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Sustainable Urbanization in the Real Estate Sector

1. Summary

The Japanese economy grew about 2% annually from FY2003 to FY2007, continuing on its path of moderate recovery. However, the economy was significantly impacted by the effects of the global economic recession triggered by the US sub-prime loan crisis in the summer of 2007 and the collapse of Lehman Brothers in 2008. Since October 2008, many construction and real estate projects have been cancelled or postponed, creating a significant shock for those industries. This shock is still being felt today. The economy began to recover in 2010, but there is still a considerable risk of yen appreciation and falling stock values, and risk that the economy could again start to worsen.

The Japanese building construction and urban development markets, in an effort to achieve sustainable urbanization, are pursuing activities focused on the priorities of (1) the environment and low-carbon output, (2) adaptation to the aging of society, and (3) disaster management. The real estate and construction industries are discovering markets in new construction investment derived from these three priorities, especially in maintenance, repairs, and renovation work.

In infrastructure development, developers are discovering infrastructure projects derived from the national commitment to “Forging an Open Economic Society with a Competitive Edge,” and derived from the need for maintenance and renovation work on existing infrastructure developed in the postwar period.

2. Macroeconomic Review

2.1 Overview of the Japanese Economy

The Japanese economy has grown by 2% annually since 2003, continuing on a path of moderate recovery. Nonetheless, the effects of the global economic chaos triggered by the American subprime loan crisis in summer 2007, combined with high resource prices, ended the longest economic recovery in the postwar period, which had been ongoing since February 2002. The Japanese economy has been faltering dramatically since fall 2008.

The decline in the export sector was particularly remarkable, with real GDP in that sector down 20% year-on-year for four consecutive quarters between the 4th quarter of 2008 to the 3rd quarter of 2009. For this reason, investments by domestic manufacturers fell significantly, and many private non-residential construction projects were cancelled or postponed.

The situation seemed to be improving in the 3rd quarter of 2009, but in 2010, the yen appreciated significantly in conjunction with the financial instability in the US and Europe triggered by the financial crisis in Greece. This has inflicted serious damage on Japan's export industry, which had just begun to see some improvement. Today, although the economy is improving, there are growing risks of further yen appreciation, falling share values, and downward pressure on the overall economy.

The economic trend forecast issued by the Research Institute of Construction and Economy (RICE) for the latter half of 2010 predicts that the Japanese economic recovery could be blunted, and that a sense of economic stagnation may end up setting in. For example, there are concerns about the impact of the end of some of the economic stimulus measures implemented by the government to fuel private consumption, and a further slowing of exports associated with slowdowns in overseas economies is expected. It also points to the possibility of further yen appreciation that would impact corporate performance.

In FY2011, the economy is expected to return to moderate recovery. If demand in newly developing countries, primarily in Asia, strengthens and the appreciation of the yen can be corrected, an increase in exports should be able to be maintained. If domestic production expands and corporate earnings improve, then the recovery in private demand can be expected to continue.

Figure 1 Macroeconomic Trends

(Unit: billion yen)

| Fiscal year | 1995 | 2000 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 (Forecast) | 2011 (Forecast) |
|---|----------|---------|---------|---------|---------|---------|---------|--------------------|--------------------|
| Real GDP | 483,023 | 505,622 | 540,025 | 552,474 | 562,343 | 541,342 | 531,098 | 539,611 | 546,515 |
| (YoY change) | 2.3% | 2.6% | 2.3% | 2.3% | 1.8% | -3.7% | -1.9% | 1.6% | 1.3% |
| Real private final consumption expenditures | 273,691 | 283,758 | 302,154 | 306,357 | 310,582 | 304,898 | 307,174 | 310,996 | 312,631 |
| (YoY change) | 2.2% | 0.7% | 1.8% | 1.4% | 1.4% | -1.8% | 0.7% | 1.2% | 0.5% |
| (Contribution rate) | 1.2 | 0.4 | 1.0 | 0.8 | 0.8 | -1.0 | 0.4 | 0.7 | 0.3 |
| Real government final consumption expenditure | 75,094 | 85,714 | 94,604 | 95,678 | 97,147 | 97,050 | 98,712 | 100,042 | 100,871 |
| (YoY change) | 3.9% | 4.3% | 0.8% | 1.1% | 1.5% | -0.1% | 1.7% | 1.3% | 0.8% |
| (Contribution rate) | 0.6 | 0.7 | 0.1 | 0.2 | 0.3 | 0.0 | 0.3 | 0.3 | 0.2 |
| Real private housing | 23,953 | 20,361 | 18,429 | 18,386 | 15,907 | 15,323 | 12,495 | 12,637 | 13,275 |
| (YoY change) | -5.6% | -0.1% | -1.2% | -0.2% | -13.5% | -3.7% | -18.5% | 1.1% | 5.1% |
| (Contribution rate) | -0.3 | 0.0 | 0.0 | 0.0 | -0.5 | -0.1 | -0.6 | 0.0 | 0.1 |
| Real private corporate facilities | 67,881 | 72,963 | 83,200 | 87,097 | 88,240 | 82,246 | 69,645 | 72,091 | 75,643 |
| (YoY change) | 3.1% | 7.2% | 6.2% | 4.7% | 1.3% | -6.8% | -15.3% | 3.5% | 4.9% |
| (Contribution rate) | 0.5 | 1.0 | 0.9 | 0.7 | 0.2 | -1.0 | -2.3 | 0.5 | 0.7 |
| Real public fixed asset formation | 40,603 | 34,445 | 23,157 | 21,111 | 19,752 | 18,456 | 20,172 | 16,475 | 15,030 |
| (YoY change) | 7.5% | -7.6% | -5.6% | -8.8% | -6.4% | -6.6% | 9.3% | -18.3% | -8.8% |
| (Contribution rate) | 0.6 | -0.6 | -0.3 | -0.4 | -0.3 | -0.3 | 0.4 | -0.7 | -0.3 |
| Real inventory increase | 1,770 | 2,043 | 1,815 | 2,949 | 3,170 | 2,662 | -86 | -1,089 | -1,215 |
| (YoY change) | -4909.5% | -192.2% | 0.7% | 62.5% | 7.5% | -16.0% | -103.2% | 1160.4% | 11.6% |
| (Contribution rate) | 0.4 | 0.8 | 0.0 | 0.2 | 0.0 | -0.1 | -0.5 | -0.2 | -0.0 |
| Real financial services net exports | 951 | 6,295 | 17,074 | 21,551 | 28,068 | 21,207 | 20,517 | 27,446 | 29,292 |
| (YoY change) | -80.4% | 7.5% | 21.3% | 26.2% | 30.2% | -24.4% | -3.3% | 33.8% | 6.7% |
| (Contribution rate) | -0.7 | 0.1 | 0.5 | 0.8 | 1.2 | -1.2 | 0.4 | 1.3 | 0.3 |
| Nominal GDP | 497,740 | 504,119 | 503,187 | 510,938 | 515,644 | 494,182 | 476,363 | 475,691 | 477,492 |
| (YoY change) | 1.7% | 0.9% | 0.9% | 1.5% | 0.9% | -4.2% | -3.6% | -0.1% | 0.4% |

Figure 2 Main Economic Indicator

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 (Forecast) |
|---|--|---------|---------|---------|---------|-----------------|
| GDP (real, year, billion yen) | 536,762 | 547,709 | 560,651 | 553,914 | 525,015 | 5,390,403 |
| GDP (nominal, year, billion yen) | 501,734 | 507,365 | 515,520 | 505,113 | 474,297 | 4,771,747 |
| GDP growth (year, %) | 1.9% | 2.0% | 2.4% | -1.2% | -5.2% | 2.7% |
| Agriculture, forestry, and fishery | 3.6% | -2.0% | 4.2% | 6.9% | - | - |
| Manufacturing | 5.2% | 3.5% | 4.0% | -3.0% | - | - |
| Services | 3.7% | 3.7% | 2.9% | 0.8% | - | - |
| Mining | 5.6% | -9.2% | -25.0% | 11.1% | - | - |
| Construction | -3.2% | -0.6% | -3.0% | -3.5% | - | - |
| Export and Import Indicators | | | | | | |
| Construction sector imports | - | - | - | - | - | - |
| Construction sector exports (FY, orders, billion yen) | 1,171 | 1,648 | 1,681 | 1,035 | 697 | - |
| Demographic Indicators | | | | | | |
| Population (year, thousands) | 127,768 | 127,770 | 127,771 | 127,692 | 127,510 | 127,360 |
| Population growth rate (year, %) | -0.01% | 0.00% | 0.00% | -0.06% | -0.14% | -0.12% |
| Total labor force (year, thousands) | 66,500 | 66,570 | 66,690 | 66,500 | 66,170 | 65,790 |
| Labor force growth rate (year, %) | 0.12% | 0.11% | 0.18% | -0.28% | -0.50% | -0.57% |
| Unemployment rate (year, %) | 4.4% | 4.1% | 3.9% | 4.0% | 5.1% | 5.2% |
| Inflation rate (year, %) | -0.3% | 0.3% | 0.0% | 1.4% | -1.4% | -0.9% |
| Financial Indicators | | | | | | |
| Interbank interest rate | 0.1033 | 0.5418 | 0.86 | 0.7425 | 0.4636 | 0.36 |
| Short-term interest rate (%) | 0.004 | 0.275 | 0.459 | 0.103 | 0.094 | 0.113 |
| Long-term interest rate (%) | 1.456 | 1.634 | 1.478 | 1.382 | 1.246 | 1.049 |
| Exchange rate against US\$ | 110.22 | 116.3 | 117.75 | 103.36 | 93.57 | 82.80 |
| Financial and Real Estate Indicators | | | | | | |
| Government finances (FY budget, billion yen) | 86,705 | 83,458 | 83,804 | 88,911 | 102,558 | 92,299 |
| Government budget for infrastructure (billion yen) | 16,921 | 15,752 | 14,996 | 14,150 | 14,570 | 11,840 |
| Government budget for social construction (billion yen) | 2,053 | 2,045 | 1,951 | 2,060 | 2,330 | 1,980 |
| ODA expenditures on infrastructure | - | - | - | - | - | - |
| FDI expenditures on infrastructure | - | - | - | - | - | - |
| Real estate FDI expenditures | N/A (Ref: Fig. ● Sales Status of Foreign Buyers in J-REIT) | | | | | |

Source: *Construction and Economic Forecasts* (RICE, October 2010), *Cabinet Office Annual Report on National Accounts (Final Report for 2010)*, *Financial and Economic Statistics Monthly* (Bank of Japan, September 2010), Ministry of Internal Affairs and Communications website.

