# The Economy and Construction Investment in JAPAN

## Introduction

Due to underlying circumstances such as the recovery of production activities coinciding with the restoration of supply-chains and improved consumer mind-sets, etc. the Japanese economy, which declined rapidly following the Great East Japan Earthquake, shifted toward recovery and has since maintained a recovering trend. Although the recovering trend is expected to continue with reconstruction demand becoming a boosting factor, in contrast, there are concerns over under-performance risks such as historical yen appreciation and the stagnation of overseas economies.

With regards to construction investment in FY2011, increased government construction investment is anticipated from the backdrop of preparation and implementation of multiple supplementary budgets for restoration and reconstruction, and private sector construction investment is also expected to continue along a recovery trend throughout the year.

In addition, in FY2012, further government construction investment following on from FY2011 is anticipated in the form of continued allocation and implementation of earthquake restoration/reconstruction related budgets, and private sector construction investment is also expected to follow on from FY2011 and continue along a recovery trend.

Hereafter, this section examines the effects on construction investment, taking in to account statistical data, etc. published after the October 2011 announcement of estimations[1] made by RICE using the "Construction Economy Model" for predicted values for construction investment.

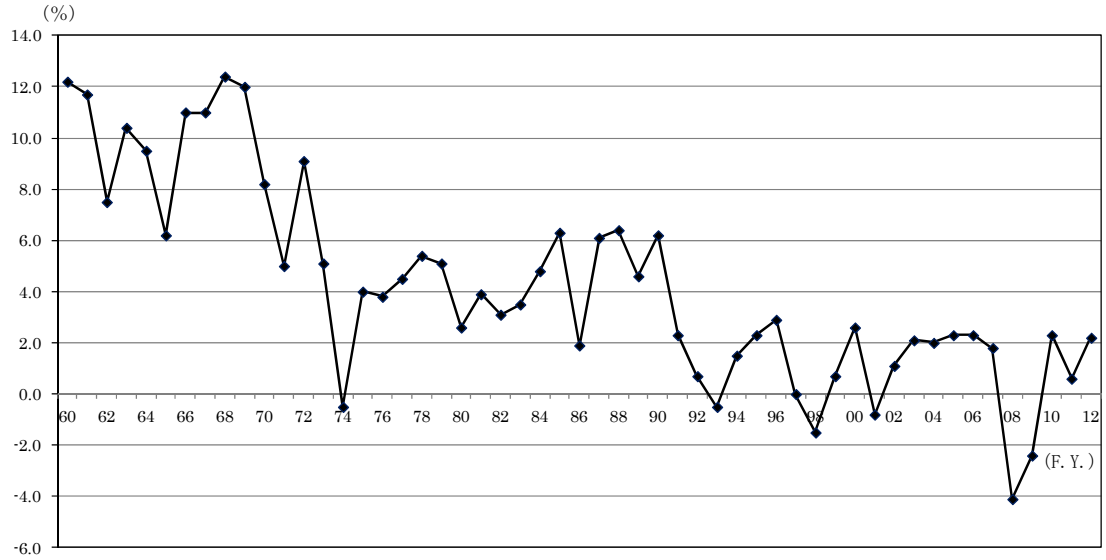
## 1 The Course of Trends in Construction Investment

Figure 2 shows trends in real construction investment totals by sector (government/private sector, civil engineering/construction). In the period of high economic growth, both government construction investment and private sector construction investment maintained steadily increasing trends. From the 1970s onwards, although there were temporary decreases in investment coinciding with the decline in the rate of economic growth due to two oil-shocks, a general underlying increasing trend was maintained, and in FY1990, during the bubble economy years, the highest ever total of 84.0 trillion yen was recorded. Later, following the collapse of the bubble economy, private sector construction investment entered a declining phase, and from the second half of the 1990s onwards, government construction investment also showed a significant underlying

1 October 24, 2011 RICE publication "Forecast of Construction Investment based on the Construction Economy Model (October, 2011)".

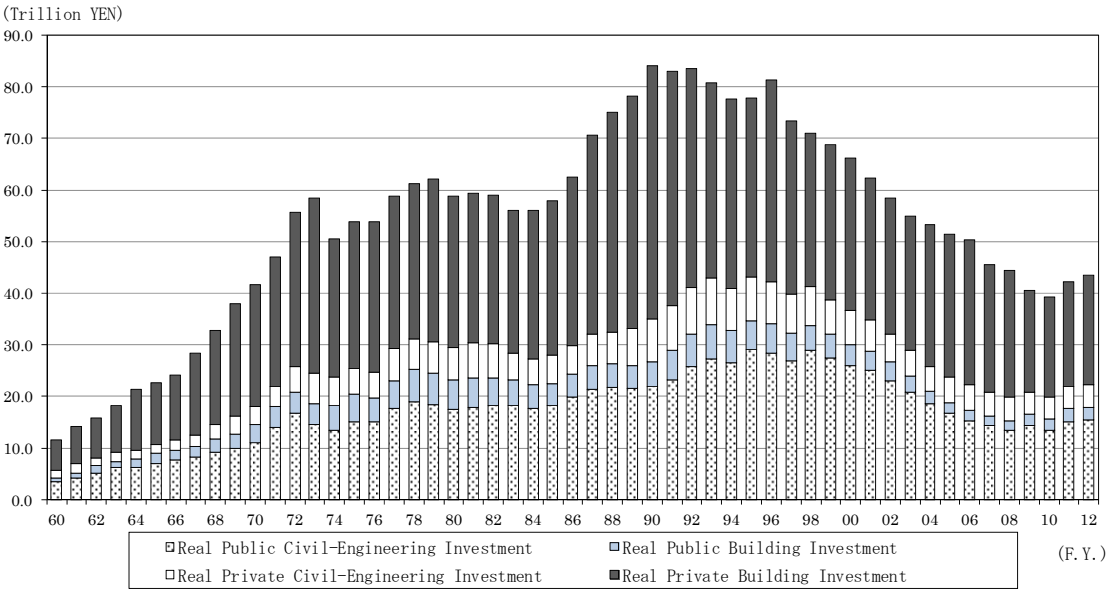
decreasing trend and a long-term stagnation of overall construction investment persisted. However, according to forecasts published by RICE in July 2011, due to increased restoration/reconstruction investment for the Great East Japan Earthquake and recovering private sector investment, increases over the previous year are expected for FY2011 and FY2012.

Figure 1　Trends in Real GDP Growth Rate




Source) Cabinet Office, RICE

Figure 2　Trends in Real Construction Investment

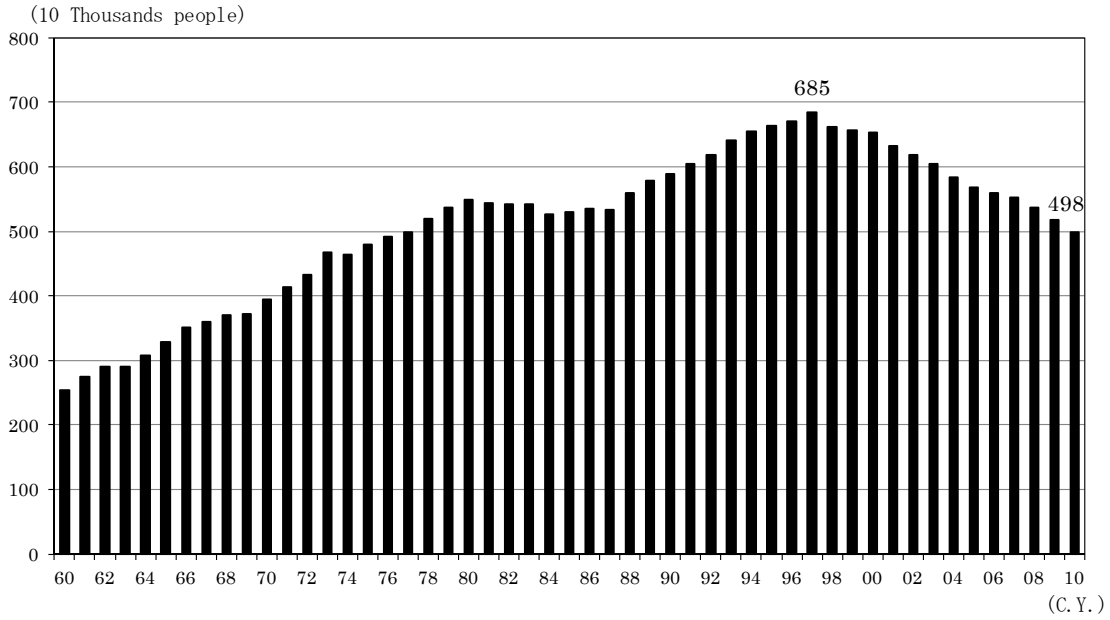



Source) MLIT[2], RICE (FY2005 standard)

