Construction Economy Report

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The Japanese Economy and Public Investment

The Effects of Declining Public Investment, The Construction Industry and Its Challenges

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Chapter 1 Macroeconomics and Construction Investment

1.1 Trends in the Japanese economy and construction investment

- The Japanese economy is expected to have continued its steady recovery in FY2006, pulled along by high levels of corporate investment in plant and equipment. In FY2007 as well, the Japanese economy is expected to maintain its steady recovery, driven by steady corporate investment in facilities and by consumer spending.
- Construction investment posted its first year-on-year increase in nine years in FY2005. However, there is a declining undertone, largely due to the effects of the steady fall-off in public-sector construction investment even though private-sector non-housing construction investment may rise, reflecting the economic recovery.
- The number of housing starts in FY2006 is expected to maintain a high level, due to a growing desire to purchase housing as a result of both better employment and income levels, and the desire of those born in the 1970s and in early 1980s ("junior baby-boomers" and "post junior baby-boomers") to buy houses, despite fears of higher housing acquisition costs due to both perceptions of rising interest rates and increasing land prices.

Trends in construction investment (Nominal, FY)

Actual←|→ Tentative |→ Forecast

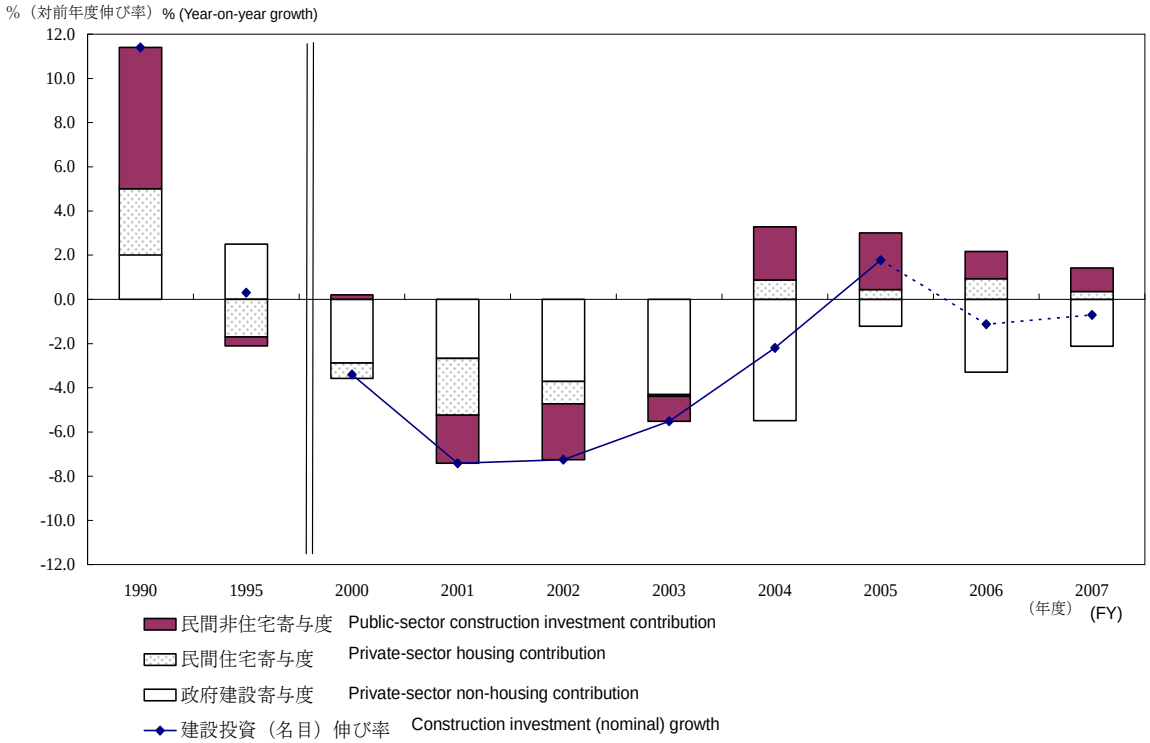
FY	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007
Nominal CI	81,440	79,017	66,195	61,288	56,840	53,700	52,530	53,460	52,860	52,490
(Increase rate)	11.4%	0.3%	-3.4%	-7.4%	-7.3%	-5.5%	-2.2%	1.8%	-1.1%	-0.7%
Nominal government CI	25,748	35,199	29,960	28,193	25,917	25,914	20,520	19,880	18,120	17,000
(Increase rate)	6.0%	5.8%	-6.2%	-5.9%	8.1%	-9.4%	-12.6%	-3.1%	-8.9%	-6.2%
(Contribution rate)	2.0	2.5	-2.9	-3.3	-3.7	-4.3	-5.5	-1.2	-3.3	-2.1
Nominal private CI	25,722	24,313	20,276	18,575	17,951	17,900	18,370	18,600	19,100	19,290
(Increase rate)	9.3%	-5.2%	-2.2%	-8.4%	-3.4%	-0.3%	2.6%	1.3%	2.7%	1.0%
(Contribution rate)	3.0	-1.7	-0.7	-2.6	-1.0	-0.1	097	0.4	0.9	0.4
Nominal private NH CI	29,970	19,505	15,959	14,519	12,972	12,340	13,630	14,980	15,640	16,200
(Increase rate)	18.4%	-1.8%	0.7%	-9.0%	-10.7%	-4.9%	10.5%	9.9%	4.4%	3.6%
(Contribution rate)	6.4	-0.4	0.2	-2.2	-2.5	-1.1	2.4	2.6	1.2	1.1
Real CI	85,442	77,727	66,195	62,358	58,639	54,832	53,030	53,360	51,940	50,960
(Increase rate)	7.6%	0.2%	-3.6%	-5.8%	-6.8%	-6.1%	-3.3%	0.6%	-2.7%	-1.9%

(Units: billion yen. Real figures are based on 1995 prices.)

Notes:

1. CI: construction investment NH: non-housing
2. Private NH CI = private non-housing construction investment + private civil engineering investment.
3. Data from the "FY2006 Construction Investment Outlook" by MLIT up to FY2005

Trends in construction investment (Nominal contribution) (FY)



1.2 Approaches to social infrastructure improvement from new perspectives - The corporate viewpoint and the principle of capital stock adjustment –

- Amid shrinking public works budgets and a series of incidents involving public works projects, there are calls for the establishment of new standards for decision-making that will clearly indicate the approach to social infrastructure improvement, and will be used to decide where, when and how much capital is to be invested in projects.
- If social infrastructure improvement is taken to be part of the "investing" carried out by national and local governments, then it can be inferred that the process of investment in social infrastructure by government will be in line with macroeconomic theory concerning corporate investment decisions.
- Corporations determine the "desirable level of social infrastructure improvement" before they decide to invest. This is the first step towards investment for an economic entity. Government, at a time when taxes can no longer be wasted, needs to give careful discussion to the appropriate level of investment when promoting social infrastructure improvement and must consider the amount of investment and the approaches it will take.

