The Japanese Economy and Public Investment

(EXTRACT)

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Chapter I
The Macroeconomy and Construction Investment

1.1 Economic Trends and Construction Investment

- The Japanese economy, contracting in FY2001, showed signs of a turn-around in FY2002 with the U.S. economic recovery. Bad debts and the deflationary effects of structural reform are hampering a strong rebound in Japan. A 0.2% decrease in real terms over the previous year is projected.

- The nominal construction investment forecast for all sectors dropped by 6.0% in FY2001. A further decrease of 6.1% is expected in FY2002 due to a significant reduction in the initial public investment budget (national expenditure).

- Structural reform of the Japanese economy should be promoted to induce an economic recovery led by the private sector. Care should be taken to adequately and flexibly implement fiscal management, while carefully monitoring the economic situation. In seeking a balance between economic recovery and structural reform, the role of public investment should once again be reviewed so that it can best contribute to the revival of a sustainable Japanese economic system.

1.2 Trends in Public Investment and Challenges

- The Japanese government maintained a high level of public investment for 50 years after WWII, reflecting the needs of the times. Economic and fiscal constraints, however, eventually forced a slowdown in Japan's public investment. Public investment should be focused in areas that will promote efficiency and the creation and stimulation of private demand.

- A comparison of the marginal productivity of public investment by prefecture shows that it is higher in metropolitan regions than in the rural districts. The tendency for prefectures with low per capita income to rely heavily on public investment is becoming more apparent. This makes the efficient implementation of public investment more difficult.

- For public investment to play a role in creating and stimulating private demand that will trigger private consumption and investment, priorities should be placed on: a) target projects; b) target areas; c) investment purposes; d) investment methods; and e) target generation. The current fiscal constraints should be used as momentum in pursuing these goals.

- Local allocation tax systems should be rationalized, based on the benefit principle, and the scope of public investment that can be initiated by local governments should be expanded. Other challenges include increasing the transparency of public investment and use of private-sector vitality.

- To strengthen regional economies and make them less dependent on public investment, self-supportive economic base should be established by reinforcing the circular flow of the regional economies. Experience and performance ability of regional core cities, in the fields of R&D, personnel training information exchanges and corporate support, should be strengthened so that they can drive regional industrial growth.

1.1 Economic Trends and Construction Investment

1.1.1 Macroeconomics—present and future

(A Japanese economy not ready for recovery on its own)

A full-scale recovery of the Japanese economy is not expected, due to bad debts and the deflationary effects of structural reform. Further contraction is predicted.

The economic growth rate in real terms is expected to decrease by 0.9% in FY2001 over the previous year. A breakdown by demand items (all of them in decline) are as follows: -26.1% (-0.6) for net exports, -1.5% (-0.3) for private-sector capital investment, -0.6% (-0.3) for private-sector final consumption, and -5.9%(-0.2) for private-sector housing investment. Public fixed capital formation is also expected to decrease by 0.3% (0.0) as most of the second supplementary budget for this fiscal year will be carried over to FY2002. The role of public fixed capital formation is seen as a handbrake on the further plunging of the economy.

A 0.2% drop in the real economic growth rate is expected for FY2002. The recovery of the U.S. economy expected after the third quarter (July—September) will push up net export growth to 8.7% (0.2). A decline in prices will bring about 0.2%(0.1) increase of private-sector terminal consumption. The effects of the FY2001 second supplementary budget will be offset by a decrease of 10.7% in the FY2002 public investment initial budget, resulting in a 7.7% decrease (-0.5) in public fixed capital formation. Both private-sector capital investment (-3.8%, -0.6) and private-sector housing investment (-3.2%, -0.1) will decline, lacking sufficient strength to pull the economy back onto the road to recovery(Note: Figures without % in parentheses are their contribution rate to GDP.)

1-1-1 Macroeconomic trends (FY)

Real ← | → Forecast

FY	1990	1995	1997	1998	1999	2000	2001	2002
Real GDP	469,781	502,794	521,315	517,204	526,950	535,690	530,694	529,435
(%increase over previous year; increase rate)	5.5%	2.5%	0.2%	-0.8%	1.9%	1.7%	-0.9%	-0.2%
Real public fix capital formation	29,671	43,553	39,999	40,742	40,449	37,456	37,361	34,496
(Increase rate)	4.9%	7.8%	-6.3%	1.9%	-0.7%	-7.4%	-0.3%	-7.7%
(Contribution rate)	0.3	0.6	-0.5	0.1	-0.1	-0.6	0.0	-0.5
Real private-sector capital investment	90,711	73,152	86,429	81,987	81,706	89,300	87,929	84,620
(Increase rate)	11.3%	3.6%	8.9%	-5.1%	-0.3%	9.3%	-1.5%	-3.8%
(Contribution rate)	2.1	0.5	1.4	-0.9	-0.1	1.4	-0.3	-0.6
Real private-sector housing investment	26,930	24,239	21,791	19,517	20,539	20,232	19,036	18,435
(Increase rate)	5.2%	-6.5%	-20.9%	-10.4%	5.2%	-1.5%	-5.9%	-3.2%
(Contribution rate)	0.3	-0.3	-1.1	-0.4	0.2	-0.1	-0.2	-0.1
Real private-sector housing investment	248,840	277,907	281,394	284,377	290,386	290,139	288,310	288,757
(Increase rate)	4.2%	2.0%	-1.2%	1.1%	2.1%	-0.1%	-0.6%	0.2%
(Contribution rate)	2.3	1.1	-0.6	0.6	1.2	0.0	-0.3	0.1
Real net export	6,949	5,976	10,490	11,397	11,706	12,729	9,410	10,231
(Increase rate)	16.3%	-34.3%	93.6%	8.6%	2.7%	8.7%	-26.1%	8.7%
(Contribution rate)	0.2	-0.6	1.0	0.2	0.1	0.2	-0.6	0.2
Nominal GDP	450,532	501,960	520,177	513,245	514,349	513,006	501,572	494,819
(Increase rate)	8.1%	2.0%	1.0%	-1.3%	0.2%	-0.3%	-2.2%	-1.3%

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

1.1.2 Construction investment at present and future

（Construction investment continues to decline）

The nominal construction investment forecast for all sectors dropped by 6.0% in FY2001 to 66,152.6 billion yen. A decrease is expected in the following sectors.

Government construction investment is expected to decrease by 6.2% even after implementing disaster rehabilitation projects under the first supplementary budget—assuming that the government plan of the second supplementary budget approved by the cabinet in 2001 will be approved by the Diet.

Private-sector housing investment is also expected to decrease by 3.8%. Although construction of rental housing is steady, that of owner-occupied and houses for sale will decrease due to deteriorating employment and income conditions.

Private-sector non-housing construction investment will drop by 7.9% due to the worsening investment environment.

