therefore, the construction industry was expanded, and absorbed unemployed people.

Today the construction industry earns about 15% of the GDP, has 550,000 companies, and employs more than 6 million people. If we take their families into account, about 12 million people, 10% of the

Japanese population, are fed by this industry. The top five Japanese construction companies have built their solid positions throughout Japanese history, and also have the potential to be world wide players (Table 2-1).

Table 2-1 Outline of the top five construction firms in Japan

Obayashi Corporation	
■ Founded 1892	■ Employees: 10,275 as of September 2003
■ Paid-in Capital: 58 billion Yen	■Sales*: 1,341 billion Yen (US$11.6 billion) in FY2003
Kajima Corporation	
■ Founded 1840**	■ Employees: 10,850 as of March 2003
■ Paid-in Capital: 64 billion Yen	■Sales*: 1,875 billion Yen (US$16.2 billion) in FY2003
Shimizu Corporation	
■ Founded 1804***	■ Employees: 12,181 as of April 2003
■ Paid-in Capital: 74 billion Yen	■Sales*: 1,550 billion Yen (US$13.4 billion) in FY2003
Taisei Corporation	
■ Founded 1873	■ Employees: 10,048 as of March 2003
■ Paid-in Capital: 94 billion Yen	■ Sales*: 1,645 billion Yen (US$14.2 billion) in FY2003
Takenaka Corporation	
■ Founded 1899	■ Employees: 8,185 as of January 2004
■ Paid-in Capital: 50 billion Yen	■ Sales*: 1,050 billion Yen (US$9.1 billion) in FY2003

* Consolidated sales ** Incorporated in 1930 *** Incorporated in 1937

2.2. FEATURES OF THE JAPANESE CONSTRUCTION INDUSTRY

The Japanese construction industry is a unique industry, and it has some typical features which do not exist in construction industries outside Japan because they are built up through history, environment and culture of the Japanese construction industry. Four of these major features are considered: the structure of general contractors and subcontractors, contract aspects, fragmented industry, and absence of foreign

competitors.

2.2.1. Structure of General Contractors and Subcontractors

The relationship between a general contractor (GC) and a subcontractor (Sub) in Japan is different from that in other countries, especially in the US. Japanese GCs and Subs think that relationships are more important than contracts, and these relations are considered for a long time period rather than a project period. Therefore, the GC in Japan continues to work with the same Sub, and the Sub gets jobs from the same GC. This relationship is called "Keiretu" in Japanese (Figure 2-1).

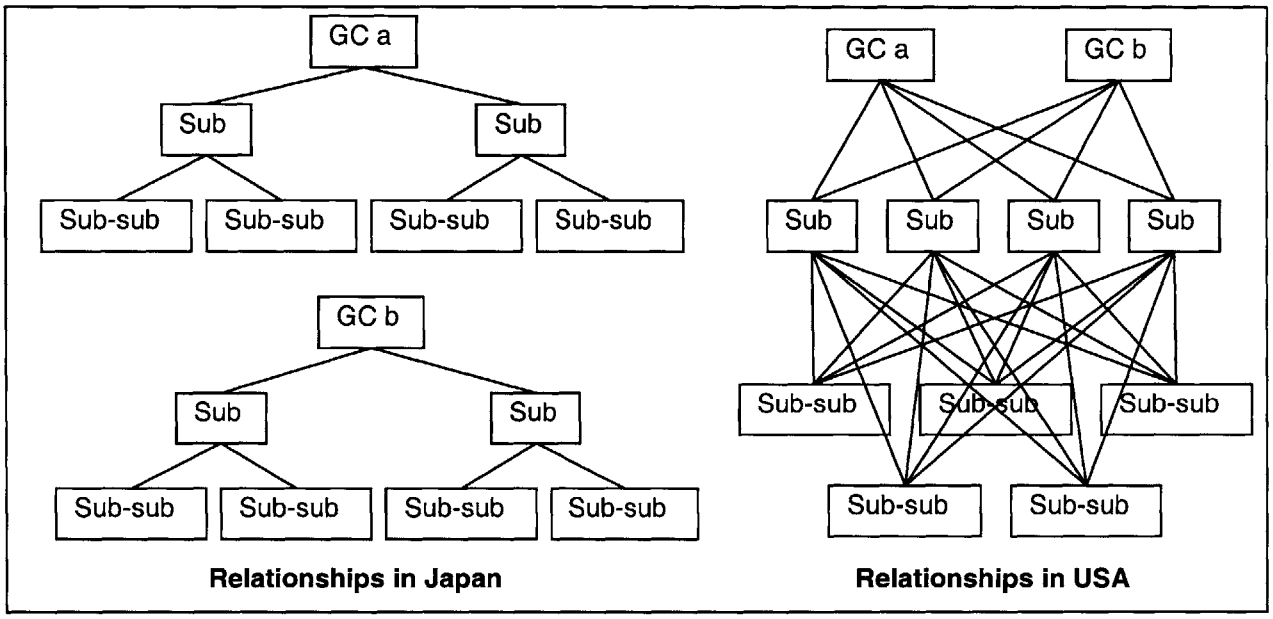

Figure 2-1 Relationships between GCs and Subs in Japan and US

In this relationship, when the Sub faces difficulty in business, the GC may take care of the Sub. When the GC faces difficulty completing a project in time, the Sub may work harder without overtime or acceleration costs. This "Keiretsu" relationship can also be seen in manufacturing industries in Japan

such as the automobile and electronics industries. However, today this "Keiretsu" relationship in manufacturing industries has become weaker than before because some of Toyota's parts makers have started to sell some components to Nissan. The relationships between principal manufacturers and subcontractors in Japanese manufacturing industries are changing to the American style, but those in Japanese construction industry seems to remain unchanged so far.

2.2.2. Contract Features between Owners and Contractors

Construction contracts are divided into two categories depending on their owners. One is public owners such as the government, prefectures, cities and public companies. The other is private owners which want to invest in developing lands, selling mansions, new factories and new office buildings.

Contracts between public owners and contractors in Japan have some aspects which differ from those in the US. Most contracts in Japan are orthodox general contracts, which are not construction management (CM) or design-built. Large projects are always divided into many sections or phases, which do not exceed more than $30 million each. In many cases, owners request contractors to form joint ventures for contracts. Especially for large projects, for example, an owner requires that contractors form joint ventures including one large construction firm, one middle size and one local small contractor in the project area.

The award method is also unique. The public accounting law in Japan, formulated in 1889 without any major revision, sets regulations to procure any merchandise for public owners. This old law regulates all procurement from a pencil to a fighter jet in the same way. A winning bid must be decided only by bidding price, not by quality or technology. However, there are cases that some goods, such as a large

computer, are bid on by quality as well as price, and an approval of the Minister of Finance is required for each good to use this selection method. Because of the complication of this selection method, almost all construction procurement is examined only in terms of its price. Construction biddings are generally executed by using the expected bid price, which is owner's estimated price, and the minimum bid price, which is 80% of the expected bid price. The winning bidder is decided as the tenderer who bids the lowest price between the expected bid price and the minimum bid price. In other words, the bidder who bids 1 cent over the expected bid price or under the minimum bid price is defeated.

Japanese construction contracts of public works are very unique, and differ from American or international contracts. Most public owners adopt a lump sum contract method, which is rare to be seen in other countries. This contract is agreed only on its total price and construction period. Contractors have substantial flexibilities on the contracts, but they also have to have large risks. Even if the total construction cost becomes higher than the contract price, basically the contractor must pay additional costs. Public owners give contractors large portions of risks, and contractors must add large contingencies on bidding prices. In Japanese construction contracts, it is unclear who pays the cost of change orders. Change orders are very common in construction projects because there are many cases that conditions or environments change after the contracts, and additional costs are created. However, in contracts, change order clauses are very ambiguous, and it is written that "when a difference of contract condition is found, it should be solved by discussions with the owner and the contractor." The Japanese construction contracts do not define change order clauses clearly, unlike American or international contracts. Therefore, owners and contractors consider relationships are important for implementing projects smoothly.

In addition to ambiguous construction contracts between an owner and a contractor, they are very brief

compared to American or international projects. In some cases, only inadequate specifications and designs are included in the contract, but the project is smoothly implemented with cooperation between the owner and the contractor in most cases. Even if the project fails by the lack of information in specifications, contractors never sue public owners. There is no case that a contractor sues a public owner in Japan. Japanese public owners and contractors emphasize their relationships rather than their contract.

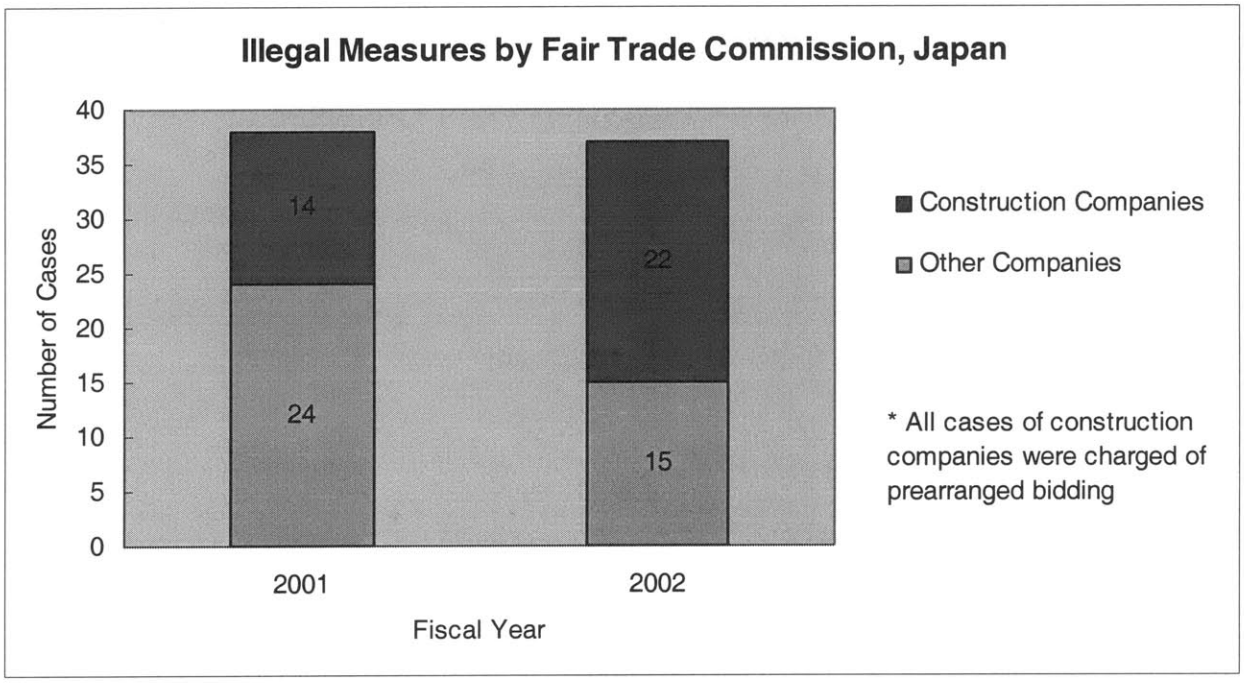

Figure 2-2 Illegal measures by Fair Trade Commission, Japan[1]

Contracts with private owners also have similar features to public owners, and their relationships are more important than those of public owners. If a contractor has a good relationship with a private owner, the private owner always makes orders to the same contractor, not to other contractors. Some contractors continue to have this relationship with a regular customer for more than 50 years. Contractors consider

[1] Annual Report on Competition Policy in Japan 2002 and 2001

these relations for a long time period rather than a project period. Contractors do not evaluate one project, but evaluate all projects from one owner for the long time period. Therefore, contractors consider that the relationships with owners are more important than their contracts.

The Japanese bidding system has less competitive aspect than American or international competitive biddings, but it has more cooperative aspect. In this situation, sometimes prearranged biddings (Dangou) are held illegally in the Japanese construction industry. Figure 2-2 shows number of illegal measures executed by Fair Trade Commission of the Japanese Government, and this indicates that prearranged biddings by construction firms amount to a large portion of total illegal measures. Moreover, undetected prearranged biddings may exist more than uncovered cases.

2.2.3. Fragmented Industry

The Japanese construction industry is generally a typical fragmented industry. Today the number of Japanese construction companies is counted as more than 550 thousand companies, and about 99% of them are small companies whose capitals are less than 100 million Japanese yen (US$ 860 thousand). One-man companies are 130 thousand and occupy 24% of total construction companies (Figure 2-3).

Figure 2-4 shows the market share in the Japanese construction industry. Among more than 550 thousand companies, the top 5 firms' share was 8% to 9%, and top 50 firms' share was 21% to 23%. Since infrastructure investments decreased through these years, the top 50 companies' share was declining. However, despite shrinking the market size, the top 5 companies'[2] share was slightly upturning. This indicates that the declining infrastructure investments affected middle class contractors

[2] Refer to Table 2-1.

more than the top 5 construction firms.

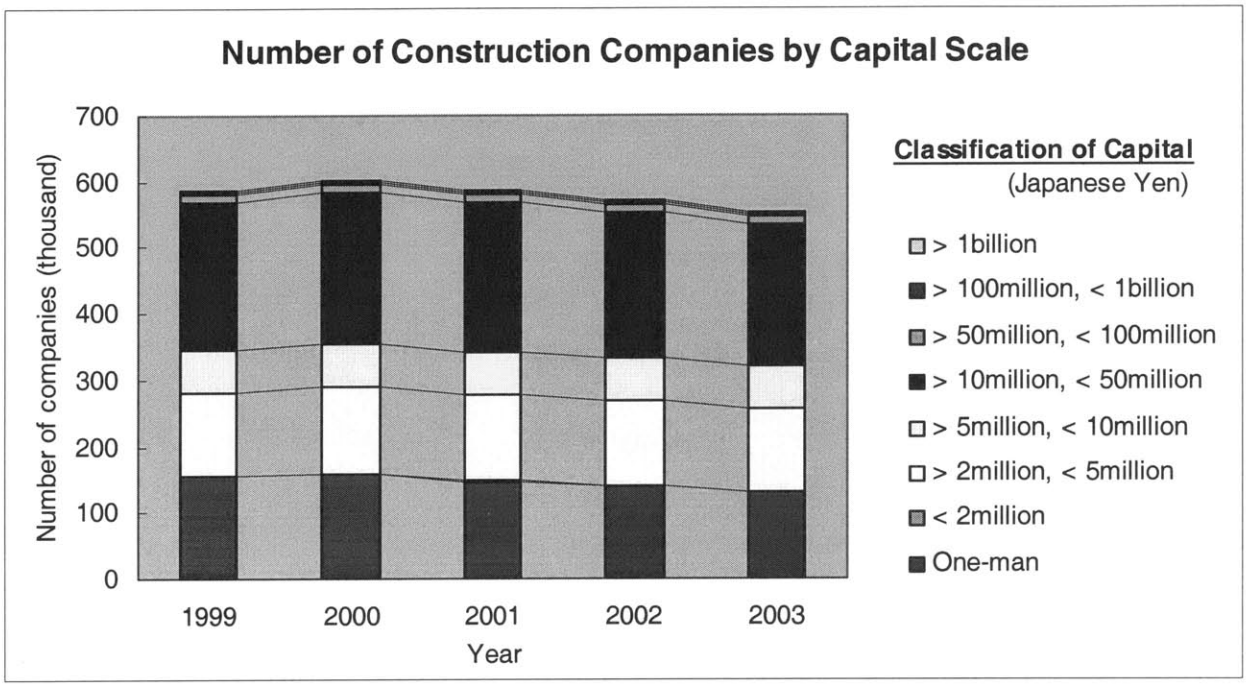

Figure 2-3 Number of construction companies by capital scale[3]

From Figure 2-4, the Japanese construction industry seems to be a competitive market, but not oligopolistic market. However, in this industry there are different scale companies from one-man operation companies to large scale companies which receive over US$10 billion revenues. The one-man operation companies are doing business in different market segments from that of large scale companies. For example, complicated projects such as nuclear power plants can be bid on by only a few large construction companies which have abilities to build it. On the other hand, for example, some of small scale companies only build individual housings in particular areas, and large scale companies do not enter this market. (There are some exceptions: Taisei Corporation has a subsidiary of manufactured housings, and large scale companies sometimes build residential houses only for regular clients.) The

[3] Ministry of Land, Infrastructure and Transport, Japan

Japanese construction companies are doing business in their own market segments depending on scale, complexity or area of projects. The industry seems to be a fragmented industry, but it is really not fragmented if looking at each segment of the market.

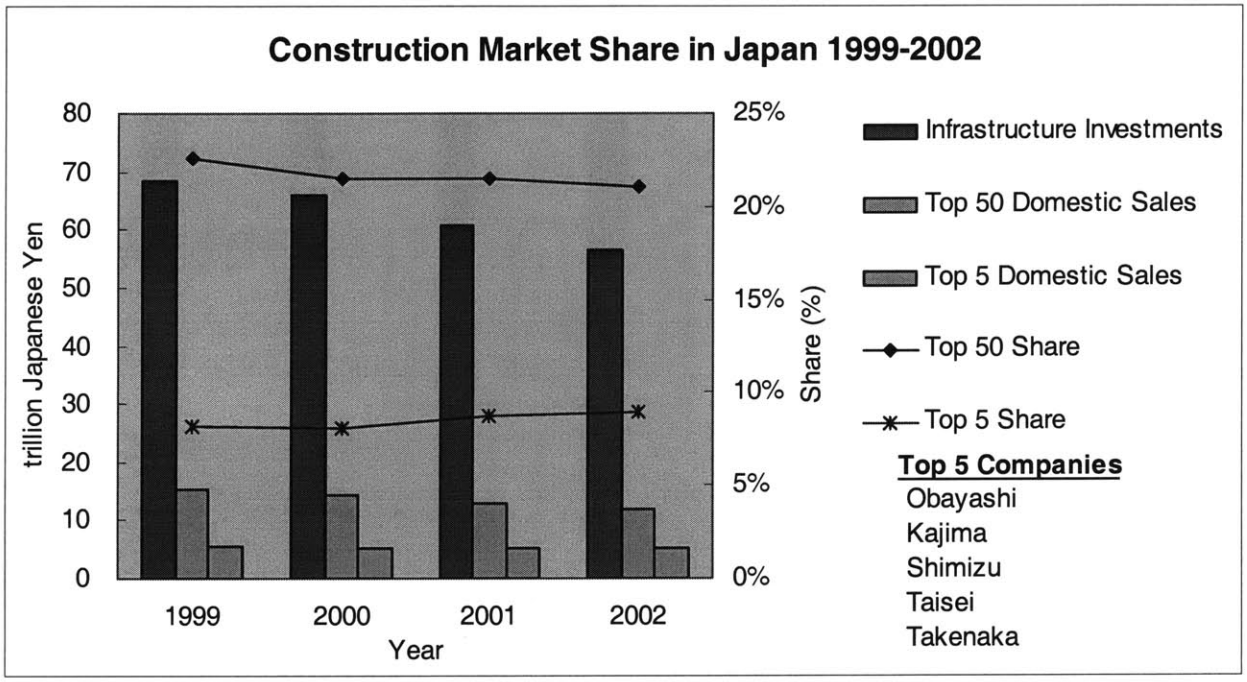

Figure 2-4 Market share in the Japanese construction industry 1999-2002[4]

2.2.4. Absence of Foreign Competitors

The Japanese construction market was one area of the trade friction between Japan and the US as well as other items, automobiles, oranges and beef. In 1996, the Agreement on Government Procurement of World Trade Organization (WTO) became effective, and barriers of entering the Japanese construction industry were generally removed. Today government projects over 660 million Japanese yen (local government projects over 2.2 billion Japanese yen) must be tendered for any foreign company. However,

[4] Ministry of Land, Infrastructure and Transport, Japan, and Annual Reports of Top 5 companies

the number of foreign construction companies has not increased after 1996.

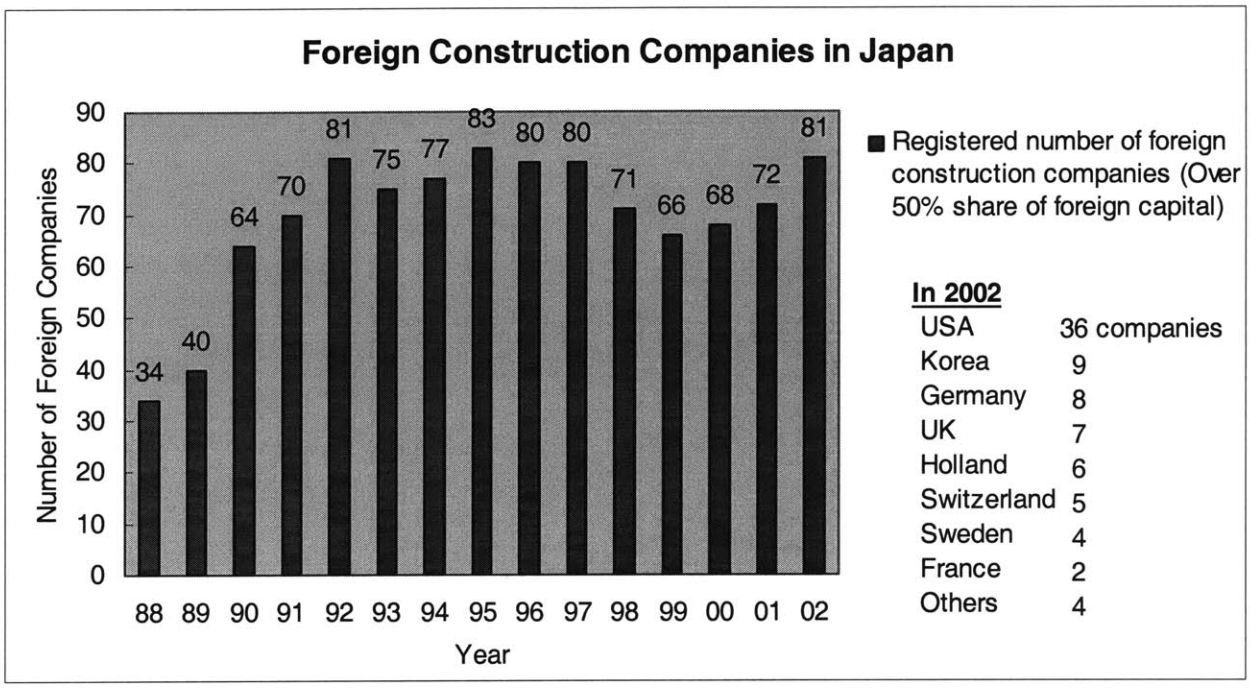

Figure 2-5 Number of foreign construction companies in Japan[5]

Figure 2-5 shows number of foreign construction companies in Japan, and the number of companies has been between 60 and 80 since 1990. In 2002, there were only 81 foreign construction companies in Japanese construction industry, which had over 500 thousand companies. No significant activity by these companies has been seen, and the Japanese construction industry seems to be still closed. Even after the market opened to foreign construction companies, it was still very hard for them to do business in the Japanese construction market.

There are several reasons why they cannot do business in Japan, and the major reasons are caused by the unique features of the Japanese construction industry. The first reason is the unique structure of general

[5] · Ministry of Land, Infrastructure and Transport, Japan

contractors and subcontractors that is mentioned in section 2.2.1. For foreign construction companies, it is really hard to set up Japanese style relationships with Japanese subcontractors. Japanese subcontractors used not to do business with strict contracts either. Therefore, the relationship with subcontractors is one of the barriers. Second, building the relationship with owners is also difficult for foreign construction companies. They have to consider long term relationship with owners rather than one project term. They have to manage uncertainty of projects which is not clearly written in contracts (refer to section 2.2.2). Therefore, the relationship with owners also might be a reason for the barriers.

The only solution to enter the Japanese construction industry is partnering with Japanese construction companies. The partnering can solve both problems of subcontractors and owners. However, to establish this partnership, the foreign construction company must have some advantages for the Japanese partner. Otherwise, the Japanese firms cannot find any value of partnership with foreign firms. Since public construction procurements are examined only on their price (refer to section 2.2.2), creating advantages for foreign construction firms compared to Japanese construction firms is quite hard.

2.3. STRUGGLING FIRMS IN THE SHRINKING JAPANESE CONSTRUCTION MARKET

The construction industry in Japan was a 37.6 trillion yen (US$309 billion) market, which was 7.4% of Japanese GDP in the 2001 fiscal year (Figure 2-6), and if material for construction was taken into account, 78.5 trillion yen (US$646 billion) market, which was 15.6% of Japanese GDP. This amount was larger than the total GNP of Mexico in 2001 (US$624 million). The Japanese construction market is

huge and still very attractive market. About 40% of the construction market relies on public investment, and it is a comparatively bigger proportion compared to other developed countries.