● The process of social infrastructure improvement

- The central role of social infrastructure changes along with changes in social and economic activities (e.g., the way land is used, lifestyles, transportation systems) and its relationship with other social capital. In response to the needs of the times, the major roles of social infrastructure and targets for the levels of its improvement have been continuously reevaluated.
- In the background to social infrastructure improvement in Japan, there are several approaches and schemes that have been key supports for the current process, including "planned infrastructure improvement," "budgeting in single-year units and basing performance on the comparison of one year's results with the previous year's results" and "cash-based accounting."

● Private-sector corporate investment and social infrastructure improvement

- The new public management (NPM) theory has systematically shown that private-sector corporate management methods can function effectively in the government sector as well. "The corporatization of government" put forward by NPM theory is providing new answers to questions about how to best run the government.
- Amid calls from throughout Japanese society for government to be more efficient

and transparent in its decision-making—like a company—"medium- to long-term plans" are gaining importance for the government. These plans set standard for the allocation of public-sector investment in social infrastructure, as well as serving as management plans of private companies.

● **The investment decision mechanism in economic theory**

・ The process of deciding what social infrastructure is to be improved in accordance with medium- and long-term public works planning is analogous to the pattern of corporate investment behavior that is assumed by capital stock adjustment theory —one of the investment functions. Capital stock adjustment theory states that the gap between the desired level of capital stock Kt* and the actual level of capital stock can be closed by a fixed percentage of investment over several time periods, as expressed by the formula: $I_t = \lambda (K_t^* - K_{t-1}), 0 < \lambda < 1$)

・ National and local governments need to untie themselves from rigid ways of thinking, such as the notion that government and private corporations operate on different sets of preconditions, adopt a flexible outlook in setting medium- and long-term plans, and promote public management.

Chapter 2 The Effects of Declining Public Investment

2.1 Future simulations under various construction investment scenarios

- If government investment in construction declines annually by 3 percent until FY2011 and thereafter remains constant, construction investment is predicted to be in the region of 41.0 to 47.1 trillion yen in FY2020, and in the range of 39.1 to 50.4 trillion yen in 2030.
- To maintain the current level of construction investment, a real economic growth rate of between 2.5 and 3.0 percent is needed. To achieve such a growth rate, we need efficient and effective social infrastructure improvement and the enhancement of productivity and potential growth rates.
- While there is a strong correlation between private-sector non-housing investment and the rate of economic growth, the correlation between economic growth and the number of housing starts and private-sector housing investment is low. The number of housing starts and the size of private-sector housing investment are easily influenced by population and the number of households.

● Outcomes of construction investment simulations

(Assumption: Real GDP growth rate continues at 2.0% after FY2008, government construction investment declines annually by 3.0% until FY2011 and thereafter remains flat and unchanging.)

(Real values expressed as FY2000 prices. Units: yen trillions, FY)

	2005 (forecast)	2010	2015	2020	2025	2030
Construction investment	53.4	47.8	45.1	43.9	43.7	44.2
Government construction investment	19.8	15.5	15.0	15.0	15.0	15.0
Private-sector housing investment	18.7	18.1	15.6	13.1	11.6	11.0
Private-sector non-housing investment	9.8	9.7	10.4	11.7	13.1	14.3
Private-sector civil engineering investment	5.1	4.5	4.1	4.0	3.9	3.8

● Construction investment under various economic growth scenarios

(Assumption: Government construction investment declines annually by 3.0% until FY2011 and thereafter remains flat and unchanging.)

(Real values expressed as FY2000 prices. Units: yen trillions, FY)

	2005 (forecast)	2010	2015	2020	2025	2030
Case 1 (GDP 2.0% grow	53.4	47.8	45.1	43.9	43.7	44.2
Case 2 (GDP 2.5% grow	53.4	48.1	46.0	45.5	45.9	47.2
Case 3 (GDP 3.0% grow	53.4	48.3	47.0	47.1	48.3	50.4
Case 4 (GDP 1.5% grow	53.4	47.6	44.2	42.4	41.6	41.5
Case 5 (GDP 1.0% grow	53.4	47.4	43.3	41.0	39.7	39.1

● **Private-sector non-housing investment under various economic growth scenarios**

(Assumption: Government construction investment declines annually by 3.0% until FY2011 and thereafter remains flat and unchanging.)

(Real values expressed as FY2000 prices. Units: yen trillions, FY)

	2005 (forecast)	2010	2015	2020	2025	2030
Case 1 (GDP 2.0% grow	9.8	9.7	10.4	11.7	13.1	14.3
Case 2 (GDP 2.5% grow	9.8	9.9	11.2	13.2	15.3	17.2
Case 3 (GDP 3.0% grow	9.8	10.1	12.2	14.8	17.6	20.3
Case 4 (GDP 1.5% grow	9.8	9.5	9.5	10.3	11.2	11.8
Case 5 (GDP 1.0% grow	9.8	9.3	8.7	9.0	9.3	9.4

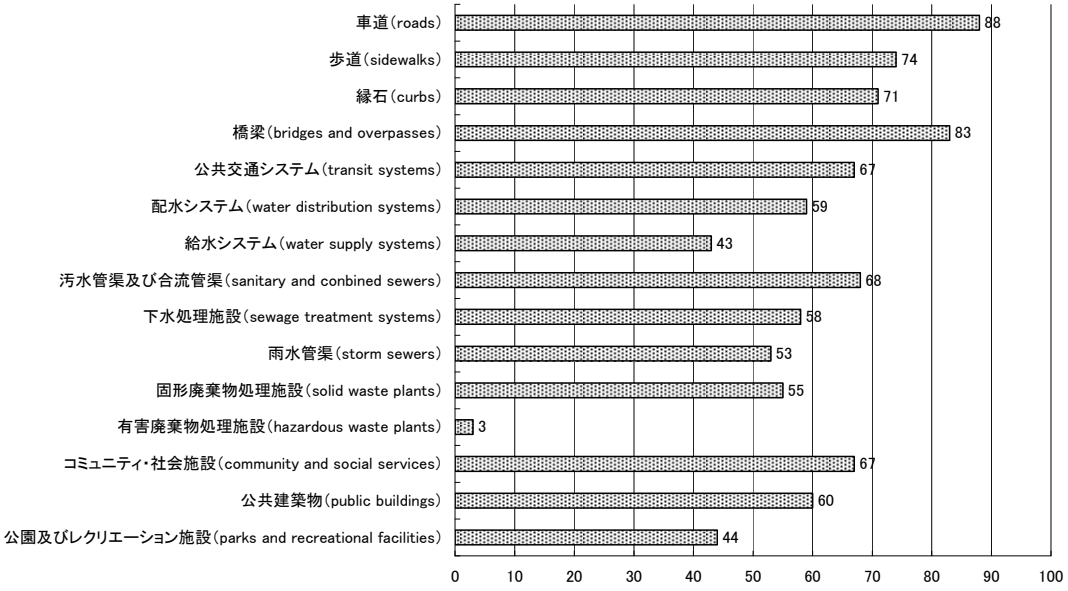
2.2 The effects of declining public investment in other countries