[2] Ministry of Land, Infrastructure, Transport and Tourism

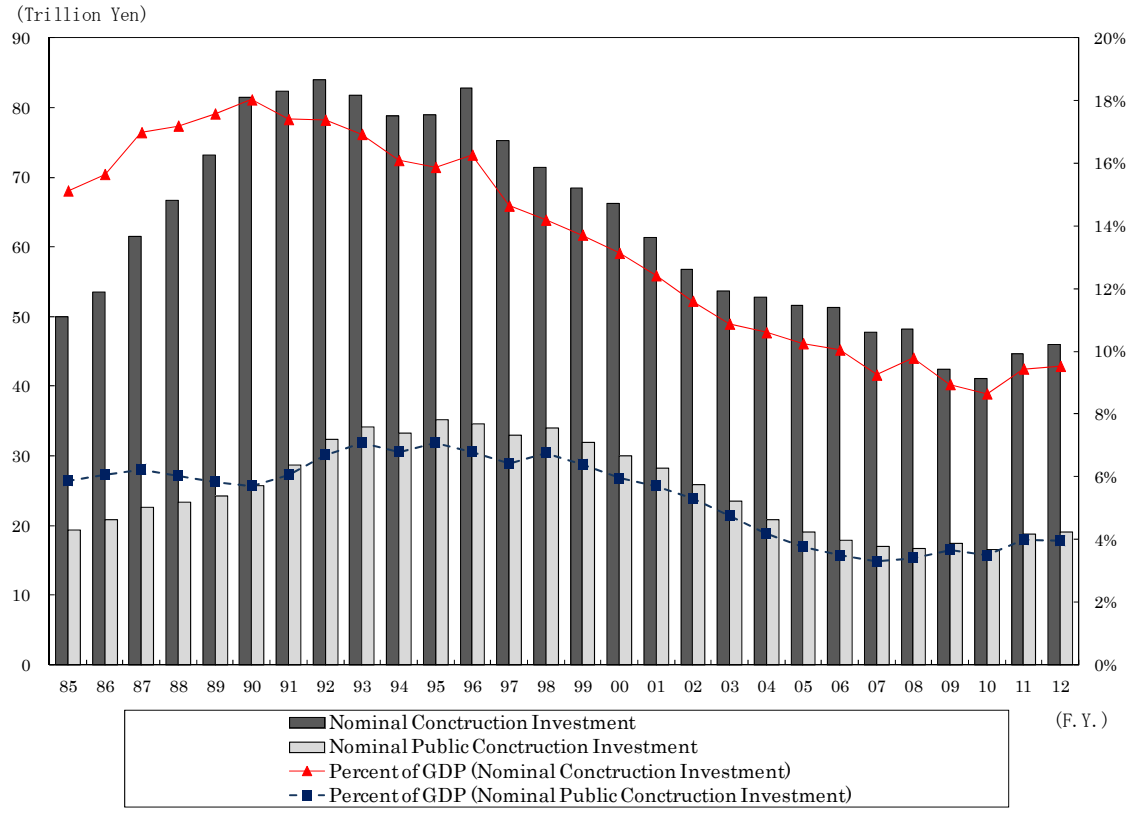
Figure 3 shows trends in the number of construction workers. The number of construction workers in 2010 was 4.98 million, a decrease of 1.87 million (△27.3%) from the peak of 6.85 million in 1997. Taking into account that trends in construction investment were maintained at comparatively high levels up to 1996 even after the collapse of the bubble economy, the trend here generally traces trends in construction investment although the degree of decrease is smaller.

Figure 3 Trends in the Number of Construction Workers




Source) Ministry of Internal Affairs and Communication (MIC)

Figure 4　Trends in Nominal Construction Investment and Nominal GDP Percentage




Source) Cabinet Office, MLIT, RICE

## 2　Trends in Construction Investment

### (1)　Trends in the Number of Housing Construction Starts

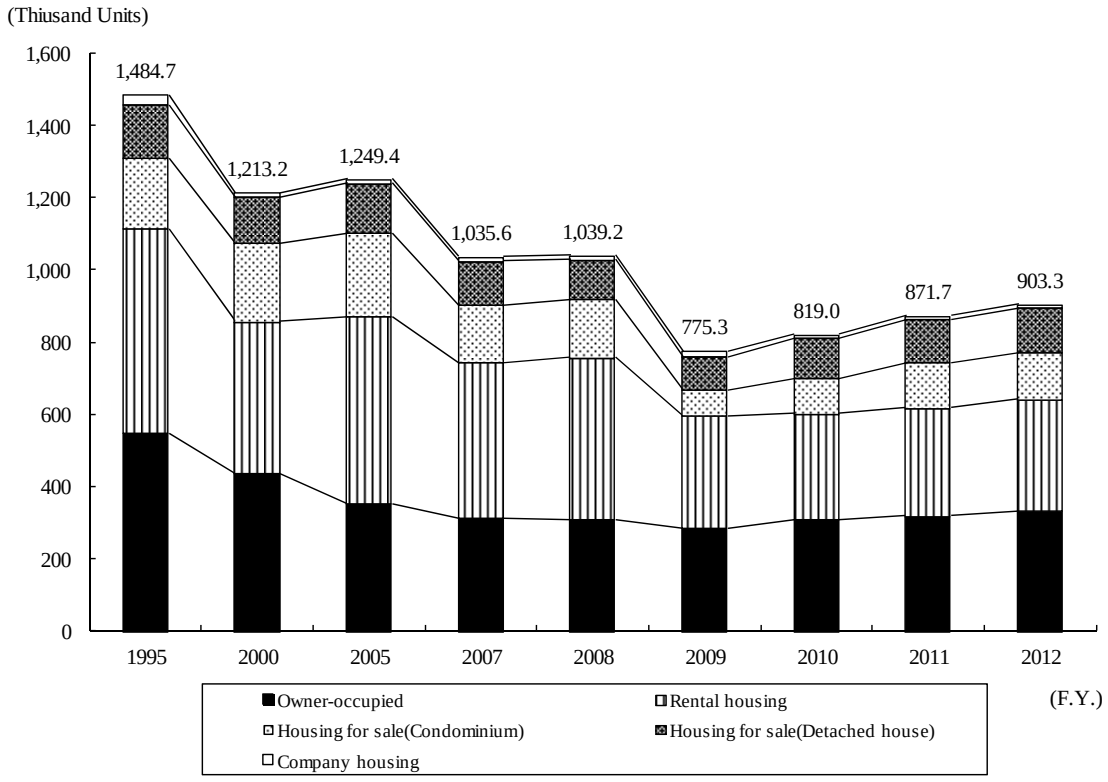
**(Although the number of housing construction starts temporarily came to a standstill after the earthquake, this is now recovering)**

The number of housing construction starts bottomed out in the summer of FY2009 and has since continued a recovering trend. However, after the Great East Japan Earthquake of March 2011, due to factors such as construction start delays caused by restrictions on the supply of some building materials and the postponement of housing orders/purchases due to social disruption and concerns about the future, the recovering trends came to a temporary standstill. However, the number of housing construction starts has continued to recover from May 20122 onwards, and looks set to return to a recovering trend.

The RICE forecast published towards the end of October 2011 predicts a return to recovery for FY2011 and FY2012 due to the recovery in the demand/supply mind-set, the recommencement of

postponed construction projects and the expected reconstruction of damaged housing from the summer of FY2011 onwards, and as shown in figures 5 and 6, the number of housing construction starts is forecast to increase by 6.4% over the previous year to 872,000 housing units. In addition, with regards to FY2012, the recovering trend from the previous year is expected to continue, and an increase of 3.6% (903,000 housing units) over the previous year is forecast.