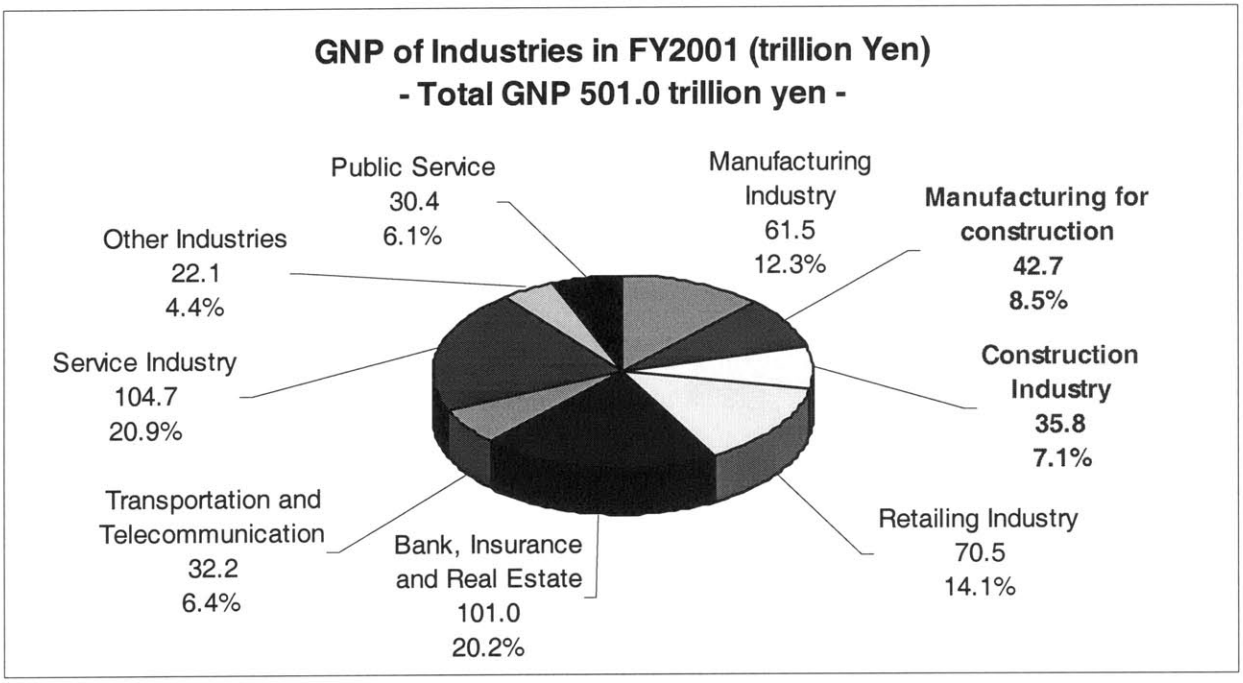

Figure 2-6 GNP of industries in FY2001[6]

The employment population of the industry was 6.2 million people, which was 9.8% of total employed population in the 2002 fiscal year (Figure 2-7). This industry needs the large portion of the Japanese work force, and it was still a labor-intensive industry. Since Japanese economy is in a period of the depression, the construction industry is also doing unprofitable business now. The employment population of this industry is sensitively affected by economic performances, because the industry can easily absorb unemployed people without particular skills compared to other industries. People or small companies can easily enter this industry because its barrier to entry is very low. Anyone can start a construction business only with a small truck and mobile phone. On the other hand, during recessions,

[6] Cabinet Office, Japan

the population of the industry gradually decreases because most people or small companies work on project bases. Especially, labor supply companies can employ people in short terms, and release them during low demands.

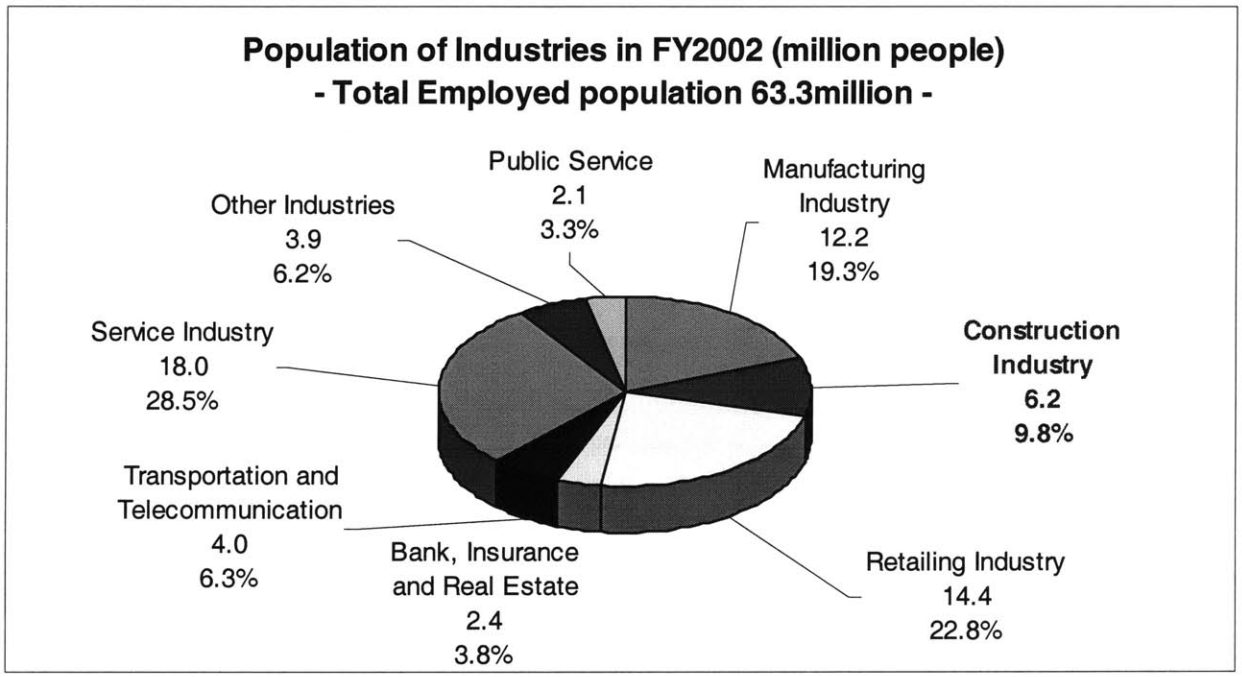

Figure 2-7 Population of industries in FY 2002[7]

Figure 2-8 shows infrastructure investments and number of companies in the Japanese construction industry. From November 1986 to February 1991, the Japanese economy enjoyed the Bubble Boom, and most Japanese construction companies also expanded their business and invested in real estate for developments against rapidly growing demands. The private investment amount for infrastructure grew from 1986, and after its peak in 1991, it started smoothly decreasing. The private investment matched the wave of the Bubble Boom completely. After the Bubble Boom was burst (1992), the Japanese government could maintain the construction industry by means of infrastructure investments. However,

[7] Ministry of Public Management, Home Affairs, Posts and Telecommunications

in 1996 the government could not any more sustain this policy and at that point is when the stock price of all major construction companies started to fall dramatically. On the other hand, before the peak of the Bubble Boom, the number of the construction companies did not increase because there were more attractive businesses than construction business, which has a dirty, hard and dangerous image. After the peak of the Bubble boom, the number of the construction companies increased, because other businesses lost their attractiveness at that time but construction industry was still invested in by public governments. Therefore, the number of the construction companies continued to expand to 600 thousand companies until 2000, and then decreased quickly. This government's assistance made the situation of the industry worse. Declining investment and excess number of construction companies led to scrambling of the pie.

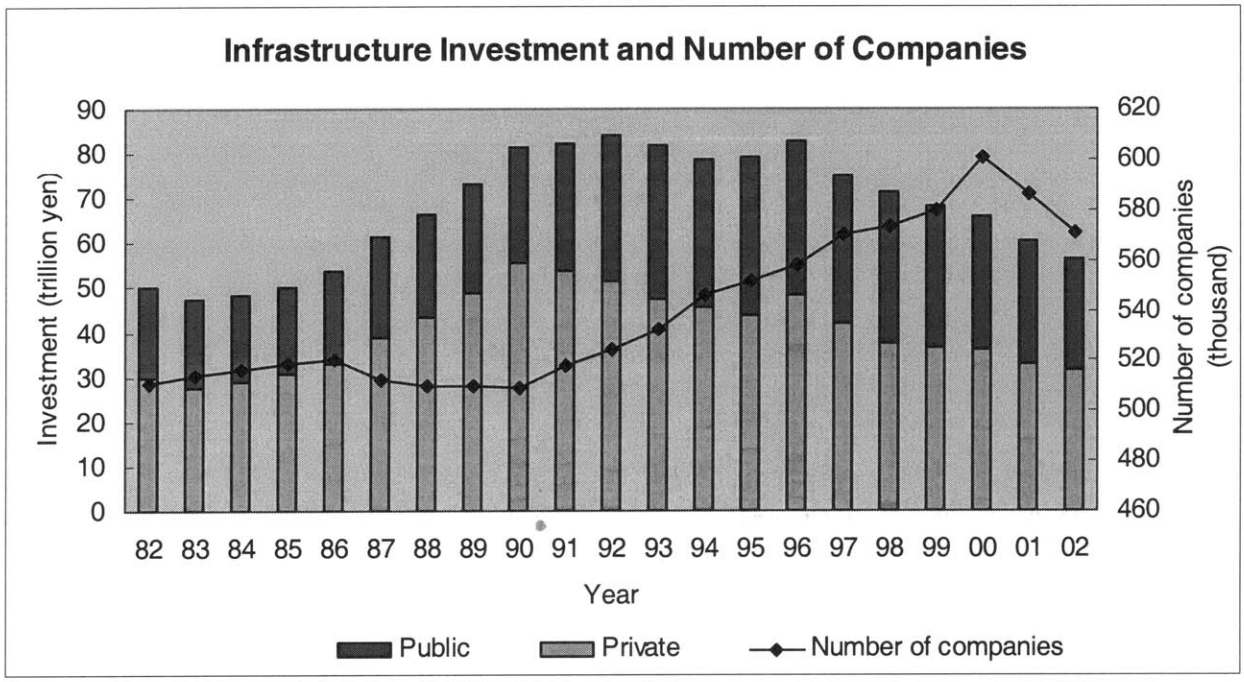

Figure 2-8 Infrastructure investments and number of companies in the Japanese construction industry[8]

After the burst of the Bubble Boom, bankruptcies in the construction industry increased as shown in

[8] Ministry of Land, Infrastructure and Transport

Figure 2-9. In 1997, 1998, 2001 and 2002, the default amounts of bankruptcies were quite large because some well-known midsize construction companies became bankrupt, and the default amount per company was also large. The circumstances of the construction industry have been worse in the past several years, and an upturn in business cannot be expected in the near future.

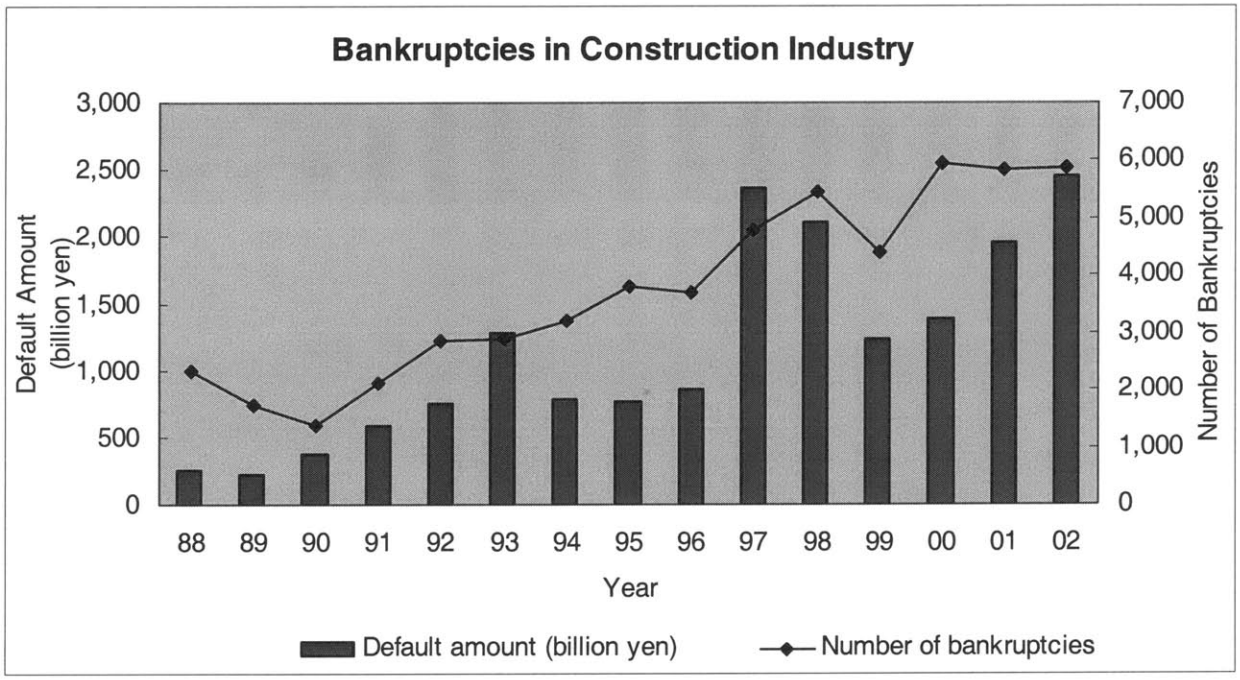

Figure 2-9 Bankruptcies in the Japanese construction industry[9]

2.4. OVERSEAS ACTIVITIES OF JAPANESE CONSTRUCTION FIRMS

Japanese construction companies are doing business overseas as well as in Japan, but the scale of overseas business is quite small compared to their domestic activities. In 2003 the top 50 Japanese construction companies had overseas sales of 593 billion Japanese yen (US$5.1 billion) compared to

[9] Teikoku Data Bank

domestic sales of 11.9 trillion Japanese yen (US$103 billion).[10] Less than 5% of sales were overseas revenues for the top 50 construction companies in Japan. Differing from typical Japanese companies in other industries, such as Toyota, Sony or Fuji Film, the Japanese construction companies are doing business mainly in the domestic market.

Table 2-2 Top global companies in total revenues in 2003[11]

Rank	Firm	Total Revenue (US$million)
1	VINCI, Rueil-Malmaison, France	16,595
2	Bouygues, Saint-Quentin en Yvelines, France	15,169
3	Skanska AB, Stockholm, Sweden	13,951
4	Kajima Corp., Tokyo, Japan	12,333
5	Taisei Corp., Tokyo, Japan	12,057
6	Hochtief AG, Essen, Germany	11,959
7	Shimizu Corp., Tokyo, Japan	10,813
8	Obayashi Corp., Tokyo, Japan	9,767
9	Bechtel, San Francisco, Calif., U.S.A.	9,688
10	Takenaka Corp., Osaka, Japan	8,284

Table 2-3 Top international companies in international revenues in 2003[12]

Rank	Firm	International Revenue (US$million)
1	Skanska AB, Stockholm, Sweden	11,520
2	Hochtief AG, Essen, Germany	10,010
3	VINCI, Rueil-Malmaison, France	6,841
4	Bouygues, Saint-Quentin en Yvelines, France	6,449
5	TECHNIP-COFLEXIP, Paris, France	4,619
:		
26	Kajima Corp., Tokyo, Japan	1,127
:		
28	Obayashi Corp., Tokyo, Japan	1,057
:		
33	Takenaka Corp., Osaka, Japan	757

Table 2-2 shows the top ten global construction companies in total revenues in 2003. The top five Japanese construction firms were in the top 10 throughout the world. However, when comparing in international revenues, no Japanese construction firm was seen in the top 10 (Table 2-3). The highest

[10] Contract base, Ministry of Land, Infrastructure and Transport
[11] "Top 225 Global Contractors." Engineering News-Record, August 2003.
[12] "Top 225 International Contractors." Engineering News-Record, August 2003.

ranked Japanese firm, Kajima Corporation, is ranked 26th in the world, and only 9% of the total revenue came from international revenue. On the other hand, Skanska, the top international revenue firm, earned 83% of the total revenue from the international market. This result indicates that the Japanese construction firms can be high-revenue large-scale construction companies in the world, but they are not truly international construction companies. The large revenues of the Japanese construction firms heavily rely on huge infrastructure investments from Japanese public and private sources. Today, since the infrastructure investments in Japan are not expected to increase in the near future, Japanese construction firms, especially large firms, are at a crossroads to survive.

3. OUTLINE OF INTERNATIONAL INSTITUTIONS

3.1. JAPANESE BILATERAL FINANCING

The Japanese Official Development Assistance (ODA) administrative system is very complicated. It is managed by four main ministries – the Ministry of Foreign Affairs (MOFA), Ministry of Finance (MOF), Ministry of Economy, Trade and Industry (METI), and Cabinet Office. They control two ODA operational agents – Japan International Cooperation Agency (JICA) and Japan Bank for International Cooperation (JBIC). JICA is mainly charged with bilateral grants, and JBIC carries out bilateral loans for developing countries (Figure 3-1). The new administrative reform of the Japanese government was executed in January 2001, and it made the ODA system more complex than before.

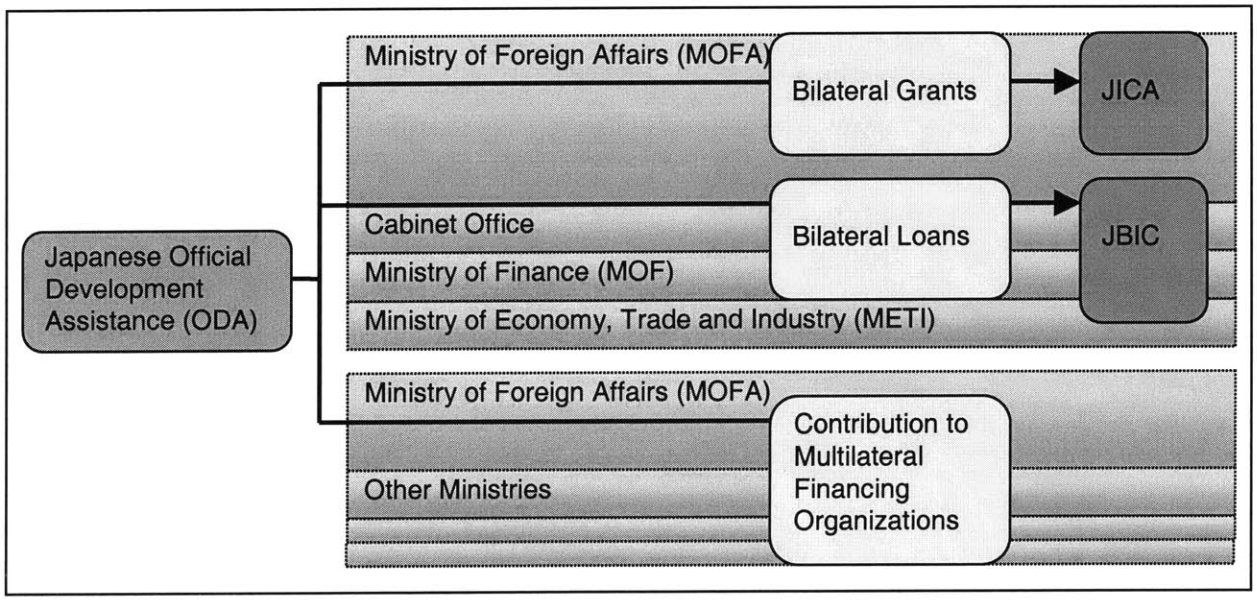

Figure 3-1 Actors in Japanese Official Development Assistance

Other ministries and agencies run small ODA programs with their own budgets, but their total budget is relatively small, less than 7 percent of the total Japanese ODA amount. The ministries and agencies also contribute their own budgets to multilateral institutions.

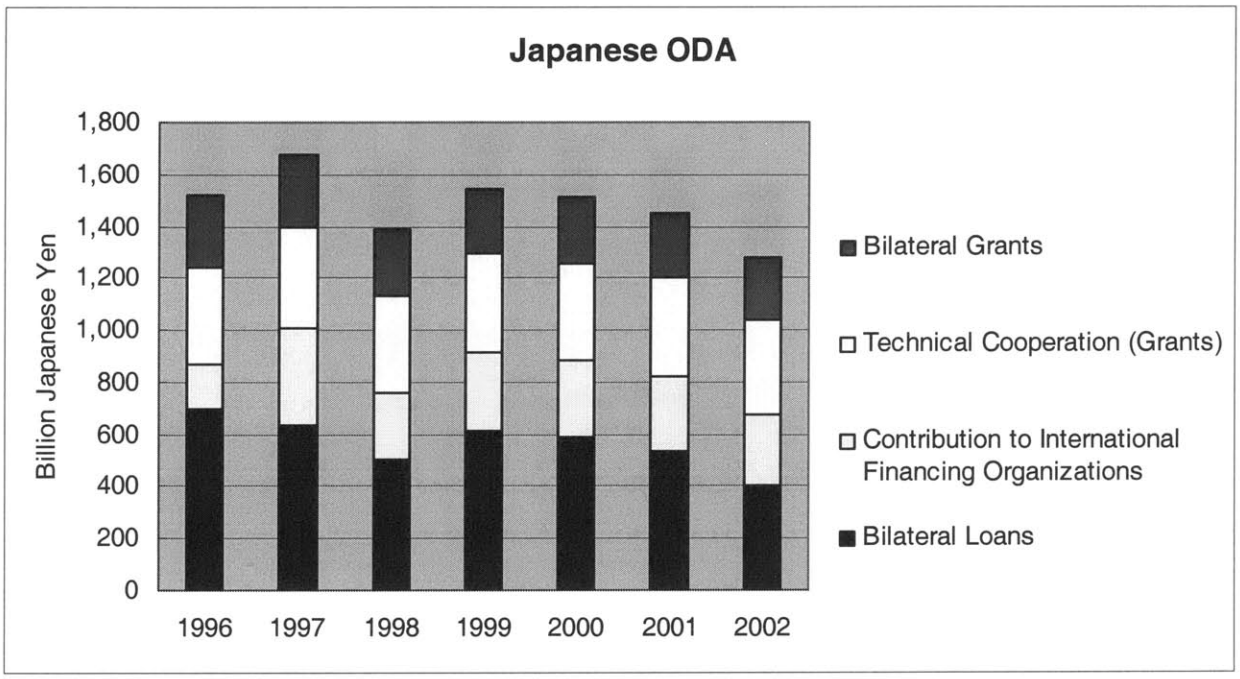

Figure 3-2 Performance of Japanese ODA (FY1996 – 2002)[13]

The performance of Japanese ODA is shown in Figure 3-2. The amount of the ODA budget was fluctuated greatly year by year, and it has been decreasing constantly in recent years because of the recession in Japan. This fluctuation was mainly caused by the variation of the bilateral loans. The bilateral loans were easily influenced by changes of the policy of the Japanese government. On the other hand, bilateral grants, technical cooperation and contribution to international financing organizations were less affected than bilateral loans because they had more serious purposes based on long term assistance.

[13] Japan's ODA White Paper 2002 (Japanese Edition)

In the 2002 fiscal year, Japanese ODA raised the total amount of 1.28 trillion Japanese yen (US$10.2 billion[14]) as shown in Figure 3-3, and Japan is the biggest donor in the world today. The bilateral grants including technical cooperation accounted for 46.9% of the total ODA budget, and 31.4% was for the bilateral loans. The remains, 21.7%, was contributed to international financing institutions, which were the UN, World Bank Group, ADB, IDB and other international agencies. This proportion of contributions was relatively smaller than that of other donor countries (Figure 3-4). The Japanese government was spending much more for bilateral grants and loans compared to the other donor countries.

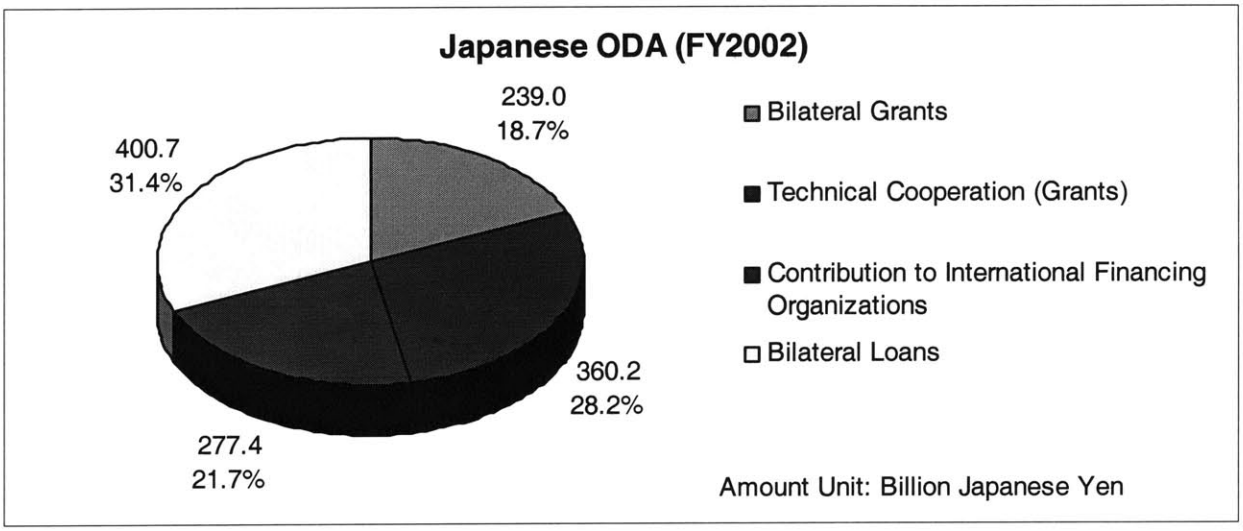

Figure 3-3 Segments of Japanese ODA (FY2002)[15]

Another aspect of Japanese ODA is that the large portion was used for bilateral loans. Other donor countries did not have significant portions for bilateral loan programs, and their contributions were negative in most donor countries. For these donors, the repayments were larger than new financing loans in these years. The contribution of the Japanese ODA was large enough in donor countries, but its

[14] DAC Exchange Rate – 1 US$ = 125.2 Japanese Yen (2002)
[15] Japan's ODA White Paper 2002 (Japanese Edition)

proportion of contribution was the salient feature. More details about investments from the Japanese government to international financing organizations are shown in Chapter 4.