- The US is well-known as a nation with a long-term decline in public investment, but it is not the only one; in Canada, Italy and the UK, public investment also experienced a period of reduced spending. The deterioration of infrastructure such as roads, water and sewage systems had a negative impact on the populations in these countries, and in response, the governments in each of these nations are presently shifting their policies from less spending to more spending.
- It is important to understand that a decline in public investment undermines the basis for international competitiveness as well as living standards and economic development. On the other hand, government initiatives in informing the public of the state of the social infrastructure are needed. For example the Canadian government has informed its citizens of the deficits of and the degradation of social infrastructure. The government should also more efficiently repair, maintain and manage the infrastructure by using the techniques of asset management, for example.

● Canada

- In September 2006, the 36-year-old overpass on the Boulevard de la Concorde in Laval, Quebec collapsed, killing five people. There have been many other examples of the failing of aging infrastructure.
- Research in Canada shows the importance of timely maintenance of infrastructure, as exemplified by De Sitter's "Law of Fives" (1984) which states that major repair can be expected to cost roughly five times what routine maintenance would have cost if it had been done. And all-out replacement will cost five times what repair would have cost.
- Research to estimate the size of infrastructure debt (the amount of money needed to be spent to bring social infrastructure up to the desired level from its current state) —one of the Canadian government's hidden debts —was conducted. (The size of this infrastructure debt has ballooned from 4.8 billion Canadian dollars to 195 billion Canadian dollars.)

The proportion of various types of infrastructure that require repair, based on the findings of a survey conducted in Canada from 1995 to 1996



● Italy

・ Immediately following a large reduction in public investment, the number of traffic accident victims had markedly increased.

・ Due to variation in the state of road infrastructure, regional differences between the north of Italy, the central region and the southern part of the country have grown.

● The UK

・ Due to a reduction in the expenditure on the maintenance of regional roads in the second half of the 1990s, the road deficiency index (1977=100 and will be under 100 if road improvements are carried out, and over 100 if not) worsened to112.5.

2.3 The effects of declining public investment on local economies and employment

- The effects of lower public investment are felt not only in the construction industry but also in local economies, businesses and hence employment.
- In parts of the country where the formation of core industries and the accumulation of industries have been slow to occur, local economies can be more independent by promoting transport and other infrastructure, thus raising the potential of a region to support industry and enabling the development, growth and creation of new industries.

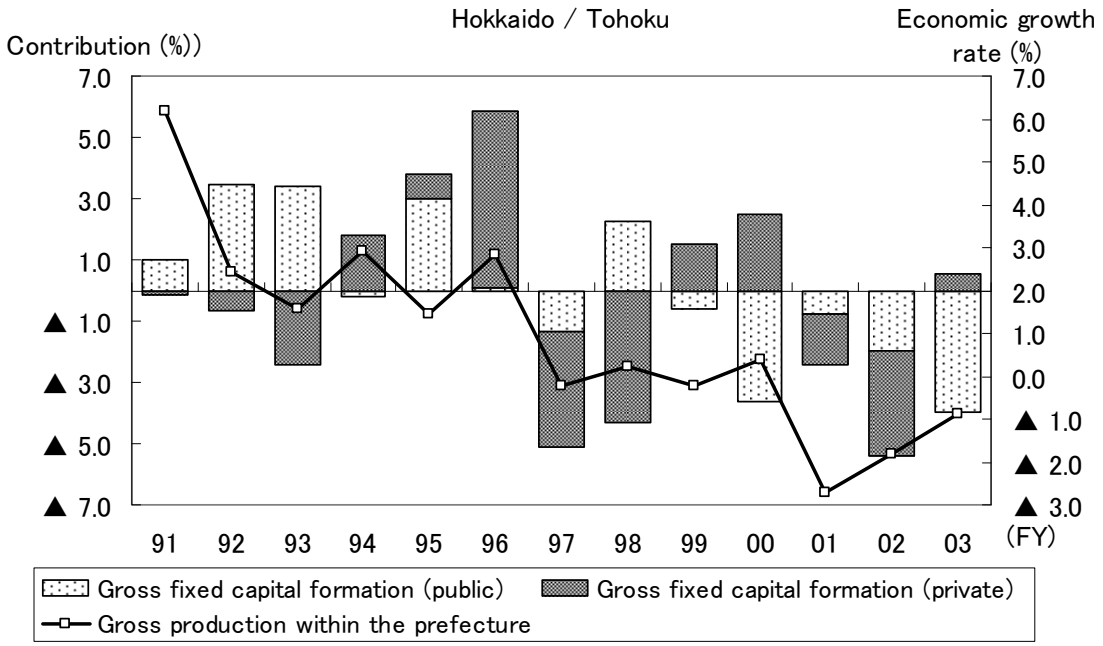
● Trends in public investment and local economies

- Public investment contracts, which peaked in 1995, have been declining all over Japan. In FY2005 the total fell to a level equivalent to about 48% of the peak value.
- Since FY1998, the proportion of total government expenditure devoted to public investment has declined in all parts of the country.