Notes:

1. The GDP figure for FY2010 is a forecast. Real values: 2000 prices.
2. Exports in the construction sector reflect the value of orders for the year by members of the Overseas Construction Association of Japan.
3. Population figures are as of October 1 each year. The FY2010 figures are estimates as of September 1.
4. The workforce population and unemployment rates are average values for 12 months. For 2010, the figure is an average value for five months.
5. The inflation rate is a percentage as compared with the previous year's consumer price index. For FY2010, the figure is the rate of increase between the end of FY2009 and August 2010.
6. Interest rates for 2010 are as of the end of September. Others reflect the year-end rates.
7. Short-term interest rates are unsecured overnight call rates.
8. Long-term interest rates are the rates on 10-year government bonds.
9. Exchange rate for 2009 is as of the end of September. Others are annual averages.
10. Government finance figures are budget amounts including the supplementary budget.
11. The government budget for infrastructure reflects public civil engineering investments, and includes investments by local government agencies. The figures for FY2010 are RICE estimates.
12. The government budget for infrastructure reflects public building construction investments, and includes investments by local government agencies. The figures for FY2010 are RICE estimates.

3. Overview of the Real Estate Market

3.1 Summary of the Real Estate Market

In Japan, urbanization has progressed steadily in the postwar period. The flow of urban development can be briefly summarized as follows. Postwar recovery land readjustment projects were undertaken to promote recovery from World War II under the City Planning Act. In the 1950s, the Japanese economy began to experience rapid economic growth, and the population began to flock to the cities, particularly the larger urban centers. In conjunction with this trend, medium-rise and high-rise residential buildings began to go up in large urban centers, and a great deal of large-scale new town construction was performed.

In the 1960s and 1970s, urbanization was spurred on by high economic growth, and the pace of population concentration accelerated. As a result, residential district development, housing complex development, and industrial complex development was pursued all over the country. Particularly rapid progress was made on the construction of housing complexes and condominiums in large urban centers. However, there were also considerable strains related to this trend, including land problems, rural depopulation, urban overpopulation, and the lack of social capital development in people's lives. To resolve these problems, efforts were made to create healthy urban environments and improve urban functions by striving for more cooperative and advanced approaches to land use, and by promoting the comprehensive development of public facilities, such as roads and parks. The New Urban Planning Act was enacted in 1968, followed by the Urban Renewal Act in 1969, and these provided the institutional foundations for systematic urban development efforts.

In the 1980s, the period of economic growth associated with the transformation of the industrial structure, urban development projects were undertaken with increasing fervor, resulting in large-scale commercial facilities and redevelopment projects built to serve multiple functions.

In development up until the so-called bubble period, from the late 1980s into the early 1990s, development areas were typically identified as separate stand-alone areas. This was the case for most corporate self-development projects and condominium building developments, but it was also true for downtown redevelopment projects and mixed use building projects. Recent urban development that has taken place since the collapse of the bubble economy has usually consisted of complex development based on a clear development concept.

However, Japan's real estate market plunged sharply with the global recession that hit in 2008. While the Japanese economy experienced a prolonged recession throughout the 1990s, the period from 2002 to 2007 saw moderate growth, an improved economic climate, and a relatively high level of construction starts on housing complexes and office buildings. In the real estate market, construction regulations were made more stringent in 2007, resulting in a large decrease in the number of new construction starts. In 2008, Japan saw a major downturn in new starts after October due to the global recession, and in FY2009, the number of private residential starts was only 775,000. The decrease was particularly sharp in condominiums and rental homes, due to a

reduction in investment cash inflows from private funds both in Japan and abroad, and the banks' reluctance to lend to homeowners.

In early 2010, the number of new housing complex starts has been on track toward recovery. Particularly in the capital region, reports indicate that sales of affordable housing complexes targeting salaried employees are moving forward, and land purchases are also growing more active. Wealthy Chinese individuals are also able to purchase condominium units in the capital region, highlighting the high potential in the Tokyo real estate market.

Office construction starts decreased 17% in 2009 due to the global recession, but this rate of decrease was low compared to that in housing and factories. Large quantities of office buildings are expected to be available in central Tokyo in 2011 and 2012, but development projects scheduled for completion in 2013 are also in the works.¹

Office building starts are largely accounted for by development projects undertaken by large developers, while few are undertaken by local-based companies and small and medium-sized companies. In the Tokyo region, large-scale development is still underway in the area around Tokyo Station, while in the Kansai region, the largest and last development project in a prime region is taking place at Osaka Station.

3.2 Urban Planning, Effective Land Use, and Sustainable Urbanization

3.2.1 Urban Planning

Japan's long-term priorities with regard to urbanization are (1) the environment and low-carbon output, (2) adaptation to the aging of society, and (3) disaster management. Sustainable urbanization in Japan cannot really be called "sustainable" without consideration of these priorities.

(1) The environment, low-carbon output

The New Economic Growth Strategy that was approved by the Cabinet in June 2010 includes projections regarding long-term urbanization. One growth strategy that takes advantage of Japan's unique strengths is the National Strategy Project in Green Innovation. The "Eco-Future City" concept is part of this strategy, and embodies Japan's medium- and long-term direction with regard to urbanization.

Specifically, it is based on promoting urban development in a way that allows people to feel the lush greenery and personal warmth for which Japan is famous, and calls for concentrated and strategic investments in cities and communities in such areas as the construction of urban energy management systems that incorporate a combination of smart grids, renewable energies, and next-generation automobiles, as well as the general expanded use of renewable energies. A new law has been developed to promote these efforts (the Eco-Future City Development and Promotion Act). Relevant government agencies are providing fundamental support for such measures as regulatory reforms and institutional reforms, including efforts to green-up the tax

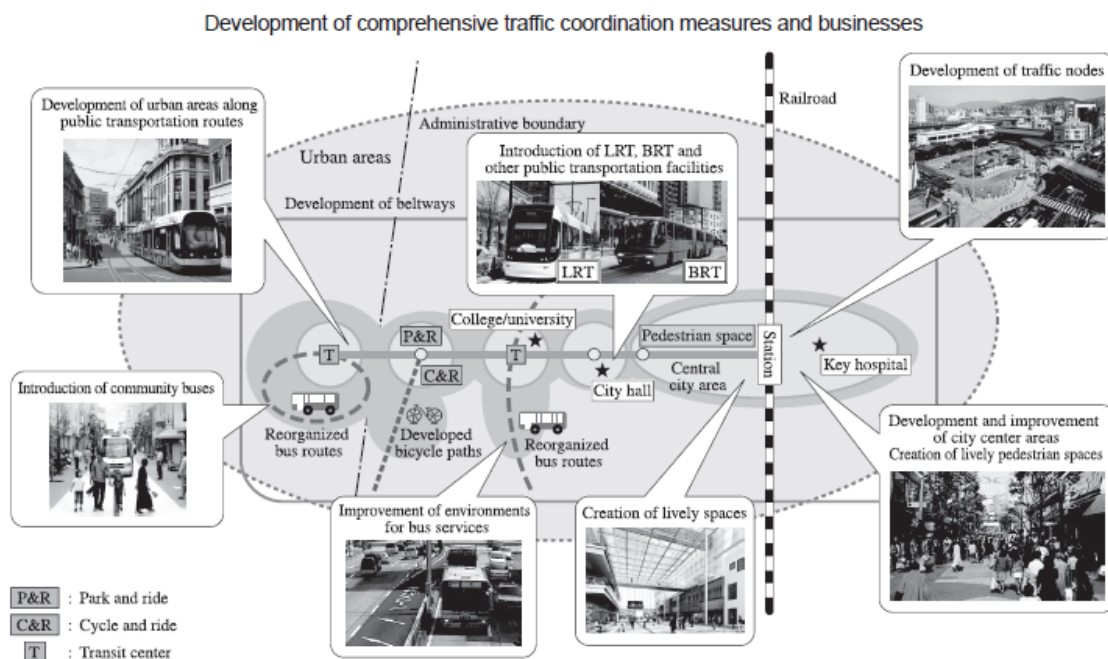
¹ See Mizuho Securities, Real Estate Market Report, August 12 Edition.

system, and they are also taking the first steps toward implementing changes to achieve a sustainable economic and social structure.