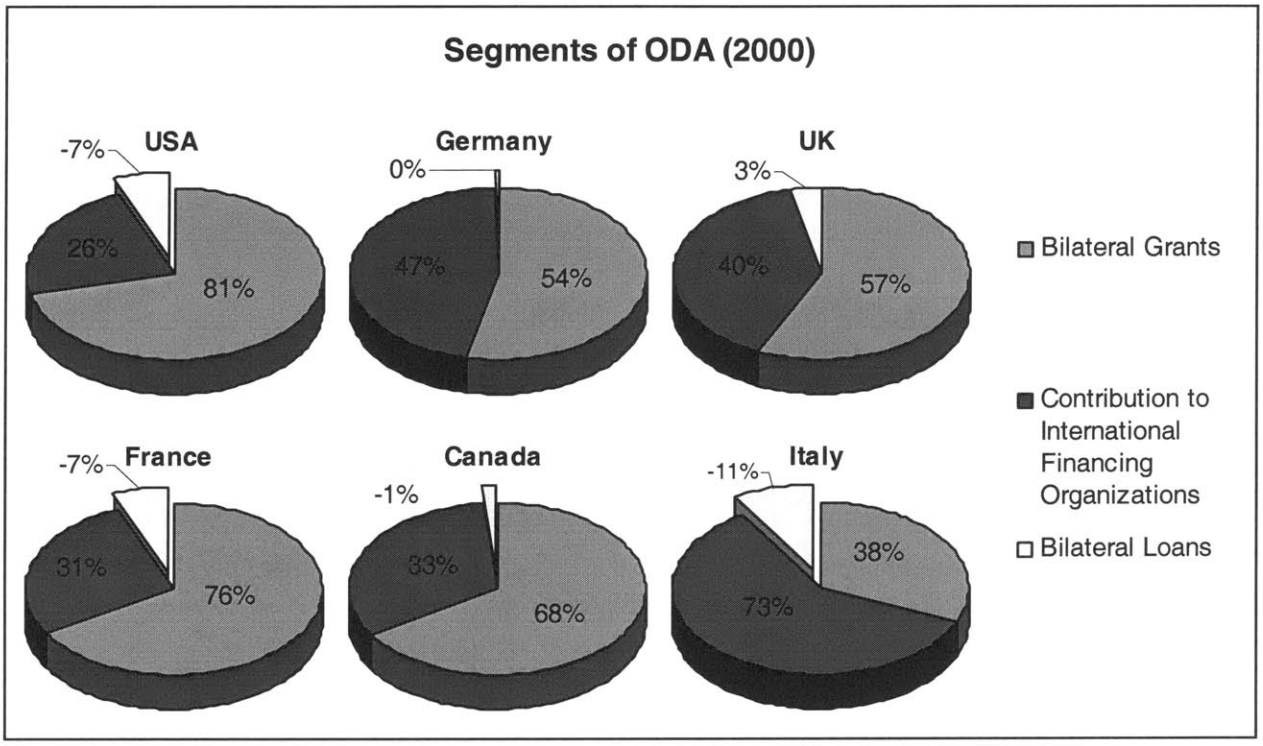

Figure 3-4 ODA Segments of major donor countries[16]

3.1.1. Japan International Cooperation Agency (JICA)

Japan International Cooperation Agency (JICA), established in 1974, is an implementing agency that executes Japanese grant aid programs, and it is under MOFA's supervision. It also takes on a larger role in emergency relief, grassroots grant, NGO administration, and other grants aside from technical cooperation. Its major roles in the Japanese grant aid structure are shown in Figure 3-5.

[16] Japan's ODA White Paper 2002 (Japanese Edition)

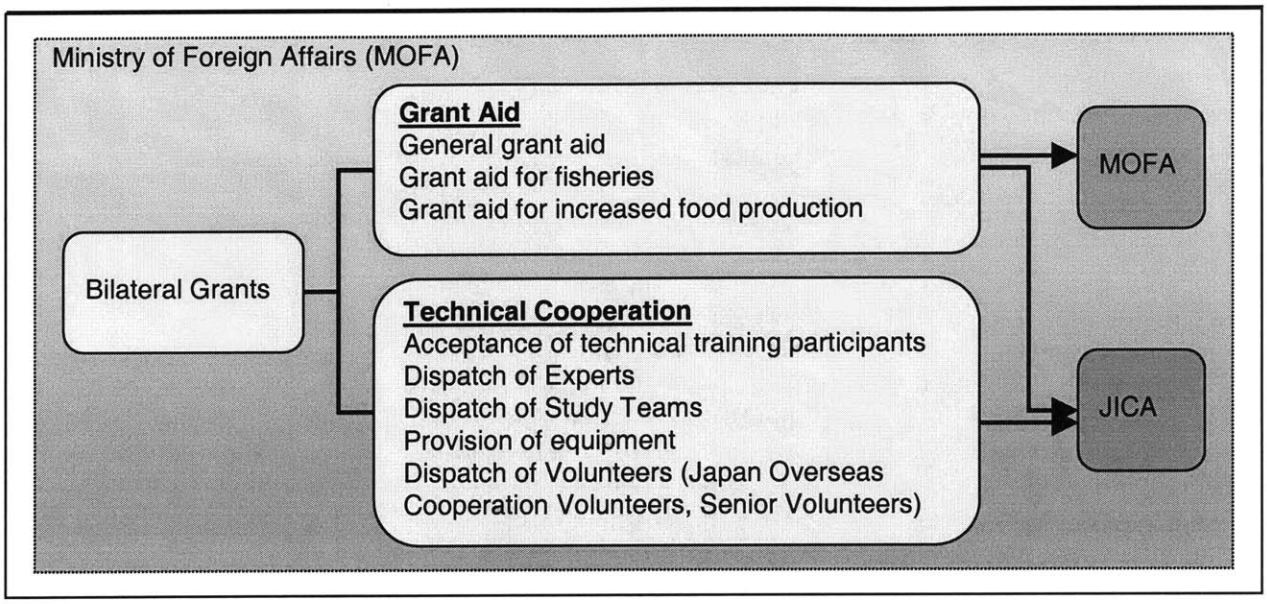

Figure 3-5 Structure of Japanese bilateral grants

In October 2003, JICA as a "special public institution" of the Japanese government, turned into an "independent administrative institution" as a result of Japan's administrative reform plan. The independent administrative institution, a new form of governmental agency, is a major part of the administrative reform that the Japanese government began in the late 1990s. Under this system, the formulation of policies remains a government function, while policy implementation is delegated to an independent administrative institution. The agency commits itself to autonomous and flexible operations while submitting to strict ex post facto evaluation and various disclosure obligations.

As mentioned above, JICA has two major roles, grant aid and technical cooperation. The technical cooperation includes acceptance of technical training participants, dispatch of experts and volunteers, and provision of equipment. Its budget in 2002 was 145 billion Japanese yen (US$1.1 billion). The technical cooperation was mostly executed by JICA from first to last. On the other hand, the grant aid is executed by cooperation with MOFA and JICA. JICA is charged with basic design studies and

implementing of grant aid based on these results. The direct donor of grant projects is MOFA, but JICA assists actual operations of these grant projects.

Figure 3-6 shows a classification based on sectors of JICA projects. Sixty percent of the total budget (US$466 million) was contributed to the construction industry. Although this amount is not so large, the advantage for Japanese construction firms is that most projects are limited to Japanese firms. Japanese construction firms do not need to compete under international competitive bidding rules, but under the Japanese construction industry rules with only Japanese competitors.

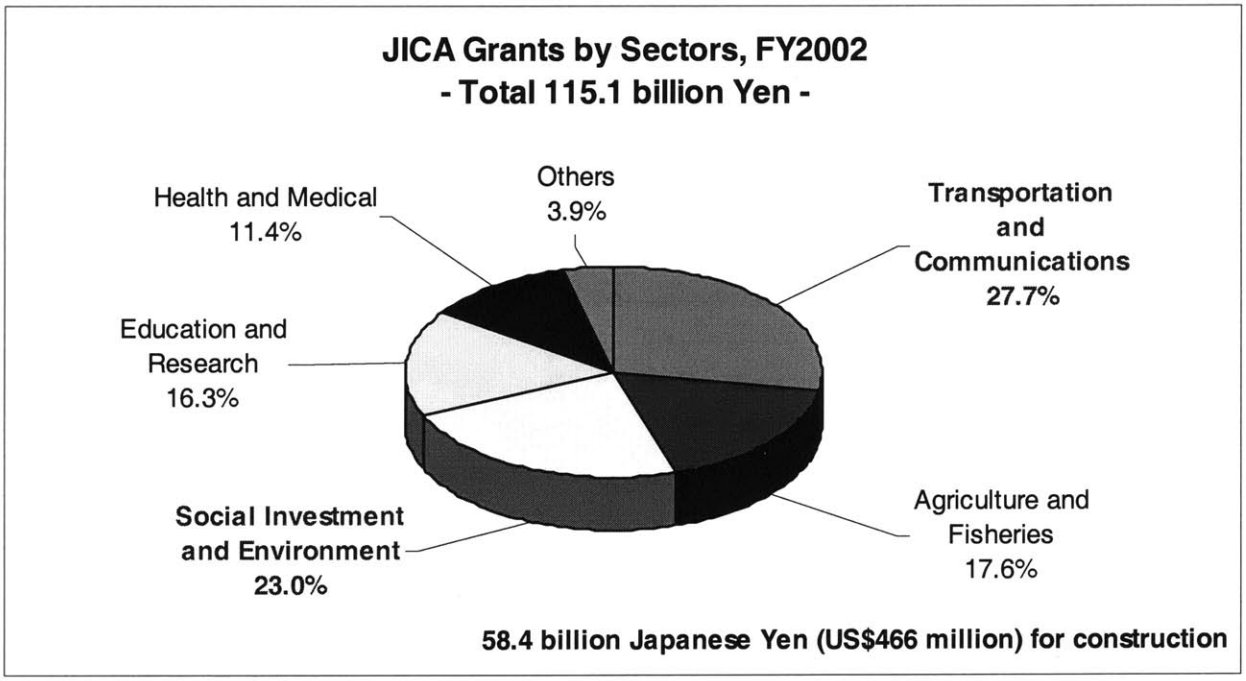

Figure 3-6 JICA Grants by sectors, FY2002[17]

[17] JICA Annual Report 2003 (Japanese Edition)

3.1.2. Japan Bank for International Cooperation (JBIC)

Japan Bank for International Cooperation (JBIC) was founded in October 1999, and merged with the Export-Import Bank of Japan (JEXIM) and the Overseas Economic Cooperation Fund, Japan (OECD) under the administrative reform program of the Japanese government. JBIC has two separate operations: International Financial Operations, which were previously operated by JEXIM, and Overseas Economic Cooperation Operations, which were previously operated by OECD. These two kinds of operations are strictly separated in terms of financial sources and accounts (Figure 3-7). Since JBIC was founded as a merger, the administrative structure of supervising ministries became very complicated. It involves four main ministries – the Ministry of Foreign Affairs (MOFA), Ministry of Finance (MOF), Ministry of Economy, Trade and Industry (METI), and Cabinet Office.

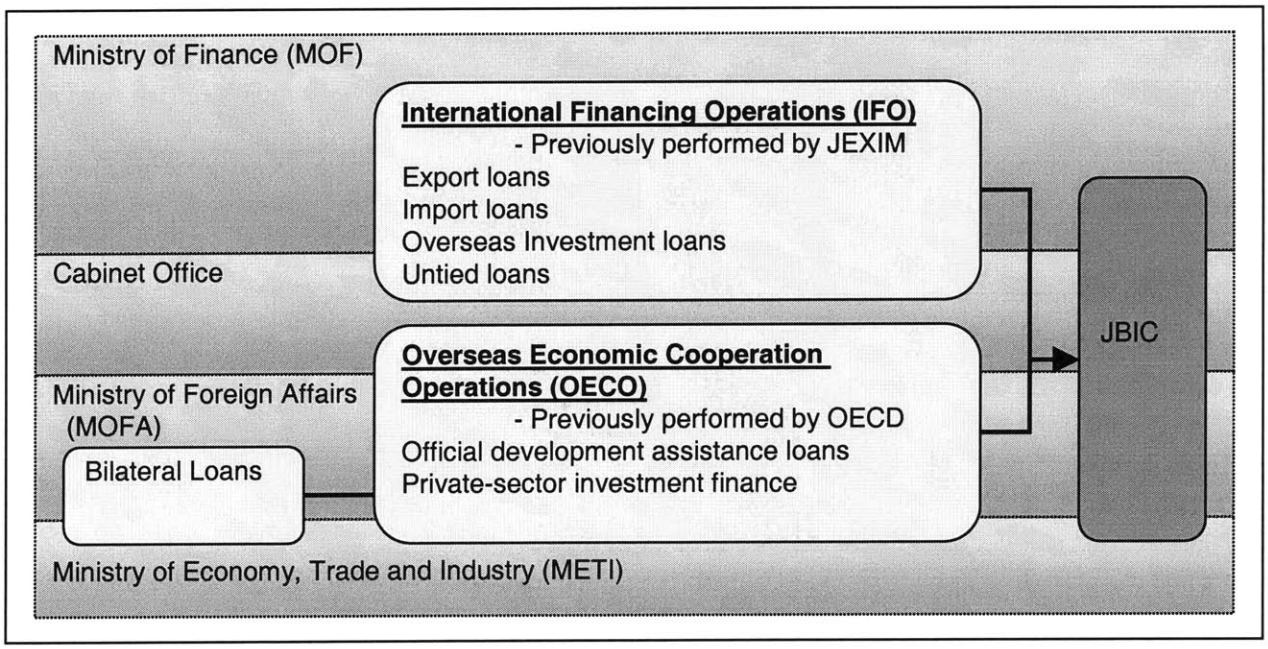

Figure 3-7 Structure of Japanese bilateral loans

One component of JBIC operations is International Financial Operations (IFO), which includes export

loans, import loans, overseas investment loans, untied loans and equity participation in overseas projects of Japanese corporations. They also contribute to the promotion of Japanese exports and imports, as well as Japanese economic activities overseas, and to the stability of international financial order. One of the major sources of financing to these operations is the funds from the Fiscal Investment and Loan Program (FILP), which manages postal savings deposits, employee pension funds and national pension funds. Other financial sources include bond issues in international capital markets and internal funds which are retained interest income from past loans. Specifically the Japan Bank for International Cooperation Law sets forth that the amount of repayment for the loans and guarantees should be ascertained and that expenditures should not exceed revenues.

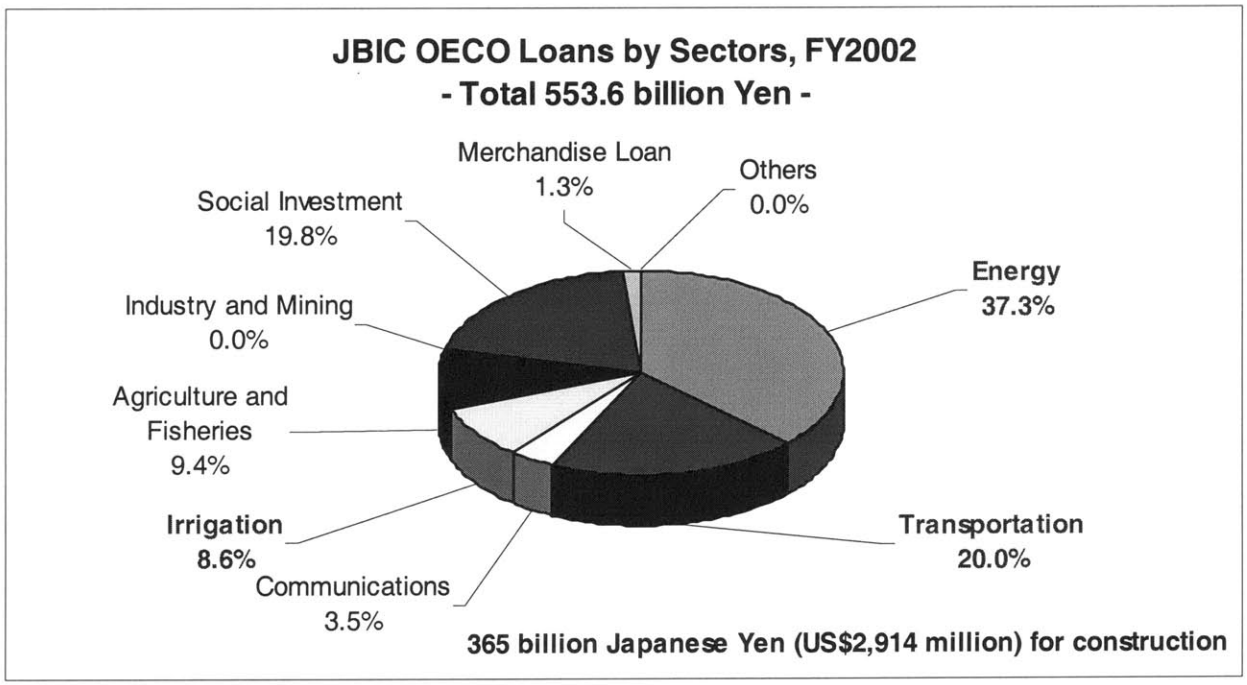

Figure 3-8 JBIC Loans by sectors, FY2002[18]

The other component of the operations of JBIC is the Overseas Economic Cooperation Operations,

[18] JBIC Annual Report 2003 (Japanese Edition)

which provide financial assistance including ODA loans. The basic tenet of these operations is to provide concessionary long-term, low-interest funds needed for the self-help efforts of developing countries, including social infrastructure development and economic stabilization.

Figure 3-8 shows a classification based on sectors of OECO loans. Sixty six percent of the total budget (US$2,914 million) was contributed to the construction industry. The proportion for construction was quite substantial and the US$2.9 billion market was very attractive for Japanese construction firms, but most JBIC projects are tendered as the international competitive bidding unlike JICA projects. They have to compete with other international competitors in severe international competitive bidding rings.

3.2. MULTILATERAL FINANCING

Multilateral financing is a method by which donors contribute their ODA budgets, and allocate this collective aid to needy countries. The largest player in this system is the World Bank Group, and the specialized agencies of the United Nations also play a significant role in distribution of multilateral assistance. Modeled on the World Bank Group, regional development banks were created to provide capital, primarily to governments, to spur economic growth in the regions. Major regional development banks are the Asian Development Bank (ADB), Inter-American Development Bank (IDB), European Bank for Reconstruction and Development (EBRD), African Development Bank (AfDB), and Caribbean Development Bank (CDB).

3.2.1. World Bank Group

The World Bank Group provides a variety of support to public and private infrastructure projects in developing and transaction economies. The mission of the World Bank Group was initially to reconstruct Europe after World War II, but this was extended to cover economic and social development throughout the world. The Group provides policy advice to help governments build credible, stable policy and regulatory frameworks that support infrastructure projects generally, and it offers different types of finance for specific projects, including loans, guarantees, equity investments, and political risk insurance.

The World Bank Group today consists of five associated institutions: The International Bank for Reconstruction and Development (IBRD), The International Development Association (IDA), The International Finance Corporation (IFC), The Multilateral Investment Guarantee Agency (MIGA), and The International Center for Settlement of Investment Disputes (ICSID). IBRD and IDA together are referred to as the World Bank.

Table 3-1 Outline of IBRD[19]

The International Bank for Reconstruction and Development (IBRD)		
■ Established 1945	■ 184 Member countries	■ $383 billion Cumulative lending
■ Fiscal 2003 lending:	$11.2 billion for 99 new operations in 37 countries	

The International Bank for Reconstruction and Development (IBRD) was established in 1945 to reduce poverty in middle-income and creditworthy poorer countries by promoting sustainable development through loans, guarantees, and analytical and advisory services (Table 3-1). Its project cycle includes project identification, project preparation, project appraisal, loan negotiation, and board preparation. The

[19] The World Bank Annual Report 2003 (from Table 3-1 to Table 3-5)

board consists of 24 executive directors. The five largest shareholders – the United States, Japan, Germany, France, and the United Kingdom – each appoint one executive director. The other countries are grouped in 19 constituencies, each represented by an executive director elected by a country or a group of countries. Board approval of a loan is based not only on the merits of the project but also on the strategic and political agendas of board members.

The International Development Association (IDA) was established in 1960 to provide assistance to the world's poorest countries, in terms of interest-free loans – called credits. High-income and middle-income members make financial contributions, which are made available to poor members. Of the 184 member countries, 81 are eligible to borrow. In many respects, IDA is indistinguishable from IBRD. Both institutions finance development projects and aim at reducing poverty, and IDA has the same staff as IBRD. However, each institution has separate Articles of Agreement, different provisions for paying in capital subscriptions, different voting structures, and separate financial sources. The fundamental difference between the two institutions is the way they obtain funds and the terms on which they lend to developing countries. IBRD raises most of its funds on the financial markets and lends to developing countries at interest rates somewhat below those of commercial banks. By contrast, IDA provides the world's poorest countries with interest-free credits. Because of its highly concessional loan terms, IDA cannot raise funds on the capital markets. Instead, its resources come from contributions by donor governments (Table 3-2).

Table 3-2 Outline of IDA

The International Development Association (IDA)		
■ Established 1960	■ 164 Member countries	■ $142 billion Cumulative lending
■ Fiscal 2003 lending:	$7.3 billion for 141 new operations in 55 countries	

The International Finance Corporation (IFC) was established in 1956 to promote private enterprise in

developing countries (Table 3-3). Unlike the IBRD or IDA, IFC lends directly to private companies, takes equity in private ventures, may not accept a government guarantee of debt repayment, and does not have strict procurement guidelines. Through its participation in a project, IFC brings other sources of investment and financing in a variety of ways. Also, IFC assists in establishing investment funds, tapping international bond markets, and developing local capital markets.

Table 3-3 Outline of IFC

The International Finance Corporation (IFC)
■ Established 1956 ■ 175 Member countries
■ Committed portfolio: $23.4 billion (includes $6.6 billion in syndicated loans)
■ Fiscal 2003 commitments: $3.9 billion for 204 projects in 64 countries

The Multilateral Investment Guarantee Agency (MIGA) was established in 1988 to provide political risk insurance under contracts of guarantee for foreign equity and related debt investments (Table 3-4). It can issue coverage for war and civil disturbance, expropriation, and currency transfer risks. It can also cover breach of contract where the claimant is denied appropriate judicial or arbitral relief. MIGA provides insurance with no host country counter guarantee.

Table 3-4 Outline of MIGA

The Multilateral Investment Guarantee Agency (MIGA)
■ Established 1988 ■ 162 Member countries
■ Cumulative guarantees issued: $12.4 billion
■ Fiscal 2003 guarantees issued: $1.4 billion

The International Center for Settlement of Investment Disputes (ICSID) was established in 1966 to help encourage foreign investment by providing international facilities for conciliation and arbitration of investment disputes (Table 3-5). ICSID also conducts research and publishing activities in the area of arbitration law and foreign investment law.

Table 3-5 Outline of ICSID

The International Center for Settlement of Investment Disputes (ICSID)	
■ Established 1966	■ 139 Member countries
■ Total cases registered: 129	■ Fiscal 2003 cases registered: 26

Figure 3-9 shows a classification based on sectors of the World Bank loans, which include IBRD and IDA loans. Fifteen percent of the total budget (US$2,928 million) is contributed to the construction industry. The proportion for construction is quite small compared to the other financing organizations. However, the amount for constructions is still substantial because the total budget of the World Bank is huge.

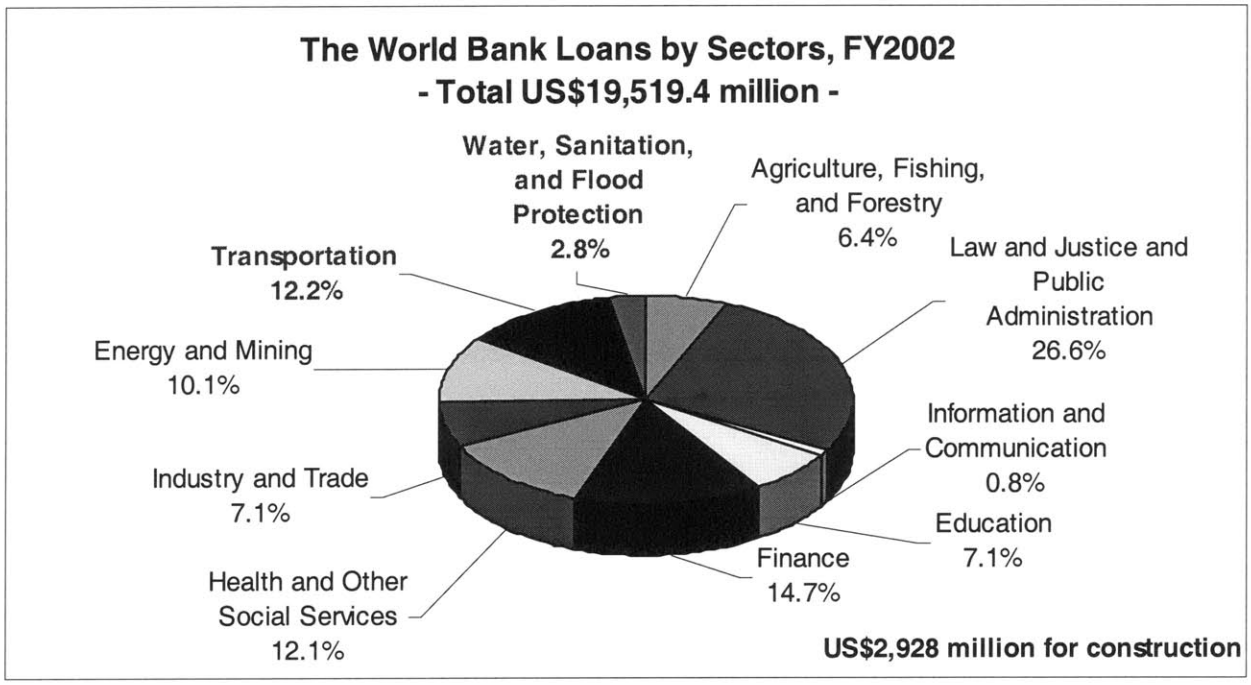

Figure 3-9 The World Bank Loans by sectors, FY2002[20]

[20] The World Bank Annual Report 2003

3.2.2. The United Nations (UN)

The United Nations (UN) came into existence in 1945 after World War II, as a joint commitment by the fifty original members to work together to avoid another war. Today there are 191 member countries, and six main organs: the Security Council, General Assembly, Economic and Social Council, Trusteeship Council, International Court of Justice, and Secretariat. The UN's funding comes from member country's contributions and grants, but voting power is not determined by the proportion of contributions unlike the World Bank Group or other regional development banks. One representative of each member country has one vote right, and wealthy donor countries do not have a monopoly on voting power.