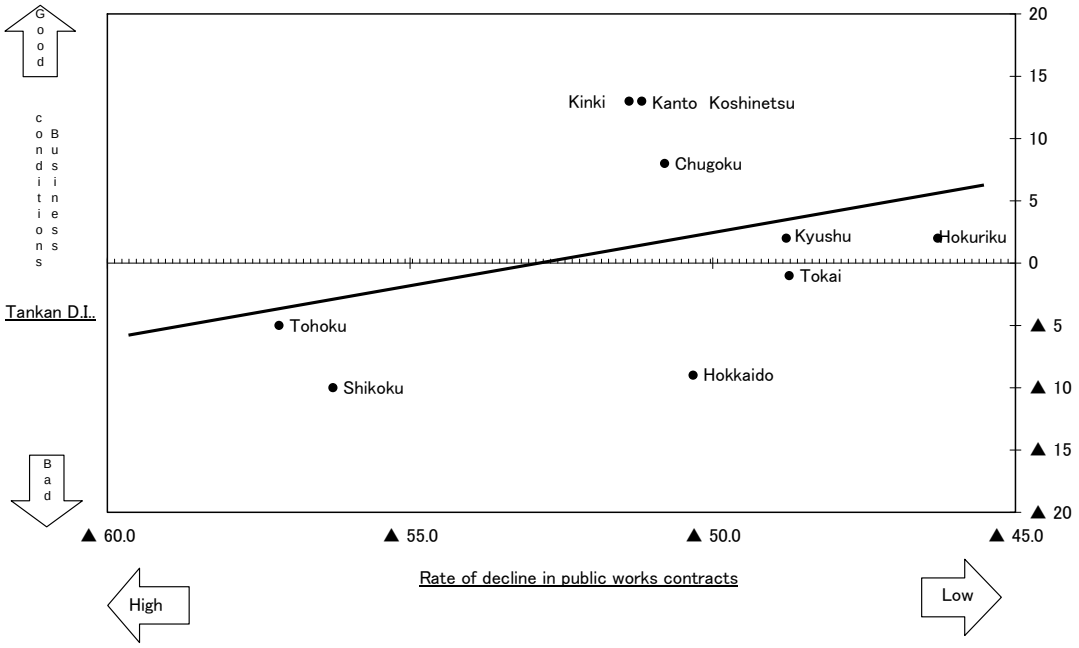
● The effects of the decline in public investment on the construction industry and local economies

- In the provinces of Japan, companies in the construction sector account for a high proportion of corporate bankruptcies. The decline in public investment is having a sizeable impact on the local construction industry.
- The fall off in public investment is having a negative effect on the economies in the provinces outside the main centers in Japan. This is testimony to the vital role that this type of public spending played in supporting local economies and evening out regional differences.
- The greater the decline in public investment contracts to a region, the slower the economic recovery in that region.

The contribution of gross fixed capital formation



Correlation between *Tankan Diffusion Index (D.I.) and the rate of decline in public works contracts**



* *Tankan* is the Bank of Japan's quarterly survey of business sentiment

- Local construction industries still play, or are expected to play a great role in making local communities safe and secure places to live, and thereby enhance and stabilize regional economies.

Chapter 3 The Construction Industry

3.1 So-called “dumping”

- The Guideline on Proper Tendering and Contracting (the “Guideline”) by the Ministry of Land, Infrastructure and Transport (MLIT) defines “dumping” as “accepting orders at such a low price that proper construction cannot be expected.” “Dumping” is prohibited by the Antimonopoly Law to prevent companies disrupting the business of competitors by accepting unfairly low-priced orders. The Guideline places emphasis on ensuring quality and protecting subcontractors by excluding “dumping.”
- The number of surveys conducted by the MLIT on low bidding prices increased significantly in FY2005. Similar trends can be seen among local governments (prefectures and major cities.)
- The UK and France are dealing with low-priced tendering, based on an article on “abnormally low tenders“ published in the EU Directive on Public Procurement. Spain has set stricter regulations to prevent dumping. Practices of dumping are not evident in the US due to the widely used bond system and strong public investment.
- “Emergency Measures to Ensure the Quality of Public Works” announced by the MLIT in December 2006 include anti-dumping measures such as special focused surveys, the introduction of a new type of general evaluation bidding system with an emphasis on construction practices and procedures, and the requirement of bid bonds for a wider range of public works projects.

- Local governments conducting surveys on low-priced bidding

	Local government	FY2005 No. surveyed (A)	FY2005 No. excluded (B)	FY2005 B/A(%)	FY2001 No. surveyed (A)	FY2001 No. excluded (B)	FY2001 B/A(%)		Local government	FY2005 No. surveyed (A)	FY2005 No. excluded (B)	FY2005 B/A(%)	FY2001 No. surveyed (A)	FY2001 No. excluded (B)	FY2001 B/A(%)
Prefectures	Hokkaido	1	0	0.0	11	0	0.0	Prefectures	Okayama	非公表	非公表	–	48	–	–
	Aomori	43	19	44.2	59	0	0.0		Hiroshima(2)	11	5	45.5	1	0	0.0
	Iwate	34	16	47.1	14	3	21.4		Yamaguchi(3)	120	38	31.7	58	17	29.3
	Miyagi	425	145	34.1	162	10	6.2		Tokushima	26	0	0.0	4	2	50.0
	Akita	21	0	0.0	20	0	0.0		Kagawa	2	0	0.0	43	1	2.3
	Yamagata	32	1	3.1	408	24	5.9		Ehime	12	1	8.3	150	0	0.0
	Fukushima	2	0	0.0	0	0	–		Kochi	11	1	9.1	19	3	15.8
	Ibaraki	7	0	0.0	7	0	0.0		Shizuoka	0	0	–	0	0	–
	Tochigi	5	1	20.0	0	0	–		Saga	0	0	–	0	0	–
	Gumma	19	0	0.0	0	0	–		Nagasaki	0	0	–	17	0	0.0
	Saitama	23	2	8.7	39	0	0.0		Kumamoto	0	0	–	0	0	–
	Chiba	12	0	0.0	1	0	0.0		Oita	25	1	4.0	13	1	7.7
	Tokyo	80	0	0.0	3	0	0.0		Miyazaki	1	0	0.0	0	0	–
	Kanagawa	1	0	0.0	2	0	0.0		Kagoshima	0	0	–	0	0	–
	Niigata	20	0	0.0	0	0	–		Okinawa	0	0	–	0	0	–
	Toyama	16	0	0.0	25	3	12.0	major cities	Sapporo	0	0	–	12	0	0.0
	Ishikawa	0	0	–	0	0	–		Sendai	76	0	0.0	29	0	0.0
	Fukui	2	0	0.0	1	0	0.0		Saitama	13	0	0.0	–	–	–
	Yamanashi	1	0	0.0	1	0	0.0		Chiba	1	0	0.0	4	0	0.0
	Nagano	19	1	5.3	70	1	1.4		Yokohama	184	55	29.9	1	0	0.0
	Gifu(1)	59	0	0.0	4	0	0.0		Kawasaki	2	0	0.0	2	0	0.0
	Shizuoka	34	1	2.9	31	1	3.2		Shizuoka	8	0	0.0	–	–	–
	Aichi	75	0	0.0	43	1	2.3		Nagoya	36	0	0.0	1	0	0.0
	Mie	22	1	4.5	–	–	–		Kyoto	31	1	3.2	–	–	–
	Shiga	26	10	38.5	29	3	10.3		Osaka	6	0	0.0	1	0	0.0
	Kyoto	2	0	0.0	0	0	–		Sakai	17	13	76.5	–	–	–
	Osaka	39	4	10.3	27	4	14.8		Kobe	28	0	0.0	15	0	0.0
	Hyogo	61	2	3.3	31	1	3.2		Hiroshima	332	100	30.1	150	2	1.3
	Nara	0	0	–	0	0	–		Kitakyusyu	7	1	14.3	6	1	16.7
	Wakayama	22	3	13.6	12	0	0.0		Fukuoka	42	0	0.0	48	0	0.0
	Tottori	11	0	0.0	6	0	0.0		Total	2,108	422	20.0	1,628	78	4.8
	Simane	3	0	0.0	0	0	–								

Notes:

1. Construction projects with scheduled price of 2.5 million yen and over
2. Only those under the supervision of the former Department of Civil Engineering and Construction.
3. Only those under the supervision of the Department of Civil Engineering and Construction.
4. FY2005 survey was conduction on projects of over 70 million yen

RICE conducted a questionnaire survey among local governments and compared the number of surveys they conducted on low-priced bidding in FY2001 and FY2005. Thirty-one governments replied that the number of surveys they conducted increased. The figure achieved by the number of surveys conducted and the number of cases excluded increased in thirteen governments.