Figure 5　Trends in Number of Housing Construction Starts (FY)




Source) MLIT, RICE

Figure 6　Trends in the Number of Housing Construction Starts by Usage

| Fiscal year | 1995 | 2000 | 2005 | 2007 | 2008 | 2009 | 2010 | 2011 (Forecast) | 2012 (Forecast) |
|---|---|---|---|---|---|---|---|---|---|
| Total | 1,484.7 | 1,213.2 | 1,249.4 | 1,035.6 | 1,039.2 | 775.3 | 819.0 | 871.6 | 903.3 |
| (rate of change from previous F.Y.) | -4.9% | -1.1% | 4.7% | -19.4% | 0.3% | -25.4% | 5.6% | 6.4% | 3.6% |
| Owner-occupied | 550.5 | 437.8 | 352.6 | 311.8 | 310.7 | 287.0 | 308.5 | 319.5 | 334.4 |
| (rate of change from previous F.Y.) | -4.9% | -8.0% | -4.0% | -12.3% | -0.4% | -7.6% | 7.5% | 3.6% | 4.7% |
| Rental housing | 563.7 | 418.2 | 518.0 | 430.9 | 444.8 | 311.5 | 291.8 | 298.1 | 307.8 |
| (rate of change from previous F.Y.) | 9.3% | -1.8% | 10.8% | -19.9% | 3.2% | -30.0% | -6.3% | 2.1% | 3.3% |
| Housing for sale | 344.7 | 346.3 | 370.3 | 282.6 | 272.6 | 163.6 | 212.1 | 246.3 | 253.5 |
| (rate of change from previous F.Y.) | -8.7% | 11.0% | 6.1% | -26.1% | -3.5% | -40.0% | 29.6% | 16.1% | 2.9% |
| Condominium | 198.4 | 220.6 | 232.5 | 161.5 | 166.0 | 68.3 | 98.7 | 126.2 | 130.6 |
| (rate of change from previous F.Y.) | -12.5% | 13.4% | 10.9% | -33.9% | 2.8% | -58.9% | 44.5% | 27.9% | 3.5% |
| Detached house | 146.3 | 125.7 | 137.8 | 121.2 | 106.6 | 95.3 | 113.4 | 120.1 | 122.9 |
| (rate of change from previous F.Y.) | -3.0% | 6.9% | -1.2% | -12.5% | -12.0% | -10.6% | 19.0% | 5.9% | 2.3% |
| Nominal private residential investment | 243,129 | 202,756 | 184,258 | 166,021 | 163,870 | 128,400 | 124,300 | 133,000 | 139,800 |
| (rate of change from previous F.Y.) | -5.2% | -2.2% | 0.3% | -11.5% | -1.3% | -21.6% | -3.2% | 7.0% | 5.1% |

(Housing start:'000 Units, Investment:billion Yen)

Source) MLIT, RICE

Looking at movements, the total from April to August 2011 showed a strong trend with a year-on-year increase of 9.7% (Figure 7).

**(“Owned houses” show signs of recovery after the post-earthquake decline)**

Looking at housing by usage, the total for “Owned houses” from April to August 2011 shows a year-on-year increase of 4.4%. Although recovery temporarily stalled from April to June due to the effects of the earthquake, following a significant year-on-year increase of 19.1% in July, August also maintained the increase with a year-on-year increase of 6.9% indicating a trend towards recovery following the post-earthquake decline. The elimination of supply restrictions on construction work and psychological recovery on the demand side are considered contributory factors. It is difficult to judge whether there were any effects from last-minute demand for and reaction to the Housing Eco-point System that ended in July from the aforementioned movement in the number of housing construction starts in July and August. Furthermore, the government has indicated that this system, together with the “Flat 35S”interest rate reduction measures, for which the application deadline was until the end of September, will be resurrected within this fiscal year.

**(Signs that “Rental housing” has bottomed out)**

For “Rental housing”, the total from April to August 2011 showed a year-on-year increase of 4.3%. Although an underlying decreasing trend had continued since the latter half of FY2008, year-on-year increases have continued since June 2011, indicating that “Rental housing” has bottomed out.

**(Significant underlying increasing trend in “Built-for-sale” units buoyed by apartments)**

For “Built-for-sale”, the total from April to August 2011 showed a year-on-year increase of

27.3%. Although the degree of increase dipped temporarily from March to April 2011, from May onwards, the pace of recovery returned to levels before the earthquake. When looking at the breakdown, the recovery for “Built-for-sale apartments” is significant. After a significant increase exceeding the figure for the previous year by a three digit percentage in May, a two digit percentage recovery pace over the previous year has been maintained since June, and the total for April to August 2011 shows a 56.6% year-on-year increase. However, the level is still almost 40% lower in comparison to the same period in 2008. Meanwhile, “Owned houses”, which greatly reflect demand for home ownership, and “Built-for-sale houses, which reflect demand to some degree, have roughly returned to 2008 levels. For “Built-for-sale apartments”, for which factors on the supply side play a great part, as long as there is no sudden deterioration in how the “Built-for-sale” constructors view the market, the current underlying recovery trend is predicted to continue for a while.

Figure 7　Comparison on Number of Housing Starts

(Unit, %)

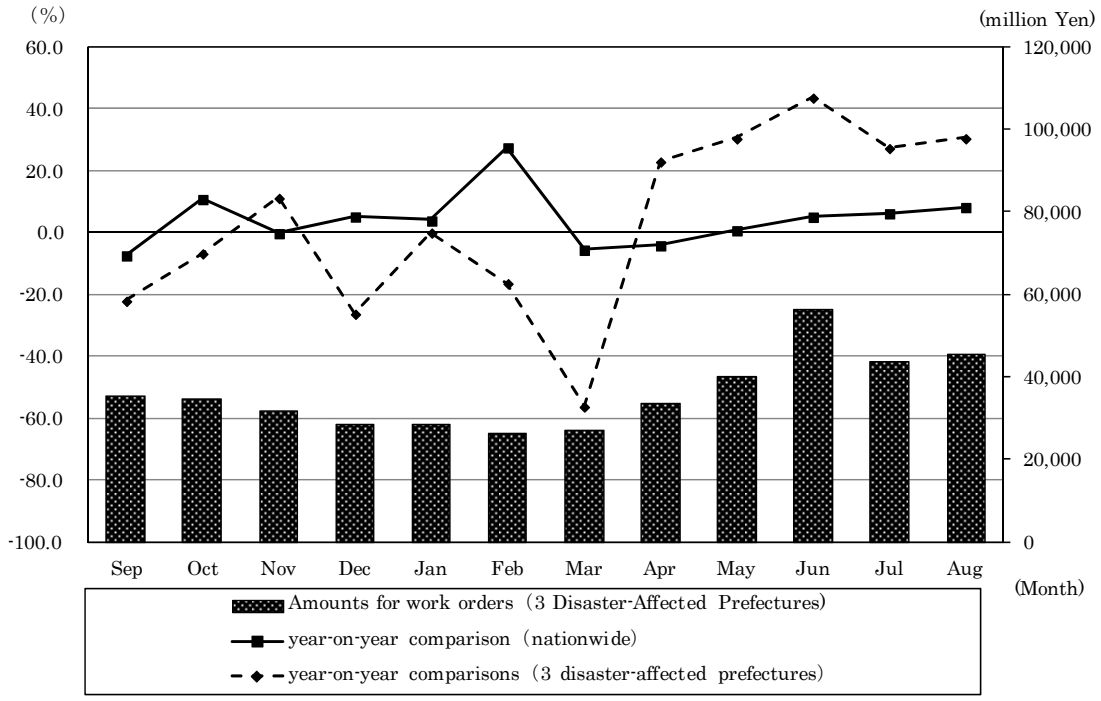
| F.Y. | 総計 | | | Owner-occupied | | | Rental housing | | | Housing for sale | | | Housing for sale (Condominium) | | | Housing for sale (Detached house) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Starts | rate of change | | Starts | rate of change | | Starts | rate of change | | Starts | rate of change | | Starts | rate of change | | Starts | rate of change | |
| 2008 | 1,039,214 | 0.3 | | 310,670 | -0.4 | | 444,848 | 3.2 | | 272,607 | -3.5 | | 165,998 | 2.8 | | 106,609 | -12.0 | |
| 2009 | 775,277 | -25.4 | | 286,993 | -7.6 | | 311,463 | -30.0 | | 163,590 | -40.0 | | 68,296 | -58.9 | | 95,294 | -10.6 | |
| 2010 | 819,020 | 5.6 | | 308,517 | 7.5 | | 291,840 | -6.3 | | 212,083 | 29.6 | | 98,656 | 44.5 | | 113,427 | 19.0 | |
| | | | | | | | | | | | | | | | | | | |
| Apr-Aug(2008) | 483,814 | 2.9 | rate of change from 2008 | 145,186 | 5.7 | rate of change from 2008 | 203,291 | 4.3 | rate of change from 2008 | 131,728 | 0.0 | rate of change from 2008 | 81,802 | 1.3 | rate of change from 2008 | 49,926 | -1.9 | rate of change from 2008 |
| Apr-Aug(2009) | 322,994 | -33.2 | | 123,796 | -14.7 | | 128,768 | -36.7 | | 64,072 | -51.4 | | 26,770 | -67.3 | | 37,302 | -25.3 | |
| Apr-Aug(2010) | 335,897 | 4.0 | | 131,611 | 6.3 | | 122,594 | -4.8 | | 78,750 | 22.9 | | 32,229 | 20.4 | | 46,521 | 24.7 | |
| Apr-Aug(2011) | 368,554 | 9.7 | -23.8% | 137,434 | 4.4 | -5.3% | 127,815 | 4.3 | -37.1% | 100,242 | 27.3 | -23.9% | 50,465 | 56.6 | -38.3% | 49,777 | 7.0 | -0.3% |