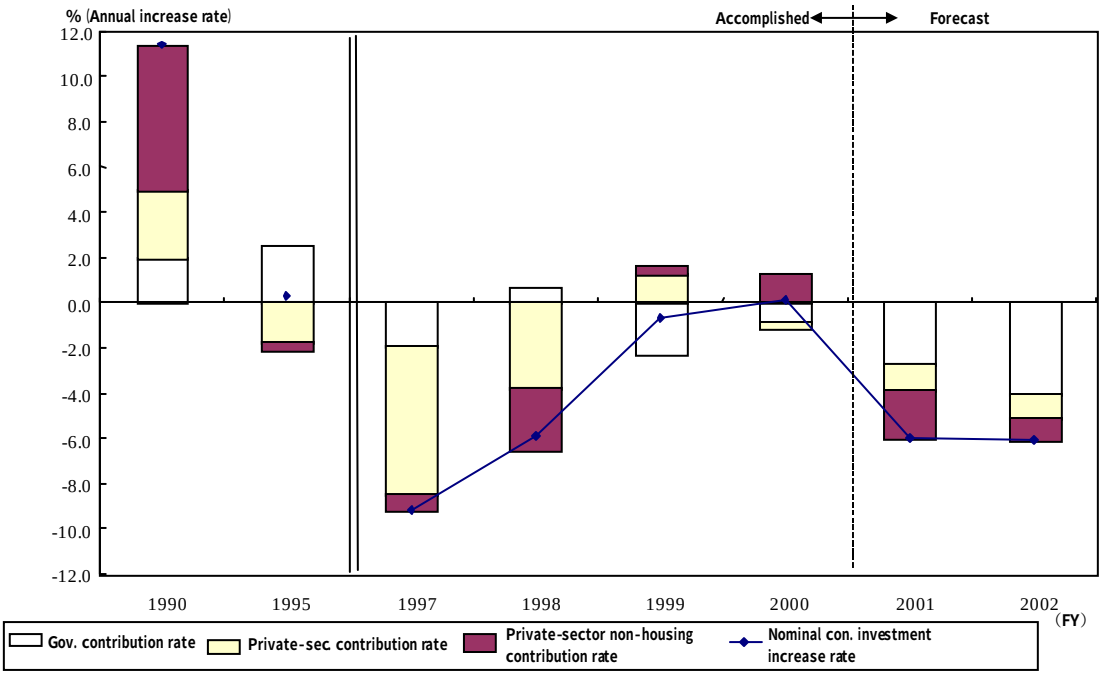
A further decrease of 6.1% is expected in construction investment of FY2002 due to a significant reduction in government sector spending. The total is expected to be 62,141.7 billion yen.

Government construction investment will plunge by 9.2% for two reasons: a) the public works reserve fund will not be budgeted for (on the assumption that it will be excluded from the supplementary budget), and b) the initial public investment budget (national expenditure) will be cut by 10.7% from the previous year.

Private-sector housing investment is expected to decline by 3.5% as unemployment rises and personal income levels fall.

Private-sector non-housing construction investment is expected to decrease by 3.6%, recording a decrease for two consecutive years. Even though the construction surge prior to the application of the new Large-scale Retail Location Law has subsided and construction of stores is on the rise, both the construction and civil engineering sectors are sluggish.

1-1-2 Trends in construction investment (FY)



Accomplished ←|→ Forecast

FY	1990	1995	1997	1998	1999	2000	2001	2002
Nominal CI	81,440	79,017	75,191	70,760	70,290	70,360	66,153	62,142
(Increase rate)	11.4%	0.3%	-9.2%	-5.9%	-0.7%	0.1%	-6.0%	-6.1%
Nominal government CI	25,748	35,199	32,964	33,430	31,790	31,200	29,261	26,558
(Increase rate)	6.0%	5.8%	-4.7%	1.4%	-4.9%	-1.9%	-6.2%	-9.2%
(Contribution rate)	2.0	2.5	-1.9	0.6	-2.3	-0.8	-2.8	-4.1
Nominal private CI	25,722	24,313	22,487	19,660	20,580	20,380	19,604	18,915
(Increase rate)	9.3%	-5.2%	-19.5%	-12.6%	4.7%	-1.0%	-3.8%	-3.5%
(Contribution rate)	3.0	-1.7	-6.6	-3.8	1.3	-0.3	-1.1	-1.0
Nominal private NH CI	29,970	19,505	19,739	17,670	17,910	18,780	17,288	16,669
(Increase rate)	18.4%	-1.8%	-2.8%	-10.5%	1.4%	4.9%	-7.9%	-3.6%
(Contribution rate)	6.3	-0.4	-0.7	-2.8	0.3	1.2	-2.1	-0.9
Real CI	85,442	79,017	74,469	71,450	71,700	71,590	67,923	64,352
(Increase rate)	7.7%	0.2%	-9.9%	-4.1%	0.3%	-0.2%	-5.1%	-5.3%

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

Notes:
1.CI: construction investment NH: non-housing
2.Private NH CI = private non-housing construction investment + private civil engineering

1.1.3 Trends in housing starts

(Housing starts at low level)

The number of housing starts in FY2001 is expected to be 1.17 million units, below 1.2 million units for the first time since FY1998.

Construction of owner-occupied housing will remain low at 380 thousand units (a

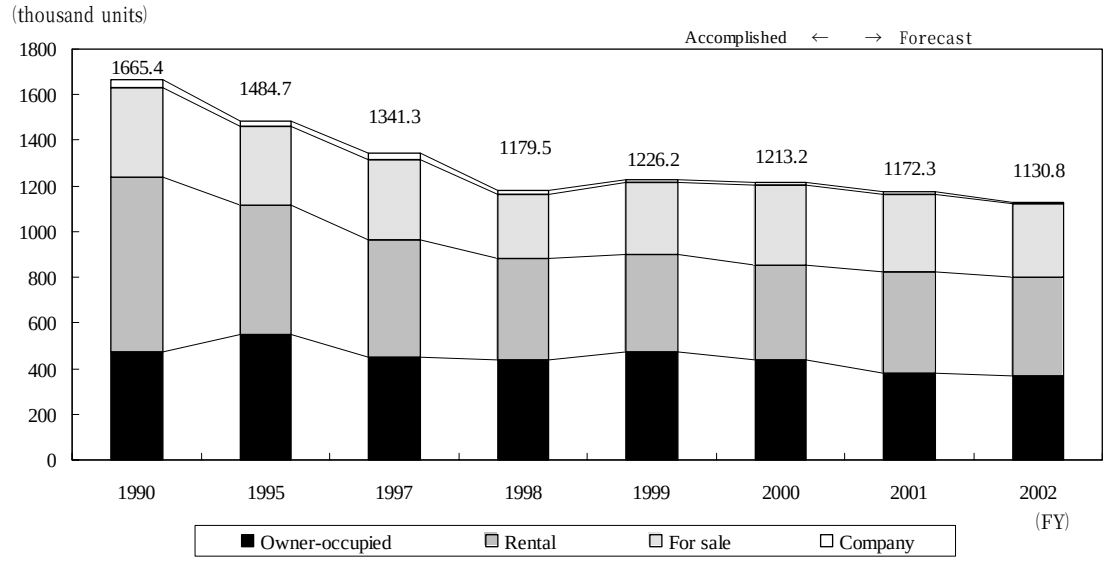
12.7% decrease over the previous year) due to worsening employment and income levels. The number of houses built with loans from the Housing Loan Corporation will drop significantly, as private-sector housing loans now offer rates lower than the Corporation's standard rate.

The construction of rental housing will be steady (up 5.3% from the previous year to approximately 440 thousand units) due to suppliers' efforts to supplement the sluggish owner-occupied housing sector.

The construction of housing for sale will decline by 2.1% to 340 thousand units, reflecting the lack of consumers' desire to purchase housing.

The decrease in housing starts is expected to continue in FY2002, with a decline of 3.5% (1.13 million new units expected to be built). Although some will try to take advantage of housing loan tax cuts available until the end of 2003, the weak recovery and worsening employment and income levels will not contribute to a recovery of housing construction.

1-1-3 Trends in housing starts (FY)



Accomplished ←|→ Forecast

FY		1990	1995	1997	1998	1999	2000	2001	2002
No. of Housing Starts	Owner-occupied	47.44	55.05	45.11	43.81	47.56	43.78	38.24	36.92
	(Increase rate)	-5.0%	-4.9%	-29.1%	-2.9%	8.6%	-8.0%	-12.7%	-3.4%
	Rental housing	76.72	56.37	51.58	44.39	42.60	41.82	44.05	43.11
	(Increase rate)	-6.5%	9.3%	-16.3%	-13.9%	-4.0%	-1.8%	5.3%	-2.1%
	For sale	38.69	34.47	35.07	28.18	31.21	34.63	33.90	32.24
	(Increase rate)	20.3%	-8.7%	-0.4%	-19.6%	10.7%	11.0%	-2.1%	-4.9%
Total		166.54	148.47	134.13	117.95	122.62	121.32	117.23	113.08
(Increase rate)		-0.4%	-4.9%	-17.7%	-12.1%	4.0%	-1.1%	-3.4%	-3.5%
Nominal private-sector housing investment		25,722	24,313	22,487	19,662	20,577	20,372	19,604	18,915
(Increase rate)		9.3%	-5.2%	-19.5%	-12.6%	4.7%	-1.0%	-3.8%	-3.5%

(Units: thousand units, billion yen)

1.1.4 Trends in private-sector non-housing construction investment

(Private-sector non-housing construction investment on the decline)

Private-sector capital investment in real terms (announced by the Cabinet Office) increased by 3.8% in the third quarter (July to September) of 2001 over the same quarter of the previous year. Nevertheless, it was announced that orders for machinery (its leading indicator), decreased by 12.1% in the fourth quarter (October to December) that year over the same quarter of the previous year. Decline for two consecutive quarters is expected, indicating a disturbing decelerating trend. A further decline in capital investment is expected, as the production adjustment spreads to manufacturers of electric appliances and machinery and other industries. This will lead to a downturn in corporate performance. Negative growth in real private-sector capital investment of -1.5% in FY2001 and -3.8% in FY2002 is expected. On the brighter side, signs of recovery are expected in the latter half of this year.