Under these principal organs, there are many Specialized Agencies, and Programs and Funds; UN High Commissioner for Refugees (UNHCR), UN Children's Fund (UNICEF), World Health Organization (WHO), and World Food Programme (WFP) are well known.

In these Specialized Agencies, and Programs and Funds, UN Development Programme (UNDP) is an international development institution, and the largest source of multilateral grant assistance with the annual expenditure of $1.85 billion[21]. It has six main aims of assistance: Domestic Governance, Poverty Reduction, Crisis Prevention and Recovery, Energy and Environment, Information and Communications Technology and HIV/AIDS. UNDP has substantial numbers of local offices, 166 in 2003, and the majority of its staff are locally recruited nationals. Therefore, it can achieve an important role in coordinating the activities of a variety of agencies, local governments and communities.

[21] Projected expenditure in 2002 including UNDP regular resources, donor co-financing and government cost-sharing sources.

UNDP procures goods and services through competitive solicitations. The three methods are used for UNDP's procurement of goods and services: Request for Quotation (RFQ), Invitation to Bid (ITB), and Request for Proposal (RFP). RFQ is the most flexible and least formal method, and applies to contracts exceeding the range $2,500 but less than $100,000. ITB is normally used whenever the entity is not required to propose technical approaches to a project activity, or to offer management or supervision of an activity. ITB applies to contracts exceeding $100,000. RFP is used for consulting or similar services, or for purchase of complex goods to seek proposals. RFP applies to contracts exceeding $100,000.

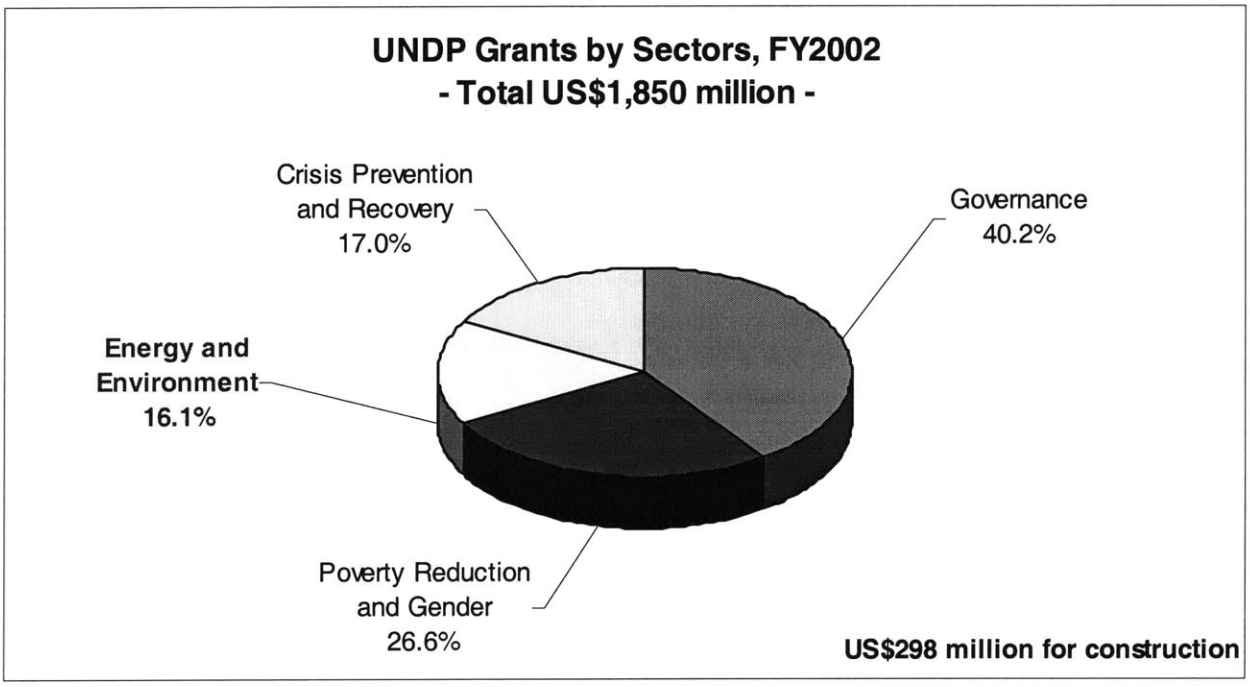

Figure 3-10 UNDP grants by sectors, FY2002[22]

Figure 3-10 shows a classification based on sectors of UNDP grants. Sixteen percent of the total expenditure (US$298 million) was contributed to the construction industry. The proportion for constructions was quite small because the nature of UNDP grants was based on grass-root supports or

[22] UNDP Annual Report 2003

technical cooperation. UNDP emphasizes software sides of cooperation rather than hardware sides like infrastructures.

3.2.3. Asian Development Bank (ADB)

Asian Development Bank (ADB), founded in 1966, to provide technical assistance and lend funds to promote the economic and social progress of its members in the Asian and Pacific region. Although the region has witnessed a boom in economic progress, with sharp increases in growth rates, per capita income, and life expectancy, three-quarters of the world's one billion poor people still live in this area. The bank has grown to sixty one members; forty four are from the Asia-Pacific region including Japan, and the seventeen from other region that are all donor countries. ADB loans are categorized into two funds: the Asian Development Fund (ADF), which is the ADB's soft-loan arm, and the Ordinary Capital Resources (OCR). ADB loans can be financed in private sectors as well as government sectors. Other than the loans, ADB also have other financing methods: equity guarantees, technical assistance and co-financing. These functions are very similar to those of the World Bank Group, but its scale and region are limited to the Asia-Pacific.

Proceeds of a loan can be used only for procurement of goods and works supplied from, and produced in, member countries of ADB. The contracts of ADB loans are to be procured through international competition unless other forms of procurement are more suitable and have been agreed upon between by ADB and the borrower.

Figure 3-11 shows a classification based on sectors of ADB loans. Fifty eight percent of the total budget (US$3,292 million) was contributed to the construction industry. The proportion for construction was

quite substantial and the US$3.3 billion market was very attractive for international construction firms. Also this proportion was very similar to that of JBIC loans. The "Transportation and Communication" sector is especially substantial compared to other international institutions.

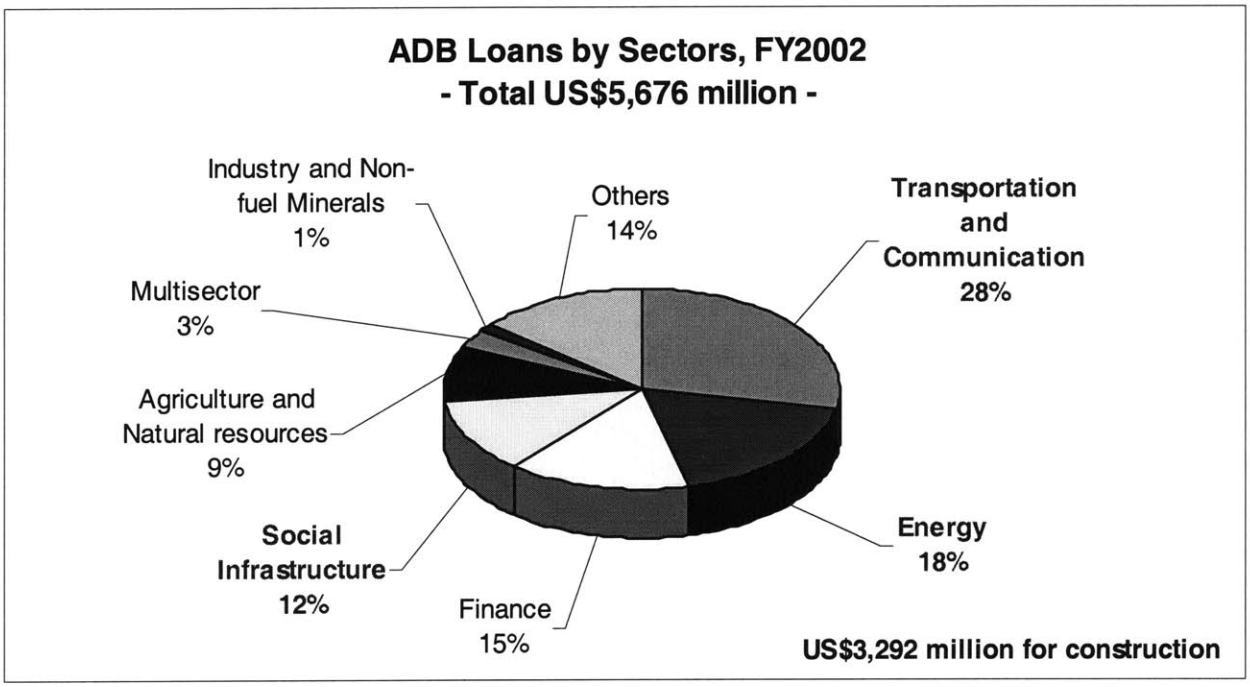

Figure 3-11 Asia Development Bank Loans by sectors, FY2002[23]

3.2.4. Inter-American Development Bank Group

The Inter-American Development Bank Group (IDB Group) is the main source of multilateral financing for economic, social and institutional development in Latin America and the Caribbean. It also plays a leading role in regional integration. The IDB Group today consists of three institutions: The Inter-American Development Bank (IDB); The Inter-American Investment Corporation (IIC); and The Multilateral Investment Fund (MIF).

[23] Asian Development Bank Annual Report 2002

The Inter-American Development Bank (IDB) supports economic and social development and regional integration in Latin America and the Caribbean. It does so mainly through lending to public institutions, but it also funds some private projects, typically in infrastructure and capital markets development. The Inter-American Investment Corporation (IIC) is a multilateral financial organization that promotes economic development in Latin America and the Caribbean by financing small and medium-scale private companies. The Multilateral Investment Fund (MIF) is an autonomous fund managed by the IDB. It supports private sector development, mainly in the microenterprise sector.

IDB, the main body of the IDB group, was founded in 1959, and is the world's oldest and largest regional development institution. It includes policy and sector reform programs and support for public and private investment. It also provides loans and technical assistance using capital provided by its member countries, as well as resources obtained in world capital markets through bond issues. IDB also promotes and participates in many project co-financing arrangements with other multilateral, bilateral and private organizations. In its four decades of operations, it has assisted in transforming Latin America and the Caribbean. It was the first regional institution with its own policies and instruments ever created to support economic and social development. It has since become the model for creating regional development banks in other parts of the world.

IDB procurement policies are designed to promote competition and to ensure the efficient use of resources by its borrowers. Only businesses from the forty six IDB's member countries are eligible to provide goods and services for Bank-financed projects. Procurement has to be done through international competitive bidding for contracts equal to or above minimum thresholds of $5 million for civil works, $350,000 for goods, and $200,000 for consulting services. Procurement below these limits is governed by local legislation, provided that it is not in conflict with IDB policies.

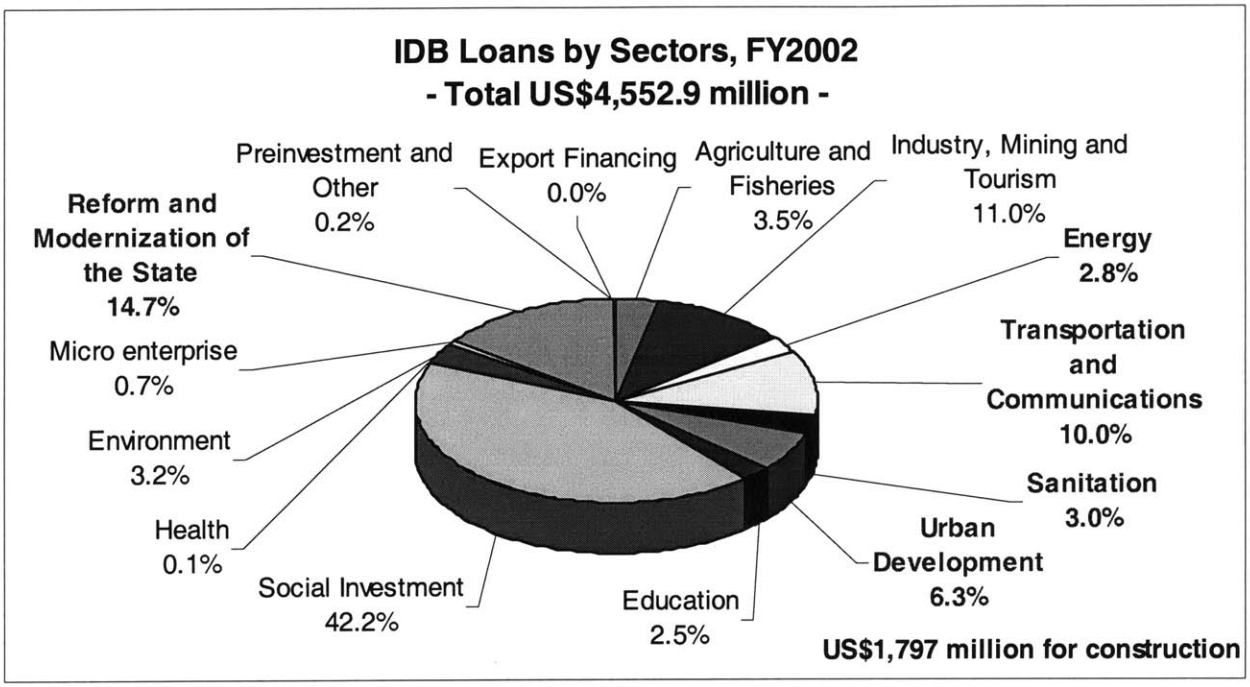

Figure 3-12 Inter-American Development Bank Loans by sectors, FY2002[24]

Figure 3-12 shows a classification based on sectors of the IDB loans. Thirty four percent of the total budget (US$1,675 million) was contributed to the construction industry. This amount was not as large as that of the World Bank, but it was still attractive for international construction firms.

3.2.5. European Bank for Reconstruction and Development (EBRD)

The European Bank for Reconstruction and Development (EBRD) was established in 1991 when communism was crumbling in central and eastern Europe and ex-soviet countries needed support to nurture a new private sector in a democratic environment. Today the EBRD help to finance twenty seven countries from central Europe to central Asia for reconstruction and development, and it is the largest single investor in this area. EBRD provides loan and equity finance, guarantees, leasing facilities and

[24] The Inter-American Development Bank Annual Report 2002

trade finance.

Procurement for state sector projects is normally carried out through open competitive tendering. It is participated in by all interested tenderers, irrespective of country of origin. For private sector operations, the client company or project sponsor is responsible for the procurement under the project. However, the bank will satisfy itself that private sector clients use appropriate procurement methods.

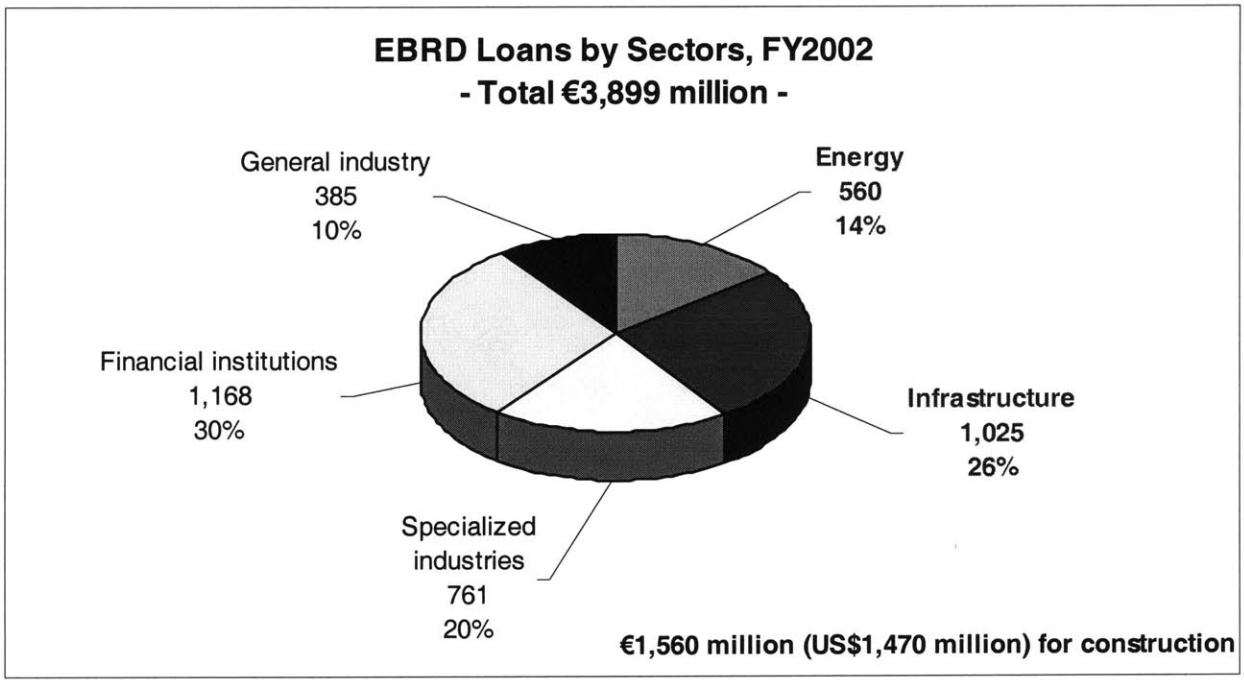

Figure 3-13 EBRD loans by sectors, FY2002[25]

Figure 3-13 shows a classification based on sectors of the EBRD loans. Forty percent of the total budget (US$1,470 million) was contributed to the construction industry. This amount was not as large as that of the World Bank, but it was still attractive for international construction firms. However, its competition for tendering seems to be as severe as that of the World Bank because it is carried through open

[25] EBRD Annual Report 2002

competitive tendering, and participated in by all interested tenderers over the world.

3.2.6. The African Development Bank Group

The African Development Bank Group is a regional development bank group supported by 77 member countries, and the Group consists of three institutions: The African Development Bank (AfDB); The African Development Fund (AfDF); and The Nigeria Trust Fund (NTF). The African Development Bank (AfDB) is the core institute of the group, engaged in promoting the economic development and social progress of its Regional Member Countries in Africa. The Bank, established in 1964, started functioning in 1966 with its Headquarters in Abidjan, Cote d' lvoire. Its shareholders are the fifty three countries in Africa as well as twenty four donor countries in the Americas, Europe, and Asia (Table 3-6).

Table 3-6 Outline of The African Development Bank Group

The African Development Bank Group	
■ Established 1964	■ 77 Member countries
■The African Development Bank (AfDB) approvals in Fiscal 2002:	$1,306 million
■The African Development Fund (AfDF) approvals in Fiscal 2002:	$1,452 million

However, AfDB is the most beleaguered of the regional banks. In 1973, the African Development Fund (AfDF) was established as AfDB's confessional arm, offering soft loans to its neediest members. After its years of poor management, many donor countries withheld funds from AfDF. In 1995, it became the first multilateral development bank to lose its coveted triple-A rating, and its ongoing record of bad debt threatened future operations.

3.2.7. Caribbean Development Bank (CDB)

The Caribbean Development Bank (CDB), founded in 1970, is the newest of the regional development banks, and helps finance specific projects in the field of agriculture, fisheries, livestock, tourism, mining, and others. CDB members include twenty regional countries: Most of them are the Commonwealth Caribbean countries, and five are non-regional countries: UK, Canada, Germany, Italy and China (Table 3-7).

Table 3-7 Outline of Caribbean Development Bank

Caribbean Development Bank (CDB)	
■ Established 1970	■ 25 Member countries
■ Amount Disbursed in Ordinary Capital Resources (OCR) in Fiscal 2002:	$74 million
■Amount Disbursed in Special Funds Resources (SFR) in Fiscal 2002:	$45 million

The financial resources of CDB consist of: Ordinary Capital Resources (OCR) comprising mainly subscribed capital and borrowing, and Special Funds Resources (SFR) which is the soft-loan function of CDB. The procurement from OCR is limited to the bank's member countries. On the other hand, the proceeds of financing from SFR are used for procurement in the territories of the contributors of the respective resources. The bank's member countries and other countries are eligible for procurement from the funds of such contributors.

4. INVESTMENTS FROM THE JAPANESE GOVERNMENT TO INTERNATIONAL INSTITUTIONS

Japan plays an important role internationally, and contributes substantial amounts to international institutions for global stability and development. In this chapter, some features of the Japanese government's contribution to international institutions compared to other donor countries are first discussed in section 4.1. Second, details of Japanese contributions are shown in section 4.2.

4.1. FUTURES OF JAPANESE GOVERNMENT'S CONTRIBUTIONS TO INTERNATIONAL INSTITUTIONS

Today Japan is the largest donor country for Official Development Assistance (ODA) in the member of the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD). In 2001, Japanese bilateral financings including grants and loans raised US$9.8 billion, and the contribution to multilateral institutions became US$3.7 billion. A total of US$13.5 billion of Japanese ODA was 35% higher than the US$10 billion of USA's ODA.

Figure 4-1 shows the ODA amounts from donor countries, which is generated from journals of DAC. The amounts of Japanese and USA's ODA were quite substantial compared to other DAC member countries, and the two countries' ODA occupied more than 40 % of total ODA over the world. Moreover, the two countries' ODA relied on a large portion of bilateral financings compared to other countries. The

Japanese contribution to multilateral institutions had 28% of Japanese ODA, and similarly the USA's contribution had 26%. This result indicates that they well facilitate their own ODA channels, such as JICA, JBIC and USAID. They can finance borrowing countries without international consensus. Some details of Japanese bilateral financing were also shown in section 3.1, and Figure 3-2 indicating annual contributions of the Japanese ODA.

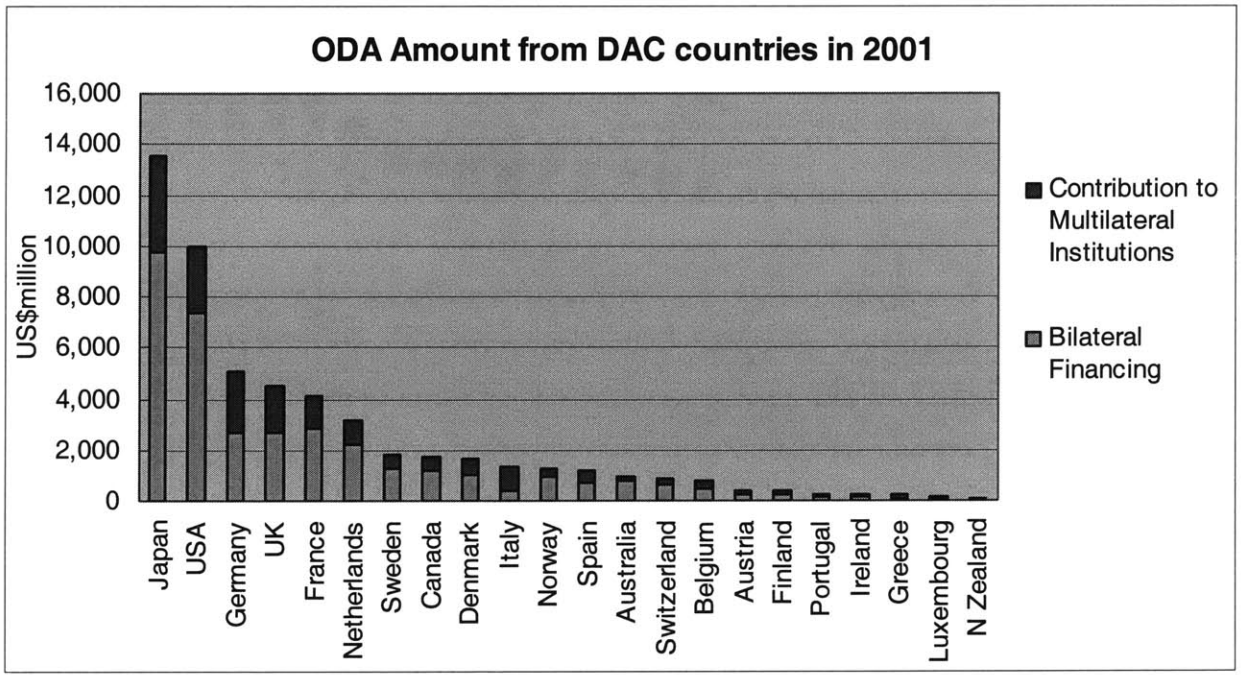

Figure 4-1 ODA Amount from DAC countries in 2001[26]

On the other hand, when capability of donor countries is taken into account, the degree of contribution becomes quite different from the previous result. Figure 4-2 shows an ODA amount per person and percentage of ODA contribution in GNP in 2001 with the same order of DAC member countries as Figure 4-1. Japan contributed US$106 per person to ODA, which was 0.32% of the Japanese GNP. These figures were very small compared to the Netherlands, Sweden, Denmark, Norway and

[26] Development Assistance Committee, OECD

Luxembourg. Each contributed US$200-300 per person to needed countries.