Source) MLIT

**(Movement toward improvement in private sector works orders in the three disaster-affected prefectures)**

With regards to amounts for work orders received by chief contractors, Figure 8 shows year-on-year comparisons for Japan and for the three Tohoku prefectures where earthquake damage was significant (Iwate, Miyagi, Fukushima) from September 2010 to August 2011 and trends in actual amounts for each prefecture. On a nationwide basis, year-on-year comparisons generally maintained a level trend. On the other hand, the year-on-year comparison for the three Tohoku prefectures shows a large drop in March, when the earthquake occurred, and a significant recovery in April. Trends subsequently maintained an increase of about 30%, and private sector works orders received by chief contractors deteriorated temporarily due to the effects of the earthquake but are now showing signs of improvement.

Figure 8　Trends in Amounts for Private Sector Work Orders Received by Chief Contractors in Japan and the Three Disaster-Affected Prefectures




Source) MLIT

**(Gradual recovery in the number of housing construction starts in the three disaster-affected prefectures)**

Figure 9 shows previous year comparisons with regards to the number of housing construction starts for Japan and for the three disaster-affected prefectures of Iwate, Miyagi and Fukushima since March 2011.

On a nationwide basis, the number of housing construction starts in the April to August term of FY2011 showed a year-on-year increase of 9.7%.

Of this, the three disaster affected prefectures showed an overall 12.4% year-on-year decrease, with 11.5%, 9.7% and 16.7% decreases in Iwate, Miyagi and Fukushima respectively, indicating the continued effects of the earthquake. However, each prefecture has recently shown signs of recovery, and in August, all three prefectures shifted to an increase over the previous year. In particular, the housing market in Sendai city looks set to recover, with the total number of units from April to August almost reaching the same level as the previous year with a year-on-year decrease of 2.4%. As housing reconstruction gains momentum, movement towards recovery is expected to become increasingly clearer.

The April to August total for prefectures other than the three disaster-affected prefectures show a favourable year-on-year increase of 10. 5%. From July onwards, significant two-digit percentage

increases over the previous year have continued.

Restoration/reconstruction work such as the rebuilding of damaged housing will gradually gain momentum and the number of construction starts nationwide is expected to recover.

Figure 9 Trends in Number of Housing Construction Starts in Japan and the Three Disaster-Affected Prefectures.

| | Mar | | Apr | | May | | Jun | | Jul | | Aug | | Mar-Aug | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Starts (Units) | rate of change (%) | Starts (Units) | rate of change (%) | Starts (Units) | rate of change (%) | Starts (Units) | rate of change (%) | Starts (Units) | rate of change (%) | Starts (Units) | rate of change (%) | Starts (Units) | rate of change (%) |
| Nationwide | 63,419 | ▲ 2.4 | 66,757 | 0.3 | 63,726 | 6.4 | 72,687 | 5.8 | 83,398 | 21.2 | 81,986 | 14.0 | 368,554 | 9.7 |
| IWATE | 225 | ▲ 30.1 | 271 | ▲ 32.9 | 322 | ▲ 37.0 | 332 | ▲ 39.9 | 576 | 31.2 | 620 | 26.3 | 2,121 | ▲ 11.5 |
| MIYAGI | 786 | ▲ 13.9 | 645 | ▲ 35.8 | 568 | ▲ 42.6 | 1,018 | 35.2 | 1,160 | ▲ 5.9 | 1,479 | 4.5 | 4,870 | ▲ 9.7 |
| FUKUSHIMA | 568 | ▲ 21.0 | 433 | ▲ 29.4 | 487 | ▲ 39.7 | 512 | ▲ 42.1 | 638 | ▲ 19.2 | 1,064 | 59.3 | 3,134 | ▲ 16.7 |
| 3 Prefectures Total | 1,579 | ▲ 19.2 | 1,349 | ▲ 33.3 | 1,377 | ▲ 40.3 | 1,862 | ▲ 15.0 | 2,374 | ▲ 3.6 | 3,163 | 22.9 | 10,125 | ▲ 12.4 |
| Prefectures other than 3 | 61,840 | ▲ 1.9 | 65,408 | 1.3 | 62,349 | 8.2 | 70,825 | 6.5 | 81,024 | 22.1 | 78,823 | 13.7 | 358,429 | 10.5 |

Source) MLIT

## (2) Trends in Private Sector Non-Residential Construction Investment

**(Shift towards mild recovery in private sector non-residential construction investment)**

Since the earthquake, negative growth is continuing for real private sector corporate facilities (Cabinet Office, GDP 2nd Preliminary Estimates) with decreases of 1.4% in the January to March quarter of 2011 and 0.9% in the April to June quarter of 2011. However, advance indicators such as the indices of industrial production and the results of statistical surveys such as “Orders Received for Machinery” suggest that capital investment will recover along with the recovery in production activities.

Although the RICE forecast published towards the end of October 2011 raises concerns about the effects of power supply restrictions, as mentioned above, as all statistical materials suggest a recovery in corporate production activities, private sector capital investment is predicted to maintain an underlying recovery trend from mid FY2011, and with regards to private sector non-residential construction investment, a trend of mild recovery is forecast for FY2011 and FY2012. As shown in Figure 10, when looking at this from an investment amount basis, a 4.9% increase over the previous year in nominal private sector non-residential investment, a 1.6% increase in nominal private sector civil engineering investment and a 3.6% increase in nominal private sector non-residential construction investment is forecast for FY2011. In addition, for FY2012, year-on-year increases of 3.0% in nominal private sector non-residential investment, 3.5%

in nominal private sector civil engineering investment and 3.2% in nominal private sector non-residential construction investment is forecast.

Figure 10 Trends in Private-Sector Non-Residential Construction Investment (FY)

| F.Y. | 1995 | 2000 | 2005 | 2007 | 2008 | 2009 (Tentative) | 2010 (Tentative) | 2011 (Forecast) | 2012 (Forecast) |
|---|---|---|---|---|---|---|---|---|---|
| Nominal private non-residential construction investment | 195,053 | 159,591 | 141,680 | 141,477 | 150,470 | 121,900 | 121,200 | 125,600 | 129,600 |
| (rate of change from previous F.Y.) | -1.8% | 0.7% | 4.0% | -4.3% | 6.4% | -19.0% | -0.6% | 3.6% | 3.2% |
| Nominal private non-residential building investment | 110,095 | 93,429 | 92,357 | 91,666 | 99,888 | 76,400 | 76,200 | 79,900 | 82,300 |
| (rate of change from previous F.Y.) | -6.8% | -0.5% | 3.4% | -6.4% | 9.0% | -23.5% | -0.3% | 4.9% | 3.0% |
| Nominal private civil-engineering investment | 84,958 | 66,162 | 49,323 | 49,811 | 50,582 | 45,500 | 45,000 | 45,700 | 47,300 |
| (rate of change from previous F.Y.) | 5.6% | 2.5% | 5.3% | -0.2% | 1.5% | -10.0% | -1.1% | 1.6% | 3.5% |
| Real private non-residential investment | 678,812 | 729,631 | 831,995 | 877,880 | 817,567 | 706,039 | 736,315 | 739,185 | 774,050 |
| (rate of change from previous F.Y.) | 3.1% | 7.2% | 6.2% | 0.8% | -6.9% | -13.6% | 4.3% | 0.4% | 4.7% |

(100 million Yen)

Source) Cabinet Office, MLIT, RICE

**(Favourable floor area for private-sector non-residential starts in recent months)**

Looking at the floor area for private-sector non-residential starts after the July forecast, the total for April to August of FY2011 shows a favourable trend with a year-on-year increase of 16.0% (Figure 11).