Private-sector non-housing construction investment (construction + civil engineering), which is the sum of capital investment with machinery excluded, is expected to decrease both in FY2001 (7.5%) and FY2002 (2.6%) over the previous year in real terms.

Private-sector non-housing construction investment (construction only) will decrease by 12.8% in real terms in FY2001 due to a decline in investment. Even though construction rush before the application of new Large-scale Retail Location Law has subsided and the construction of stores is recovering, a further decline of 3.3% is expected in FY2002.

Total floor area of buildings constructed through private-sector non-housing construction investment will continue to decrease by 13.0% in FY2001 and 8.3% in FY2002 over the previous year. When categorized by the purpose of the building, significant decrease of office space will continue, dropping 6.2% in FY2001 and falling 17.8% in FY2002. Construction of store space, although falling 27.5% in FY2001, will leap by 22.5% in FY2002. As more manufacturers relocate their production centers overseas to lower production costs, a significant decrease is expected in plant and factory space; down 34.8% in FY2001 and plunging 48.9% in FY2002 over the previous fiscal year.

Private-sector civil engineering investment in real terms is expected to decrease by 1.8% in FY2001 and 2.0% in FY2002, due to decreasing capital investment by major power, real estate and railway companies.

1-1-4 Trends in private non-housing investment (FY)

Accomplished←|→ Forecast

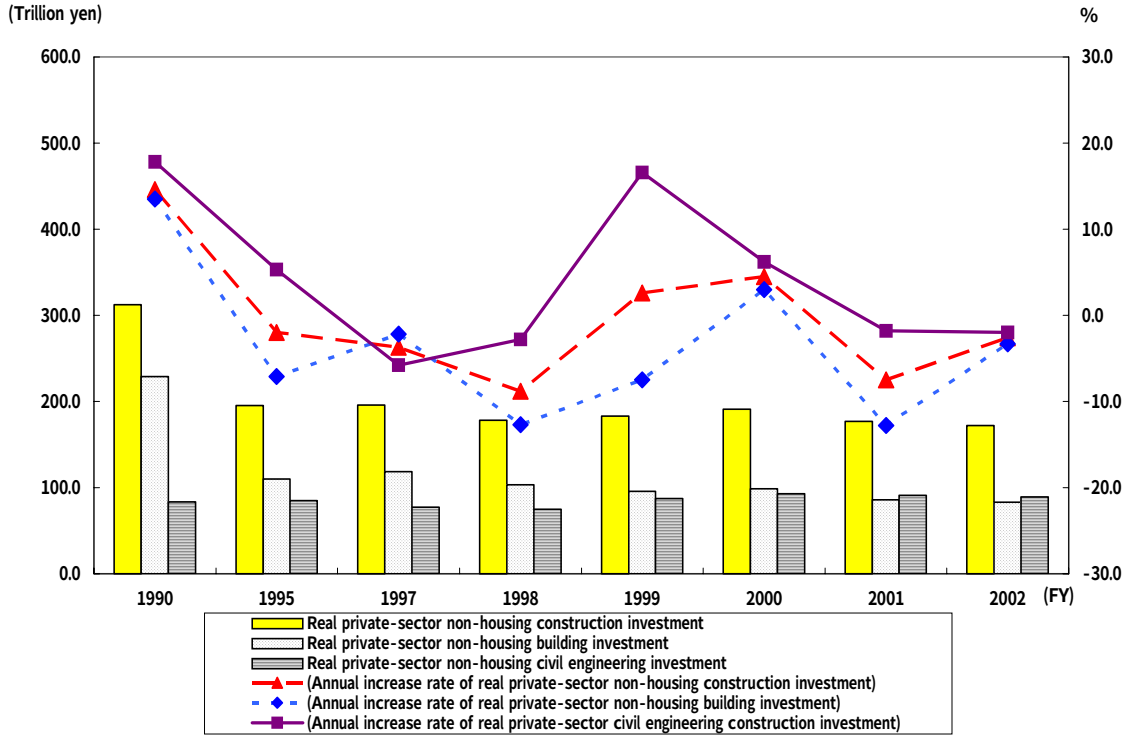
FY	1990	1995	1997	1998	1999	2000	2001	2002
Real private-sector capital investment	90,711	73,152	86,429	81,987	81,706	89,300	87,929	84,620
(Increase rate)	11.3%	3.6%	8.9%	-5.1%	-0.3%	9.3%	-1.5%	-3.8%
Real private-sector non-housing construction	31,232	19,505	19,553	17,830	18,290	19,120	17,690	17,226
(Increase rate)	14.6%	-2.0%	-3.7%	-8.8%	2.6%	4.5%	-7.5%	-2.6%
Real private-sector non-housing building investment	22,873	11,010	11,845	10,340	9,560	9,850	8,590	8,308
(Increase rate)	13.5%	-7.1%	-2.2%	-12.7%	-7.5%	3.0%	-12.8%	-3.3%
Real private-sector non-housing civil engineering investment	8,359	8,496	7,708	7,490	8,730	9,270	9,100	8,918
(Increase rate)	17.8%	5.3%	-5.8%	-2.8%	16.6%	6.2%	-1.8%	-2.0%

(Unit: billion yen)

Notes:

1. Machinery investment = Private-sector capital investment - Private-sector construction investment (building + civil engineering)
2. Real figures are based on 1995 prices.

1-1-5 Trends in private-sector non-housing construction investment (FY)



1-1-6 Trends in private-sector non-housing floor area constructed (FY)

Accomplished←|→ Forecast

FY	1990	1995	1997	1998	1999	2000	2001	2002
Office floor area constructed	22,534	9,474	9,716	7,228	7,602	7,280	6,829	5,613
(Increase rate)	12.1%	-0.7%	-1.9%	-25.6%	5.2%	-4.2%	-6.2%	-17.8%
Store floor area constructed	10,550	11,955	14,514	13,162	14,456	11,862	8,601	10,539
(Increase rate)	-4.5%	13.8%	10.6%	-9.3%	9.8%	-17.9%	-27.5%	22.5%
Factory floor area constructed	28,830	13,798	16,816	10,910	9,964	13,714	8,936	4,562
(Increase rate)	2.6%	4.6%	1.8%	-35.1%	-8.7%	37.6%	-34.8%	-48.9%
Non-housing floor area constructed	110,166	68,458	73,539	61,014	58,104	59,250	51,559	47,270
(Increase rate)	5.0%	5.3%	-2.6%	-17.0%	-4.8%	2.0%	-13.0%	-8.3%

(Unit; thousand square meters)

Note: Non-housing building floor area constructed, besides the items above (office, store and factory), include school, hospital and others.