3.2 Construction industry and finance

- Reform of the financial system and the restructuring of the financial industry have drastically changed the shape of finance in Japan and is affecting the construction industry to some extent, which has traditionally relied on indirect financing.
- Major construction companies surveyed were taking measures to increase the efficiency of funded operations, including setting a commitment line to ensure current operating capital and shifting from settlement by bills to accounts receivable financing.

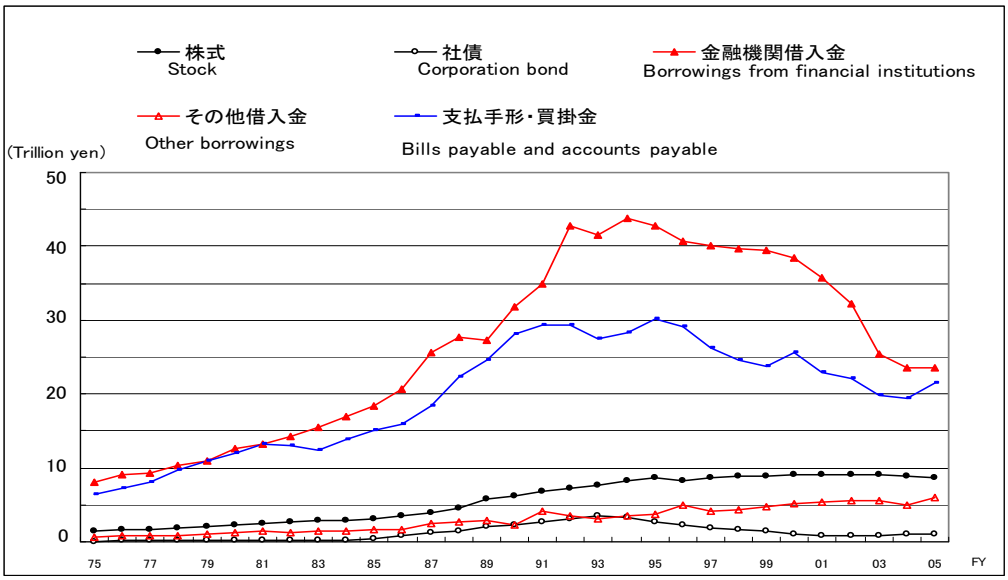
● Trends in the financial environment

- While the Japanese economy is gradually recovering and major and regional banks are proceeding with the disposal of nonperforming loans, the gap between strong and weak banks can now be clearly seen in all categories. The reorganization of the financial business involving other businesses is likely to continue at an accelerated pace.

● Financing to and by the construction industry

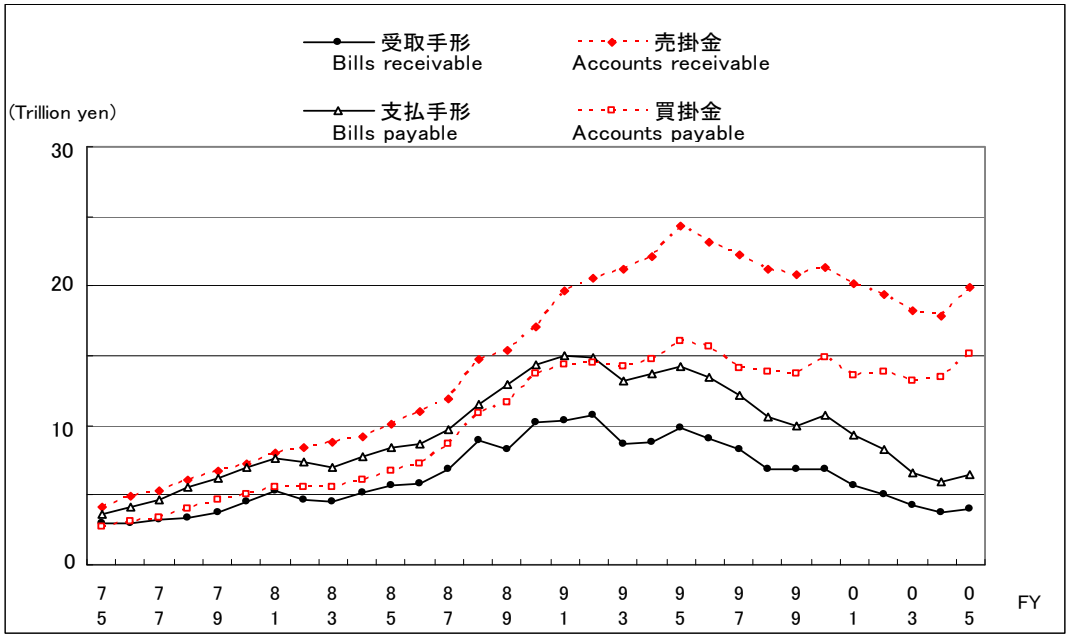
- Total lending by domestic banks to industries including construction is on the decline. The construction industry, however, still relies heavily on indirect financing by commercial banks.
- The use of bills as a means for settlement of accounts is on the decline.

● Trends of financing (Construction industry, total amount)



Note: Data from the Finance Ministry ("Financial Statements Statistics of Corporations")

● Trends in bills and payables/receivables (Construction industry, total amount)



Note: Data from the Finance Ministry ("Financial Statements Statistics of Corporations"). The figures are as of the end of each fiscal year. Bills receivable includes the balance of bills discounted.

● The diversification of corporate financing (from an interview survey on major construction companies)

- Major construction companies are using new methods of financing, including the setting up of commitment lines to secure current operating capital, and the use of term loan from bank syndicates in the case of strategic capital investment. Direct financing, including the issuance of corporate bonds and the raising of capital, is still fairly uncommon.
- More companies are using factoring for settlement. Those who do not are using a similar system of their own. Liquidation of credit receivable is progressing, and the use of bills is decreasing.
- Though many companies are willing to increase capital efficiency, they tend to be cautious about using external funding.