Policies related to construction, transportation, and urban planning are being promoted by the MLIT.

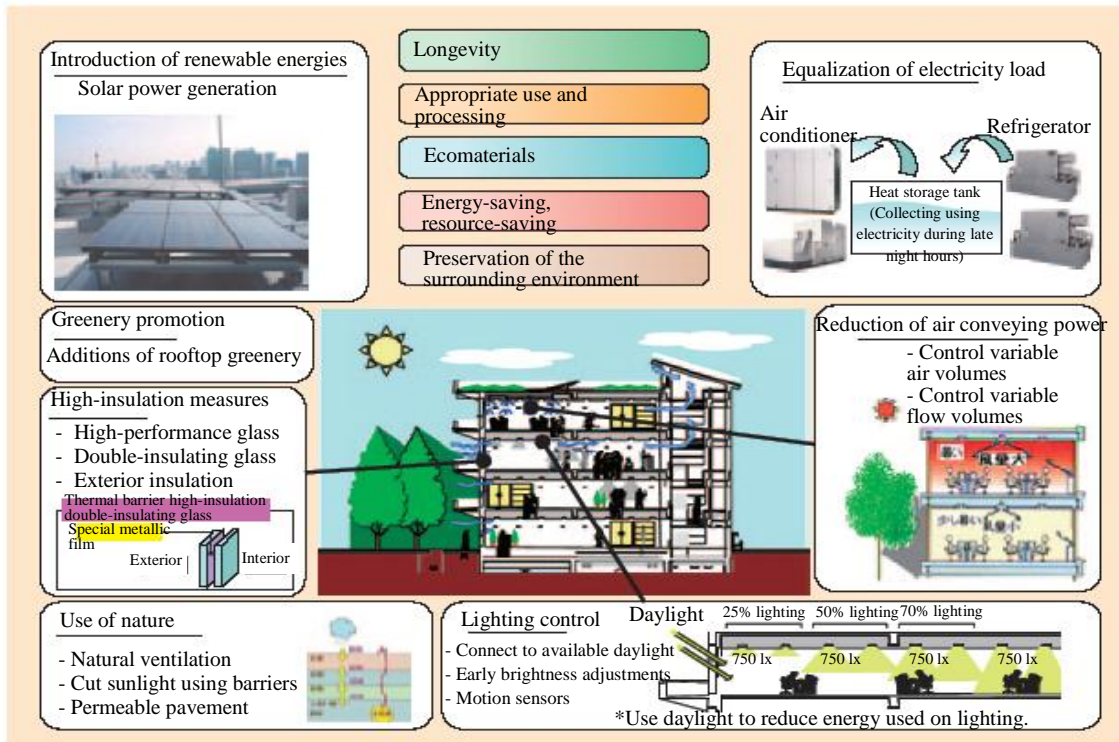
Transportation accounts for about 20% of all CO₂ emissions in Japan. Fig. 3 shows the types of measures that are being taken. Governments are working toward urban development in which people can get around easily using public transportation and bicycles, and urban development that promotes the use of environmentally friendly vehicles (such as electrically powered buses and cars). They are also making improvements to the existing infrastructure (tri-dimensional intersections, road crossing measures, promotion of intelligent transport systems), implementing traffic flow measures, and contributing to fuel cost improvements.

Fig 3 Global Warming Countermeasures Adopted by MLIT



To promote energy savings for residences and other buildings, the government is adopting systems that make it easy for individuals as well as companies to implement environmental measures, such as structures for offering tax breaks and other incentives. The environmental efforts being undertaken by various government agencies are shown in Fig. 4.

Fig 4 Government Buildings Adopting Various Environmental Measures



Private urban development efforts are focused on greenery. The Tokyo Mid-Town Project is the largest-scale development to be undertaken in recent years.² This development project, undertaken in conjunction with the relocation of the Ministry of Defense, included the construction of the main tower, the tallest skyscraper in Tokyo (248 m consisting of five basement floors and 54 above-ground floors). The tower features the Ritz-Carlton Tokyo on the upper floors as well as many office and retail spaces. Comprised of multiple buildings, the tower has retail, office, and residential spaces, and is bustling with businesspeople and tourists all year round. A key feature of this project is the large area of green space included in the plan. The development of a park adjacent to the project site was included in the project from the beginning, and about 4 ha, or about 40% of the area developed, has been turned into green and open space. It is appreciated by local residents as a space for urban recreation.



² More on this project's environmental efforts can be found at http://www.mitsui-fudosan.co.jp/corporate/csr/pdf/env_tmt.pdf.

Another project that succeeded in its efforts to create more green space in the Kansai region is the Namba Parks project. This project was developed in conjunction with the closure of a baseball stadium. It primarily consists of a mixed-use building that includes a cinema complex and retail space. The developer used the building's rooftop and wall spaces to plant about 70,000 plants of 300 different varieties. Each building has its own unique garden plan, based on its theme. A survey conducted by the Obayashi Corporation, the large construction company in the consortium that did the design and construction work, confirmed the presence of 14 types of birds and 93 types of insects at the site. Wildlife has returned to the downtown region. As a recreational destination in the Kansai region, the complex is bustling with people all day long.



The efforts to add greenery on both projects are aimed at helping the environment and reducing carbon output, of course, but they also ultimately have a publicity effect. Recently, an increasing number of projects have been aimed not only at increasing greenery, but also, like Namba Parks, at facilitating the return of wildlife to the city. Urban development efforts that attract birds and butterflies seem to improve the productivity of office workers and increase the value of the area. The urban development trend in Japan might be referred to as one that promotes coexistence with wildlife. However, growing populations of birds and butterflies also are highly likely to attract destructive insects and other wildlife that are not particularly beneficial to human populations. Some of the large Japanese construction firms also analyze the movements of harmful insects, and select their conducting wires and landscaping appropriately. Cooperation among government agencies, private developers, and construction companies leads to better urban development.

(2) Adaptation to the aging of society

Japan is experiencing major demographic aging and low fertility, and its population is actually decreasing. Efforts to make barrier-free housing are moving forward, as are efforts to make barrier-free accommodations in public transportation facilities and other public buildings. Senior policies need to be incorporated into urban development efforts, including road development, and these are being implemented in various locations.

Fig. 5 Percent of Transport Facilities That Are Barrier-Free

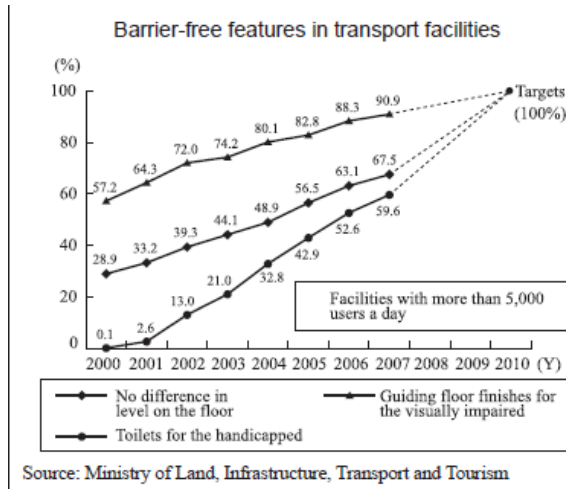
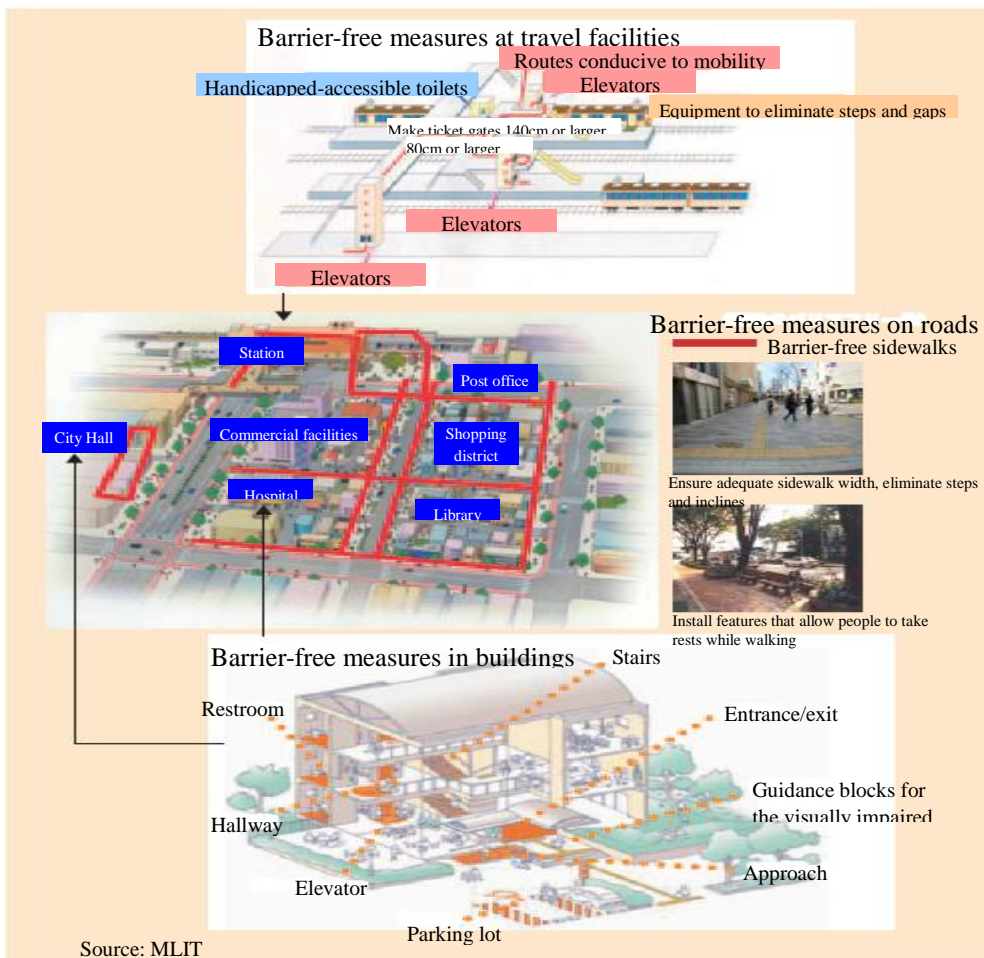