1.1.5 Trends in government construction investment

(Government construction investment continue to decline, even with supplementary budgets)

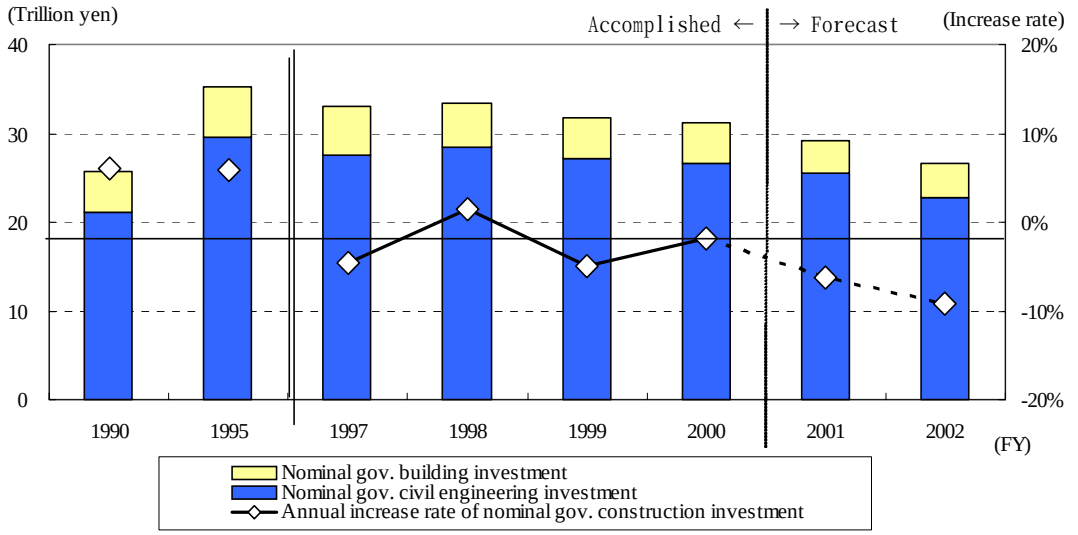
FY2001 government construction investment is expected to be down 6.2% in nominal terms from the previous year (-4.9% in real terms)—even assuming that the government plan of the second supplementary budget approved by the cabinet in late 2001 is approved by the Diet. It is expected that both the first and second supplementary budgets formulated in FY2001 will have little stimulatory effect on investment in this sector. The bulk of the first budget will be spent on bolstering employment, and only a fraction will be allocated to disaster rehabilitation and other construction-related investment. The public works reserve fund of 300 billion yen will be eliminated and the money redirected into the first budget. The government will spend only a portion of the second supplementary budget by the end of FY2001.

A further decline of 9.2% in nominal terms (8.1% in real terms) over the previous year is expected for FY2002 government construction investment. This projection is based on the assumption that no additional investment under supplementary budget will be made, no public works reserve fund will be budgeted, and the decision by the cabinet meeting (December 24, 2001) to reduce public works spending in FY2002 initial budget by 10.7%.

As a result, reduction of government construction investment for four consecutive

years is expected. Although the majority of FY2001 second supplementary budget will be carried over to FY2002, drastic cuts for both the national government's initial budget and local public works projects spending seem unavoidable.

1-1-7 Trends in government construction investment (FY)



Accomplishes←→Forecast

FY	1990	1995	1997	1998	1999	2000	2001	2002
Nominal gov. building investment	4,601	5,667	5,423	4,980	4,690	4,510	3,780	3,718
(Increase rate)	9.4%	-12.5%	-5.1%	-8.2%	-5.8%	-3.8%	-16.2%	-1.6%
Nominal gov. civil engineering investment	21,147	29,531	27,541	28,450	27,100	26,690	25,481	22,840
(Increase rate)	5.3%	10.3%	-4.6%	3.3%	-4.7%	-1.5%	-4.5%	-10.4%
Nominal gov. construction investment	25,748	35,199	32,964	33,430	31,790	31,200	29,261	26,558
(Increase rate)	6.0%	5.8%	-4.7%	1.4%	-4.9%	-1.9%	-6.2%	-9.2%
Real gov. construction investment	27,048	35,199	32,683	33,730	32,410	31,700	30,135	27,683
(Increase rate)	2.3%	5.5%	-5.5%	3.2%	-3.9%	-2.2%	-4.9%	-8.1%

*Real figures are based on 1995 prices.

(Unit: billion yen)

1.1.6 Future management of public finance

(The Japanese economy continues to decline in FY2002)

Japan's real GDP is expected to decrease by 0.9% in FY2001 over the previous year.

The decline trend is likely to continue in FY2002, even though the majority of public works spending (a total about 4.1 trillion yen) of the FY2001 second supplementary budget is being carried over. All sectors of demand, including private consumption, corporate capital investment, housing investment and export, will remain weak and unable to strongly support the economy.

The recovery of the Japanese economy thus will depend on the recovery of the US economy, which is expected to begin after the third quarter (July to September) 2002 for the following reasons: a) the IT recession will fully run its course and the industry will start to recover; b) the series of interest-rate reductions following the terrorist attacks of September 11th; c) execution of supplementary budget and; d) the widened scope of income tax reduction. The Japanese economy is expected to bottom out in either the fourth quarter of 2002 or the first quarter of 2003. Any recovery in FY2002 is likely to be weak. The government outlook of 0% growth will be difficult to achieve, and a decrease of 0.2% is expected.

(Risks of a downward spiral)

In spite of this basic "scenario," there are several factors that may drag down the Japanese economy in FY2002.

The first is the uncertainty surrounding the US economy. Since the latter half of 2001, private consumption has turned from robust to slow. Despite an additional income tax cut in 2001, employment instability and a rising fear over unemployment have lowered the Consumer Confidence Index. This may have a negative effect on private consumption. In the area of IT investment it is uncertain whether the recovery will follow the traditional pattern. The downturn in the IT industry was unusually drastic, and the global economy as a whole is now in a recession.

The second factor of uncertainty is the deflationary effect accompanying the structural reform of the economy. One deflationary component is the FY2002 budget (including fiscal investment and loan) that capped the issuance of government bonds to 30 trillion yen. Risks in the financial sector include the procrastination in writing off bad debts, capital investment control accompanying the selection of borrowers, rising long-term interest rates in anticipation of a financial collapse, and financial uncertainty originating with implementation of payoffs.

The third risk factor is the uncertainty over employment. Even though the unemployment rate in FY2002 is expected to remain at around 6% due to the creation of new jobs following deregulation, unemployment may rise due to the acceleration of corporate restructuring, the shift to offshore manufacturing, and widening mismatches

between job-seeker skills and employer requirements.

(New fiscal policy consistent with structural reform)

Based on these trends, some now argue that the first thing to do is stimulate the demand side of the economy, then take care of structural reform after business recovers.

The government's choice of favoring demand-side policies hampered the formation of internationally competitive industrial and cost structures, but supported less-productive sectors of the Japanese economy, lowering the potential for economic growth.

In steering the economy, series of structural reforms in the fields of fiscal and financial sectors, deregulation, government-affiliated corporations and social security systems should be promoted in principle, to encourage a private-sector-led economic. Care should be taken to adequately and flexibly implement fiscal management in FY2002, while carefully monitoring the economic situation.

(Easing of monetary policy will still have a role to play)

To minimize the risk of a downturn and deflation, the government should maintain an adequate monetary policy. In this age of historically low interest rates, it is said that the current Japanese economy has been caught in "liquidity trap"— situation where interest rates can not fall as the money supply shrinks, and monetary policy fails. For this reason, many people believe that monetary policy has only a limited effect.

Nevertheless, the government should continue to ease the money supply by using new, innovative techniques. There are two major reasons that this is important. Firstly market stability has to be maintained. As the ratio of bad debt is rising, a credit crunch accompanying asset-deflation by banks must be prevented and liquidity must be ensured. Secondly, deflation must be arrested, as it is harmful in several ways: a) it increases the burden of corporate debt in real terms as prices fall; b) corporate capital investment is discouraged due to rising real interest rates; and c) employment shrinks due to rising real wages.

The government's relaxation of its tight money policy, coupled with yen depreciation, is expected to promote exports, increase domestic prices, and curb deflation.