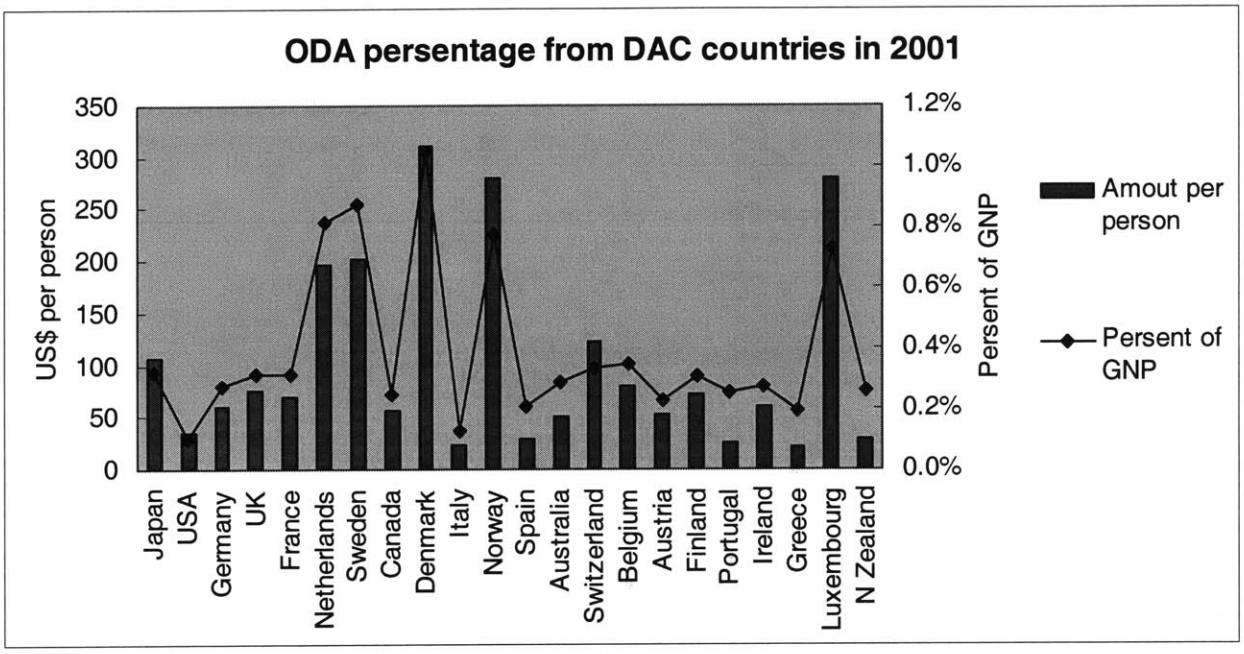

Figure 4-2 ODA Percentage from DAC countries in 2001[27]

Japan is the largest donor country for ODA in the world today when only amount is considered, but ODA contribution per country's capability is still small. Also, the Japanese contribution to multilateral institutions is the largest, but its proportion in Japanese total ODA is small compared to other DAC member countries. Aspects of the USA's ODA are very similar to that of Japan. The Japanese ODA seems to be following the USA's ODA style.

[27] Development Assistance Committee, OECD

4.2. DETAILS OF JAPANESE GOVERNMENT'S CONTRIBUTIONS TO INTERNATIONAL INSTITUTIONS

The Japanese government contributed 144 billion Japanese yen (US$1.15 billion) to international institutions in the 2002 fiscal year, as shown in Figure 4-3. The breakdown of contributions was that 30% went to the United Nations, 27% to ADB, and 15% to the World Bank Group. Though ADB was a regional development bank, it received a substantial contribution from the Japanese government. Also, the AfDB group received significant contribution compared to other regional banks such as IDB and EBRD. Japan especially was the biggest donor country for AfDF.

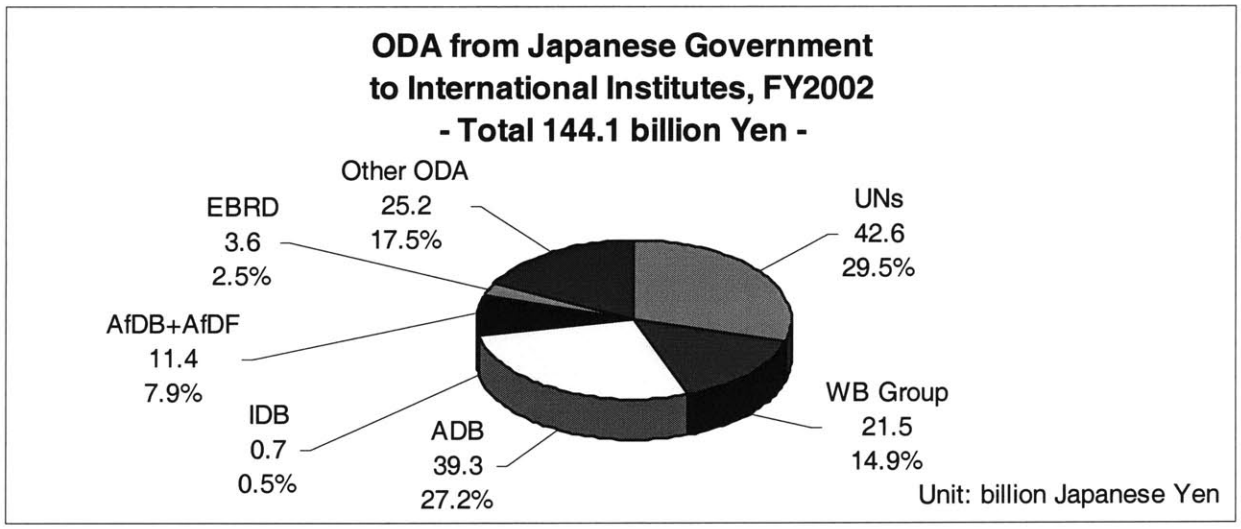

Figure 4-3 ODA from the Japanese government to international financing institutions[28]

The Japanese contributions to international institutions were not managed by one administrative system. Ten ministries contributed their own budgets to them (Figure 4-4). Sometimes two different ministries contributed to the same international financing institution for different purposes. The Ministry of

[28] Ministry of Foreign Affaires

Finance and the Ministry of Foreign Affaires were two large ministries contributing to international institutions, and they occupy 95% of total contributions. The Ministry of Finance was mainly financing the World Bank Group and regional development banks, and its amount raised 82.7 billion Japanese yen (US$661 million) in the 2002 fiscal year. On the other hand, the Ministry of Foreign Affaires mostly contributed to the United Nations and its agencies.

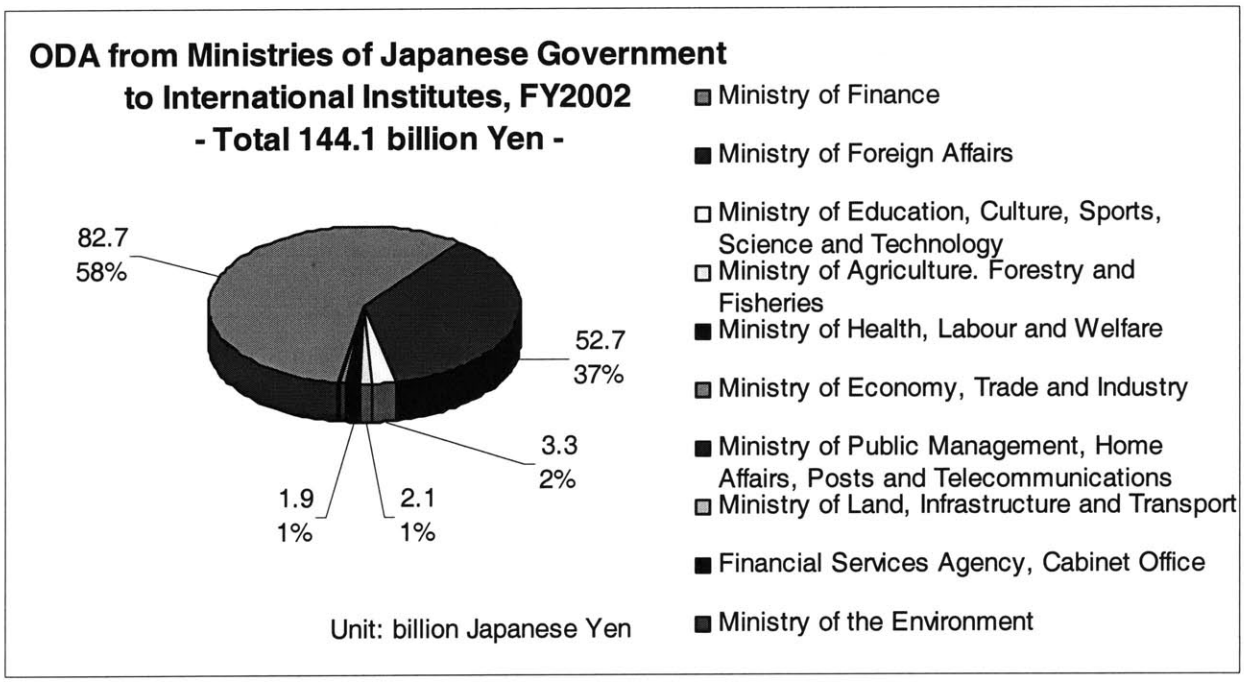

Figure 4-4 ODA from ministries of the Japanese government to international financing institutions[29]

Table 4-1 shows Japanese contributions and staff in international financing institutions in the 2003 fiscal year. Generally Japanese contributions occupied large portions of each international financing institution, and rankings of Japanese contributions were mostly first or second positions. However, numbers of the Japanese staff were very small compared to their contributions. The Japanese government was pleased to provide money, but not to provide enough staff because of a shortage of professionals willing to work

[29] Ministry of Foreign Affaires

for international financing institutions. In other words, Japan provided substantial money to international financing institutions with less opinions or requirements than other countries. This fact creates a disadvantage for Japanese firms in receiving contracts from international financing institutions.

Table 4-1 Japanese contributions and staff in international financing institutions in FY2003[30]

International Institution	Ratio of Japanese Contribution (%)	Rank	Number of Japanese Staff	Ratio of Japanese Staff (%)	Japanese Managing Staff	Top / Second Position
United Nations and Agencies						
United Nations Main Body	19.5	2	111	4.5	5	Yes
UNICEF	6.4	6	39	1.1	3	
UNHCR	14.1	2	51	3.9	3	
UNPD	12.9	2	36	3.3	8	
UNCRD	100.0	1	3	42.9	1	Yes
UNFPA	19.0	2	8	4.7	1	Yes
UNEP	10.9	4	8	3.5	2	
UNU	63.1	1	5	8.8	1	Yes
UNRWA	1.6	12	0	0.0	0	
WEP	5.1	4	20	2.2	2	
UNESCO	22.0	1	59	5.8	4	Yes
ILO	19.2	2	37	5.1	3	
FAO	19.6	2	31	0.8	4	
WHO	19.4	2	44	3.1	4	
World Bank Group						
IBRD	8.1	2	81	2.4	3	Yes
IFC	6.0	2	21	2.5	0	
MIGA	5.7	2	6	8.2	1	Yes
Regional Development Banks						
ADB	15.8	1	102	12.9	8	Yes
IDB	5.0	6	0	0.0	0	
EBRD	8.6	2	0	0.0	0	
AfDB	5.4	2	0	0.0	0	
AfDF	6.9	1	0	0.0	0	
Others						
IMF	10.1	2	31	1.6	3	Yes
OECD	-	-	69	3.0	3	Yes

[30] Ministry of Foreign Affaires, Annual Repots of the institutions

5. INTERNATIONAL CONTRACTS TO JAPANESE CONSTRUCTION FIRMS

Japanese construction firms did not extensively do business overseas before 1973. They are therefore relatively new players in the international market compared to western firms. In this chapter, an outline of international contracts to Japanese construction firms is first shown in section 5.1. Second, International contracts to Japanese construction firms are analyzed by regions in section 5.2. Third, section 5.3 shows some features of contracts financed by international institutions and received by Japanese construction firms. At last, section 5.4 shows award ratio of international contracts to Japanese construction firms by using a case of JBIC projects.

5.1. OUTLINE OF INTERNATIONAL CONTRACTS TO JAPANESE CONSTRUCTION FIRMS

International activities of the Japanese construction firms do not have a long history, and overseas contracts became prominent just 30 years ago. The Japanese construction firms were very domestic companies, which worked mostly in Japanese market before 1973.

The first overseas activities were lead by Japanese militarism, and Japanese construction firms expanded their business to Asian countries as Japanese colonies in the 1930s. In the 1950s, after World War II, Japanese construction firms again started to receive overseas construction contracts which were war

reparations for Asian countries by the Japanese government. However, before 1973, international activities by Japanese construction firms were insignificant (Figure 5-1).

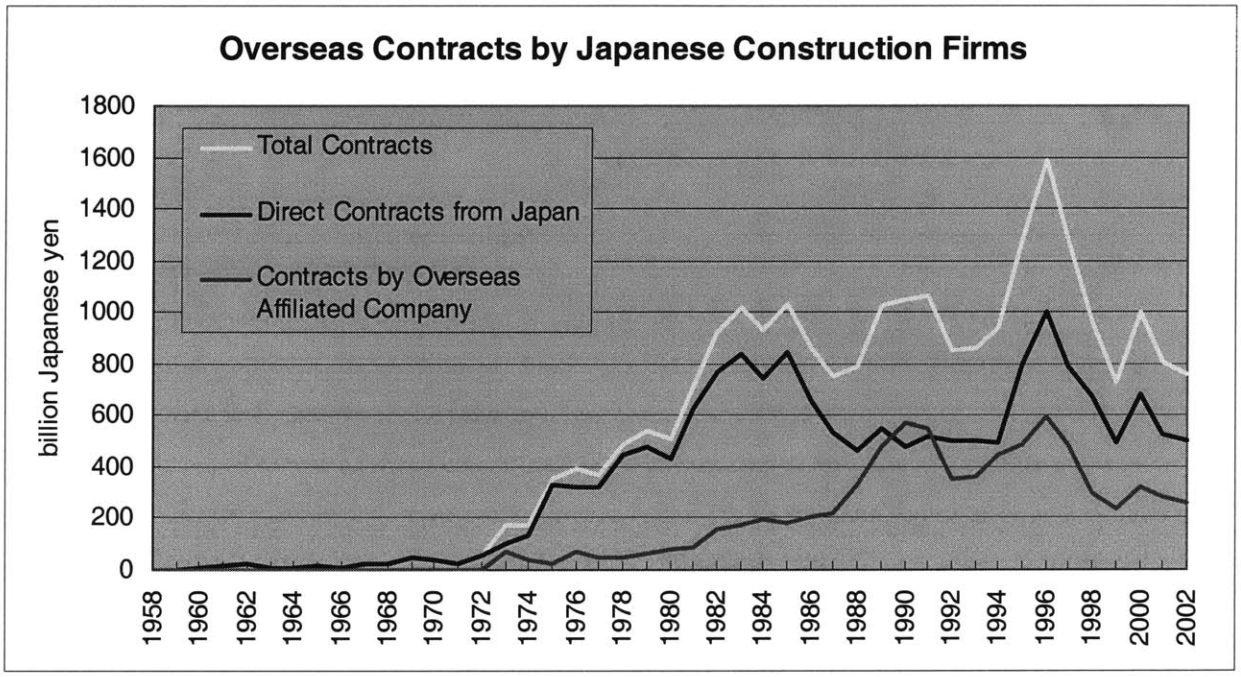

Figure 5-1 Overseas contracts by Japanese construction firms[31]

After 1973, international contract amount increased rapidly and passed 800 billion Japanese yen in 1982. From 1982 to 1994, the international contract amount moved stably around 800 – 1,000 billion yen, and Japanese construction firms shifted their business stances from direct management to establishing affiliated local companies in this period. There were two reasons to explain this phenomenon. The first is that total contract amount in a particular country or region became large enough to establish an affiliated local company. The other reason was that some countries had regulations which did not allow foreign construction companies to directly receive contracts. Therefore, they made affiliated local companies sometimes with local capital. After the Bubble Boom in Japan burst in 1992, they tried to secure their

[31] The Overseas Construction Association of Japan, Inc.

revenues from overseas markets, and total contract amount reached 1,600 billion Japanese yen in 1996. In next year, unfortunately the Asian Currency Crisis began from Thailand and spreaded to all over Asian countries, where the Japanese construction firms received over 70% of total overseas revenues. Therefore, overseas contract amount decreased sharply after 1996, and in 2002 the total overseas contract amount became 790 billion Japanese yen, which is the same level of that in 1982.

5.2. INTERNATIONAL CONTRACTS TO JAPANESE CONSTRUCTION FIRMS BY REGIONS

The Japanese construction firms receive most of overseas contracts from Asian countries throughout years, because, off course, Asia is the region Japan belongs, and economical relationships between Japan and Asian countries are quite strong. However, looking at details of overseas activities, different features are found through the years. Overseas activities of Japanese construction firms were mainly divided into four eras: the oil money era from 1973 to 1984; the advance to western countries era from 1984 to 1991; the Asian development era from 1991 to 1996; and the construction recession era from 1997 to date (Figure 5-2).

In the oil money era from 1973 to 1984, contracts from the Middle East occupied large portions of total Japanese overseas contracts. After the Middle East War IV and oil crisis in 1973, the Japanese construction firms received many contracts from the Middle East. In this era, investment amount, called oil money, in the Middle East was substantial, and the contract amount in the Middle East became even larger than that in Asian countries in some years. This era became an epoch for the Japanese construction

firms to enter into international construction markets.

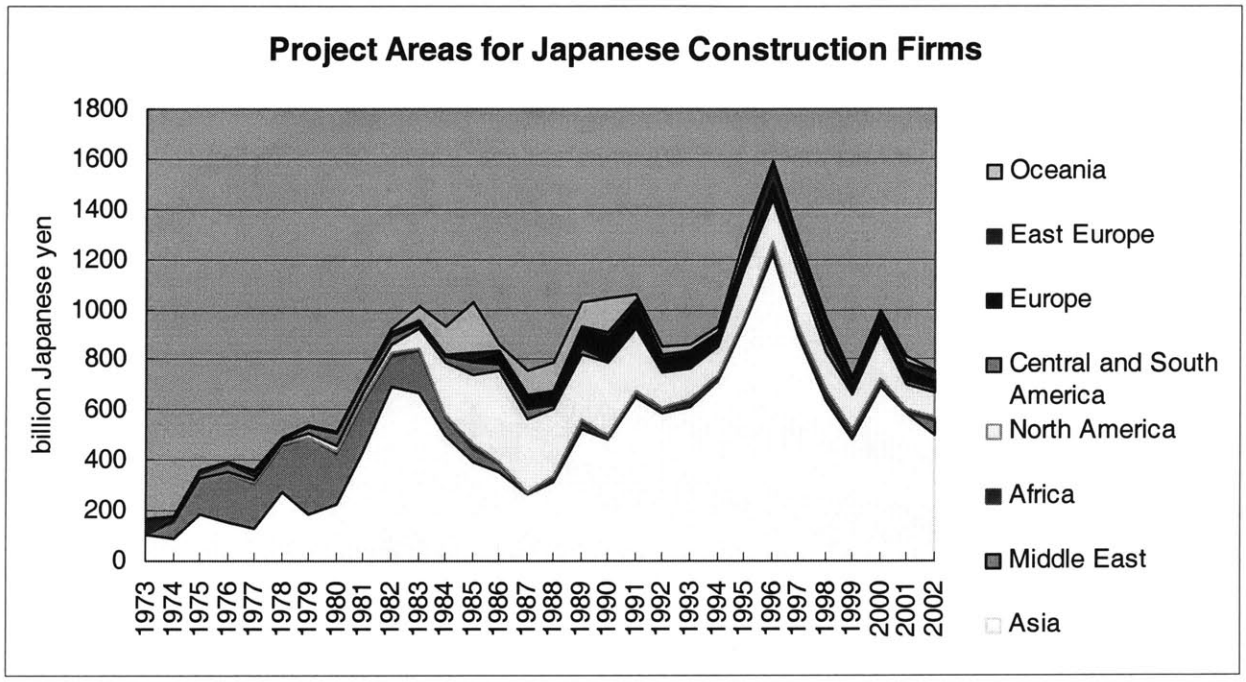

Figure 5-2 Project areas for Japanese construction firms[32]

In the advance to western countries era from 1984 to 1991, the Japanese construction firms increased their business in the US, Europe and Australia. In this era, other Japanese industries, such as manufacturing, financing, and service industries, started to expand their business to markets in the Western countries. As following this movement, the Japanese construction firms received contracts of office buildings, factories and hotels from Japanese clients in the Western countries.

After advancing to the western countries era, the Asian development era started in 1991. Newly industrializing economies (NIES) in Asia developed rapidly in the 1980s, and they continued to expand their economic scales after entering the 1990s. Other Japanese industries expanded their business to

[32] The Overseas Construction Association of Japan, Inc.

Asian markets, and transferred production bases to Asian countries to use low labor costs. Therefore, the Japanese construction firms constructed many buildings and factories for Japanese clients. Also the Japanese construction firms received a lot of infrastructure contracts from governments in Asia because Asian construction firms did not grow enough to build complicated infrastructure themselves. However, this boom burst by the Asian Currency Crisis in 1997, and then overseas revenues from Asian countries quickly decreased.

After the Asian Currency Crisis in 1997, the construction recession era started. During the Bubble Boom, the Japanese construction firms invested in real estate, hotel and golf course development in overseas, especially in Asia, as well as in Japan. After the Bubble Boom burst, most construction firms started to struggle against their bad debts which had invested in the Bubble Boom. Once the Asian Currency Crisis occurred, many Japanese construction firms pulled back from international markets, and concentrated to rebuild their business. Also, some medium-sized firms, which did overseas business on large scales, became bankrupt in this era. This situation continues today, but large scale construction firms are waiting for their chances to expand their business to the international market because of the shrinking Japanese construction market.

Figure 5-3 shows Japanese contract amounts by project countries. Major countries for Japanese construction firms were Singapore, the United States, Taiwan, Hong Kong and Thailand. The contract amount in these countries occupied over 60% of total overseas contracts for the Japanese construction firms in 2002. However, contract amounts or rankings of each country were not stable, and they have many ups and downs depending on tendencies of facility investment momentum, levels of competition and technical requirements in these countries. The Japanese construction firms have flexibly countered these increases and decreases of demands in overseas countries and tried to retain their overseas

revenues.

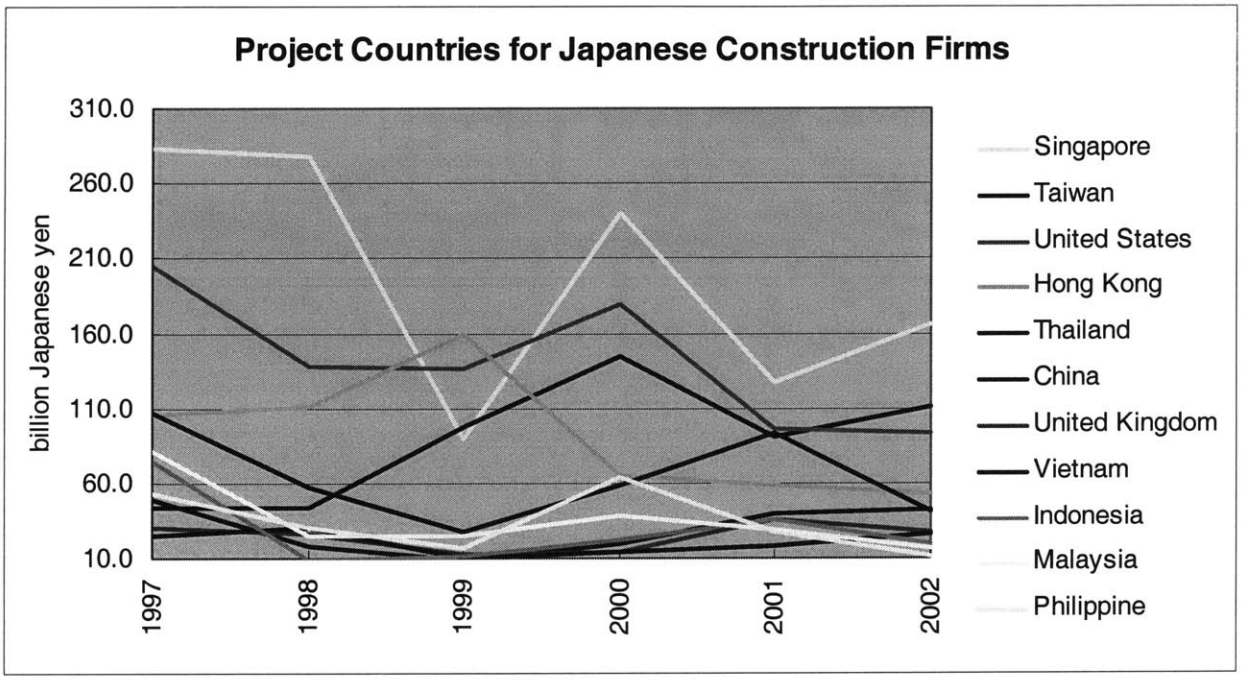

Figure 5-3 Project countries for Japanese construction firms[33]

5.3. CONTRACTS FINANCED BY INTERNATIONAL INSTITUTIONS TO JAPANESE CONSTRUCTION FIRMS

The Japanese construction firms received most overseas revenues from governments of which projects were executed (own sources), such as Singapore, the US, Taiwan and Hong Kong. In the 2002 fiscal year, 87.5% of overseas contracts were funded by their own sources. JICA and JBIC projects occupied 5.5% and 3.4% of total overseas contracts, and the Japanese construction firms received only 0.3% of

[33] The Overseas Construction Association of Japan, Inc.

overseas contracts (2 billion Japanese yen) from international institutions (Figure 5-4). In the same year, the Japanese government contributed 144 billion Japanese yen (US$1.15 billion) to international institutions (Figure 4-3), but the Japanese construction firms received only 1.4% of contributions from them. This figure is surprisingly small, and the Japanese construction firms are quite weak in the market of international institutions.