Fig. 6 Community Development for Senior Citizens

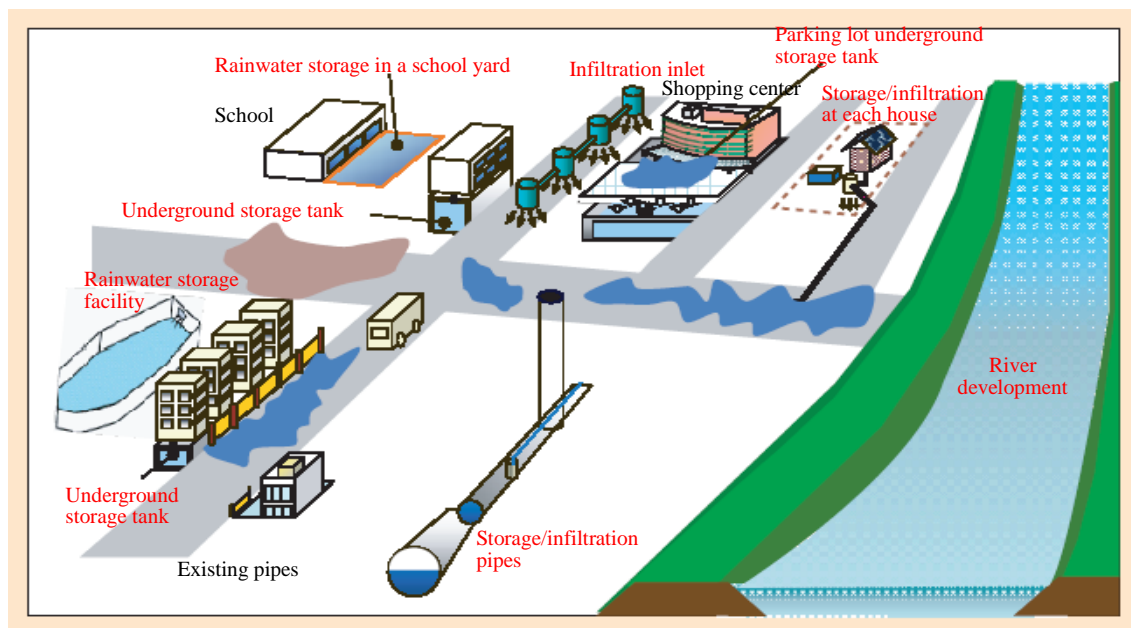


(3) Disaster management

Japan's topography and soil quality face extremely harsh conditions, with floods and landslides occurring every year. Located in an active earthquake and volcanic eruption zone, Japan is the site of about 20% of all of the world's earthquakes (M6 and higher). Protecting people's lives and assets from natural disasters is an important priority.

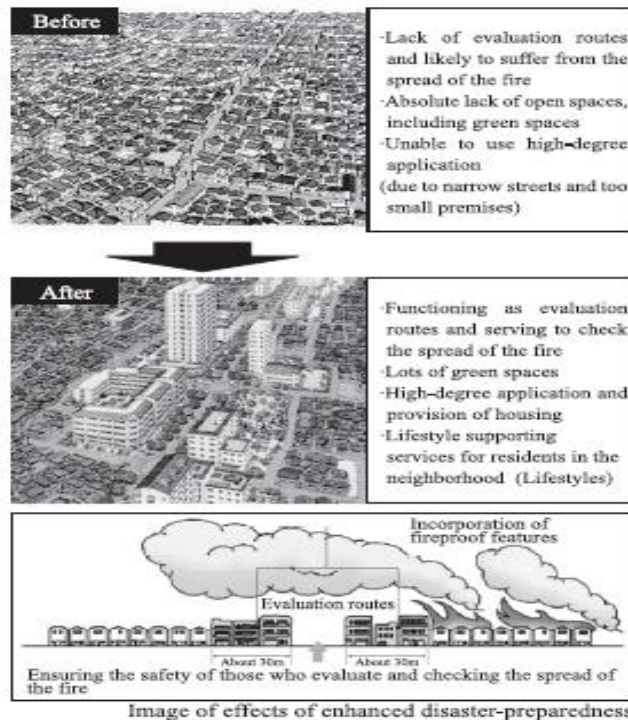
About half of the population and about 3/4 of their assets are located in the 10% of Japan that consists of flood zones. The potential hazards posed by flooding are thus extremely high. Because Japan has already promoted flood measures, such as the development of river channels (widening efforts), levees, and drainage channels to allow the safe outflow of flood waters, and the development of dams and flood control basis to temporarily collect flood water, the nation's level of flood safety has been significantly improved. Compared with other developed nations overseas, however, the level of safety and ratio of developed facilities continue to remain low. To reduce flood damage in cities, efforts are being made to implement water collection and permeation measures, like those shown in Fig.7, aimed at expelling rain water and controlling outflows of rain water regionwide.

Fig. 7 Comprehensive Flood Measures



Because Japan has experienced several earthquakes that have killed thousands of people in the past, it has no lack of earthquake management measures. Seismic standards have been established for all buildings. It is important that disaster management functions be incorporated into urban plans.

Fig. 8 Environments with enhanced preparedness against disasters



(4) Construction of a competitive socioeconomic system

Until now, large cities like Tokyo and Osaka have driven Japan's growth, but the governments of other nation's are using policy to improve the competitiveness of Asian cities like Seoul, Singapore, Shanghai, and Tianjin. Without municipal strategies that are informed by the international and broad perspectives of the national level, the vitality of even Tokyo will be lost as society ages; Tokyo may even become a drag on national growth. For this reason, Japan needs to strategically promote focused development for improving Japan's appeal and making priority investments in truly necessary infrastructure components that drive growth, such as airports, seaports, and roads in large metropolitan areas that have a high investment effect.

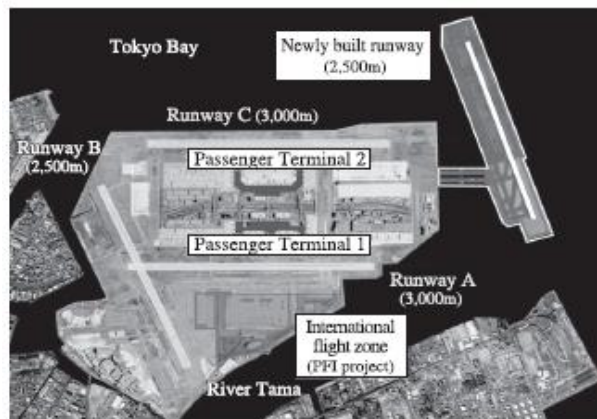
To improve the competitiveness of cities in today's international society, efforts must be made to improve the offerings of Narita and Haneda Airports, and to expand the international network of airlines.

In 2010, Haneda serviced about 30,000 regularly scheduled international flights during the day, and about another 30,000 at night, for a total of 60,000 flights. Adding the 20,000 flights serviced at Narita to brings the total to 80,000 regularly scheduled international flights. Efforts are being made to vastly increase the number of international departures from airports in the capital region. At Haneda Airport in particular, the new international terminal opened on October 21, 2010, and by January 2011, it is expected to host flights serving China, South Korea, Thailand, Taiwan, Singapore, Malaysia, the US, France, and Canada. There is agreement regarding

expansion of the transportation capacity of Narita with a total of 22 countries and regions, including Hong Kong, Macao, Vietnam, Thailand, Singapore, India, Sri Lanka, Qatar, the United Arab Emirates, and Turkey in Asia; Papua New Guinea in Oceania; Egypt in Africa, Canada and Mexico in the Americas, Poland, Austria, Germany, Switzerland, Italy, the Netherlands, the three Scandinavian nations, and Finland in Europe. In the future, to maximize the international airline functions of the capital region airports, efforts will be made to make Haneda Airport a 24-hour airport for international flights, to further expand the capacity of Narita Airport, and to promote the integrated use of both airports.

A new high speed railway line to Narita Airport opened this summer, increasing the convenience of that airport by putting it only 30 minutes away from downtown Tokyo.