When looking at values according to usage, “Warehouses” and “Healthcare/Welfare” both showed significant year-on-year increases of 43.2% and 52.0% respectively, and “Factories” also showed an underlying increasing trend with a year-on-year increase of 14.0%. In addition, “Offices”, which had maintained a decreasing trend since FY2010, is also showing movement towards recovery from FY2011 with the total for April to August showing a year-on-year increase of 9.7%. Meanwhile, although “Shops” showed a temporary recovery in June, this shifted back to decrease in July, and this continued in August with a two digit percentage year-on-year decrease. The total for April to August showed a year-on-year decrease of 9.1%.

With regards to forthcoming corporate capital investment plans, according to the “Emergency Survey on the State of Industry following the Great East Japan Earthquake ②” published by METI[3] in August 2011, more than 80% of both manufacturing industry and non-manufacturing industry respondents stated that capital investment plans for FY2011 were practically the same as plans drafted before the earthquake, and with regards to investments levels, 74% of manufacturing industry companies and 32% of non-manufacturing industry companies answered that the investment amount would be greater in comparison to FY2010. In addition, the “Survey on Planned Capital Spending for Fiscal Years 2010, 2011 and 2012”, published on August 11 by the Development Bank of Japan Inc., also shows a 12.5% increase for manufacturing industry

[3] Ministry of Economy, Trade and Industry

companies and a 4.6% increase for non-manufacturing industry companies for planned capital spending for FY2011, giving an overall year-on-year increase of 7.3%. These survey results are indicative of the strength of corporate capital investment motivation. However, due care will be needed as it will be difficult to connect this to private-sector non-residential construction investment if the weight of maintenance and repair in capital investment is high. Furthermore, if under-performance risk factors affecting corporate activities such as yen appreciation, slow-downs in overseas economies and domestic power supply restrictions become stronger, there is a possibility that recent favourable conditions may still result in under-performance.

Figure 11　Comparison of Floor-area for Private Sector Non-Residential Starts

(1,000 ㎡、%)

| F.Y. | Total | | Office | | Shop | | Factory | | Warehouse | | Healthcare /Welfare | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | floor -area | rate of change | floor -area | rate of change | floor -area | rate of change | floor -area | rate of change | floor -area | rate of change | floor -area | rate of change |
| 2008 | 53,454 | -7.6 | 7,688 | 14.8 | 8,249 | -36.3 | 12,579 | 4.7 | 7,554 | -4.6 | 4,675 | -15.8 |
| 2009 | 34,859 | -34.8 | 6,366 | -17.2 | 5,504 | -33.3 | 5,446 | -56.7 | 3,990 | -47.2 | 4,199 | -10.2 |
| 2010 | 37,403 | 7.3 | 4,658 | -26.8 | 5,726 | 4.0 | 6,405 | 17.6 | 4,234 | 6.1 | 7,838 | 86.7 |
| | | | | | | | | | | | | |
| Apr-Aug(2008) | 24,925 | -12.6 | 3,294 | 8.4 | 4,230 | -25.2 | 6,046 | 2.0 | 3,713 | -17.5 | 1,730 | -30.9 |
| Apr-Aug(2009) | 14,423 | -42.1 | 2,333 | -29.2 | 2,511 | -40.6 | 2,484 | -58.9 | 1,691 | -54.5 | 1,379 | -20.3 |
| Apr-Aug(2010) | 15,558 | 7.9 | 1,870 | -19.9 | 2,717 | 8.2 | 2,603 | 4.8 | 1,796 | 6.2 | 2,783 | 101.8 |
| Apr-Aug(2011) | 18,046 | 16.0 | 2,050 | 9.7 | 2,471 | -9.1 | 2,968 | 14.0 | 2,572 | 43.2 | 4,230 | 52.0 |

Source) MLIT

**(Decreasing trend in floor area for private-sector non-residential starts in the three disaster-affected prefectures)**

Figure 12 shows previous year comparisons with regards to floor area for non-residential starts (public/private totals) for Japan and for the three disaster-affected prefectures of Iwate, Miyagi and Fukushima since March 2011.

On a nationwide basis, the floor area for non-residential starts from April to August of FY2011 showed a 14.0% increase over the previous year.

Of this, the three disaster affected prefectures showed an overall 11.6% year-on-year decrease, with 11.9%, 12.6% and 10.3% decreases in Iwate, Miyagi and Fukushima respectively, indicating an underlying decreasing trend in each prefecture. From March onwards, Fukushima prefecture has recorded a consistent year-on-year reduction, while Miyagi prefecture has experienced repeated significant rises and falls with a significant year-on-year decrease of 47.7% in August. Iwate prefecture continued a negative year-on-year trend up to July, but shifted to the positive in August

with a year-on-year increase of 3.6%.

The April to August total for prefectures other than the three disaster-affected prefectures shows a year-on-year increase of 15.2%, and year-on-year figures have remained positive from April onwards. Although the increase rate declined in July, August showed a 19.8% year-on-year increase, indicating another significant rise. Furthermore, due attention will be needed as works scheduled to start in March were postponed to April due to the effects of the earthquake.

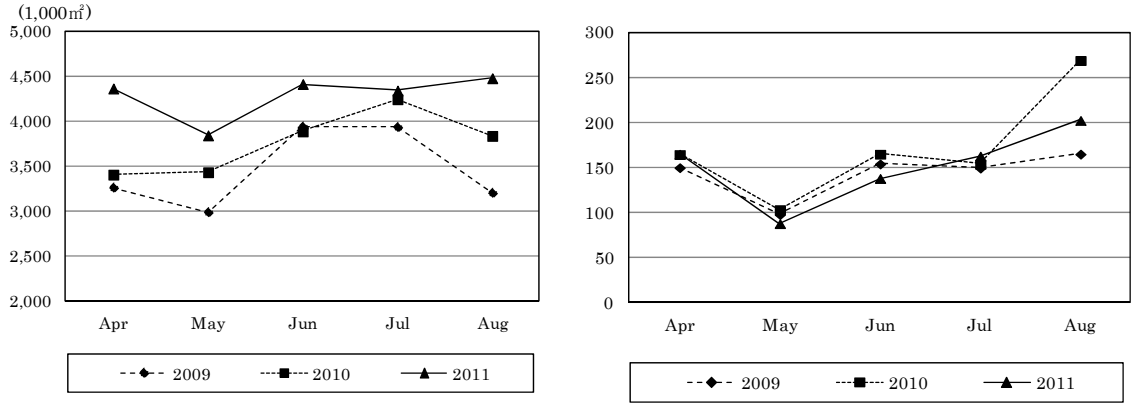
Figure 12 Trends in Floor Area for Non-Residential Starts (Public/Private Totals) for Japan and for the Three Disaster-Affected Prefectures

| | Mar | | Apr | | May | | Jun | | Jul | | Aug | | Mar-Aug | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | floor -area (㎡) | rate of change (%) | floor -area (㎡) | rate of change (%) | floor -area (㎡) | rate of change (%) | floor -area (㎡) | rate of change (%) | floor -area (㎡) | rate of change (%) | floor -area (㎡) | rate of change (%) | floor -area (㎡) | rate of change (%) |
| Nationwide | 4,067,909 | ▲ 2.2 | 4,361,207 | 28.1 | 3,841,670 | 11.9 | 4,411,450 | 13.5 | 4,338,069 | 2.3 | 4,475,494 | 16.7 | 21,427,890 | 14.0 |
| IWATE | 20,964 | ▲ 7.9 | 30,077 | ▲ 21.0 | 16,553 | ▲ 43.5 | 47,352 | ▲ 5.9 | 46,750 | ▲ 12.3 | 66,377 | 3.6 | 207,109 | ▲ 11.9 |
| MIYAGI | 59,999 | 4.7 | 52,221 | 37.8 | 43,055 | 13.8 | 46,056 | ▲ 34.1 | 69,681 | 81.1 | 74,733 | ▲ 47.7 | 285,746 | ▲ 12.6 |
| FUKUSHIMA | 62,835 | ▲ 14.5 | 82,787 | ▲ 6.8 | 28,564 | ▲ 22.0 | 44,779 | ▲ 0.2 | 46,458 | ▲ 25.3 | 61,348 | ▲ 0.8 | 263,936 | ▲ 10.3 |
| 3 Prefectures Total | 143,798 | ▲ 6.4 | 165,085 | 0.2 | 88,172 | ▲ 15.0 | 138,187 | ▲ 16.3 | 162,889 | 5.8 | 202,458 | ▲ 24.7 | 756,791 | ▲ 11.6 |
| Prefectures other than 3 | 3,924,111 | ▲ 2.1 | 4,196,122 | 29.5 | 3,753,498 | 12.8 | 4,273,263 | 14.9 | 4,175,180 | 2.1 | 4,273,036 | 19.8 | 20,671,099 | 15.2 |