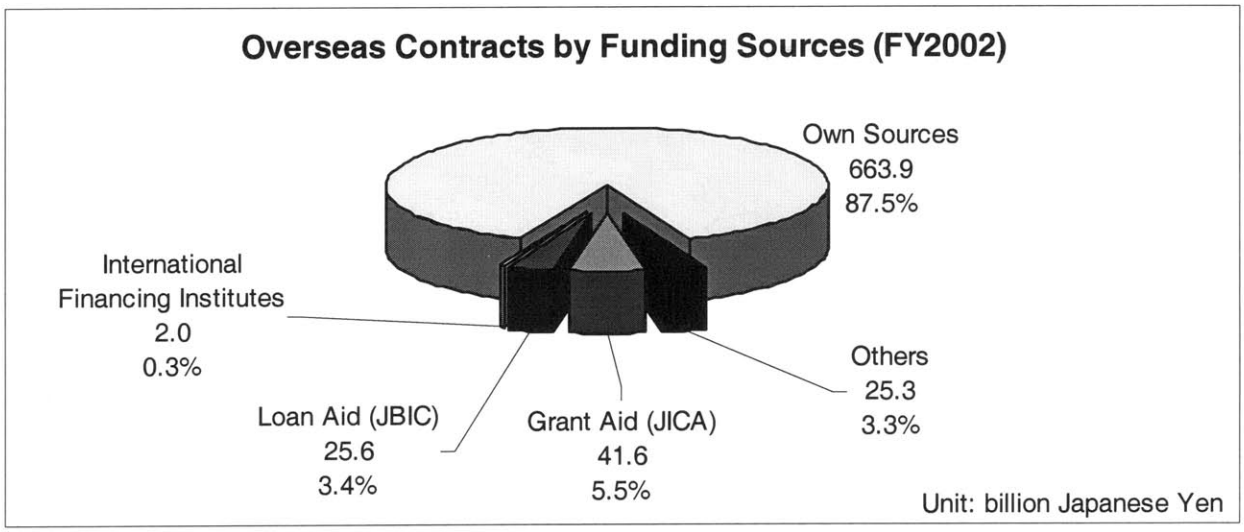

Figure 5-4 Overseas contracts by funding sources (FY2002)[34]

Figure 5-5 indicates overseas contracts by funding sources from 1998 to 2002. Even after years, the tendencies were not different from that in the 2002 fiscal year as mentioned above. Own sources occupied large portions of total overseas contracts, and JICA and JBIC funds came second. Contracts from international institutions were quite small, and the Japanese construction firms were awarded only eight projects in 2002 and three projects in 2001 by international institutions. They have not played in the market of international institutions since their entering into international construction markets.

[34] The Overseas Construction Association of Japan, Inc.

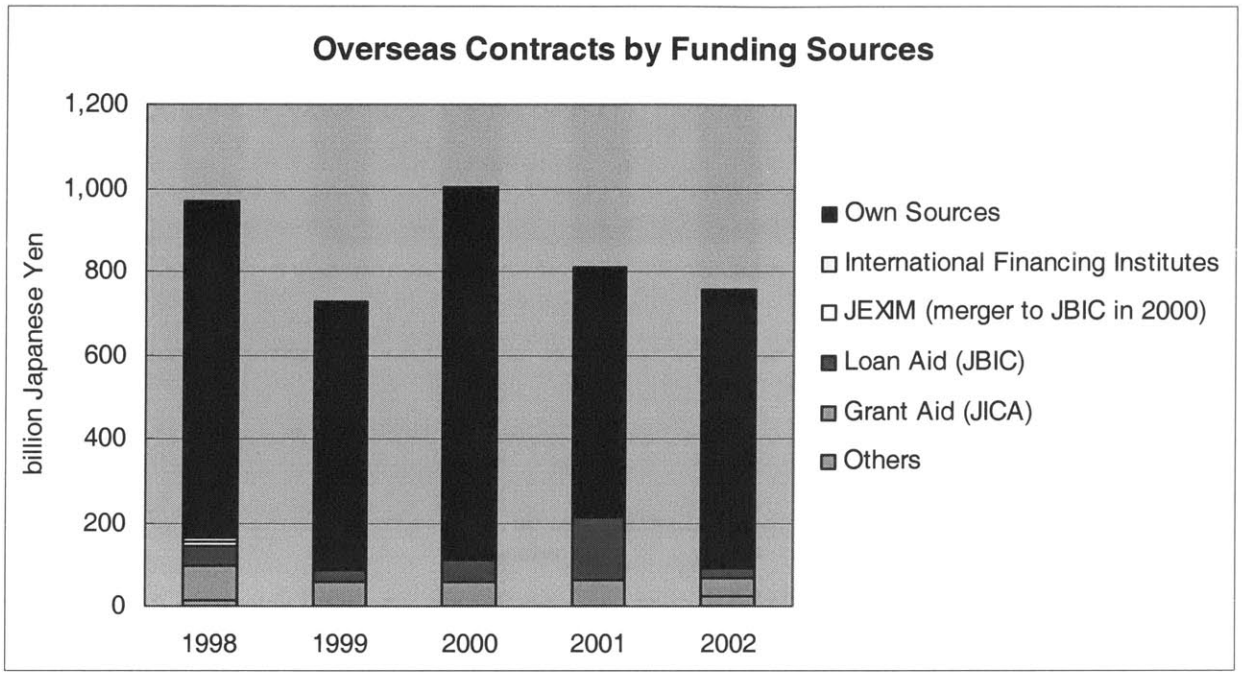

Figure 5-5 Overseas contracts by funding sources[35]

5.4. AWARD RATIO OF INTERNATIONAL CONTRACTS TO JAPANESE CONSTRUCTION FIRMS

In this section, it is shown how much the Japanese construction firms dominated their shares in the international market, or how successfully they bid international projects in the past several years. This is explained by using data of the Japan Bank for International Cooperation (JBIC) as an example.

Figure 5-6 shows ratios of Japanese bidders in JBIC biddings. Before 1991, Japanese firms attended 78-93% of JBIC biddings, and were awarded 74-84% biddings. This indicates that almost all projects for

[35] The Overseas Construction Association of Japan, Inc.

which the Japanese firms bid were awarded to them.

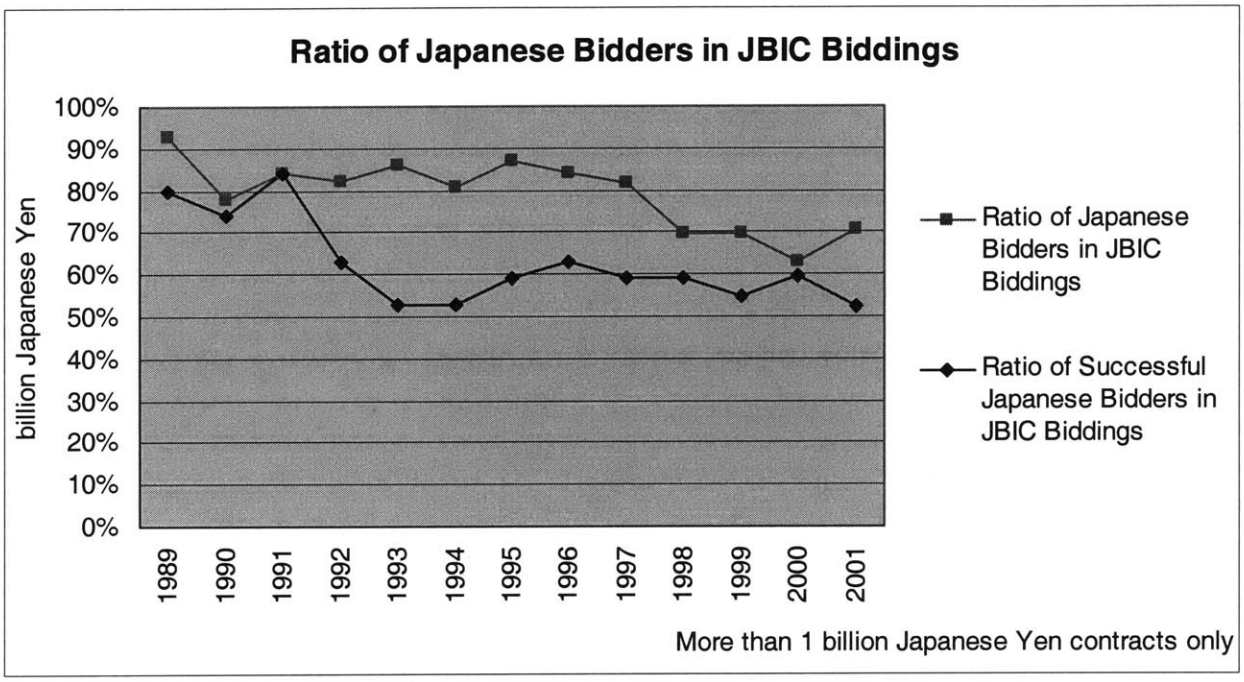

Figure 5-6 Ratio of Japanese bidders in JBIC biddings[36]

However, after the Bubble Boom in Japan burst in 1991, Japanese firms started to lose their successful biddings dramatically, and they reached to 53% in 1993. Although they continued to attend 81-87% of biddings, their successful bidding ratio dropped to 53-63% until 1997. In this period, Japanese firms lost their competitive power in international markets, and they struggled against competitive international construction firms. After 1997, though they kept 52-60% of successful bidding ratio, lost their attendances for biddings to 63-71%. The Japanese construction firms suffered the recession in Japan in this period, and they could not bid all JBIC projects. They started to select attractive projects rather than all bidding. Also JBIC and the Japanese government started to help Japanese firms by increasing tied loan projects, which were limited to bidders of Japanese firms from 1998. In 1998 tied loan projects

[36] Ministry of Foreign Affairs, Japan. Japan's ODA White Paper 2002 (Japanese Edition).

were only 1.6% of total JBIC loans, but then it increased 40.5% in 2001. Therefore, the Japanese firms could keep successful bidding ratio constant as 52-60% in spite of decreasing opportunities of biddings.

Figure 5-7 shows JBIC contracts by awarded firm's nationality. From this graph, Japanese firms were recovering contracts from JBIC in the past several years because of supports by JBIC and the Japanese government as mentioned above. OECD countries were decreasing their JBIC shares, but other countries were increasing them in the past several years. Therefore, the Japanese firms were gaining the shares from firms in OECD countries rather than firms in non-OECD countries after 1998. This indicates that firms in non-OECD countries were becoming strong rivals in international biddings.

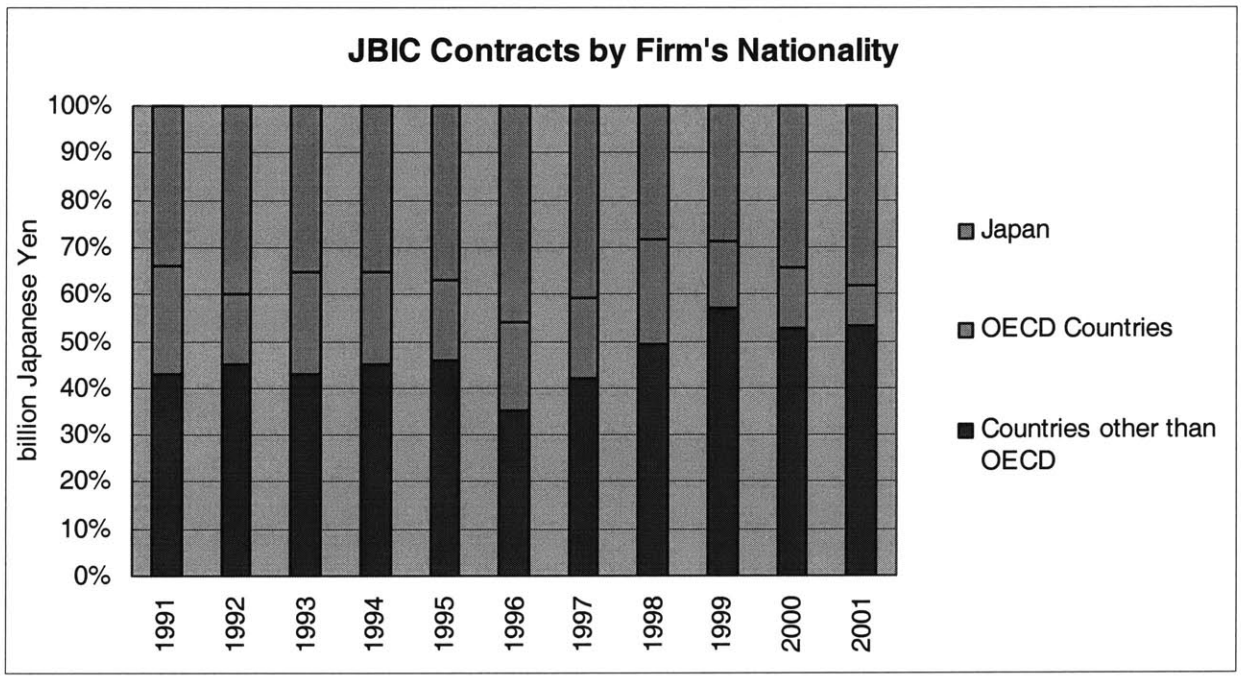

Figure 5-7 JBIC contracts by firm's nationality[37]

[37] Ministry of Foreign Affairs, Japan. Japan's ODA White Paper 2002 (Japanese Edition).

6. MAJOR PLAYERS IN INTERNATIONAL INSTITUTIONS

The early chapters of this study describe how much capital was contributed to international institutions from the Japanese government, and how many contracts were awarded to Japanese construction firms from them. In this chapter, we continue studying current major players in international institutions; however, we study these in institutions more closely than in the early chapters, as we focus on how the Japanese construction firms gain shares from them.

Specially, we analyze the current tendencies of international institutions, exploring two cases of international institutions, the World Bank Group and Inter-American Development Bank (IDB). These two cases are appropriate examples for this analysis because the World Bank Group is the biggest development financing institution and IDB is a regional bank that does not have major contracts with the Japanese construction firms. In analyzing these two sources, we can determine who major players are as well as the position of Japanese construction firms in these markets.

6.1. MAJOR PLAYERS OF THE WORLD BANK GROUP

The World Bank Group has opened its project database to the public, and anyone can access it through the World Bank Group web site. This database is formed from The International Bank for Reconstruction and Development (IBRD) and The International Development Association (IDA) projects, and most data is available on projects from July 1, 2000. By analyzing this data, it shall be clear who the major players are as well as the position of Japanese construction firms in the World Bank

Group's construction market. Construction consulting firms as well as studying construction firms are also analyzed to know the tendencies in construction markets of international institutions.

6.1.1. Construction Consulting firms in the World Bank Market

The contract data of consultant projects were collected from the World Bank Group's database sorted by three conditions: service category of consultant; contract date from July 1, 2000 to December 31, 2003; and project sector of transportation, water and sanitation (construction work). The total collected data became 3,546 consulting projects, and total contract amount of US$1.47 billion. By using this data, three graphs are generated.

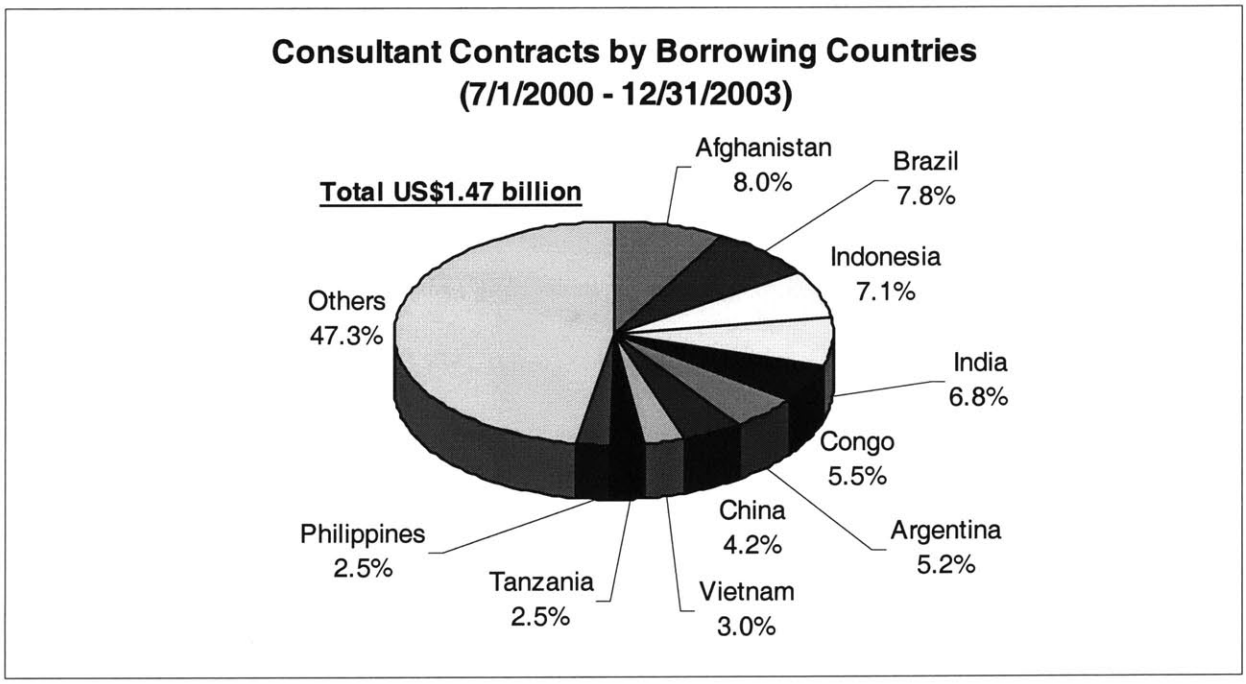

Figure 6-1 Consultant contracts of the World Bank Group by borrowing countries

First, Figure 6-1 shows consultant contracts of the World Bank Group by borrowing countries. The

funds of the World Bank Group were contributed to 119 countries, and in the past several years Afghanistan was the largest recipient because of reconstruction of the country after the war. The nine largest recipients were Brazil, Indonesia, India, Congo, Argentina, China, Vietnam, Tanzania, and Philippines. These top ten recipients occupied more than half of the total contracts, and most of them were only eligible for IBRD funds, not for IDA funds, with exception of Afghanistan, Congo and Tanzania. This indicates that high-middle income developing countries received most funds for construction projects from WB group rather than low income developing countries. It is reasonable because the countries that most wanted infrastructure construction were the high-middle income developing countries, no longer needed emergency aid such as food aid, disaster relief and medical assistance. After becoming able to have enough food, the countries started to build an infrastructure.

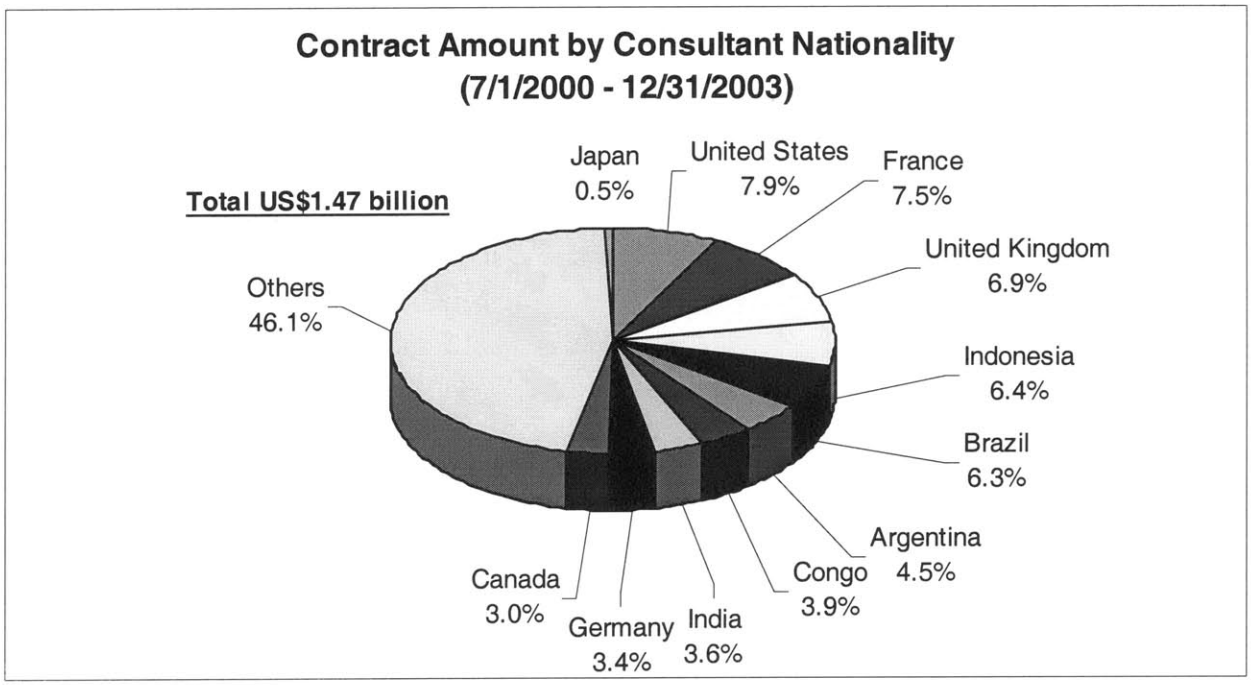

Figure 6-2 Contract amount of the World Bank Group by consultant nationality

Second, Figure 6-2 shows contract amount of the World Bank Group by consultant nationality. The

contracts were awarded by consulting firms in 144 countries, and those in the United States received the largest contract amount from the World Bank Group. The nine largest countries were the followings: France, UK, Indonesia, Brazil, Argentina, Congo, India, Germany, and Canada. Five in the top ten countries, Indonesia, Brazil, Argentina, Congo, and India, received contracts as well as borrowing funds from the World Bank because consulting firms in these countries have enough ability to execute projects of the World Bank Group.

Japanese consulting firms received contracts of US$8 million from July 2000 to December 2003, which was only 0.5% of the total financing amount of the World Bank Group. However, Japan was the second largest sponsor to the World Bank Group, and contributed US$171 million in 2002. Moreover, Japan contributed substantial funds to the World Bank Group, but Japanese consulting firms had a small share in this market and weaker competitive powers than other firms in the United States, France, or United Kingdom.

The third graph, Figure 6-3, shows contract amount of the World Bank Group by consulting firms. The contracts were awarded by 2,502 consulting firms, and the United Nations Office for Project Services (UNOPS), an entity of United Nations, received the largest contract amount from the World Bank Group. The seven nine firms were Louis Berger, United Nations Development Programme (UNDP), Bceom, SMEC international, MWH, Halcrow, United Nations Educational, Scientific and Cultural Organization (UNESCO), Agence d'Aide, and Pricewaterhouse Coopers. Surprisingly, three entities of the United Nations ranked in the top ten firms. UNOPS provides project management services for development projects, and it is the only entirely self-financing entity in the United Nations system: its income is derived from fees earned from services provided. Because UNOPS operates like a business, it competes with private-sector firms in spite of being an entity of United Nations. UNDP has similar missions to the

World Bank (refer to 3.2.2), but some funds flowed from the World Bank to UNDP. UNESCO also was awarded some projects from the World Bank, projects that were related to educational, scientific, or cultural issues.

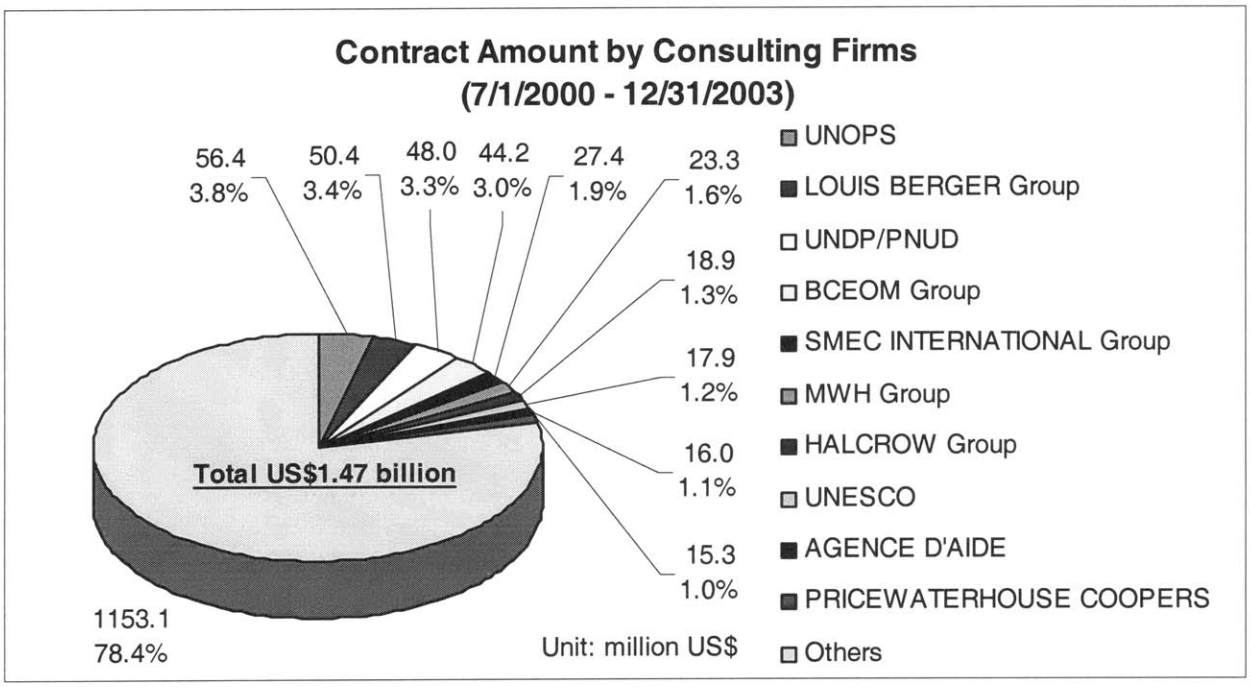

Figure 6-3 Contract amount of the World Bank Group by consulting firms

The Louis Berger Group Inc., ranked second in the top ten, is a consulting firm in the US, doing large business in the international market as well as the domestic market in the US. According to the company's web site, it was founded in 1953, and its first major assignment was the design of a major portion of the Northeast Extension of the Pennsylvania Turnpike, the first turnpike in the United States. The company's first international assignment was the road from Rangoon to Mandalay in 1959, just six years after its foundation. Since the first international project, the company has continued to pay attention to the overseas markets as well as the US market. Until today, the company has been involved in the planning, design and construction management in 140 countries and the US.