Fig. 9 Tokyo International Airport Re-expansion Plan(Haneda Airport)

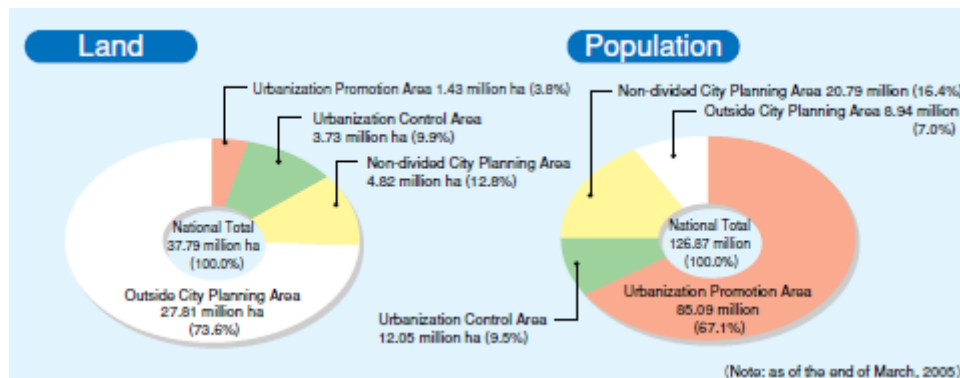
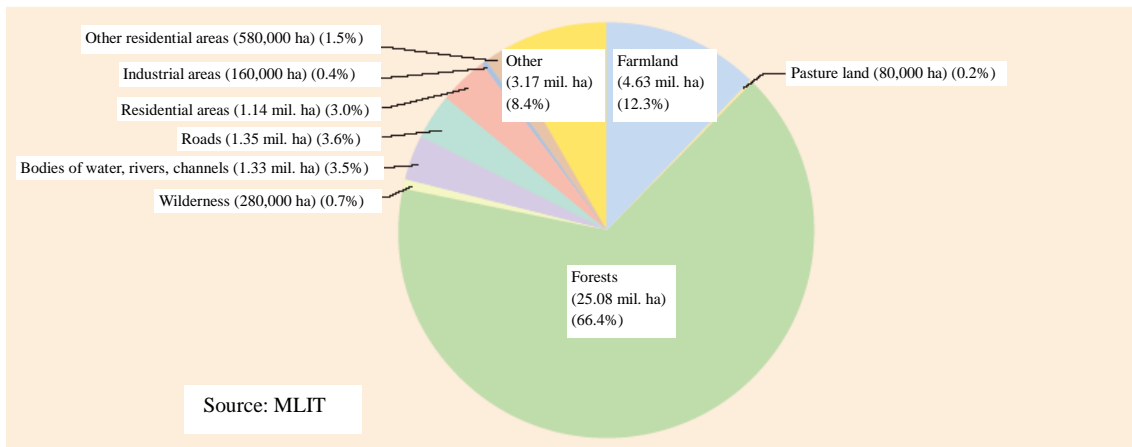


3.2.2 Land use resource

(1) Use overview

The land area of Japan at the end of 2008 was about 37.79 million ha. Of this, forests account for the majority of the area, or about 25.08 million ha, followed by farmland at 4.71 million ha (down 0.4% from the previous year). Together these make up about 80% of the land area of the whole country. Besides these, land for residential and industrial uses covers about 1.88 million ha (up 0.5% from the previous year), roads cover about 1.35 million ha (up 0.7% from the previous year), bodies of water, rivers, and channels cover about 1.33 million ha, and wilderness covers about 280,000 ha.

Fig. 10 The present situation of the Land use



(2) Structure of the land use planning system in urban planning

The urban land use planning system is established to support efficient urban activities, achieve a pleasant urban environment, and create townscapes with significant features. The system gives a set of rules concerning different types of land use, including residential, commercial, business and industrial use. This brochure will give a basic description of the urban land use planning system in Japan.

There are various different measures for City Planning, which are applied to each area by the local government depending on local circumstances under the City Planning Law. Land use system includes a wide range of measures on different dimensions, and the rules of land use are usually decided by a combination of individual measures.

Fig. 11 Structure of City Planning System

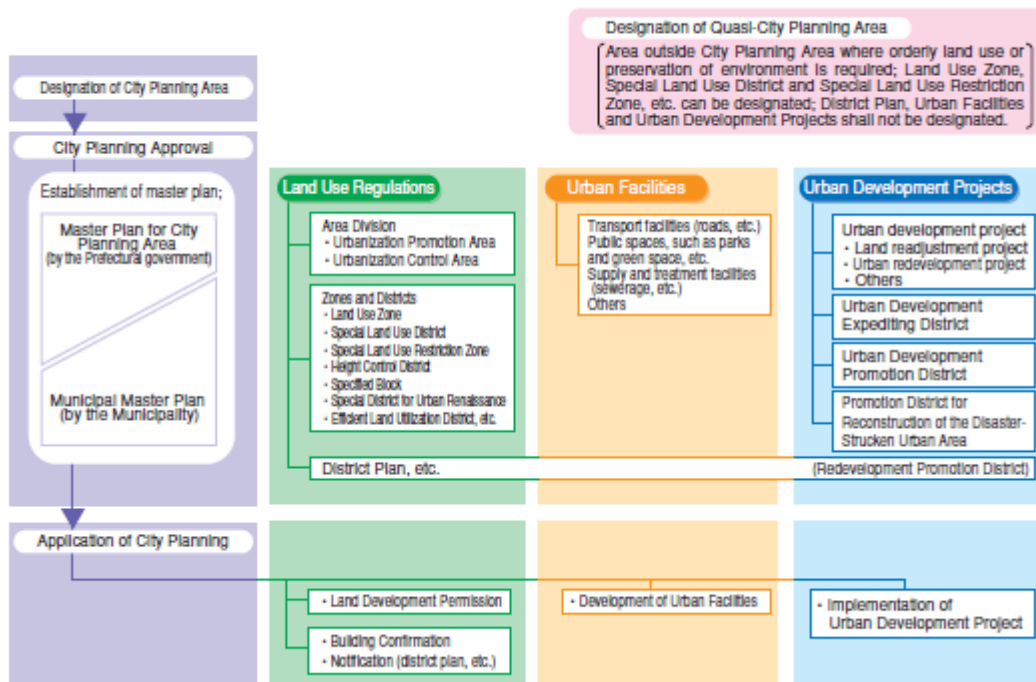
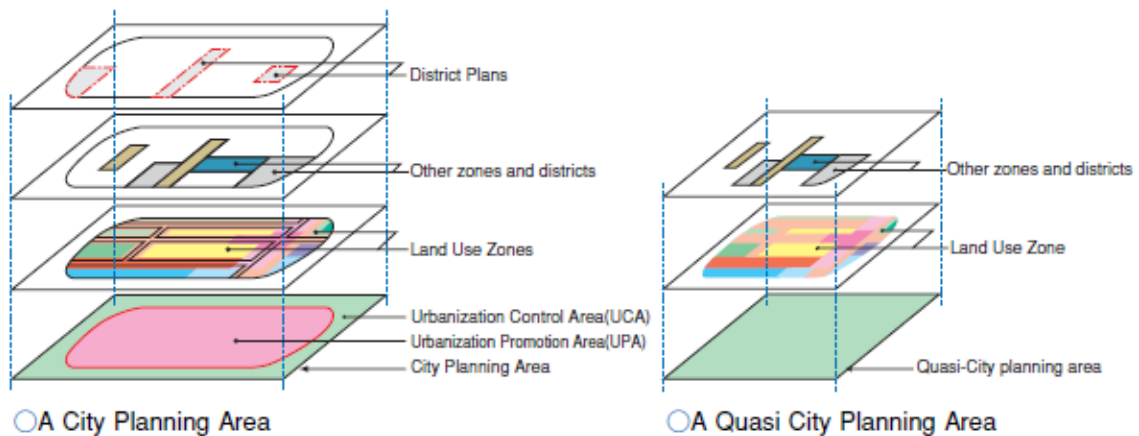


Fig. 12 Concept of Land Use Planning System



Twelve categories of Land Use Zone provide a pattern for land-use zoning in each type of urban area. These can be generally categorized into residential, commercial and industrial uses. Each Land Use Zone has specifications concerning the uses of buildings which can be constructed in the zone. As described in the City Planning map (see cover page), Land Use Zones are allocated according to a future vision of land-use pattern.

Fig. 13 Control of Building Use by Land Use Zones

| Examples of buildings | can be built usually cannot be built | | | | | | | | | | | | |
|--|---|--|---|--|--------------------------------|---------------------------------|----------------------------|---------------------------------|-----------------|---------------------------|-----------------|--------------------------------|---|
| | Category I exclusive residential zone | Category II exclusive residential zone | Category I mixed high rise central residential zone | Category II mixed high rise central residential zone | Category I residential zone | Category II residential zone | Quasi- residential zone | Neighborhood commercial zone | Commercial zone | Quasi- industrial zone | Industrial zone | Exclusively industrial zone | Area with no new develop- ment (Transfer Control Area in outline) |
| Houses, Houses with other small scale function (store, office, etc.) | | | | | | | | | | | | | |
| Kindergartens, Schools (Elementary, Junior High, Senior High) | | | | | | | | | | | | | |
| Shrines, Temples, Churches, Clinics | | | | | | | | | | | | | |
| Hospitals, Universities | | | | | | | | | | | | | |
| Stores (mainly selling dairy commodities) (Restaurants with floor space of 150m ² max. on the first or second floor (excluding*)) | | | | | | | | | | | | D | |
| Stores/Restaurants with floor space of 500m ² max. on the first or second floor (excluding*) | | | | | | | | | | | | D | |
| Stores/Restaurants not specified above (excluding*) | | | | A | B | | | | | | | | |
| Offices, etc. not specified above | | | | A | B | | | | | | | | |
| Hotels, Inns | | | | | B | | | | | | | | |
| Karaoke boxes (excluding*) | | | | | | | | | | | | | |
| Theaters, Movie theaters (excluding*) | | | | | | | | C | | | | | |
| *Theaters, Movie theaters, Stores, Restaurants, Amusement facilities and so on, with more than 10,000m ² of floor area | | | | | | | | | | | | | |
| Bed/houses with private rooms | | | | | | | | | | | | | |
| Independent garage with floor space of 300m ² max. on the first or second floor | | | | | | | | | | | | | |
| Workshops of working company, independent garage of other type than specified above | | | | | | | | | | | | | |
| Auto repair shop | | | | | E | E | F | G | G | | | | |
| Factory with some possibility of danger or environmental degradation | | | | | | | | | | | | | |
| Factory with strong possibility of danger or environmental degradation | | | | | | | | | | | | | |

Note A : Must not be built on the third floor or higher. Must not exceed a floor area of 1,500m².
 B : Must not exceed a floor area of 3,000m².
 C : Audience seating floor area must not exceed 200m².
 D : Stores and restaurants must not be built.
 E : Floor area must not exceed 50m².
 F : Floor area must not exceed 150m².
 G : Floor area must not exceed 300m².