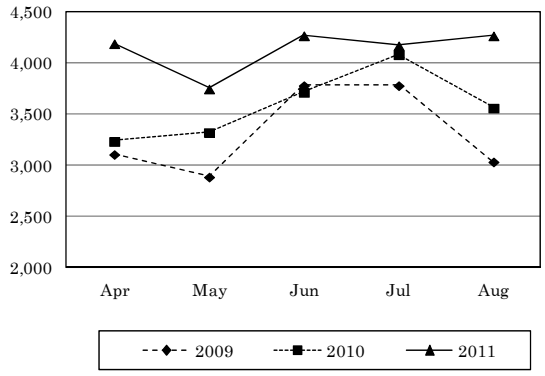
Source) MLIT

Figure 13 Trends in Floor Area for Non-Residential Starts (Public/Private Totals) by region

(Nationwide) (Three disaster-affected prefectures)



(Prefectures other than the three disaster-affected prefectures)




Source) MLIT

## (3) Trends in Government Construction Investment

**(Government construction investment bottoms out due to supplementary budgets, etc.)**

The RICE forecast published in late October predicted government construction investment for FY2011 to be 18.78 trillion yen, an increase of 13.3% over the previous year (actual 12.9% increase) (Figure 14). Under the premise that the rate of growth over the previous year in public works expenditure for FY2011 coupled with the effects of zero government bonds was a 6.0% decrease, and the growth rate of local government financed projects over the previous year was a 4.6% decrease, the allocation and implementation of multiple supplementary budgets for restoration and reconstruction in disaster-affected regions following the Great East Japan Earthquake is a contributory factor of the significant increases. Furthermore, with regards to the construction investment amount for all supplementary budgets for FY2011, the total amount is assumed to be about 6 trillion yen.

In addition, with regards to FY2012, construction investment is forecast to be 18.99 trillion yen, a year-on-year increase of 1.1% (actual 1.0% increase). The contributory factors in this increase are; while public works expenditure and local government financed works costs in the initial budget for the country for FY2012 were assumed to be about the same as for the previous year, an equivalent amount of carry-over from FY2011 supplementary budgets is expected, and furthermore, since continued investment in FY2012 for the restoration/reconstruction of disaster-affected areas is assumed to be essential, an extra disaster related budget amount of 3 trillion yen was added.

Furthermore, the above public works costs related to the restoration and reconstruction activities following the great earthquake are purely values assumed by RICE, and while it is unclear as to whether these amounts are sufficient for restoration and reconstruction, whether these amounts will actually be allocated in the budgets will depend on Diet deliberations, etc. on government revenues

and expenditure.

Figure 14　Trends in Government Construction Investment (FY)

| F.Y. | 1995 | 2000 | 2005 | 2007 | 2008 | 2009 (Tentative) | 2010 (Tentative) | 2011 (Forecast) | 2012 (Forecast) |
|---|---|---|---|---|---|---|---|---|---|
| Nominal public construction investment | 351,986 | 299,601 | 189,738 | 169,463 | 167,177 | 173,700 | 165,800 | 187,800 | 189,900 |
| (rate of change from previous F.Y.) | 5.8% | -6.2% | -8.9% | -4.8% | -1.3% | 3.9% | -4.5% | 13.3% | 1.1% |
| Nominal public building investment | 56,672 | 40,004 | 20,527 | 19,507 | 20,670 | 22,100 | 22,200 | 27,800 | 25,000 |
| (rate of change from previous F.Y.) | -12.5% | -12.0% | -13.9% | -4.6% | 6.0% | 6.9% | 0.5% | 25.2% | -10.1% |
| Nominal public civil-engineering investment | 295,314 | 259,597 | 169,211 | 149,956 | 146,507 | 151,600 | 143,600 | 160,000 | 164,900 |
| (rate of change from previous F.Y.) | 10.3% | -5.2% | -8.3% | -4.8% | -2.3% | 3.5% | -5.3% | 11.4% | 3.1% |
| Real public construction investment | 347,856 | 300,719 | 189,738 | 162,331 | 154,356 | 165,894 | 157,527 | 177,800 | 179,500 |
| (rate of change from previous F.Y.) | 5.5% | -6.5% | -10.2% | -7.1% | -4.9% | 7.5% | -5.0% | 12.9% | 1.0% |

(100 million Yen, %)

Source) MLIT, RICE

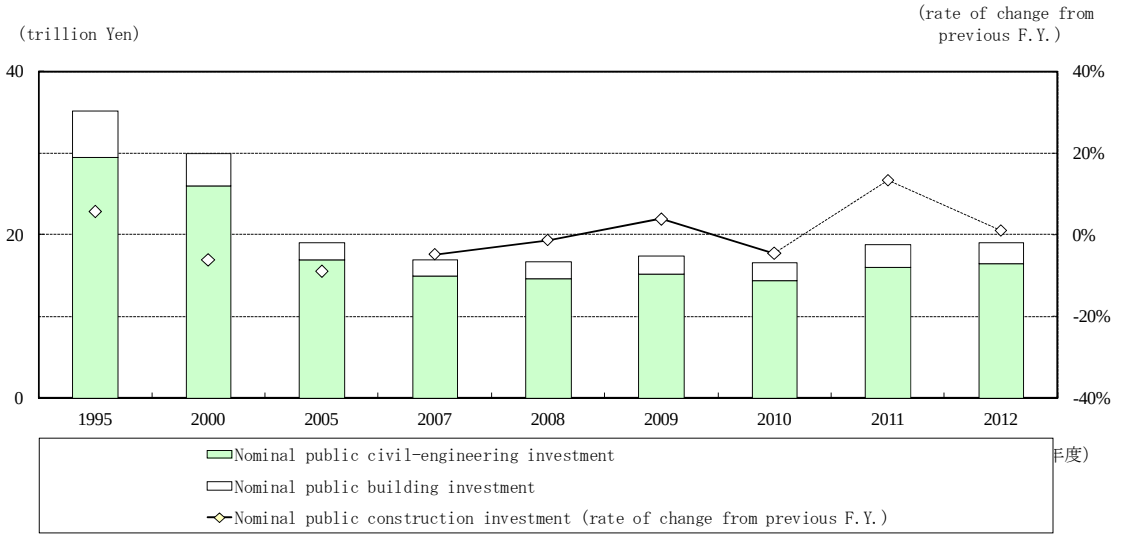
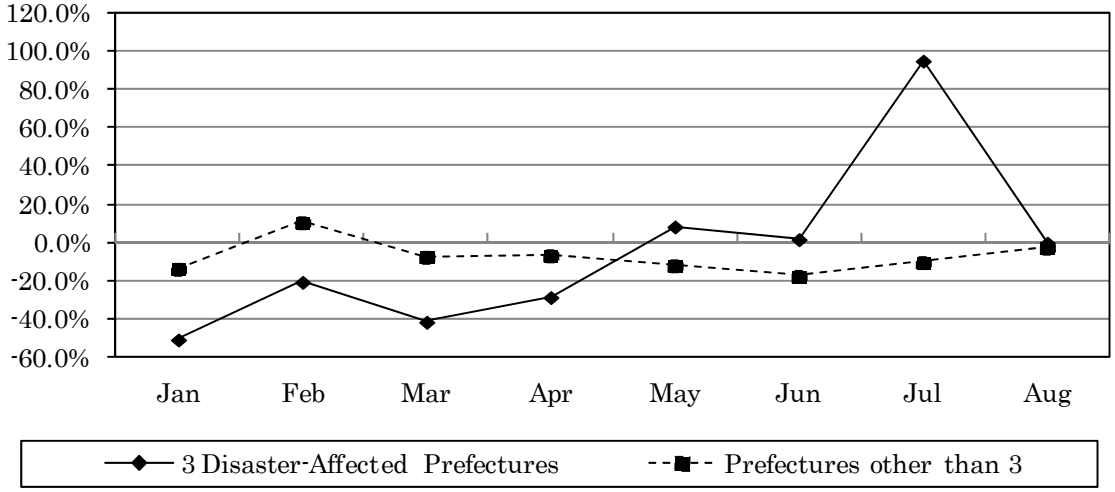



Figure 15 shows year-on-year trends in order volumes for public works in the three prefectures of Iwate, Miyagi and Fukushima and other prefectures.