BCEOM (Bureau Central d'Etudes pour les Equipements d'Outre-Mer) engineering consultancy, ranked fourth in the top ten, is a consulting firm in France. According to the company's web site, it was founded by the Ministry of French Overseas Territories in 1949. It was a semi-public company in the beginning, and designed to participate in major infrastructure development projects, particularly in the field of transport, financed by France in French-speaking Africa. The Company's activity focuses on development engineering throughout the world, as well as water and environmental engineering in France. Today the company has 500 employees, a turnover of €65 million in 2003, 1,000 assignments per year, and 100 countries of work.

SMEC, originally Snowy Mountains Engineering Corporation, ranked fifth in the top ten. According to the company's web site, its initial expertise was developed from the work of the Snowy Mountains Hydro-electric Authority (SMHEA) in the investigation, design and construction of the vast Snowy Mountains Scheme in south-eastern Australia. From the early 1960s, those engineering and management skills were also utilized by the Australian Government for major development works overseas and in Australia. By the time SMEC was established as a separate organization in 1970, its parent organization (SMHEA) had already acquired a solid reputation in the international consulting field and was operating effectively in several countries in South-East Asia and throughout Australia. Today SMEC has completed overseas projects in more than 79 countries for international funding and aid agencies, as well as for government organizations and private sector clients. Major international agencies with which SMEC is registered as a consultant include the United Nations, the World Bank, the Asian Development Bank, and other international institutions.

MWH, previously known as Montgomery Watson Harza, ranked sixth in the top ten. MWH was established by the merger of Montgomery Watson Inc. and Harza Engineering Company in 2000.

According to the article in "Civil Engineering"[38], the new company had more than 5,000 employees in 30 countries, becaming one of the largest international engineering and construction consulting companies in the world at the time of the merger. Before the merger, Montgomery Watson Inc., one of the 500 largest privately held companies in the US, specialized in water, wastewater, environmental infrastructure design, and construction for more than 150 years. Harza Engineering Company, also privately held company, specialized in hydropower, infrastructure design, and energy. As a result of the merger, HWH inherited 230 years of combined experiences, and the new firm began to produce annual revenues in excess of US$680 million. The head quarters is in Pasadena, California, with major business division in Denver, Chicago, London and Singapore.

Halcrow Group Ltd., ranked seventh in the top ten, is a consult firm in the UK. According to the company's Corporate Report [39], its founder, Thomas Meik, worked extensively on port, maritime and railway projects in northern England and Scotland. During the first half of the twenty century, William Halcrow established the firm specialized notably in the area of tunneling. Its first commissions outside of the UK were undertaken in the 1890s. After the company's name became Sir William Halcrow & Partners in 1941, it has expanded business greatly in the international market. In the year 2000, projects undertaken outside the UK accounted for nearly 40% of turnover. The company specializes in the provision of professional planning, design and management services for infrastructure development. It also contributed to water, transportation and property development projects across the world. In 2002 the company employed 3,600 people in 60 offices worldwide, had an annual turnover of £186 million, and worked on commissions in over 70 countries.

[38] Civil Engineering, Vol.70, No.12, December 2000, ASCE.
[39] Corporate Report 2002, Halcrow Group Limited.

In contrast to these top ten companies, Japanese consulting firms received only twelve contracts, amounted US$8 million, from the World Bank Group (Table 6-1). Nippon Koei Co., Ltd., one of the largest construction consulting firms, received the largest amount of the Japanese consulting firms, but it ranked 106th in the whole World Bank Group's ranking. It is clear that the Japanese consulting firms are very weak in the World Bank Group market in spite of the substantial contributions from the Japanese government.

Table 6-1 Japanese consulting firms in the World Bank Group market

Rank	Consultant Name	Contract(s)	Total Amount (US$ million)
106	Nippon Koei Co., Ltd.	3	2.419
119	Pacific Consultants International	1	2.270
190	Asia Pacific Engineering Consultants	2	1.484
475	Nippon Jogesuido Sekkei Co., Ltd.	1	0.512
477	Construction Project Consultants, Inc.	1	0.511
658	Oyo Corporation	1	0.326
863	Mitsubishi Corporation	1	0.217
990	Japan Vietnum NMPRP Consortium (JVNC)	1	0.183
1418	Highway Planning, Inc.	1	0.097
	Total	12	8.019

6.1.2. Construction Firms in the World Bank Market

In the same way as the consultant cases, the contract data of construction work are collected from the World Bank Group's database, sorted by three conditions: service category of construction; contract date from July 1, 2000 to December 31, 2003; and project sector of transportation, water and sanitation (construction work). The total collected data became 3,975 construction projects, and total contract amount of US$11.9 billion. By using this data, three graphs are generated.

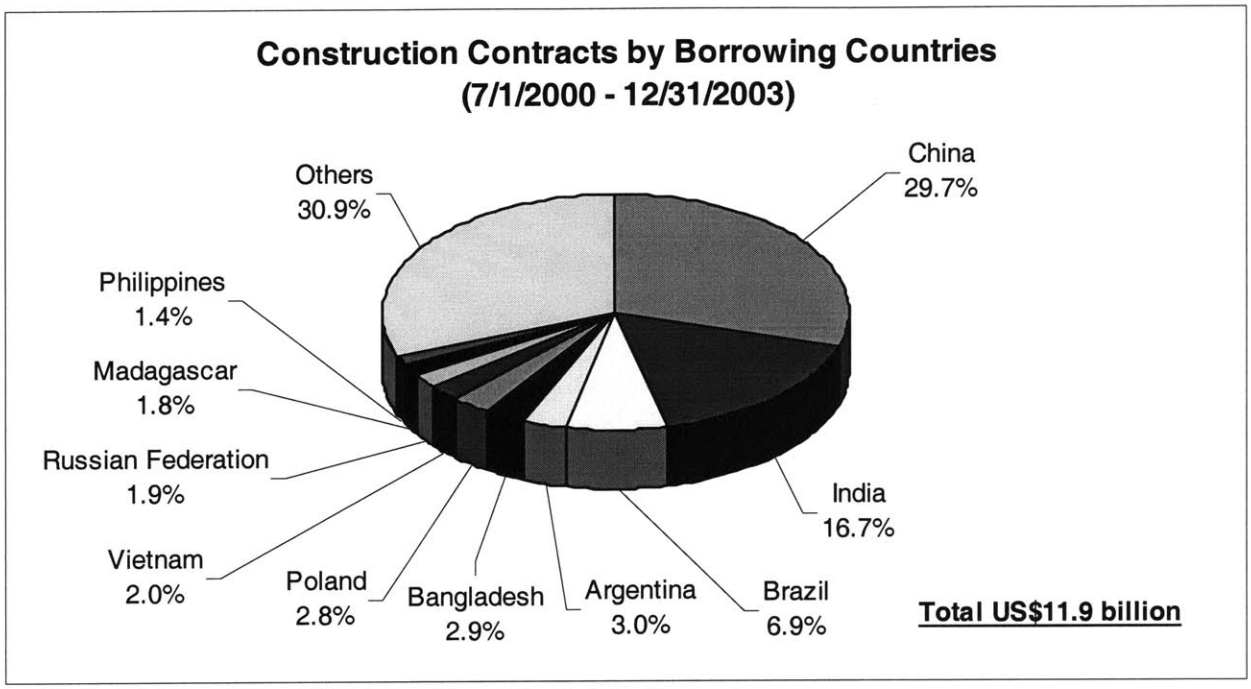

Figure 6-4 Construction contracts of the World Bank Group by borrowing countries

First, Figure 6-4 shows construction contracts of the World Bank Group by borrowing country. The funds of the World Bank Group were contributed to 116 countries. In the past several years, China was the largest recipient, and the nine largest recipients were India, Brazil, Argentina, Bangladesh, Poland, Vietnam, Russia, Madagascar, and Philippines. These top ten recipients occupied nearly 70% of the total contracts, and most of them were only eligible for IBRD funds, not for IDA funds, with exception of Bangladesh and Madagascar. This indicates that high-middle income developing countries received most funds for construction projects from the World Bank Group, rather than low income countries. This tendency became stronger than the case of consult projects in the previous section of this paper. Afghanistan, ranked first in the top ten countries of consult work, did not have any construction project financed by the World Bank Group because Afghanistan was at the stage of planning reconstruction and had not yet reached the stage of actual construction. On the other hand, the top three countries of

construction work, China, India and Brazil, occupied over half of the total contracts. These countries increased their economic growth rate substantially in the past several years, and in the near future, they are expected no longer be developing countries. These high-middle income developing countries, which have large territories and populations, surely needed infrastructure development, and construction work was concentrated in these countries rather than in low income developing countries.

Figure 6-5 Contract amount of the World Bank Group by contractor nationality

Second, Figure 6-5 shows contract amount of the World Bank Group by contractor nationality. The contracts were awarded by construction firms in 149 countries, and those in China received the largest contract amount from the World Bank. The nine largest countries are India, Brazil, Russia, Argentina, Bangladesh, France, Germany, Korea, and Poland. Seven in the top ten countries received contracts as well as borrowed funds from the World Bank. This indicates that most projects were executed by construction firms in the borrowing countries, unlike consulting work. In particular, construction firms

in the top three borrowing countries, China, India, and Brazil, received over half of total contracts as well as total borrowing amount from the World Bank. Construction firms in these countries have enough ability to execute projects of the World Bank, and construction work requires less technical know-how than consultant work.

Japanese construction firms received contracts of US$48 million from July 2000 to December 2003, which was only 0.4% of total financing amount of the World Bank Group. However, Japan was the second largest sponsor to the World Bank Group and contributed substantial funds to the World Bank Group, but Japanese construction firms had a small share in this market and weaker competitive powers than other firms in France, Germany, or Korea.

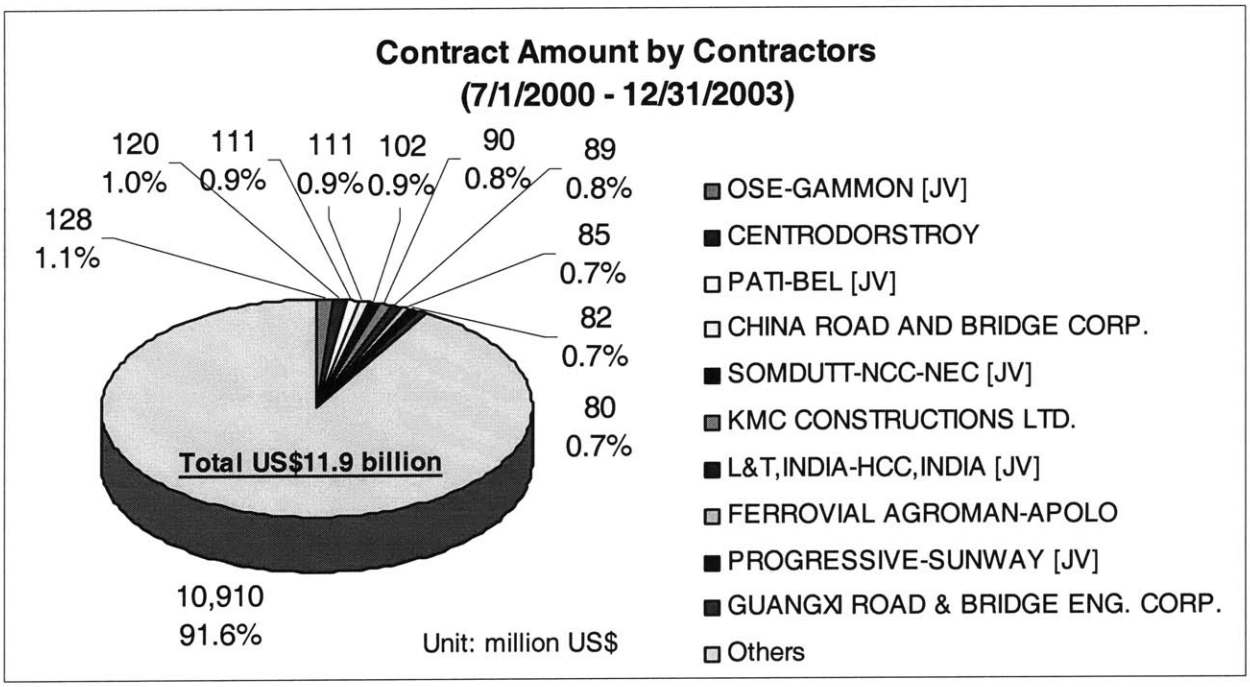

Figure 6-6 Contract amount of the World Bank Group by construction firms

The third graph, Figure 6-6, shows contract amount of the World Bank Group by construction firms. The

contracts were awarded to 3,975 construction firms, and the top ten construction firms occupied only 10% of the total contract amount of the World Bank Group. Each firm was awarded only one large scale project or a couple of sequential projects, and the five entities of the top ten firms were joint ventures. Therefore, this ranking depended on their project scales, and there was no major player in the construction market of the World Bank Group. This result is different from that of the consultant market, and shows difficulties of overseas businesses for construction firms. Construction projects have to be localized in the countries compared to consultant work, and construction firms are required to have relationships with local governments, subcontractors, suppliers, and unions. Also they have to be familiar with laws, customs, and cultures of the countries. It takes time for an international construction firm to dominate a construction market in the countries.

In contrast to these top ten companies, Japanese firms received only forty-three construction contracts, amounting to US$48 million, from the World Bank Group (Table 6-2). Konoike Construction Co. Ltd., one of the middle class construction firms, received the largest amount of the Japanese construction firms, but it ranked 245th in the whole World Bank Group's ranking. It is clear that the Japanese firms are very weak in the World Bank Group construction market in spite of the substantial contributions made by the Japanese government. Although three middle-small class construction companies, Konoike Construction Co. Ltd., World Kaihatsu Kogyo Co. Ltd., and Hazama Corporation, received the World Bank Group's projects, other bigger construction firms were not awarded any projects. On the other hand, many trading companies received construction projects from the World Bank Group. They manage construction projects with using local construction companies, material suppliers, and local staff. They do not have extensive construction technology, but they can order technical work to other companies specialized in specific areas. It is clear that the Japanese construction firms are weaker than the Japanese trading companies in the World Bank Group construction Market.

Table 6-2 Japanese firms in the World Bank Group construction market

Rank	Consultant Name	Main Business	Contract(s)	Total Amount (US$ million)
245	Konoike Construction Co. Ltd.	Construction	2	12.344
387	Nissho Iwai Corporation	Trading	3	6.956
455	World Kaihatsu Kogyo Co. Ltd.	Construction	1	5.824
463	Sumitomo Corporation	Trading	5	5.696
640	Hazama Corporation	Construction	1	3.811
675	Homma Machinery Co. Ltd.	Heavy Industry	2	3.635
1047	Marubeni Corporation	Trading	5	1.970
1162	Mitsubishi Corporation	Trading	5	1.606
1251	Shinyei Kaisha	Trading	1	1.368
1453	Toyota Tsusho Corporation	Trading	7	1.030
1677	Nishizawa Limited	Trading	1	0.761
1844	Jalux, Inc.	Retailer	1	0.624
1867	Hokuto Trading	Trading	1	0.603
1873	Hitachi Plant Eng. & Const. Co. Ltd.	Heavy Industry	1	0.601
1914	Tomen Vehicles & Equipment	Heavy Industry	1	0.574
2690	Kato Works Co. Ltd.	Heavy Industry	1	0.252
2695	Itochu Corporation	Trading	1	0.250
3350	Kjaer and Kjaer	-	1	0.111
3406	Tomen Corporation	Trading	1	0.104
3815	Kawasaki Heavy Industries Ltd.	Heavy Industry	1	0.030
3886	Nissan Diesel Motor Co. Ltd.	Heavy Industry	1	0.021
	Total		43	48.171

6.2. MAJOR PLAYERS OF THE INTER-AMERICAN DEVELOPMENT BANK GROUP

The Inter-American Development Bank group also has opened its project database to the public, and anyone can access it through the IDB web site. This database provides information about firms and individuals that have won contracts to provide goods, works, or consulting services for IDB financed projects, and project data is available from January 1, 1961. By analyzing this data, it shall be clear who the major players are as well as the position of Japanese construction firms in the IDB's construction

market. Construction consulting firms as well as studying construction firms are also analyzed to know the tendencies in construction markets of international institutions.

6.2.1. Construction Consulting firms in the Inter-American Development Bank Market

The contract data of consultant work were collected from the IDB Group's database, sorted by three conditions: service category of consultant; contract date from January 1, 2000 to December 31, 2003; and project sector of Energy, Environment, Reform/Modernization of the State, Sanitation, Transportation and Urban Development and Housing. (construction work). The total collected data became 2,123 consulting projects, and total contract amount of US$573 million. By using this data, three graphs are generated.

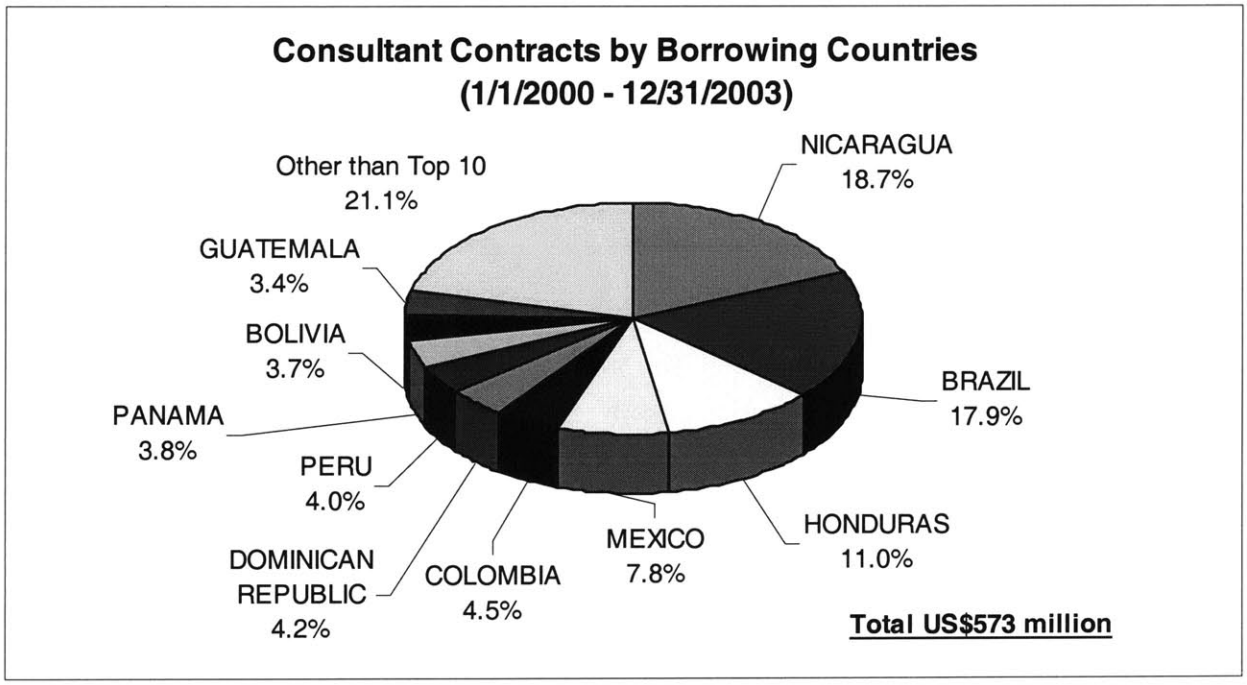

Figure 6-7 Consultant contracts of IDB by borrowing countries

First, Figure 6-7 shows consultant contracts of the IDB Group by borrowing country. The funds of the IDB Group were contributed to 27 countries, and in the past several years Nicaragua was the largest recipient. The nine largest recipients were Brazil, Honduras, Mexico, Colombia, Dominican Republic, Peru, Panama, Bolivia, and Guatemala. The top four recipients occupied more than half of the total contracts, and in contrast to recipients from the World Bank, these recipients from the IDB Group were proportionally mixed with high income (Brazil and Mexico) and low income developing countries (Nicaragua and Honduras). IDB is a regional bank and contributes funds only to 27 regional countries. Therefore, IDB can analyze an optimum proportion of contributions to the whole region, contributing funds to low income countries as well as high income countries. IDB thinks that consulting works of construction are necessary not only for high income but also low income developing countries, which require fundamental infrastructures, such as water supplies, living facilities, and disaster measures. Also the consultant works of construction is important for low income developing countries to develop in the future. This result is slightly different from that of the World Bank Group.

Second, Figure 6-8 shows contract amount of IDB by consultant nationality. The contracts were awarded by consulting firms in 144 countries, and those in Brazil received the largest contract amount from IDB. The nine largest countries were the followings: Nicaragua, Honduras, Mexico, the US, Colombia, Peru, Guatemala, Bolivia, and Spain. Interestingly eight of the top ten countries were regional countries, and only two countries, the US and Spain, were donor countries. Consulting firms in almost all member countries were eligible to execute consultant works of construction in their countries, and only consultants in the US greatly dominated in this IDB market of construction consulting because of geographical reason. Spain was also ranked tenth because it governed South American countries in the past, and Spanish is spoken in many of the regional countries.

Surprisingly Japanese consulting firms did not receive any consultant contract from July 2000 to December 2003, but IDB projects were awarded many consulting firms in donor countries, such as the UK, Canada, Norway, France, Germany, Sweden, Italy, Portugal, Denmark, Finland, the Netherlands, Switzerland, and Australia, as well as the US and Spain. However, Japan was the second largest sponsor of IDB, contributing US$5.6 million in 2002. Moreover, Japan contributed substantial funds to IDB, but Japanese consulting firms did not have a share in this market, and they have weaker competitive powers than consulting firms in the other donor countries.

Figure 6-8 Contract amount of IDB by consultant nationality

The third graph, Figure 6-9, shows contract amount of IDB by consulting firms in the US. The 72 contracts were awarded 48 consulting firms, and again the Louis Berger Group received the largest contract amount from IDB. The following firm was Texas Research and Development Inc. These two firms occupied more than 40% of the total contracts, and other firms and joint ventures were awarded

only one large scale project or a couple of sequential projects. Therefore, the major players in this market are limited in these two firms. The Louis Berger Group received nine contracts amounted US$11.4 million, and the company details are shown in section 6.1.1.

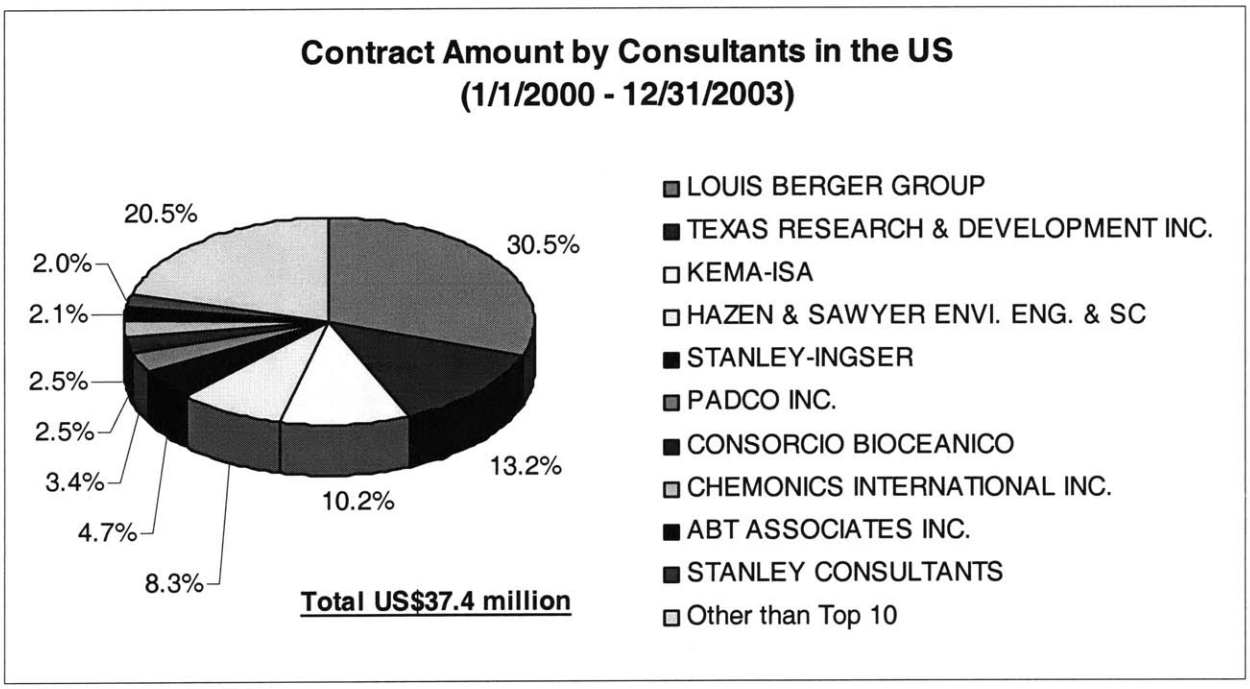

Figure 6-9 Contract amount of IDB by consulting firms in the US

Texas Research and Development Inc (TRDI), ranked second in the top ten, is a system company for construction in the US. According to the company's web site, it specializes in applied engineering through the development and implementation of advanced computerized management systems for transportation engineers and officials. TRDI is a leading company in applying systems for public agencies using pavement management technology. It is surprising that this small scale system company could be ranked second in the top ten of construction consultants in the US.

6.2.2. Construction Firms in the Inter-American Development Bank Market

In the same way as the consultant cases, the contract data of construction work are collected from IDB's database, sorted by three conditions: service category of construction; contract date from January 1, 2000 to December 31, 2003; and project sector of energy, environment, reform/modernization of the state, sanitation, transportation, and urban development and housing (construction work). The total collected data became 2,626 construction projects, and total contract amount of US$2.55 billion. By using this data, two graphs are generated.