3.3 Financial Resources Related to Urbanization

3.3.1 Problems Involving the Global Financial Crisis and Real Estate

While the global recession has had an impact on all industries, the real estate and construction industries have been particularly hard hit. Since October 2008, many factory and office building construction plans have been cancelled, and private non-residential housing investments fell sharply in FY2009. Many condominium and apartment building construction projects have also been cancelled. With financial institution loans and other funds drying up, many developers have been faced with black-ink bankruptcy, leaving the construction companies that would have performed the work on their projects facing major challenges.

Investments in real estate investment trusts and privately placed funds, which were first made in 2001, began to rise sharply in value in 2004. This triggered a spike in the construction of apartment buildings and office space primarily in the capital region. As it became more difficult to build in the capital region, development spread to the outlying areas. In the latter half of 2007, capital inflows began to dry up as excess supply and the sub-prime loan problem came to a head, and in 2008, amidst many instances of business feasibility problems, Lehman Brothers collapsed and further exacerbated existing problems.

Japanese general contractors had been receiving large orders from overseas developers, but they ended up facing significant challenges. First, they started to see the cancellation of projects by Japanese firms, and later they saw the cancellation of government projects in the Middle East due to the Dubai shock and other factors.

In 2010, the effects of the global recession are still being felt. With the recent appreciation of the yen, private construction investment has been trending at low levels.

3.3.2 Financial Resources Related to Urbanization

In the area of financing (capital procurement), it seems that capital conventionally used for urban development in Japan has been procured on the basis of a specific company's own credibility, profitability, and ability to provide collateral. This is called corporate financing. Funding comes from bank borrowing, stock issuance, corporate bond issuance, and loans from various types of financial institutions.

Institutional support is also provided by the national government. For example, the Organization for Promoting Urban Development (OPUD) was established in 1987 to promote private urban development through low-interest loans for that purpose. OPUD is governed by MLIT, and provides support for urban development projects conducted by private developers by supplying interest-free loans as well as low-interest capital to firms in the form of participation in their projects as a co-developer, and by advancing long-term, low-interest capital through deposits to the Development Bank of Japan.

However, with the collapse of the bubble economy in the early 1990s, it became difficult to secure project capital even for well conceived urban development projects because of the low level of capital that could be procured through the markets due to low stock market values, and the difficulty of borrowing from financial institutions due to regulations regarding self-capital ratios³ and total volume control.⁴

Also, urban development projects are highly individualized, and their content and strategies have become increasingly complex. Some cannot be accommodated solely through conventional business loans. With a mismatch between projects and finances, there is growing demand for the creation of new modes of financing. There has been a breakthrough in the form of a method that is called project financing. This is a method of financing based on the profitability of a given project, and differs from corporate financing which is dependent on the creditworthiness of a company.

Due to the enactment of Japan's Real Estate Specified Joint Enterprise Act in April 1995 and the Act on the Liquidation of Specified Assets by Special Purpose Companies (the old SPC Act) in September 1998, a new financing method known as "real estate securitization" came into being. The enactment of the Act on Investment Trust and Investment Corporations in November 2000 paved the way for Japanese real estate investment trusts (J-REITs), and the transition from the old SPC Act to the new SPC Act, or the Act on the Securitization of Assets, simplified the procedures involved in real estate securitization aimed at liquidating assets. As a result, the use of this approach increased dramatically. With the widespread adoption of this method of securitization, the real estate and financial markets became intertwined, and there was an increase both in urban development project schemes premised on the possibility of securitization, and in no-recourse loans issued by financial institutions. Both markets have been significantly impacted by the global economic recession since 2008.

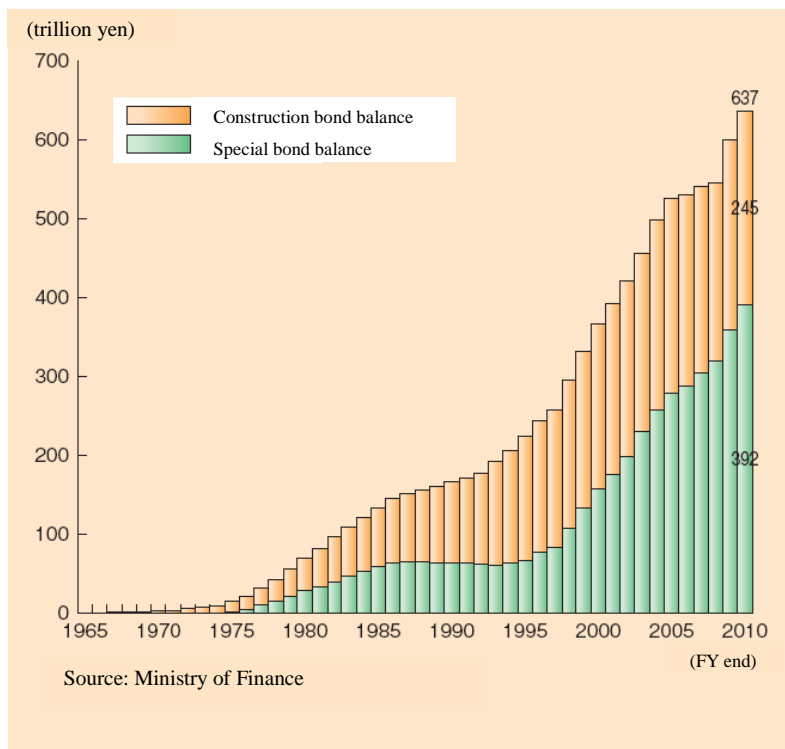
³ To ensure the sound management of banking operations in Japan, banks with overseas locations are being required to maintain self-capital ratios that are consistent with international standards (8% and above). As a result, the banks subject to regulation are controlling increases in lending to raise their self-capital ratios, are trying to hold down debts used as bank assets, and are liquidating their debt for off-balance sheet financing.

⁴ The regulation states that growth in loan balances to real estate companies must be lower than growth in total loan balances. Those subject to the regulation must therefore limit their loans to real estate companies. This has made it difficult to procure capital for real estate projects from banks.

(1) Public works projects

The financial resources for public works projects, including infrastructure projects, generally come from the budgets of the national and local governments. The Japanese government began issuing construction bonds in 1966, when there was a need to rapidly develop infrastructure during Japan's high growth period, because it felt that the public facilities constructed would be able to be used by future generations of citizens. Such bonds are still being issued today. Construction bonds cannot be used to pay for administrative costs or personnel expenses that will not be left for future generations.

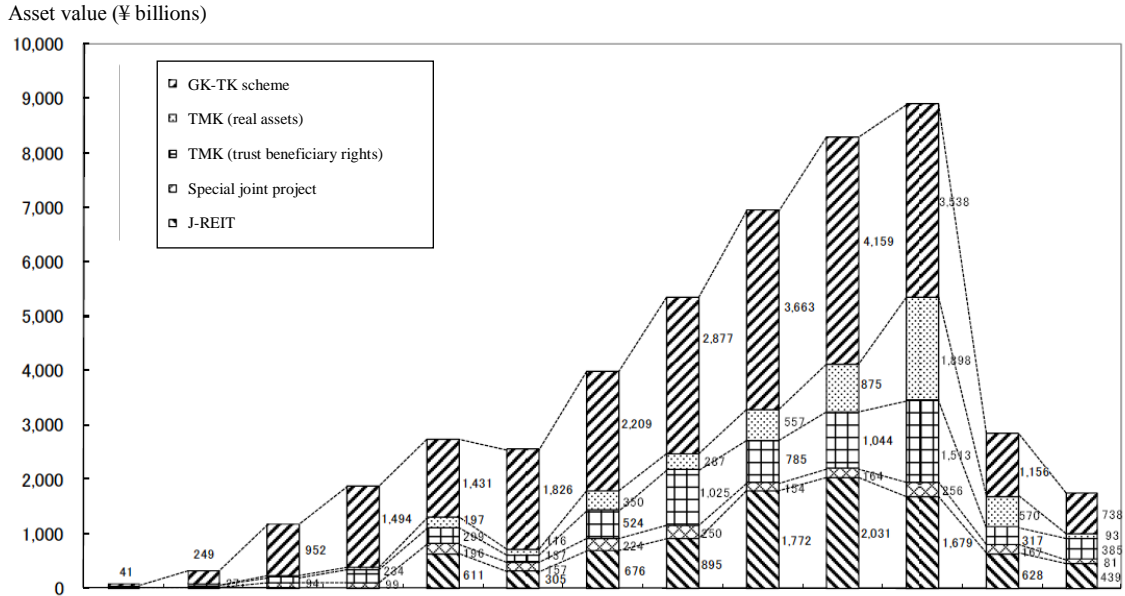
Fig. 14 The change of the Japanese public bond balance



(2) Private markets

Real estate securitization is an extremely effective method of efficiently linking demand for capital with supply, and is essential to the development of both real estate and financial markets. The market expanded rapidly starting around 2003, and rose as high as ¥8.9 trillion in the peak year of 2007. However, capital inflows have slowed due to the global recession. In 2008, the market fell considerably, and remains at low levels today.