Due to the effects of restoration/reconstruction investment, etc. the order volumes of the three disaster-affected prefectures has followed an underlying recovery trend since April, with a significant year-on-year increase of 95.0% in July. Meanwhile, with regards to prefectures other than the three disaster-affected prefectures, year-on-year reductions have continued since March. This is considered due to the effects of the reservation of 5% of public works expenditure in the FY2011 budget (the reservation was released October 7). However, the August order volumes for the three disaster-affected prefectures were at about the same levels as those of the previous year.

Figure 15　Year-on-Year Trends in Order Volumes for Public Works in the Three Disaster-Affected Prefectures and other Prefectures.




Source) MLIT

Although discussions for the 3rd FY2011 supplementary budget for full-scale restoration and reconstruction are currently in progress, the total amount demanded by MLIT on a works costs basis is 1.203 trillion yen. Of this amount, reports indicate that 0.401 trillion yen will be allocated to restoration costs and 0.453 trillion will be allocated to reconstruction costs related to the Great East Japan Earthquake. In addition, with regards to approximate demands in the FY2012 initial budget, on a national expenditure basis MLIT has demanded a total amount of 5.1061 trillion yen, a 2% increase over the previous year. Of this amount, 4.4837 trillion yen is for public works expenditure, a 5% increase over the previous year, while another 1.1098 trillion yen has been demanded for total costs related to restoration/reconstruction measures. Although an increase in government construction investment due to reconstruction demand is expected, continued attention should be paid to the preparation status of the 3rd FY2011 supplementary budget and the FY2012 initial budget.

## (4) Trends in Overall Construction Investment

In October, RICE forecast FY2011 construction investment to increase by 8.5% over the previous year to 44.64 trillion yen, and for FY2012, a further 2.9% increase over the previous year to 45.93 trillion yen (Figure 16 and Figure 17).

As previously stated, with regards to government construction investment, increases due to post-earthquake reconstruction are expected. Meanwhile, with regards to private-sector construction investment, although recent figures are favourable, there are concerns over the effects

of sharp yen appreciation, the slowdown of overseas economies and the acceleration of companies transferring overseas, and attention to these trends must be maintained.

Figure 16　Trends in Nominal Construction Investment (FY)

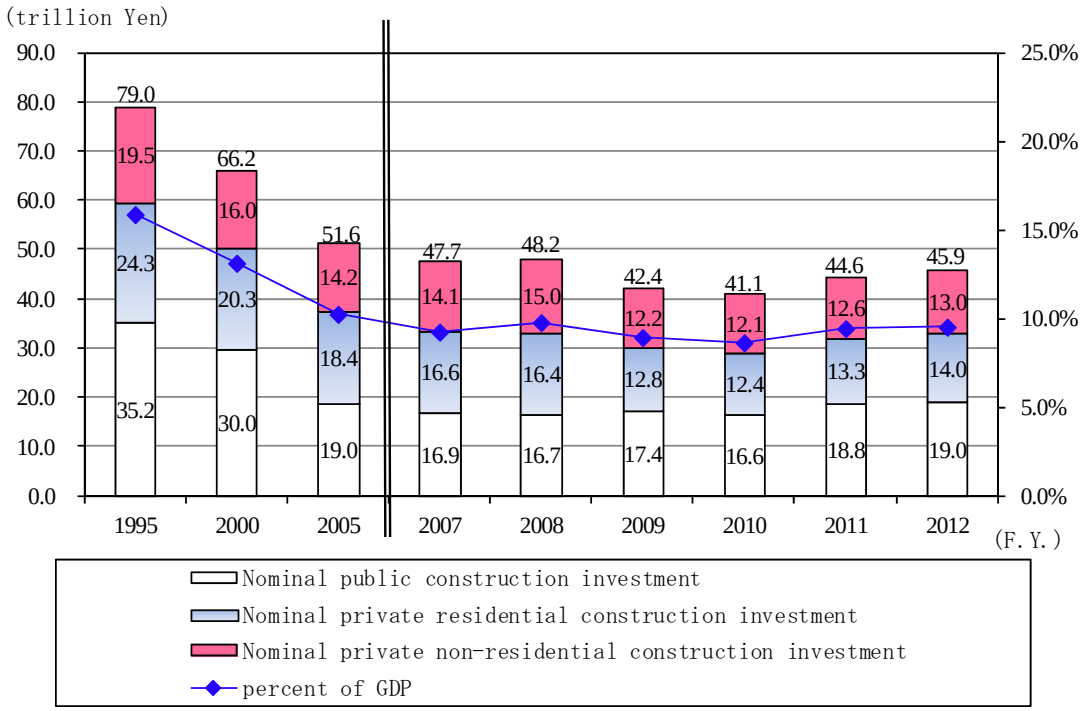



Figure 17　Trends in Construction Investment (FY)

| F.Y. | 1995 | 2000 | 2005 | 2007 | 2008 | 2009 (Tentative) | 2010 (Tentative) | 2011 (Forecast) | 2012 (Forecast) |
|---|---|---|---|---|---|---|---|---|---|
| Nominal construction investment(total) | 790,169 | 661,948 | 515,676 | 476,961 | 481,517 | 424,000 | 411,300 | 446,400 | 459,300 |
| (rate of change from previous F.Y.) | 0.3% | -3.4% | -2.4% | -7.1% | 1.0% | -11.9% | -3.0% | 8.5% | 2.9% |
| Nominal public construction investment | 351,986 | 299,601 | 189,738 | 169,463 | 167,177 | 173,700 | 165,800 | 187,800 | 189,900 |
| (rate of change from previous F.Y.) | 5.8% | -6.2% | -8.9% | -4.8% | -1.3% | 3.9% | -4.5% | 13.3% | 1.1% |
| (contribution) | 2.5 | -2.9 | -3.5 | -1.7 | -0.5 | 1.4 | -1.9 | 5.3 | 0.4 |
| Nominal private resisential investment | 243,129 | 202,756 | 184,258 | 166,021 | 163,870 | 128,400 | 124,300 | 133,000 | 139,800 |
| (rate of change from previous F.Y.) | -5.2% | -2.2% | 0.3% | -11.5% | -1.3% | -21.6% | -3.2% | 7.0% | 5.1% |
| (contribution) | -1.7 | -0.7 | 0.1 | -4.2 | -0.5 | -7.4 | -1.0 | 2.1 | 1.5 |
| Nominal private non-resisential investment | 195,053 | 159,591 | 141,680 | 141,477 | 150,470 | 121,900 | 121,200 | 125,600 | 129,600 |
| (rate of change from previous F.Y.) | -1.8% | 0.7% | 4.0% | -4.3% | 6.4% | -19.0% | -0.6% | 3.6% | 3.2% |
| (contribution) | -0.4 | 0.2 | 1.0 | -1.2 | 1.9 | -5.9 | -0.2 | 1.1 | 0.9 |
| Real construction investment(total) | 779,352 | 663,673 | 515,676 | 456,076 | 445,959 | 406,537 | 392,893 | 423,800 | 435,400 |
| (rate of change from previous F.Y.) | 0.2% | -3.6% | -3.5% | -9.4% | -2.2% | -8.8% | -3.4% | 7.9% | 2.7% |