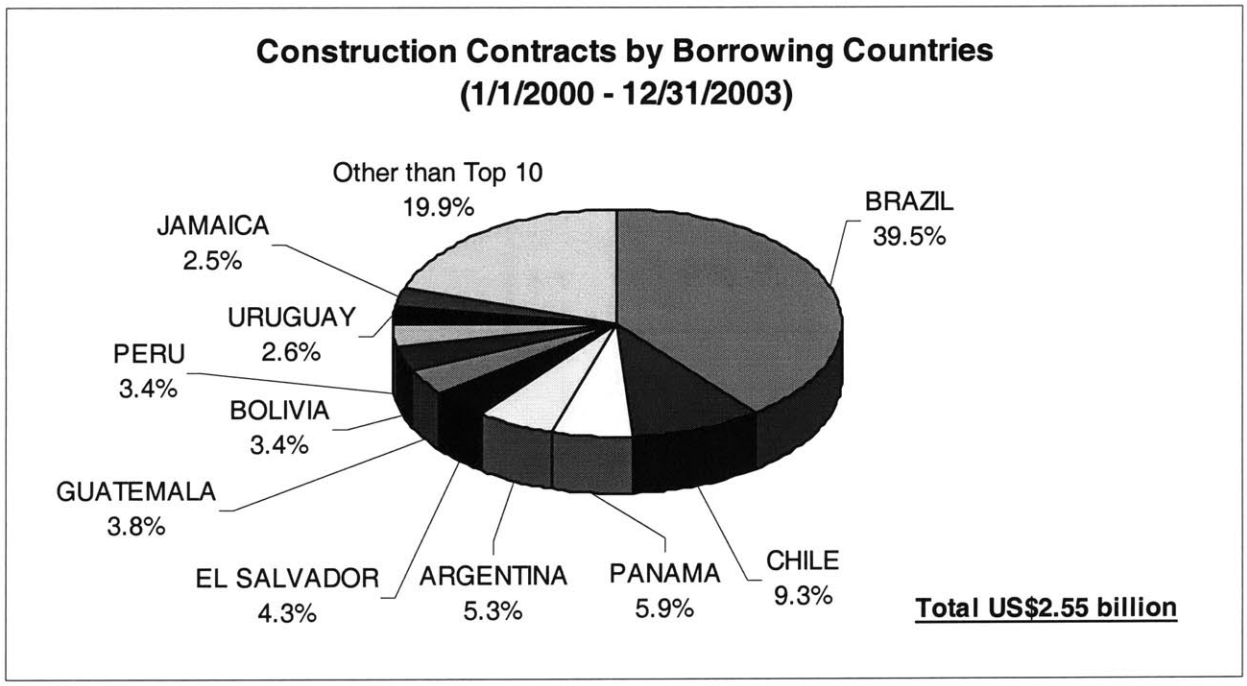

Figure 6-10 Construction contracts of IDB by borrowing countries

First, Figure 6-10 shows construction contracts of IDB by borrowing countries. The funds of IDB were contributed to 26 countries, and in the past several years, Brazil was the largest recipient. The nine largest recipients were Chile, Panama, Argentina, El Salvador, Guatemala, Bolivia, Peru, Uruguay, and Jamaica. These top ten recipients occupied over 80% of the total contracts, and in contrast to the result

of consultant contracts, high income countries dominated funds for construction from IDB. This indicates that high income countries received most funds for construction projects from the IDB rather than low income countries. The top three countries, Brazil, Chile, Panama, occupied over half of the total contracts. These countries increased their economic growth rate substantially in the past several years, and in the near future, they are expected no longer be developing countries. These high income developing countries surely needed infrastructure development, and actual construction work was concentrated in these countries rather than in low income countries.

Figure 6-11 Contract amount of IDB by contractor nationality

Second, Figure 6-11 shows contract amount of IDB by contractor nationality. The contracts were awarded by construction firms in 32 countries, and those in Brazil received the largest contract amount from IDB. The nine largest countries are Chile, Argentina, Panama, Guatemala, El Salvador, Bolivia, Uruguay, Paraguay, and Peru. This proportion was similar to that of the previous graph (Figure 6-10),

and no firm in donor countries was seen in this top ten. The top ten countries received contracts as well as borrowed funds from IDB. This indicates that most projects were executed by construction firms in the borrowing countries, unlike consulting work. In particular, construction firms in the top three borrowing countries, Brazil, Chile, and Argentina, received over half of total contracts as well as total borrowing amount from IDB. Construction firms in these countries have enough ability to execute projects of IDB, and construction work requires less technical know-how than consultant work.

In contrast to consulting firms, no major player of construction firms in the IDB market was found. Each firm was awarded only one large scale project or a couple of sequential projects, and many entities were formed as joint ventures. Therefore, the ranking depended on their project scales, and there was no major player in the construction market of IDB as well as the World Bank Group. Again this result is different from that of the consultant market, and shows difficulties of overseas businesses for construction firms. It takes time for international construction firms compared to consulting firms to dominate the construction market in the countries.

6.2.3. Non-Awarded Construction Firms in the Inter-American Development Bank Market

The Inter-American Development Bank also opens its database of unsuccessful bidders in non-regional countries as well as successful bidders to the public. By using this data, tendencies of successful bidding ratio of each donor country shall be clear. In the same way as the previous case, the project data of unsuccessful bidders were collected from IDB's database, sorted by three conditions: service category of construction; contract date from January 1, 2000 to December 31, 2003; and project sector of energy, environment, reform/modernization of the state, sanitation, transportation, and urban development and

housing (construction work). By using this data, three graphs are generated.

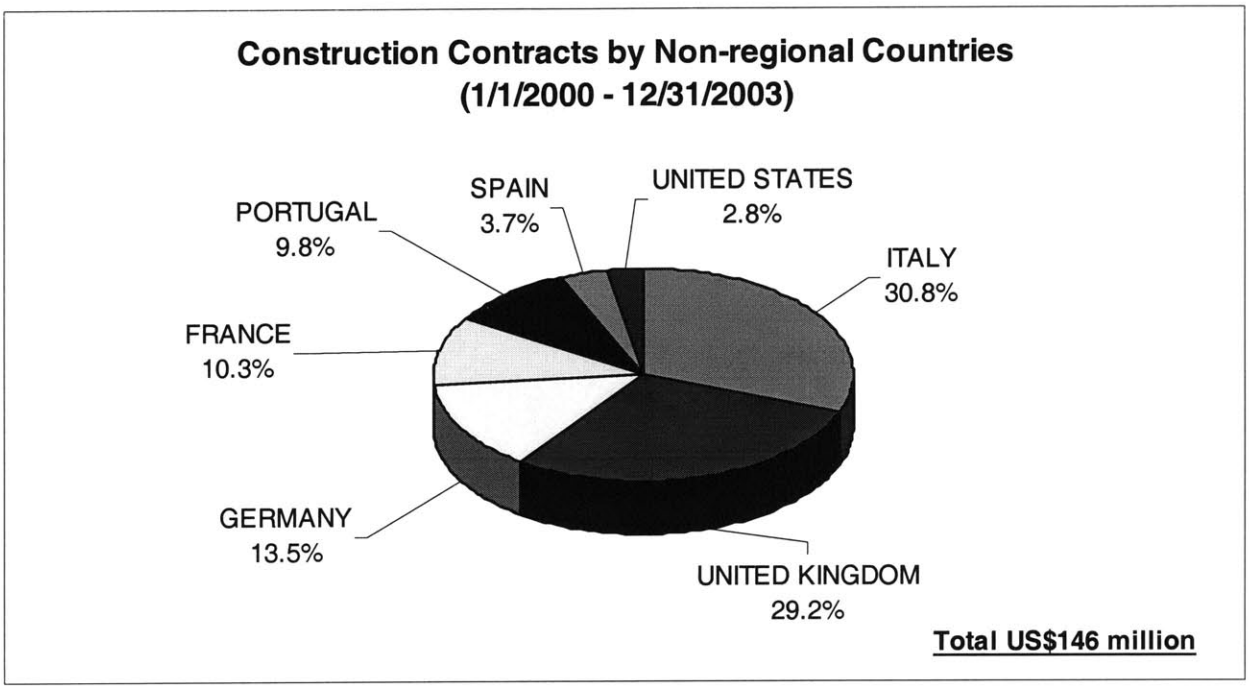

Figure 6-12 Construction contract amounts of IDB by non-regional countries

Before discussing on unsuccessful bidders, successful bidding amounts received by construction firms in non-regional countries should be shown. Figure 6-12 shows the construction contract amounts of IDB by non-regional countries from January 1, 2000 to December 31, 2003. The total amount of contracts was US$146 million, and awarded construction firms were only in seven non-regional countries, which were Italy, the UK, Germany, France, Portugal, and Spain. Italy occupied 31% of the total non-regional contracts, the UK 29%, and Germany 14%. Except for the US, all other firms are from Europe, and the US received only 2.8% of the total non-regional contracts. Surprisingly no construction firm in Japan received a contract in this period in spite of large contributions to IDB made by the Japanese government.

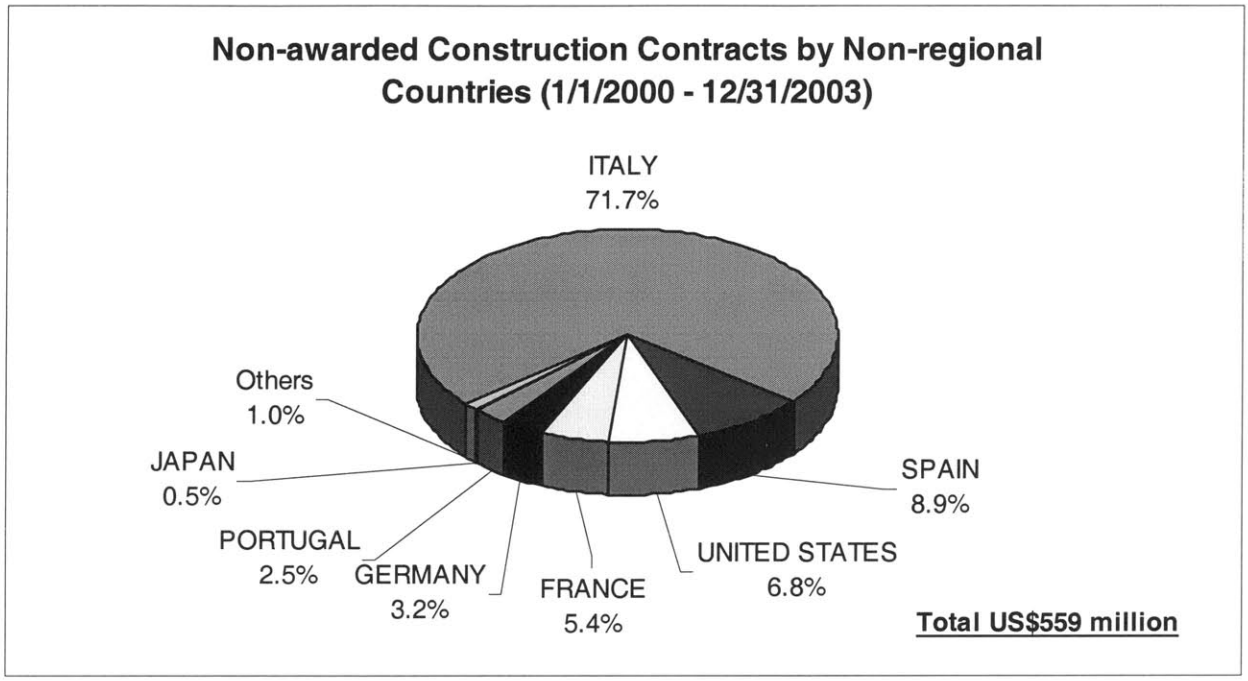

Figure 6-13 Non-awarded construction contract amounts of IDB by non-regional countries

Figure 6-13 shows non-awarded construction contract amounts of IDB by non-regional countries. The total collected data becomes 248 unsuccessful bidders, and total unsuccessful contract amount of US$559 million including overlapping data for a project. The proportion of the countries in this graph is quite different from the previous graph of successful biddings. Construction firms in Italy raised the largest unsuccessful bidding mount of IDB projects, occupying 72% of the total unsuccessful bidding amount. The following five largest countries are Spain, the US, France, Germany, and Portugal. Although construction firms in the total fourteen non-regional countries attended biddings, no firm in the eight countries was awarded: These countries were Japan, Switzerland, Sweden, Belgium, Denmark, Norway, and Austria. In Japanese firms, Mitsubishi Motors, Mitsubishi Corporation and Mitsui Corporation bid on three projects of supplying power plant equipment, but they were not successful.

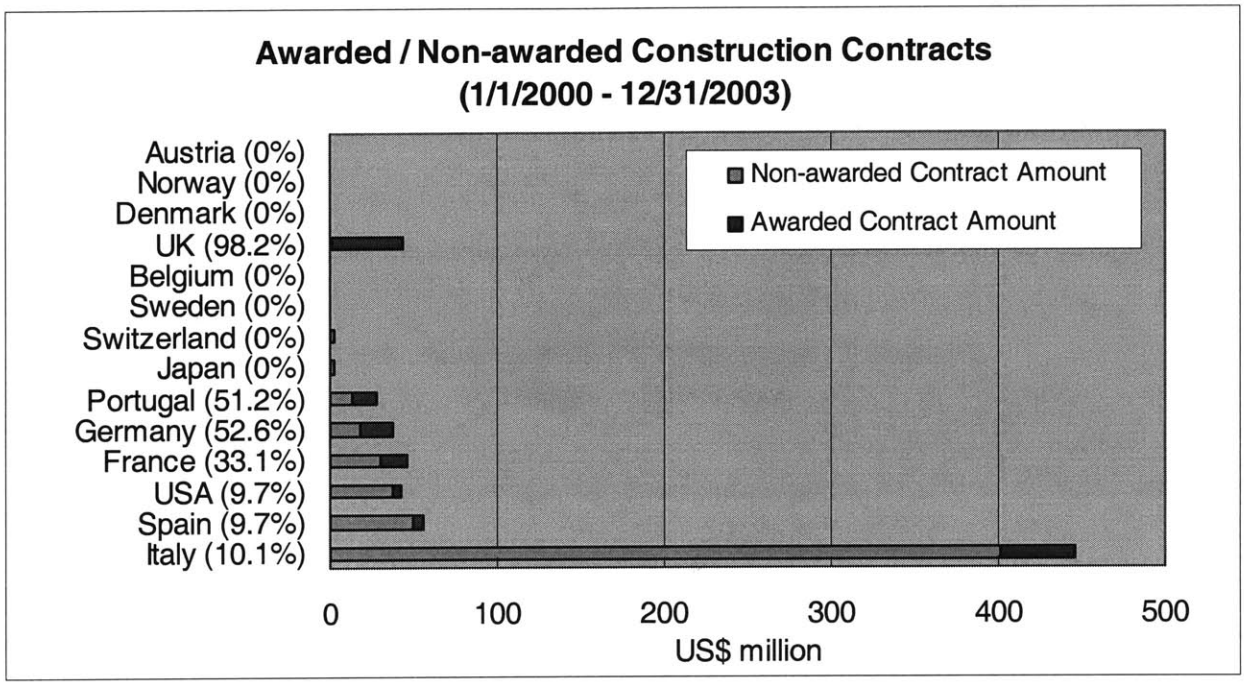

Figure 6-14 Awarded / Non-awarded ratios of IDB projects by non-regional contractors

Figure 6-14 shows awarded / non-awarded ratios of IDB projects by non-regional contractors by combining Figure 6-12 and Figure 6-13. Interestingly these non-regional countries were categorized into four types. The first type included the countries which had low successful bidding ratios: These countries were Italy, Spain, and the US. Their successful bidding ratios were around 10%, and these ratios are normal figures compared to other ordinal construction biddings. However, if they increase a number of biddings, they will keep a large contract amount, like the case of Italy. The countries of the second type were France, Germany, and Portugal, whose successful bidding ratios were between 33% and 53%. They received a contract per two or three biddings, and these ratios were quite high compared to other ordinal construction biddings. They are considered that they chose projects to bid which seemed to be awarded with high probabilities. The final type is the UK, whose successful bidding ratio was surprisingly 98%. This ratio was quite unusual, but the firms in the UK might select projects to bid very carefully. The differences of three types of countries are very interesting, and some aspects of

companies' strategies can be seen though these results.

7. STRATEGY OF FUTURE INTERNATIONAL BUSINESS FOR JAPANESE CONSTRUCTION FIRMS (CONCLUSION)

7.1. SUMMARY OF JAPANESE CONSTRUCTION FIRMS IN INTERNATIONAL INSTITUTION MARKETS

Previous chapters in this paper indicate that Japanese construction firms have received a small number of contracts from international institutions, and they have not done much business in the international construction market in spite of their large scales of domestic sales. The key reasons for this contradiction are given a summary of previous chapters.

First of all, international activities of the Japanese construction firms do not have a long history, and overseas contracts became prominent only 30 years ago. Second, business systems in the international construction market are quite different from those in Japan. Therefore, Japanese construction firms have to study international construction business rules before exploring the international construction market. Third, the scale of overseas business is quite small compared to that of their domestic activities. Japanese construction firms have grown in the substantial domestic construction market, and they have not had a strong necessity to expand their business to overseas markets. Fourth, some Japanese construction firms want to concentrate on the domestic market rather than exploring the international market. In particular since the Bubble Boom Burst, some middle scale firms have struggled against large debt, and reduction of the debt is the first priority rather than new investment in overseas countries. Fifth,

in international contracts financed by international institutions, Japanese construction firms mostly receive contracts from JICA and JBIC, whose financing is better for them. Sixth, Japanese construction consulting firms do not have large shares in the international construction consulting market. Before Japanese construction firms increase their business overseas, Japanese construction consulting firms have to increase their overseas business. Consulting firms have more mobility and can more easily expand their business to overseas countries than construction firms. Therefore, it will be advantageous for Japanese construction firms that Japanese construction consulting firms explore overseas first. Seventh, the Japanese government contributes substantial funds to international institutions, but not enough staff compared to its contributions. Therefore, Japanese construction firms have not had close relationships with international institutions corresponding to the large contributions of the Japanese government. Eighth, there is no major player in construction markets of international institutions, but some construction consulting firms occupy a large share of the markets. Dominating these markets is more difficult for construction firms than for construction consulting firms.

7.2. FUTURE TENDENCIES OF JAPANESE CONSTRUCTION FIRMS IN THE INTERNATIONAL CONSTRUCTION MARKET

Construction business is a very old-fashioned industry, and it has developed gradually in the long history without a revolutionary invention, such as computer technology. However, in the future, the international construction market is expected to increase demands especially in four sectors: environment, infrastructure, energy, and high-technology construction. The environmental area has enormous potential to become a huge business in the world. People, companies, and governments are

increasing their concerns about environmental issues, and construction firms are closely connected to this market. Especially in developing countries with high economic growth rates, the environmental problem is becoming a serious issue. Infrastructure improvements also continue to be required especially in developing countries because three-quarters of people in the world are still living in developing countries. The market of the energy area is also expected to expand. When developing countries continue to grow their economies, a substantial amount of energy will be required. High-technology construction will be required to increase because more demands, such as high-quality, complexity, and speed, are demanded in construction. These four sectors much concern developing countries, and are expected to increase in these countries. Therefore, international institutions will increasingly play important roles in the international construction market.

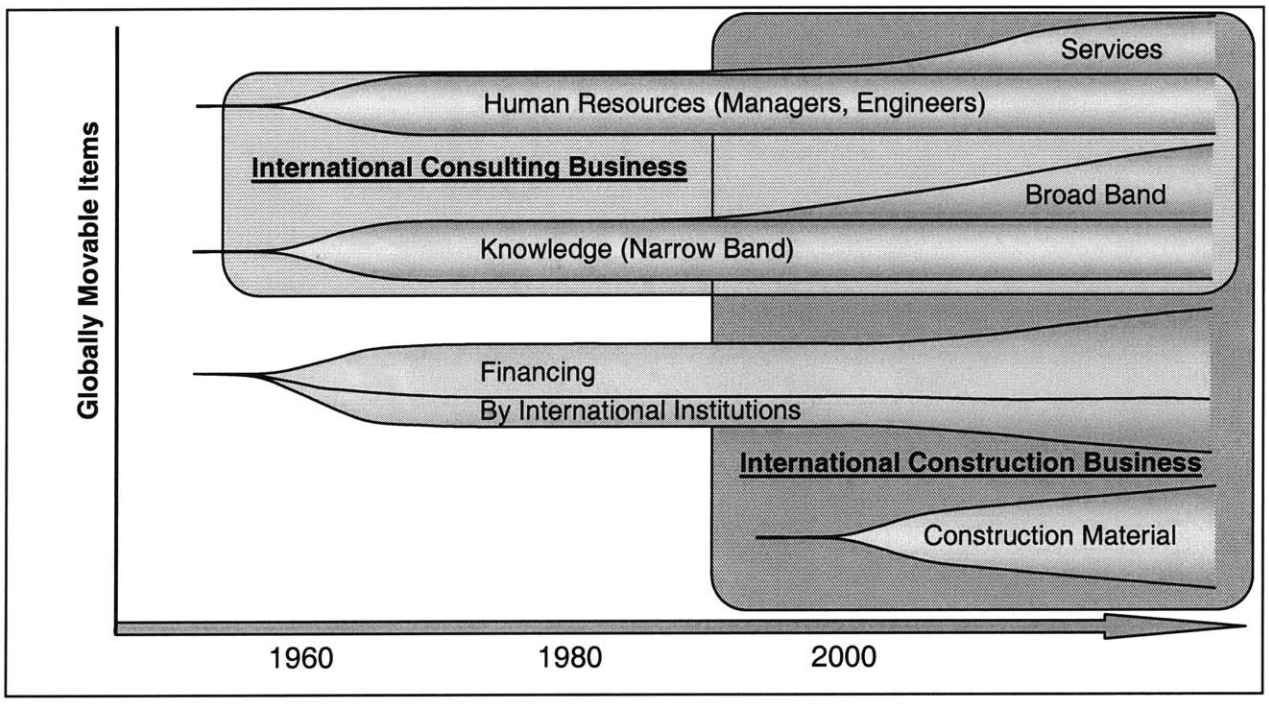

Figure 7-1 Globalization in international construction industry

The recent globalization is affecting international construction business. In particular, developments of transportation and communication will make international construction business easier than before. By nature, a construction project must be localized in the construction area because the structure must be fixed in the particular place, unlike movable merchandise. However, recent globalization makes it easy to transfer items, especially four categories in construction: services, knowledge, financing, and construction material.

Figure 7-1 shows historical movements of these categories in the international construction industry. Some international construction consulting firms have occupied a large share in the international market because they only need some human resources and knowledge, which have already become movable. Therefore, even small consulting firms can dominate the international market with a sense of mobility. On the other hand, international construction business is very difficult to dominate because their production is not movable. However, the recent globalization provides possibilities to change this situation. First, the work force is becoming movable. Many cases are seen in the countries which allow foreigners to work, and these tendencies will continue to rise. Second, internet technology transfers knowledge more quickly and massively than ever. Before diffusion of the internet, most knowledge belonged to each person, and getting information needed extra effort and time. However, today headquarters can easily receive information from overseas construction sites in real time by internet technology. Third, international projects will be financed from a broad range of financing sources. Because of globalization, choices of financing sources will increase, and at the same time, international institutions will increasingly play important roles in the international construction market. Fourth, recently construction firms start to trade construction material internationally because of development of transportation. By nature, construction material, such as steel, cement or gravel, was not traded because of its heavy weight. However, today international trade of construction material is increasing. For

example, China imports a substantial amount of steel, and Japan imports sand from Asian countries.

Although a construction product is fixed in a place, the construction industry will no longer be localized industry. Today the international construction industry is in the transition period to transfer from a fixed to a movable industry, following construction consulting firms as shown in Figure 7-1.

7.3. PROPOSALS FOR JAPANESE CONSTRUCTION FIRMS TO INCREASE CONTRACTS OF INTERNATIONAL INSTITUTIONS

As the conclusion, five recommendations for Japanese construction firms are derived from previous studies.

First, Japanese construction firms should increase their international business because of the shrinking domestic market and recent utilized international construction business. To increase international business, markets of international institutions will be appropriate starts.

Second, demands of the international construction market will increase in four sectors: environment, infrastructure, energy, and high-technology construction. Japanese construction firms are fortunately good at these sectors, and they should emphasize them in the international market.

Third, Japanese construction firms should have a sense of mobility. Construction is no longer a fixed production, and they should increase their international business by using movable items which recently have become available because of globalization.

Fourth, Japanese construction firms should receive contracts from the multilateral financing sources as well as the Japanese bilateral financing sources, such as JICA and JBIC. In the future, it is expected that the multilateral financing sources will play more important roles than the Japanese loans and grants, whose budgets have been decreasing in the past several years. Japanese construction firms should truly explore the international markets, not rely on the Japanese government's financing sources.

Fifth, Japanese construction firms should increase the number of biddings on projects of international institutions because of lack of Japanese staff and information of international institutions. After getting used to biddings on the projects, they should increase their rate of successful biddings.

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http://www.obayashi.co.jp/english/index.html

Kajima Corporation

http://www.kajima.co.jp/welcome.html

Shimizu Corporation

http://www.kajima.co.jp/welcome.html

Taisei Corporation

http://www.taisei.co.jp/english/index.html

Takenaka Corporation

http://www.takenaka.co.jp/takenaka_e/index.html

Ministries of the Japanese Government

http://www.kantei.go.jp/foreign/link/links_e.html

Japan International Cooperation Agency

http://www.jica.go.jp/english/index.html

Japan Bank for International Cooperation

http://www.jbic.go.jp/english/index.php

The World Bank Group

http://www.worldbank.org/

United Nations

http://www.un.org/english/

Asian Development Bank

http://www.adb.org/

Inter-American Development Bank

http://www.iadb.org/

European Bank for Reconstruction and Development

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The African Development Bank Group

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Organization for Economic Co-operation and Development

http://www.oecd.org/

The Overseas Construction Association of Japan, Inc.

http://www.ocaji.or.jp/

The Louis Berger Group, Inc.

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BCEOM

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