Fig. 15 Actual Trends in Real Estate Securitization by Scheme

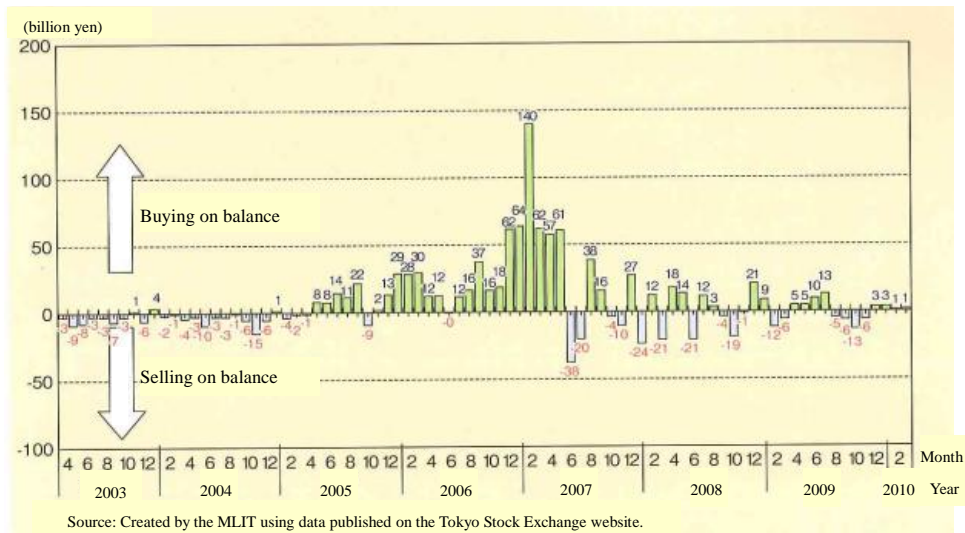


Notes:

1. The breakdown for FY2009 reflects quick estimates. TMK based on actual results reported.
2. Figures for FY2008 were recounted based on actual TMK issuance.

Fig. 16 shows the sales of J-REITs to foreign buyers. There were many cases of overselling from 2005 to mid-2007, but after that period, sales fell considerably.

Fig. 16 Sales Status of J-REITs to foreign buyers



Private developers and construction companies largely procure capital from the stock market, as well as from loans from private banks. New loans have fallen sharply since the onset of the global recession.

Fig. 17 Lending Situation

(Unit: billion yen)

| Quarter | Loan balance to real estate, construction companies | | | | | | New loans to real estate companies (funds for equipment) | |
|-----------|---|------|--|------|---------------------------------------|------|--|-------|
| | Loan balance to real estate companies | | Loan balance to construction companies | | Loan balance to real estate companies | | | YOY |
| | | YOY | | YOY | | YOY | | |
| Mar. 2005 | 68,484 | -4.7 | 17,567 | -8.6 | 50,917 | -3.2 | 3,269 | 15.6 |
| Jun. | 66,657 | -4.3 | 16,241 | -7.7 | 50,416 | -3.1 | 1,541 | -10.1 |
| Sep. | 68,924 | -0.3 | 16,234 | -8.6 | 52,690 | 2.6 | 2,863 | 40.9 |
| Dec. | 69,921 | 0.6 | 16,730 | -7.8 | 53,191 | 3.5 | 2,177 | 27.7 |
| Mar. 2006 | 69,139 | 1.0 | 16,218 | -7.7 | 52,921 | 3.9 | 2,945 | -9.9 |
| Jun. | 68,039 | 2.1 | 15,185 | -6.5 | 52,854 | 4.8 | 1,733 | 12.4 |
| Sep. | 73,069 | 6.0 | 15,498 | -4.5 | 57,571 | 9.3 | 2,480 | -13.4 |
| Dec. | 74,148 | 6.0 | 15,991 | -4.4 | 58,157 | 9.3 | 2,056 | -5.5 |
| Mar. 2007 | 74,359 | 7.6 | 15,589 | -3.9 | 58,771 | 11.1 | 2,995 | 1.7 |
| Jun. | 73,413 | 7.9 | 14,567 | -4.1 | 58,846 | 11.3 | 2,246 | 29.6 |
| Sep. | 74,048 | 1.3 | 14,979 | -3.3 | 59,068 | 2.6 | 2,512 | 1.3 |
| Dec. | 75,064 | 1.2 | 15,514 | -3.0 | 59,550 | 2.4 | 2,408 | 17.1 |
| Mar. 2008 | 74,665 | 0.4 | 15,006 | -3.7 | 59,659 | 1.5 | 3,061 | 2.2 |
| Jun. | 73,653 | 0.3 | 14,023 | -3.7 | 59,629 | 1.3 | 1,799 | -19.9 |
| Sep. | 73,269 | -1.1 | 14,191 | -5.3 | 59,078 | 0.0 | 2,041 | -18.7 |
| Dec. | 74,600 | -0.6 | 15,380 | -0.9 | 59,220 | -0.6 | 1,528 | -36.5 |
| Mar. 2009 | 73,340 | -1.8 | 14,846 | -1.1 | 58,494 | -2.0 | 2,326 | -24.0 |
| Jun. | 75,304 | 2.2 | 13,531 | -3.5 | 61,773 | 3.6 | 1,394 | -22.5 |
| Sep. | 74,940 | 2.3 | 13,713 | -3.4 | 61,226 | 3.6 | 1,799 | -11.8 |
| Dec. | 74,435 | -0.2 | 13,856 | -9.9 | 60,579 | 2.3 | 1,444 | -5.5 |
| Mar. 2010 | 73,801 | 0.6 | 13,406 | -9.7 | 60,395 | 3.3 | 2,504 | 7.6 |
| Jun. | 72,668 | -3.5 | 12,388 | -8.4 | 60,280 | -2.4 | 1,486 | 6.6 |

Source: Bank of Japan, "Loans by Loan Recipient"

3.4 Real Estate Market System Operations

3.4.1 Introduction of Real Estate Appraisal

Land prices are the normal prices of standard land as of January 1 every year, publicly announced by the Land Appraisal Committee in late March, under the Public Notice of Land Prices Law (Law No. 49, 1969). The purpose of the public notice is to provide a guideline for general transaction prices of lands, to help in evaluating acquisition prices of public use lands, and to serve as a standard for land appraisal by real estate appraisers and others, thus contributing to formation of appropriate land prices.

In addition to these functions, land prices in the public notice are utilized as a guideline for appraisal of inheritance tax and fixed assets tax, for the purpose of balancing and adjusting the evaluated values of public lands. At the same time, those prices are also utilized as standard for evaluating current prices for the purpose of laws concerning reappraisal of lands, for national properties, and for real estate for sale in corporate accounting. In this way, the importance of the land price public notice system has been increasing.

To determine the price in the public notice, the Land Appraisal Committee requires appraisals from two or more real estate appraisers, reviews the results, adjusts them, if necessary, and judges normal prices per square meter in the land in question, under Article 2 of Public Notice of Land Prices Law.

3.4.2 Introduction of Brokerage Companies and Brokerage Fees

When a person engages in the following transactions with a third party, a real-estate transaction specialist or a real estate transaction agent licensed by the MLIT or the prefectural governor provides support for the parties engaged in the transaction pursuant to the Building Lots and Buildings Transaction Business Act.

- Purchase of a home or building.
- Exchange of a home or building.
- Proxy to purchase, exchange or rent a home or building.
- Intermediate to purchase, exchange or rent a home or building.

The amount of the brokerage commission that can be charged by a home builder to a client is limited to the amounts shown in the table below, as per the notice by the Minister of Land, Infrastructure, and Transport pursuant to the Building Lots and Buildings Transaction Business Act.

| Trading Value | Brokerage Commission |
|---|----------------------|
| For the portion of ¥2 million and less | Up to 5.25% |
| For portions over ¥2 million up to ¥4 million | Up to 4.2% |
| For portions over ¥4 million | Up to 3.15% |

When the transaction amount exceeds ¥4 million, the commission can be simply calculated as follows: $(\text{Trading value without consumption tax} \times 3\% + ¥60,000) \times 1.05$. This simple calculation method can be used in actual transactions. The amount obtained from this method is an upper limit. The brokerage fee actually paid will be determined based on negotiations with the broker, within the established limits (and will be included in the brokerage contract).