(The attainment of a sustainable Japanese economy)

The easing of monetary conditions is a double-edged sword; when it is coupled with a huge budget deficit, it brings about excess liquidity. Many countries facing such excess liquidity experience a significant drop in currency value and hyperinflation.

Some people now argue that the conditions of excess liquidity are emerging in Japan—due to the shrinking trade surplus stemming from the lose of international competitiveness of Japanese companies (fear of yen devaluation)—and point out the danger of capital flight. If the fear of capital flight spreads, government bonds will dive, long-term interest rates will rise, the exchange rate will fall, and import-led inflation will worsen. The result will be stagflation, where recession and high inflation coexist.

The Japanese economy is experiencing a steady increase of government bonds due to huge budget deficits, unprecedented easing of the money supply, delays in the disposal of bad loans, and massive purchases of government bonds by financial institutions. None of these are sustainable.

The leaders of the Japanese economy face the duel challenges of promoting structural reform including public finance reconstruction, while controlling deflation and disposing of bad debts.

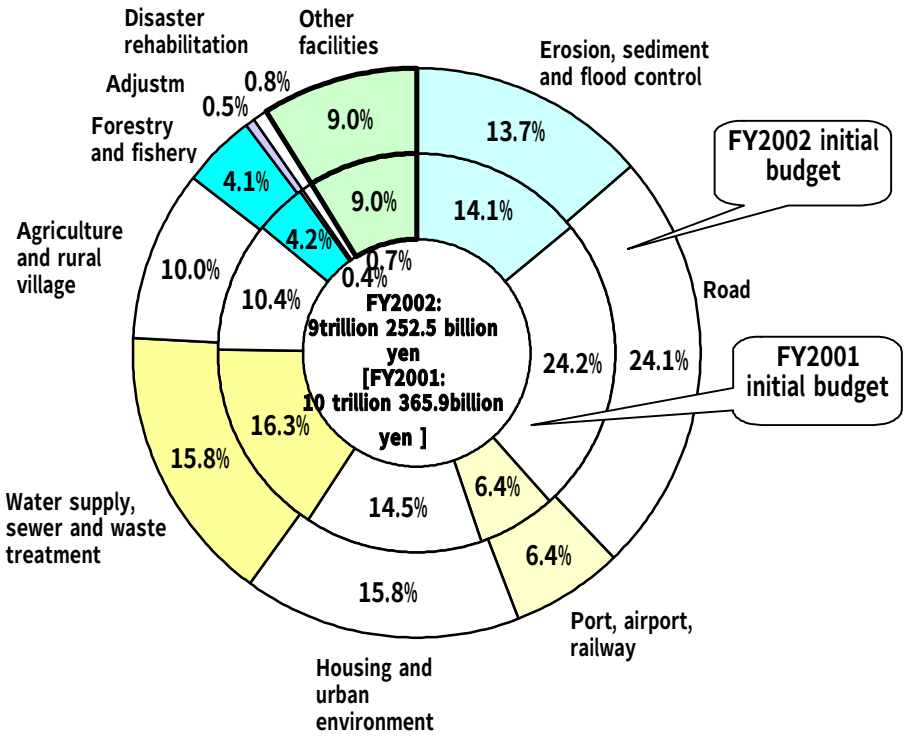
Public investment goes hand-in-hand with government bond issuance. While considering its effect on the financial market, exchange rate and international capital movement, effective and anticipatory investment should be continued to contribute to the revival of a sustainable Japanese economy and society.

1.2 Trends in Public Investment and its Challenges

Public investment has been a common topic for discussion in recent years, but discussion nevertheless that has been lacking in knowledge of public investment. This section will review public investment from several perspectives, including long-term investment performance and the production effects of public investment. Based on the review, proposals will be made on the focus of ideal public investment reform and ways to strengthen regional economies to decrease their reliance on public investment.

In this chapter "public investment" refers to the combined total of public works consisted of a) "public works-related expenditure" and "expenditure for other facilities" by the national government; and b) spending for similar projects by government organizations and local governments（including public corporations）. The outcomes of public investment, or structures and facilities built and used by citizens, are called social capital (stock.) (Note: The government plan for the FY2002 initial budget combines "public works-related expenditure" and "expenditure for other facilities" under the title "public investment-related expenditure".)

1-2-1 Public investment expenditure by major items



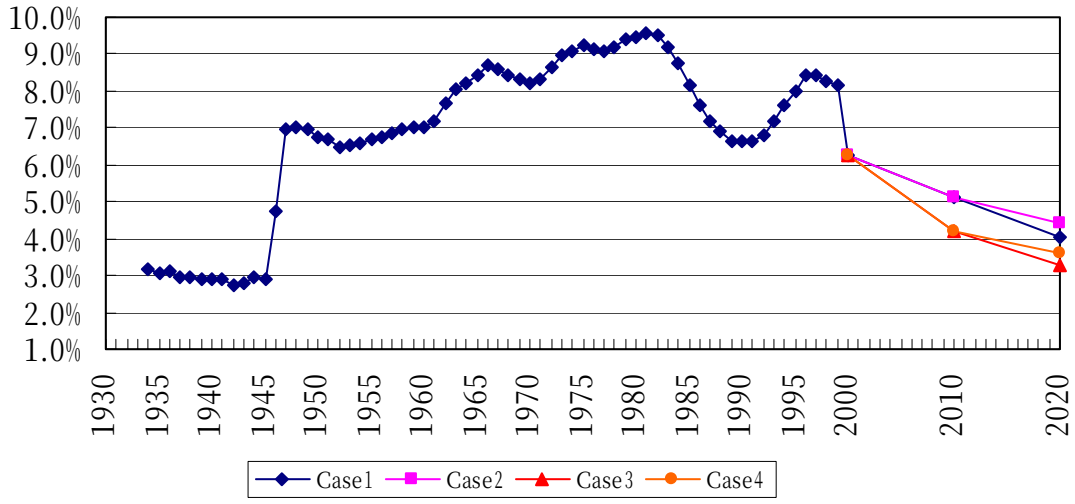
1.2.1 A review of the results of public investment

(Trends in public investment levels as a percentage of GDP, past and predicted)

The level of social capital in Japan has very definitely risen in the last 50 years. The half-century from 1950 was a period of considerable accumulation of this stock. According to a report published by the former Economic Planning Agency in 1998, the total value of this accumulated social capital in Japan at the end of FY1993 stood at 617 trillion yen in 1990 prices.

Although it is difficult to make a uniform comparison of the levels of social capital over time before and after WWII, looking at public fixed capital formation (IG) as a percentage of GDP in the 1930s, we see that before the war, the figure was around 3% (prewar figures are the sum of only that social capital relating to rivers, the national railways, harbors, farming/forestry/fisheries, flood control, and telephone and telegraph). By contrast, the figure exceeded 5% from 1945 onwards and reached almost 10% in the 1970s. In the 1980s, the drive towards fiscal reconstruction temporarily pushed the rate down to around 6%. Later, in the 1990s, the enactment of the Public Investment Basic Plan drafted and decided by Cabinet in 1991, and the government's responses after 1992 to the economic climate once again caused the percentage to rise to around the 8% level of today.