3.3 Construction companies' IT investment trends and challenges

- Construction companies are now better equipped with PCs and other computer hardware, and the gap between major and minor companies is narrowing. The emphasis will likely shift to a more sophisticated use of IT to improve management and increase profits. However, the ratio of information processing-related expenses to the annual business income for the construction industry is low compared with that of the other industries.
- This is partly due to an attitude among construction companies that IT investment is not an essential contributor to profit growth.
- Stronger coordination between management and IT sectors, verification of the benefits of IT, corporate restructuring in line with the progress of IT, and reform of business processes are needed to make the most effective use of IT for business and to improve profit and productivity. Companies that can aggregate information, analyze it swiftly and effectively utilize it can expect high returns on their IT investment.

● IT investment at present

- The rate of PC installation, Internet connection and in-house information system establishment is growing among smaller companies. The gap between larger and smaller companies is narrowing. Many companies are poised to begin electronic bidding and electronic delivery. Electronic procurement of labor, materials and equipment, together with electronic contracting is still at the trial stage.
- The emphasis of IT use will likely shift from "to increase work efficiency both on-site and at offices (both the headquarters and the branches)" to "to strengthen relations and cooperation within the company and with clients and other companies."
- The ratio of information processing expenses to annual business income has been gradually increasing in the construction industry since FY2002, and reached 0.66% on average in FY2006 (up 0.39 points from FY2002). This is much lower however, than the average of all industries (1.30%).

● Effects of IT investment

- Most construction companies do not value IT investment as a factor contributing to increased profit and value. A similar trend can be seen in the US, i.e., the construction industry sees less value in IT investment than do other industries. There may be some industry-specific factors at work that cause the construction

industry to value IT relatively lowly.

● Challenges in IT investment

- Ties between IT strategy and overall business strategy are weak among construction companies. Japanese construction companies lag behind their US counterparts in coordinating IT and business in general. Japanese companies are just beginning to assign Chief Information Officers (CIOs) and their role will likely grow in the future.
- Companies successful with their IT investment are those who are aware of the need to assess the effect of IT investment on their business. The proportion of construction companies conducting IT investment evaluation is low; most companies are not sufficiently carrying out the PDCA (Plan-Do-Check-Act) cycle, especially the "CA" stage, resulting in an inefficient IT investment.
- The introduction of IT should be accompanied by organizational and business process reforms to fully utilize IT for business, to increase productivity, to position the company apart from its competitors and consequently achieve innovation. The organization as a whole should place more emphasis on information. Only companies capable of aggregating, analyzing and interpreting information and acting on the outcomes can make the most of their IT investment.

3.4 Empower management of construction companies through knowledge management

- The competitive strength of a construction company lies in its knowledge of construction technologies and the expertise and sales know-how of its individual employees.
- In other industries we can see examples of companies committed to "knowledge management (KM)" which seeks to efficiently utilize human resources that have this essential knowledge and wisdom, and improve business on a continuous basis. Construction companies in general are not as committed to KM as companies in other industry sectors.
- The top management in construction companies should take the lead in motivating employees and introducing KM to continuously improve businesses.

● Knowledge management and why it is needed

- Knowledge management (KM) is a business imperative of establishing a scheme where individual employees and the organization can continue growing. KM's major components are the "workplace" where each employee can foster knowledge, and a "driving force" that can stimulate the "workplace" and efficiently use knowledge and wisdom possessed by "human resources" to further create, share and utilize knowledge and wisdom.
- As construction business is a complex, the expertise possessed by individual employees tends not be shared by other people or other corporate divisions. The introduction of KM to collect, share and use such scattered knowledge is crucial for the construction industry to become more competitive.

● Commitment to knowledge management; construction vs. other industries

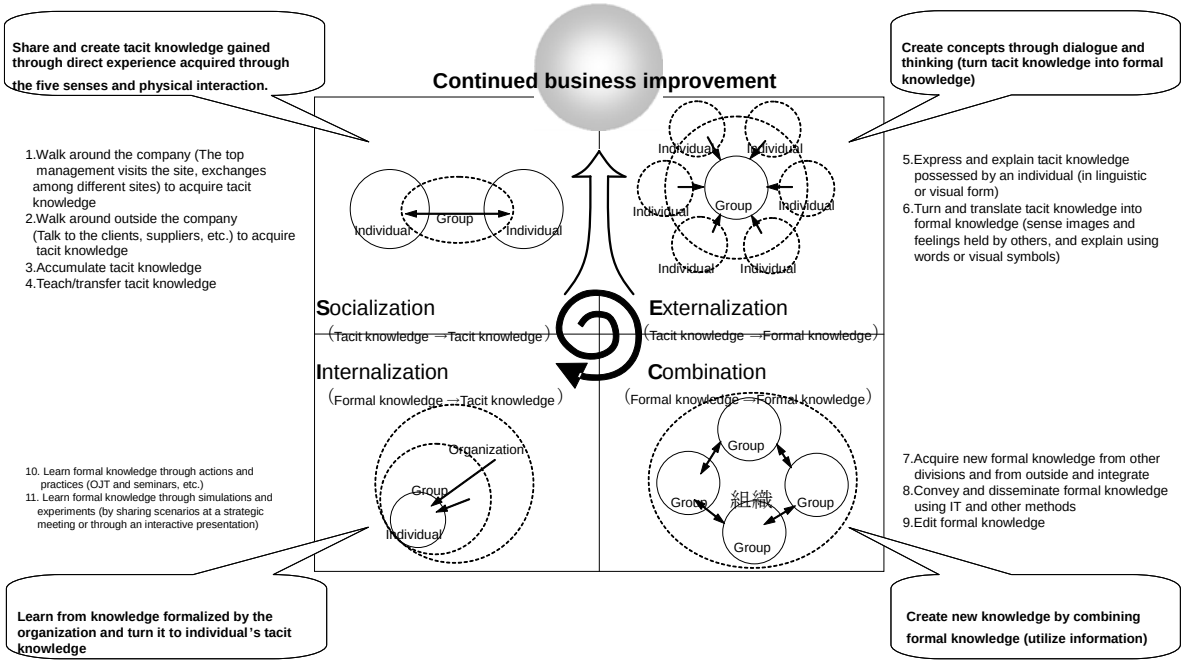
- In other industries we can see examples of companies where management takes the leadership in KM, stimulating the "workplace" and motivating each employee to constantly create "knowledge," resulting in increased business performance.
- To a questionnaire survey on major and medium-sized construction companies, nearly two-thirds (61%) of replied that they were "fully committed". What they were actually doing however, tended to be far from applying knowledge management practices in their true meaning.