3.4.3 Recent Real Estate Management Practices

Building management is often contracted out to a building management company rather than by the owner. If properly maintained, repaired, and renovated, the frame, interior, and facilities of a building can be used for a very long time. However, appropriate measures require appropriate funding. The costs incurred from the the initial construction costs to the demolition costs many decades later should be viewed as the life cycle costs, and owners should be concerned not only with initial costs or renovation costs, but with maximizing total cost effectiveness. The proportion of initial construction costs to the total life cycle cost is typically about 15-30%. If maintenance, repairs, and renovations are not performed, the real estate value will fall, as will the building's ability to attract clients, thus hastening the building's demise. The owner, building management company, and consulting designer or construction company work

as partners in striving to extend the longevity of a building.

4. Future Outlook for the Real Estate Market

4.1 Outlook for the Real Estate Market

Due to the global recession, few companies issued new building plans in 2009, and in the residential sector, condominium and apartment building starts were down significantly in 2010. In the non-residential sector, factory and warehouse starts also fell significantly. New projects have been at low levels in FY2010, and starts in both the residential and non-residential sectors in FY2011 seem likely to improve slightly over the previous year. However, they are still forecast to be low compared to pre-2008 figures.

In the non-residential sector, declining construction since 2008, the financial crisis in Greece, and the rapid appreciation of the yen have all put pressure on export profits, causing delays or cancellations of domestic production facility projects. The area of construction starts on schools, hospitals, and welfare facilities is increasing in size, and further development is predicted given the ongoing aging of the population.

Fig. 18 Area of New Construction Starts(Table 2)

| Area of private non-residential starts (1000m ²) | | | | | | | |
|--|--------|--------|--------|--------|--------|-------------|-------------|
| FY | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 (Est.) | 2011 (Est.) |
| Offices | 6,893 | 7,064 | 6,696 | 7,688 | 6,366 | 6,126 | 6,826 |
| Stores | 12,466 | 11,280 | 12,955 | 8,249 | 5,504 | 6,092 | 7,099 |
| Plants and operation sites | 14,135 | 15,375 | 12,009 | 12,579 | 5,446 | 5,930 | 6,929 |
| Warehouses | 8,991 | 9,789 | 7,915 | 7,554 | 3,990 | 4,340 | 5,152 |
| School buildings | 2,095 | 1,989 | 1,654 | 1,688 | 1,567 | 1,617 | 1,624 |
| Hospitals, clinics | 2,699 | 2,686 | 2,557 | 1,911 | 1,916 | 2,551 | 2,126 |
| Lodging facilities | 1,433 | 1,673 | 1,634 | 1,660 | 535 | | |
| Other | 16,782 | 16,065 | 12,444 | 12,126 | 9,535 | 10,681 | 11,826 |
| Total | 65,495 | 65,920 | 57,865 | 53,454 | 34,859 | 37,337 | 41,582 |

| Area of public non-residential starts (1000m ²) | | | | | | | |
|---|-------|-------|-------|-------|-------|-------------|-------------|
| FY | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 (Est.) | 2011 (Est.) |
| Offices | 866 | 862 | 695 | 893 | 695 | - | - |
| Stores | 35 | 41 | 22 | 30 | 23 | - | - |
| Plants and operation sites | 91 | 172 | 129 | 87 | 86 | - | - |
| Warehouses | 146 | 168 | 85 | 130 | 142 | - | - |
| School buildings | 2,563 | 2,140 | 2,181 | 2,286 | 820 | - | - |
| Hospitals, clinics | 335 | 300 | 479 | 401 | 375 | - | - |
| Lodging facilities | 10 | 22 | 6 | 14 | 9 | - | - |
| Other | 2,676 | 2,487 | 2,311 | 2,268 | 2,480 | - | - |
| Total | 6,721 | 6,193 | 5,908 | 6,109 | 4,630 | - | - |

| Area of housing starts (including private and public) (1000m ²) | | | | | | | |
|---|---------|---------|--------|--------|--------|--------|--------|
| FY | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| Owned single-family housing | 47,161 | 47,409 | 41,037 | 40,435 | 36,499 | 37,883 | 40,730 |
| Rental housing (apartment house, single house) | 24,175 | 24,742 | 19,605 | 20,235 | 14,954 | 15,371 | 16,305 |
| For sale in lots (apartment house, single house) | 34,741 | 35,889 | 27,061 | 24,943 | 15,590 | 19,266 | 21,116 |
| Housing provided as compensation for | 574 | 607 | 655 | 732 | 711 | 694 | 682 |
| Total | 106,651 | 108,647 | 88,358 | 86,345 | 67,754 | 73,214 | 78,833 |

Fig. 19 Investment amount

(Unit: billion yen, real values reflect 2000 prices)

| Fiscal year | 1995 | 2000 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 (Forecast) | 2011 (Forecast) |
|--|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|------------------|------------------|-----------------|
| Nominal construction investment (YoY change) | 79,017 0.3% | 66,195 -3.4% | 51,568 -2.4% | 51,328 -0.5% | 47,696 -7.1% | 47,650 -0.1% | 42,170 -11.5% | 39,250 -6.9% | 39,660 1.0% |
| Nominal government construction investment (YoY change) | 35,199 5.8% | 29,960 -6.2% | 18,974 -8.9% | 17,797 -6.2% | 16,946 -4.8% | 16,210 -4.3% | 16,900 4.3% | 13,820 -18.2% | 12,610 -8.8% |
| Nominal government building construction investments (YoY change) | 5,667 -12.5% | 4,000 -12.0% | 2,053 -13.9% | 2,045 -0.4% | 1,951 -4.6% | 2,060 5.6% | 2,330 13.1% | 1,980 -15.0% | 1,580 -20.2% |
| Nominal government civil engineering investments (YoY change) | 29,531 10.3% | 25,960 -5.2% | 16,921 -8.3% | 15,752 -6.9% | 14,996 -4.8% | 14,150 -5.6% | 14,570 3.0% | 11,840 -18.7% | 11,030 -6.8% |
| Nominal private residential construction (YoY change) | 24,313 -5.2% | 20,276 -2.2% | 18,426 0.3% | 18,750 1.8% | 16,602 -11.5% | 16,390 -1.3% | 13,700 -16.4% | 13,710 0.1% | 14,410 5.1% |
| Nominal private non-residential construction (YoY change) | 19,505 -1.8% | 15,959 0.7% | 14,168 4.0% | 14,782 4.3% | 14,148 -4.3% | 15,050 6.4% | 11,570 -23.1% | 11,720 1.3% | 12,640 7.8% |
| Nominal private non-residential building construction (YoY change) | 11,010 -6.8% | 9,343 -0.5% | 9,236 3.4% | 9,789 6.0% | 9,167 -6.4% | 9,990 9.0% | 7,760 -22.3% | 7,750 -0.1% | 8,470 9.3% |
| Nominal private non-residential construction (YoY change) | 8,496 5.6% | 6,616 2.5% | 4,932 5.3% | 4,993 1.2% | 4,981 -0.2% | 5,060 1.6% | 3,810 -24.7% | 3,970 4.2% | 4,170 5.0% |
| Real construction investment (YoY change) | 77,727 0.2% | 66,195 -3.6% | 51,520 -3.4% | 50,600 -1.8% | 45,776 -9.5% | 44,599 -2.6% | 40,742 -8.6% | 38,060 -6.6% | 38,450 1.0% |

Note: Figures up to FY 2009 are from the FY 2010 Construction Investment Forecast issued by the MLIT. Figures for 2010 and 2011 are RICE estimates.

4.2 Forecasting Methods for the Real Estate Market

RICE calculates its real estate forecasts using its own construction economy model. In the residential sector, the emphasis is on the latest indicators, including interest, purchasing attitudes, lending attitudes, the condominium vacancy rate, and contract rates. In the non-residential sector, the emphasis is on such indicators as private company profits, machine orders, interest rates, and the industrial output index. Investment amounts in infrastructure are calculated based on national and local government budgets, the execution rate, and the carry-over factor.

4.3 Trends in the Real Estate Market

Japan's population is declining due to aging and fertility decline. In such situations, there are concerns that homes and offices will not continue to be built at current levels. It has been 65 years since the end of World War II (1945), and the infrastructure built during the high growth period is now at the point of needing renovations. Since Japan experiences many earthquakes and floods, improper renovations can result in significant human casualties. In infrastructure as well as buildings, maintenance and renovations could become an important construction market going forward.

The new towns (housing complexes) built during the 1960s and 1970s are aging, such that problems like building dilapidation, vacancies, and community issues are becoming social problems.

In the short-term market, the Bank of Japan indicated in October 2010 that it would revive its zero interest-rate policy through additional monetary easing. Stocks related to real estate projects, such as condominium developments, rose in value across the board as a result. The continuation of low interest rates reduces the burden of borrowing associated with condominium development. It will be interesting to see how the real estate market develops in the future.

5. Government Contributions to Real Estate

The MLIT oversees real estate issues and works with local government agencies on implementing relevant measures. When land prices skyrocketed from 1985 to 1991, the government implemented measures aimed at calming the price increase. Later, when prices fell, the government replaced land price controls with measures to promote the liquidation of land.

As a medium-term plan for the next 10 years, the government has drafted policies related to solving the aging and low fertility problem in postwar new town communities, comprehensively developing real estate information, and pursuing environmental efforts, all in an effort to ensure that real estate is benefiting people's lives. Under government leadership, efforts are underway to stimulate demand, such as a residential version of the Eco-Point system, tax reductions, and to promote environmentally friendly housing.

Under conditions of population decline due to aging and low fertility, it is highly likely that people and businesses will become more concentrated in urban areas. It is

therefore essential that the public and private sectors collaborate on efforts to determine how the limited real estate available should be used.