1-2-2 Trends in Japan's public fixed capital formation(IG)/GDP ratios (forecast included)



Notes:

1. Three different types of data used here are as follows.:
   a) Data compiled by Kazushi Okawa ("Long-term Economic Statistics: Estimate and Analysis", Toyo Keizai Shinposha)from 1934 to 1954 (The article is written in

Japanese).;
b) Data from the Cabinet Office from 1955 to 1999 (announced on June 13, 2001) and;
c) Forecast made by RICE for the period between 2000 and 2020.
Each uses slightly different methods of calculation

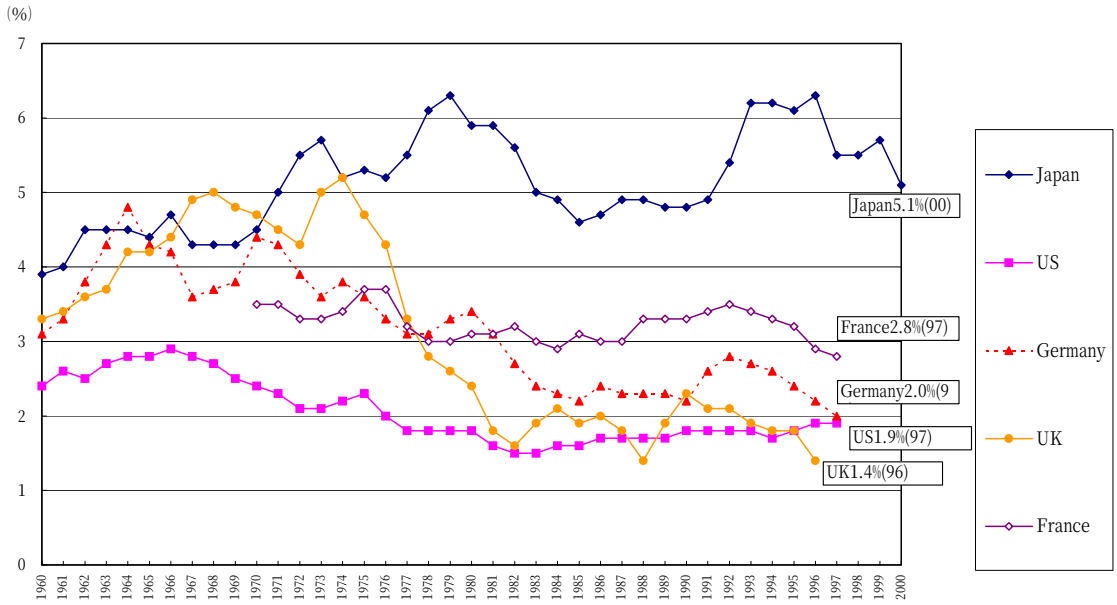
2. Fixed capital formation(IG) includes "general government," "government corporation facilities " and "government housing."
3. Classification of classes after 2000 is as follows:

	GDP growth rate		Government construction investment growth rate	
	-2010	-2020	-2010	-2020
Case 1	2.0%	2.5%	0%	0%
Case 2	2.0%	1.5%	0%	0%
Case 3	2.0%	2.5%	-2%	0%
Case 4	2.0%	1.5%	-2%	0%

Looking at IG/GDP ratios on a general basis (ignoring government corporation facilities and government housing) to make international comparisons, we see that the figure of 5.1% for Japan is comparatively higher than the figures for the U.S. and Europe. It is well known that the U.S./European IG/GDP ratios, although high in the 1970s, are now much lower. In the U.K., for example, the ratio was high, at around 5% in the 1970s, but declined thereafter to reach the present level of around 2%.

On the other hand, in Japan, the rate of social capital accumulation has been high. It started about a century behind that in the U.S. and Europe, arising as it did from the ashes of WWII. Moreover, Japan is a nation that is prone to earthquakes and other civil disasters. As the Japanese population grew rapidly and people flooded into the metropolitan regions, there was an unprecedented period of high economic growth. High levels of public investment were necessary to overcome the constant insufficiency of social capital in the major urban areas.

1-2-3 International comparison of IG/GDP ratios



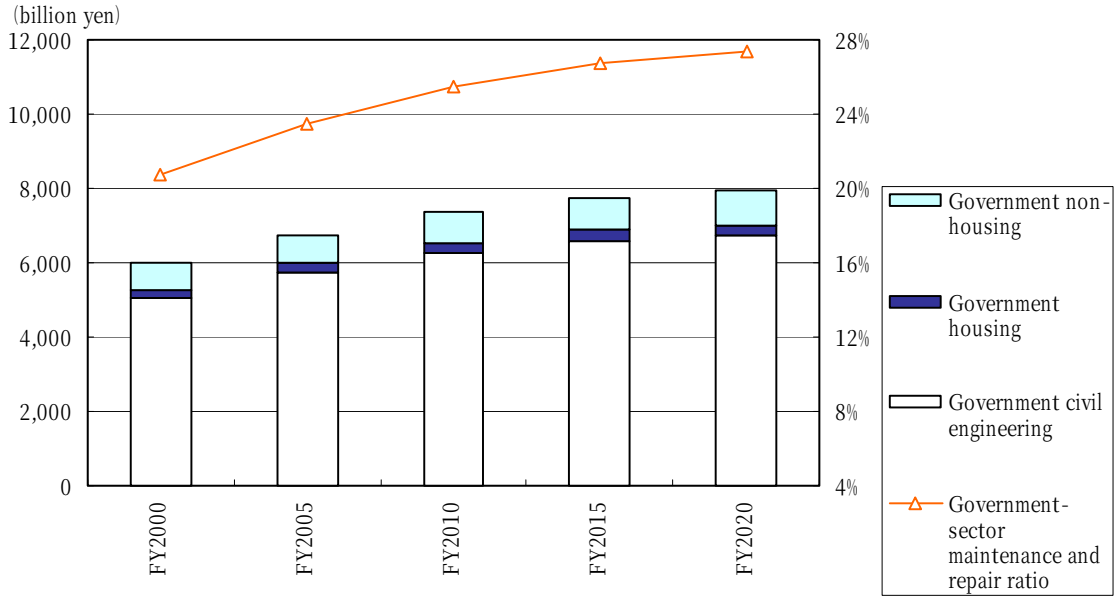
Notes:

1. Data from "National Accounts of OECD Countries: Detailed Tables 1988/1998 Vol.2" and Japan's Cabinet Office (for figures for Japan after 1980)
2. Japan's figures before 1980 are 68SNA-based percentage figures.
3. Germany's figures before 1991 are those of West Germany.
4. Public fixed capital formation only includes "general government."
5. According to the OECD Secretariat other countries have two criteria for "maintenance and repair"; a) to maintain good conditions and; b) to functionally strengthen for prolonged use of buildings and facilities. The former is included in "expenditure" whereas the latter is included in " public fixed capital formation."

The 50-year period where the government has maintained high levels of public investment has come to an end. The pace of formation of social capital has to slow down, due to economic and financial limitations. According to calculations made by the Research Institute of Construction and Economy (RICE), the rise in capital stock upkeep and repair costs, coupled with fiscal deficits and lower savings rates, will gradually sap the ability of the government to invest in social infrastructure.

RICE conducted a simulation based on the assumption that real growth rates will range from 1.5 to 2.5% and that levels of government investment in construction will either remain static or drop by 2% per annum. The simulation predicts that the current IG/GDP rate of 8% will fall to about 4 or 5% by 2010, and sag further to around 3 or 4.5% by 2020 (IG in this case includes both government corporations and government housing in addition to that of "general government").

1-2-4 Forecast of maintenance and repair expenses



Notes:
1. Data from RICE ("Middle- to Long-term forecast of construction market")
2. Based on the assumption that the government construction investment levels off.
3. Based on 1995 real prices.