● Improve business performance for construction companies

- The successful introduction of KM by construction companies will first require, a)

top management to clearly communicates the future outlook of the company to the employees and motivate them, and b) create a workplace environment in which employees can freely and openly communicate and thereby foster a sense of self-determination.

- The next step is to establish a system to share knowledge across the entire company and its interrelated supply chain, which will eventually lead to a system of business performance improvement based on a human-centered approach.



3.5 The construction industry and CSR

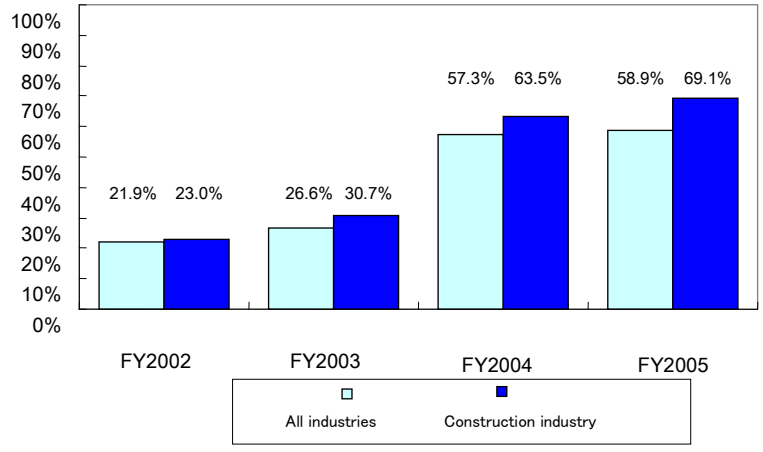
- The construction industry is highly public in nature and bears a considerable social responsibility. The industry however is far from satisfactory in terms of compliance and Corporate Social Responsibility (CSR) standards.
- Although the number of construction companies releasing non-financial reports (e.g. environment reports and CSR reports) is not small compared with those of other industries, the commitment to social reports has only just begun.
- A questionnaire survey has revealed a perception gap among what construction companies think of CSR and what people expect of construction companies: Many construction companies replied that CSR for them is “quality construction work” and they are already committed to CSR.

● Characteristics of the construction industry from the standpoint of CSR

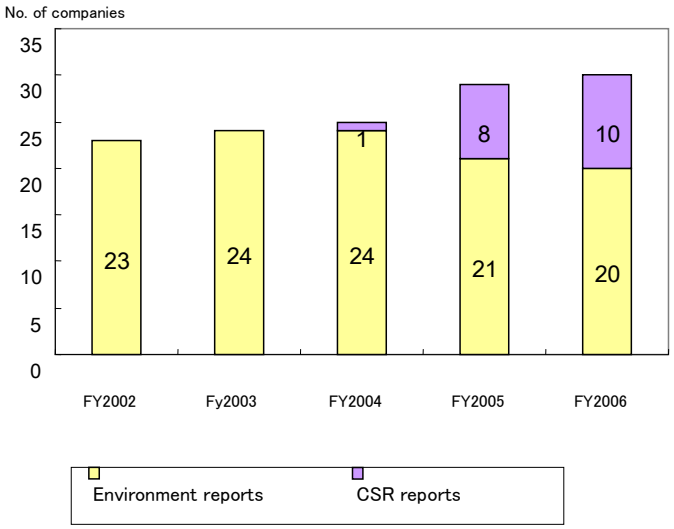
1. Has a wide range of stakeholders	Highly public in nature
	Has a long-term effect on society and the region
	Buildings and structures have a wide range of users
	Has many subcontractors and suppliers
	Creates jobs in the community
2. Has a significant impact on the environment	

● Construction companies and non-financial reports

Percentage of companies issuing non-financial reports



Trends in the issuance of CSR reports

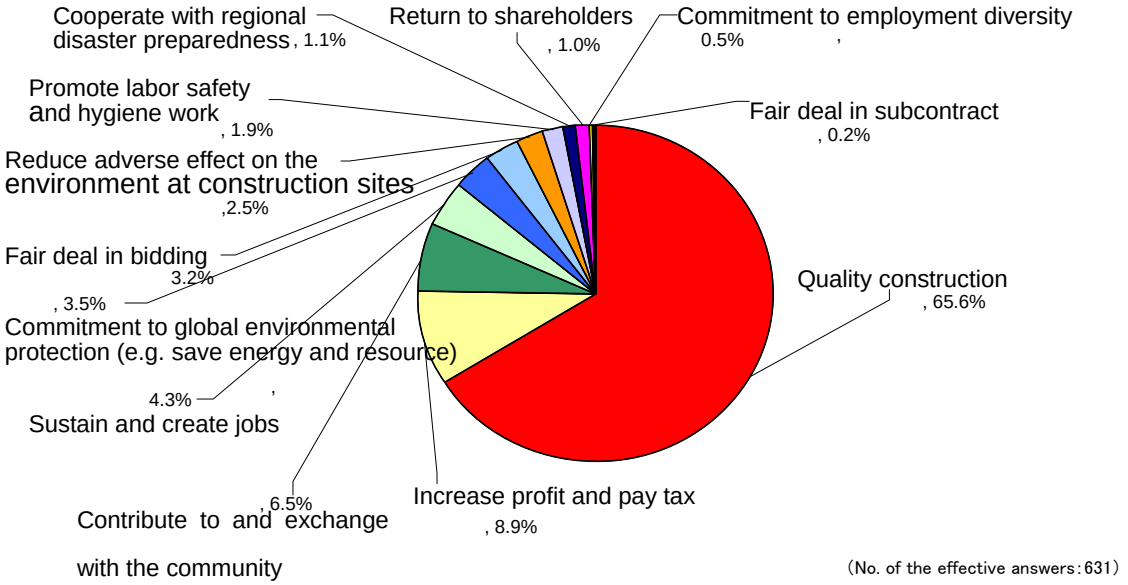


● Questionnaire survey on CSR (Conducted on total 3,000 construction companies with the collection rate of 27.9%)

Commitment to CSR

	No. of companies	Rate (%)
Is already committed to	514	62.4
Is scheduled to start CSR-related activities	114	13.8
Not committed yet	188	22.8
No plan for commitment	8	1.0
Total	824	100.0

Most important CSR items



(No. of the effective answers: 631)