(100 million Yen)

Source) MLIT, RICE

| Economic Indicators | | | | | |
|---|---|---|---|---|---|
| | 2007 | 2008 | 2009 | 2010 | (Forecast) 2011 |
| | | | | | |
| GDP (real, year(2000), billion yen) | 560,651 | 554,118 | 519,300 | 539,893 | 538,624 |
| GDP (nominal, year, billion yen) | 515,520 | 504,378 | 470,937 | 479,176 | 469,268 |
| GDP growth (year, %) | 2.4% | -1.2% | -6.3% | 4.0% | -0.2% |
| Agriculture, forestory, and fishery | 4.2% | 5.4% | -10.9% | - | - |
| Manufacturing | 4.0% | -0.5% | -19.7% | - | - |
| Services | 2.9% | 0.4% | -3.6% | - | - |
| Mining | -25.0% | -14.2% | -36.5% | - | - |
| Construction | -3.0% | -6.1% | -0.6% | - | - |
| **Demographic Indicators** | | | | | |
| Population (year, thousands) | 127,771 | 127,692 | 127,510 | 128,056 | 127,630 |
| Population growth rate (year, %) | 0.00% | -0.06% | -0.14% | 0.43% | -0.33% |
| Total labor force (year, thousands) | 66,690 | 66,500 | 66,170 | 65,900 | 66,050 |
| Labor force growth rate (year, %) | 0.18% | -0.28% | -0.50% | -0.41% | 0.23% |
| Unemployment rate (year, %) | 3.9% | 4.0% | 5.1% | 5.1% | 4.8% |
| Inflation rate (year, %) | 0.7% | 2.1% | 0.7% | 0.0% | -0.1% |
| **Financial Indicators** | | | | | |
| Interbank interest rate | 0.86 | 0.7425 | 0.4636 | 0.34 | 0.3364 |
| Short-term interest rate (%) | 0.459 | 0.103 | 0.094 | 0.079 | 0.075 |
| Long-term interest rate (%) | 1.478 | 1.382 | 1.246 | 1.189 | 1.084 |
| Exchange rate against US$ | 117.78 | 103.36 | 93.60 | 87.75 | 76.70 |

(Unit: bii, yen)

| Breakdown of Construction Contract | | | | | |
|---|---|---|---|---|---|
| Type of Contract | 2007 | 2008 | 2009 | 2010 | 2011.9 |
| **Public Project** | | | | | |
| Building | 2,237 | 2,424 | 2,501 | 2,730 | 1,772 |
| Inflastructure | 6,785 | 7,132 | 7,094 | 5,818 | 4,298 |
| Mechanical & Electrical Works | 767 | 601 | 747 | 689 | 506 |
| Sub-Total | 9,789 | 10,157 | 10,342 | 9,237 | 6,576 |
| Growth rate (year, %) | -2.7% | 3.8% | 1.8% | -10.7% | |
| **Private Project** | | | | | |
| Building | 30,510 | 28,245 | 21,004 | 21,555 | 16,583 |
| Mechanical & Electrical Works | 8,445 | 8,004 | 7,136 | 7,736 | 5,053 |
| Mechanical & Electrical Works | 3,975 | 4,111 | 3,221 | 3,070 | 2,635 |
| Sub-Total | 42,930 | 40,360 | 31,361 | 32,361 | 24,271 |
| Growth rate (year, %) | 1.5% | -6.0% | -22.3% | 3.2% | |
| **Total** | | | | | |
| Building | 32,747 | 30,669 | 23,505 | 24,285 | 18,355 |
| Inflastructure | 15,230 | 15,136 | 14,230 | 13,554 | 9,351 |
| Mechanical & Electrical Works | 4,742 | 4,712 | 3,968 | 3,759 | 3,141 |
| Sub-Total | 52,719 | 50,517 | 41,703 | 41,598 | 30,847 |
| Growth rate (year, %) | 0.7% | -4.2% | -17.4% | -0.3% | |

Source: Ministry of Land, Infrastructure, Transport and Tourism of japan

(Unit: 10 thousand person)

## Number of workers in Construction

| | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| All industries | 6,412 | 6,385 | 6,282 | 6,257 |
| Construction | 552 | 537 | 517 | 498 |
| Construction worker rate | 8.6% | 8.4% | 8.2% | 8.0% |

Source: Ministry of Internal Affairs and Communications of japan

## Breakdown of Construction workers

| | | | | |
|---|---|---|---|---|
| General construction | 218 | 220 | 206 | |
| Specialist contruction | 120 | 120 | 112 | |
| Facility | 230 | 241 | 211 | |

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## Amount Demanded of Construction Material

| | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Cement ( thousand ton ) | 55,506 | 50,087 | 42,732 | 41,614 |
| Ready mixed concrete ( thousand m3 ) | 111,881 | 101,009 | 86,030 | 85,278 |
| Aggregate ( thousand m3 ) | 317,500 | 285,000 | 243,750 | 242,670 |
| crushed stone ( thousand m3 ) | 153,620 | 136,110 | 118,690 | 117,030 |
| lumber ( thousand m3 ) | 11,912 | 10,809 | 9,282 | 9,498 |
| common steel materials ( thousand ton | 24,984 | 21,240 | 17,384 | 18,473 |
| section ( thousand ton ) | 5,614 | 4,738 | 3,696 | 3,791 |
| Light steel bars ( thousand ton ) | 10,508 | 8,722 | 7,360 | 7,450 |
| asphalt ( thousand ton ) | 2,323 | 1,882 | 2,302 | 1,796 |

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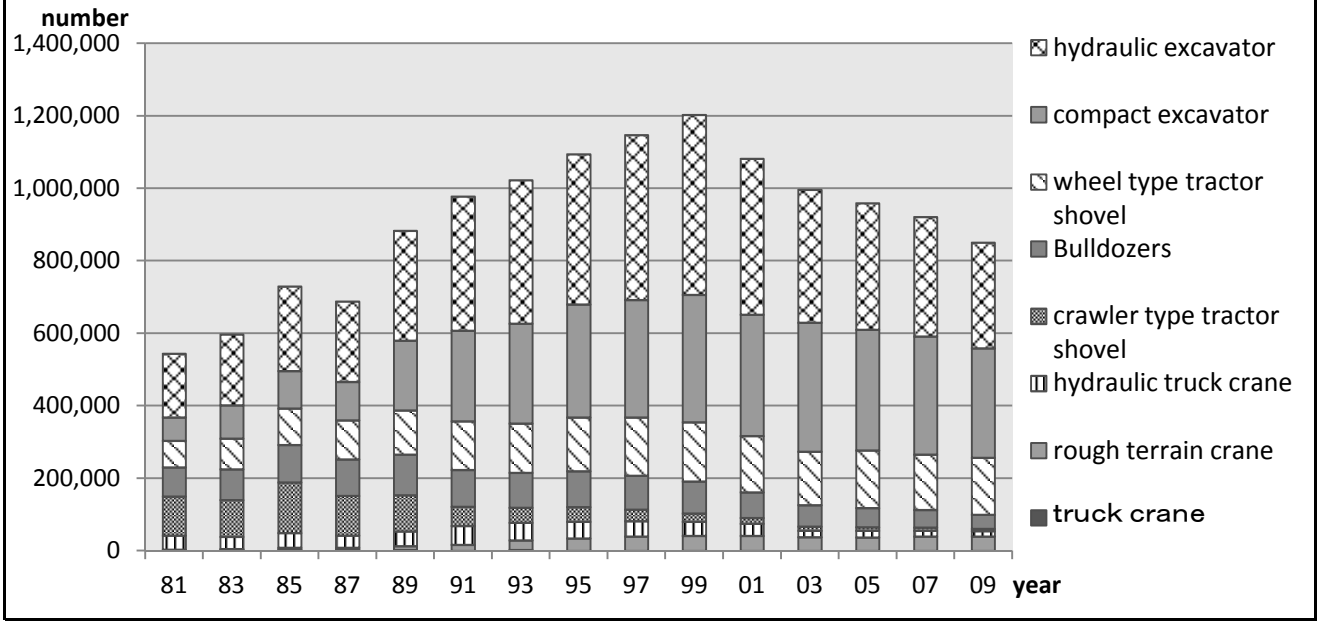
## Number of construction machinery presumption possession

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