(Trends in the allocation of public investment to either raise productivity or raise living standards)

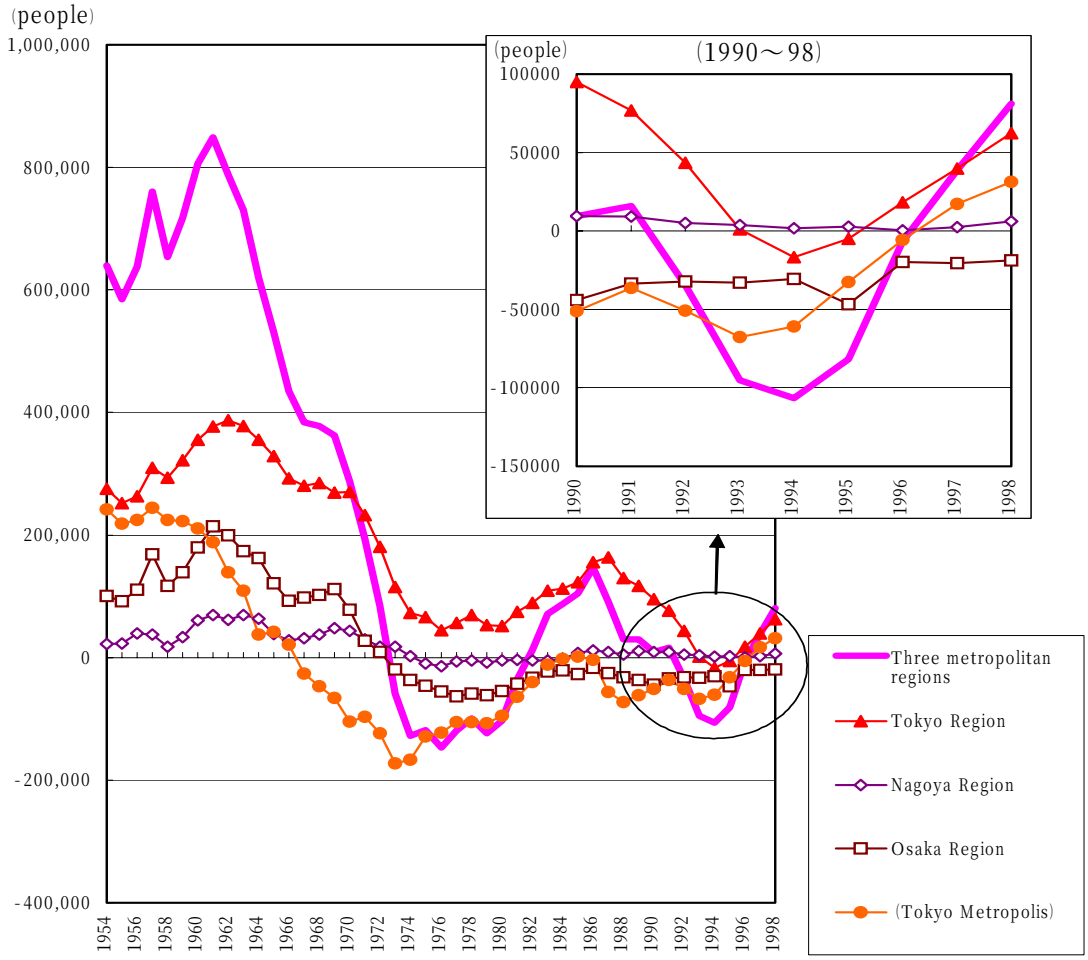
In the latter half of the 1950s, the government built up the basis for production in the metropolitan regions along with industrial production growth in those areas. From the 1960s until the early 1970s, to overcome pollution and other problems associated with the unexpectedly large population shift from the provinces into the metropolitan areas, the government placed emphasis on public investment in social capital to improve living standards in the metropolitan areas.

In the 1970s, the population drift towards the metropolitan areas rapidly decreased, and public investment in social infrastructure to raise living standards in the provincial regions sped ahead. The government poured money into building up the basis for strategic development in the provinces, concentrating on investment in new industrial cities and special industrial regions.

The readjustment and fiscal restructuring in the wake of the two Oil Shocks led to a period of stability from the first half of the 1980s through to the economic bubble of the late 80s in which there was a recovery in investment in the basis for production in the metropolitan regions. In the early 1990s, the government concentrated on investment in social capital to improve living standards in both the metropolitan and provincial regions. In the second half of the decade, investment in the provincial

regions to raise both production and living standards increased.

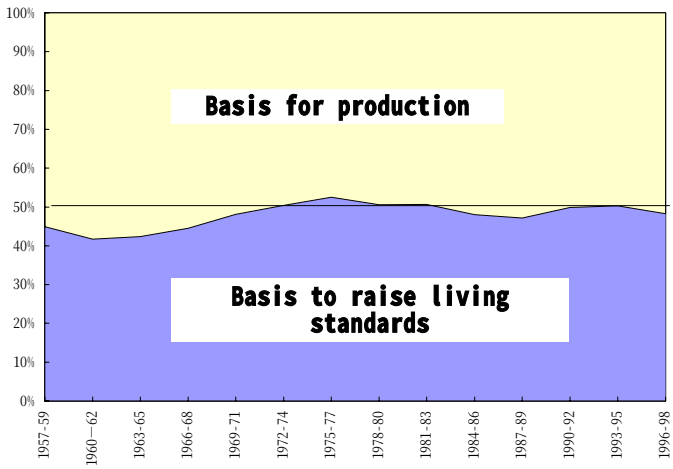
1-2-5 Trends in population migration to three metropolitan regions (Difference between "moving in" and "moving out")



Notes:

1. Data from the Ministry of Public Management, Home Affairs, Posts and Telecommunications
2. Tokyo Region: Tokyo Saitama, Chiba and Kanagawa
   Nagoya Region: Aichi and Mie
   Osaka Region: Osaka, Kyoto and Hyogo

1-2-6 Trends in the allocation of public investment by sector

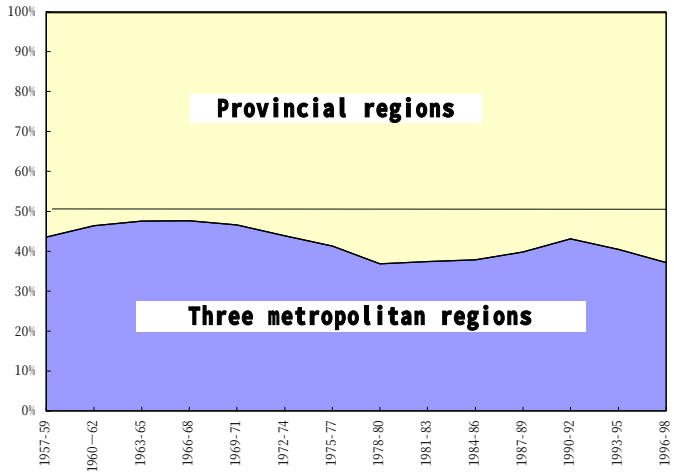


Notes:
1. Data from the Ministry of Public Management, Home Affairs, Posts and Telecommunications
2. Amount of investment includes compensation for land
3. Ratios are based on three-year total of investment
4. Basis to raise living standards: Street, housing, public sewer, hygiene, water supply, city planning and educational facilities
   Basis for production; Other than above (road, port, airport, flood, erosion and sediment control, coastal protection, agricultural infrastructure, fishing port and industrial water supply)

(Trends in the allocation of public investment by region)

From the latter half of the 1960s through to the end of the 1970s, there was a consistent increase in the weighting of public investment towards the provinces. In the early years of the 1980s, this investment was affected by a zero or minus growth ceiling and remained almost at the same level. From the mid-1980s onwards, the weighting of public investment shifted towards the metropolitan regions. Into the 1990s, as the economic bubble burst, investment in the provincial regions once again increased and has remained high to this day.