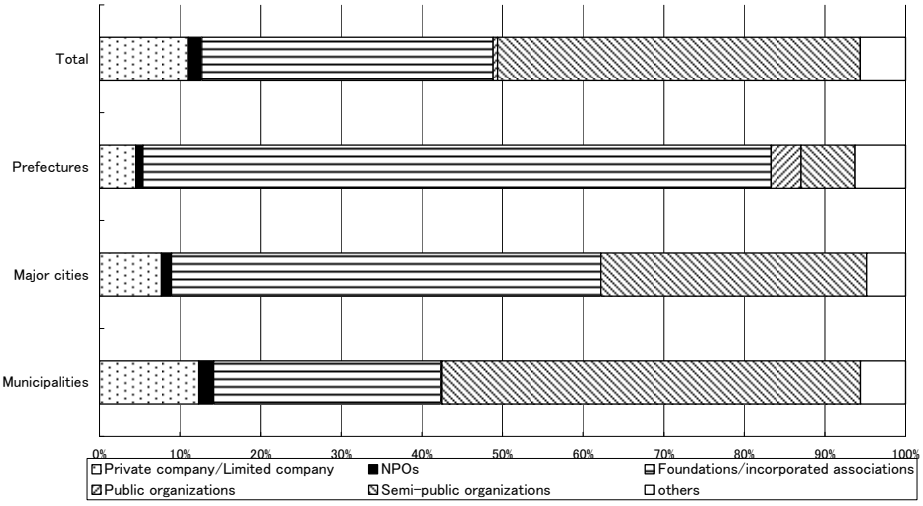
3.6 The Designated Manager System* and the construction industry

- At present, 11.0% of public facilities have designated private companies as the "manager" and 29.1% have publicly recruited managers. When publicly recruiting, many public facilities impose restrictions such as limiting the applicants to local companies. The Designated Manager System offers a promising new business to local construction companies.
- Private construction companies have been designated as manager in a little less than 20% of total public facilities designating the position. Popular facilities are public housing, recreation and leisure facilities.
- More facilities entrust the manager with the "operation" of the facilities rather than "maintenance and management." Operation of the facility requires coordination with other businesses.
- To balance between "better service to citizens" and "cost reduction," information on CSR and on corporate activities and performance of the potential "managers" should be readily available and be compared with each other to ensure better operation of the public facility.

* A system introduced in 2003 to allow private organizations to manage public facilities and grant permission for their use (See Construction Economy Report No. 45 "3.2 The Designated Managers' System" for details).

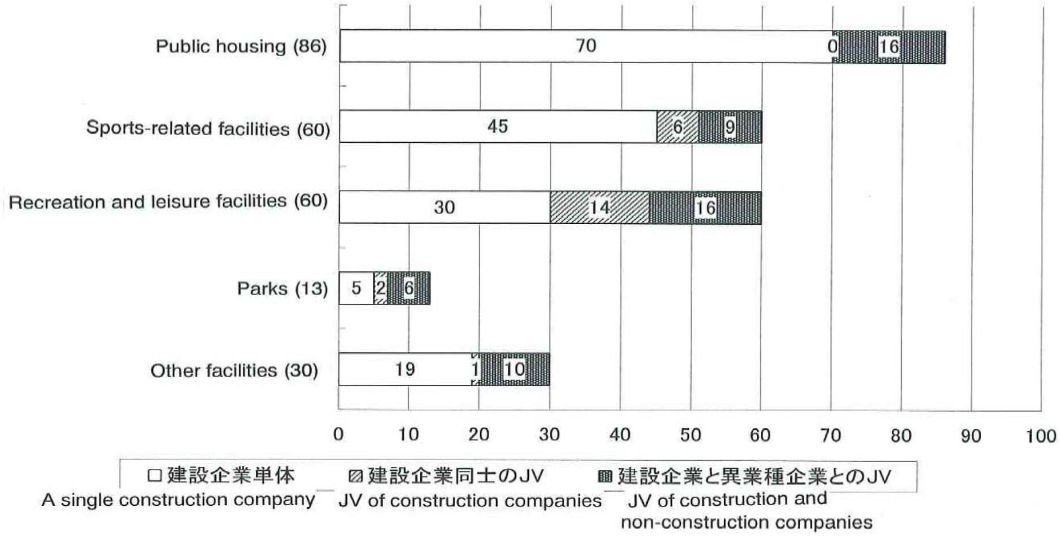
● The Designated Manager System in operation

Of all the public facilities designating a manager, 11.1% are using private companies (As of September 2, 2006)



● Construction companies and the System

There are a total of 249 facilities nationwide where construction companies have been designated as managers.



Chapter 4 Overseas Construction Markets

4.1 Trends in overseas construction markets

- Despite a decline in housing construction, many predict that the US economy will continue to grow in 2007, albeit slowly, mainly due to consumer spending. The 2006 forecast for construction investment totaled 1.1777 trillion dollars due to growth in both private-sector non-housing and public works—despite a 12.5% year-on-year decline in private-sector housing. This total figure was 1.4% down on the record-breaking construction investment total for FY2005.
- In Europe, the gentle economic recovery is continuing. Of the five major Western European nations of the UK, Germany, France, Italy and Spain, even the economies of Germany and Italy—the two where economic growth had been the lowest—are beginning to show slow, modest upturns in 2006.
- In Asia and Oceania, despite high crude oil and raw material costs, high GDP growth rates and levels of construction investment are continuing. Although the high level of economic growth is continuing in China, there are frequent revisions of published statistics. Many overseas observers are voicing concern over the reliability of the figures and taking the view that levels of investment may be excessive.

4.2 An economic comparison of the performance of major overseas construction companies

- This section will introduce five major European-based non-Japanese construction companies and compare their business performance.
- Bouygues of France is a construction company that boasts the highest sales figures in the world among companies where construction is their main business. It is the global leader in road construction. Under the leadership of its CEO, a member of the founding family, Bouygues has diversified into various media and communications sectors, and has considerable earnings potential.
- Vinci of France has the highest construction sales in the world, supported in part by high levels of profitability from its concession segment.
- Hochtief of Germany has moved into third place on the global sales chart, thanks to its acquisition of major construction companies in the US and Australia, although its profits are stagnating. To boost profitability, Hochtief will need greater selectivity and focus.
- Skanska of Sweden purchased 15 construction companies around the world in the period from 1998 to 2000. Unfortunately, despite an increase in sales, profitability slumped, forcing the company to change strategy away from growing in size and more towards growing in terms of quality. It has spun off some subsidiaries and is focusing on the European and US markets. Profitability is improving.
- Lend Lease of Australia is an outstanding company in terms of sales and profitability that has achieved a good balance centering on its subsidiary Bovis Land Lease (UK) (purchased in 1999) between three sectors of construction, development and real estate investment in three regions: Europe, the United States and Asia/Australia.
- Construction is a highly localized industry that relies heavily on its subcontractors and supply chains. The five companies introduced above have expanded their overseas operations by acquiring local construction companies rather than by establishing their own local subsidiaries. They have then managed these acquired subsidiaries as a kind of decentralized federation to boost their overseas sales. The five companies focus on construction management (CM) business including cost estimation. Many of them are diversifying into the PFI/PPP (concessions) business, which is a growing area due to budget cuts by European governments.