1-2-7 Trends in the allocation of public investment by region



Notes:
1. Data from the Ministry of Public Management, Home Affairs, Posts and Telecommunications
2. Amount of investment includes compensation for land
3. Ratios are based on three-year total of investment
4. Tokyo Region: Tokyo Saitama, Chiba and Kanagawa
   Nagoya Region: Aichi and Mie
   Osaka Region: Osaka, Kyoto and Hyogo

(General trends in public investment)

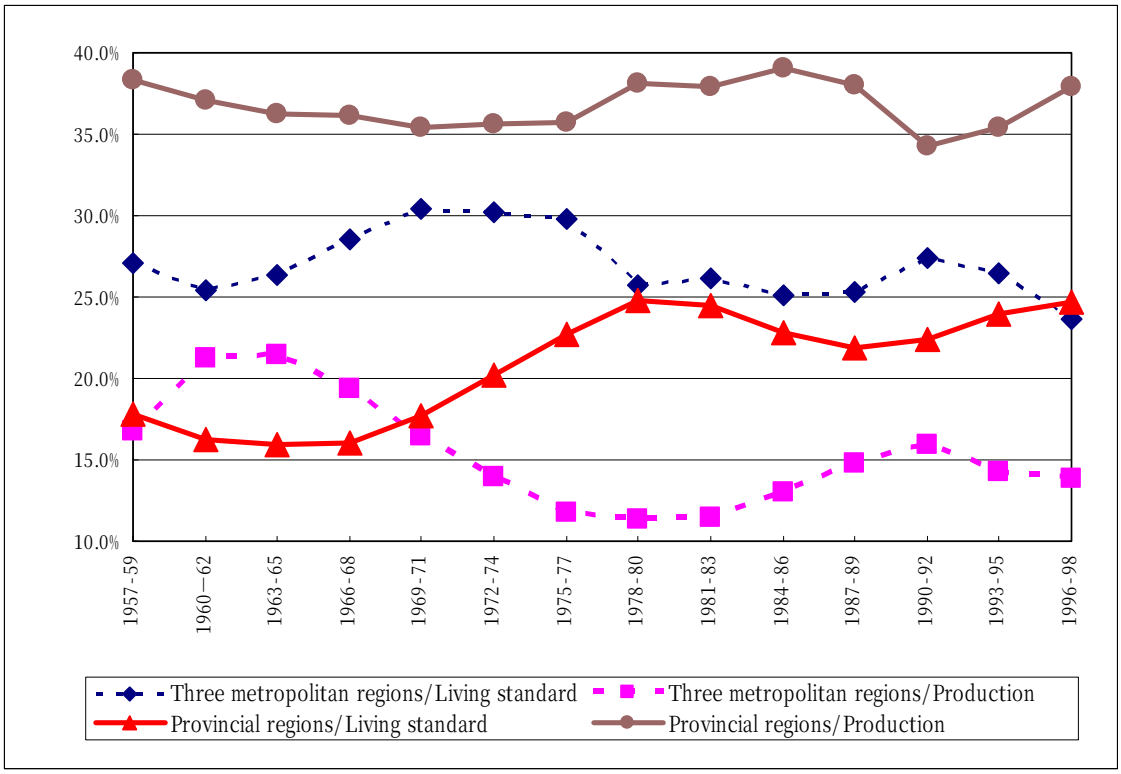
Graph 1-2-8 shows the overall trends in public investment in terms of a) whether the investment was directed towards raising production or living standards, or b) whether the investment was allocated to the metropolitan regions or the provinces. While public investment has been made in response to the times and the needs of the times, one can observe that over the long term the emphasis has shifted from investment in production to investment in the basis for better living standards.

While gradually seeking to correct the imbalance in incomes between metropolitan and provincial regions, and maintaining employment levels outside the major cities, the allocation of public investment in the provinces has generally tended to increase. This was achieved chiefly in the 1960s and 1970s through regional promotion legislation and the enforcement of 1959 and 1964 laws to limit factories and other facilities in metropolitan regions. In this way, the government was able to entice private-sector investment and the location of new factories out into the provinces.

Other factors influencing the trend were a) the growing seriousness of pollution, particularly in the industrial belts of the metropolitan regions, and b) the increasing

difficulty from the latter half of the 1970s onwards, in procuring land for public investment projects in the metropolitan regions.

1-2-8 Overall trends in public investment by sector and by region



	1960s		1970s		1980s		1990s	
	First half	Latter half	First half	Latter half	First half	Latter half	First half	Latter half
Three metropolitan regions	↗	→	↘	↘	→	↗	↗	↘
Living standard	↘	↗	→	↘	→	→	↗	↘
Production	↗	↘	↘	↘	→	↗	→	→
Provincial regions	↘	→	↗	↗	→	↘	↘	↗
Living standard	↘	→	↗	↗	→	→	↗	↗
Production	↘	→	→	↗	→	→	↘	↗

Notes:
1. Data from the Ministry of Public Management, Home Affairs, Posts and Telecommunications
2. Amount of investment includes compensation for land
3. Ratios are based on three-year total of investment
4. Tokyo Region: Tokyo Saitama, Chiba and Kanagawa
   Nagoya Region: Aichi and Mie
   Osaka Region: Osaka, Kyoto and Hyogo
5. Basis to raise living standards: Street, housing, public sewer, hygiene, water supply, city planning and educational facilities
   Basis for production; Other than above (road, port, airport, flood, erosion and sediment control, coastal protection, agricultural infrastructure, fishing port and industrial water supply)

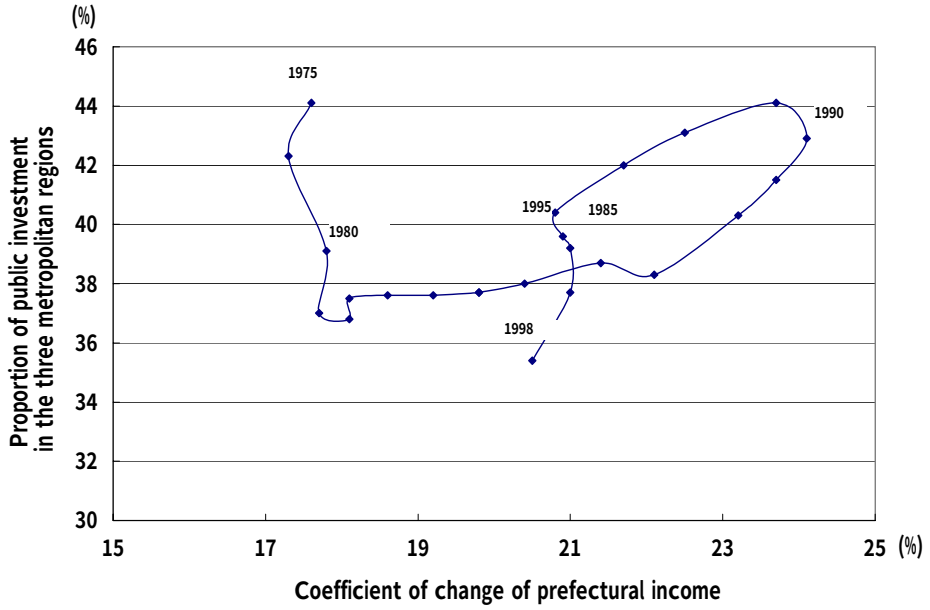
(Public investment and the income gap between regions)

Next we would like to look at the relationship between a) the allocation of public investment among regions, and b) the difference in per-capita income levels among the regions. (The coefficient of change in per-capita GNP will serve as the index. The coefficient is expressed by the standard deviation divided by the average value. The larger the coefficient, the greater the disparity between regions.)

The income disparity between regions is affected not only by the regional allocation of public investment but also by trends in private-sector investment. Thus it is not always possible to draw a clear relationship between the two. Generally speaking, however, when the proportion of public investment in the metropolitan regions (where per capita income is high) expands, the income gap between people in metropolitan regions and people the provinces tends to widen.

It should be noted that in the latter halves of the 1970s and 1990s, the increase in the proportion of public investment directed to the provincial regions did not shrink the income gap. The failure to close the gap in the latter half of the 1970s was due to the stagnation of private-sector investment, mainly in the provinces, due to the Oil Shocks. This froze the correction in income disparity. In the latter half of the 1990s, even though the government continued to give priority to public investment outside the metropolitan regions, the concentration of high-growth industries (such as IT) in the major centers offset any income-gap-narrowing effects of public investment.

1-2-9 Proportion of public investment in the three metropolitan regions and coefficient of change in per-capita prefectural GNP



Notes:
1. Data from the Cabinet Office and the Ministry of Public Management, Home Affairs, Posts and Telecommunications.
2. Formula for coefficient of change is $\Sigma (Xi-u)2/\alpha$
   Xi: per-capita prefectural GNP u: Average of per-capita prefectural GNP α;standard deviation of Xi

1.2.2 Assessing the effects of public investment

Public investment is carried out from many viewpoints, such as the "national minimum." Here we shall analyze the effects of public investment in terms of its effect on productivity.

(The productivity effect of public investment (at the macroeconomic level))

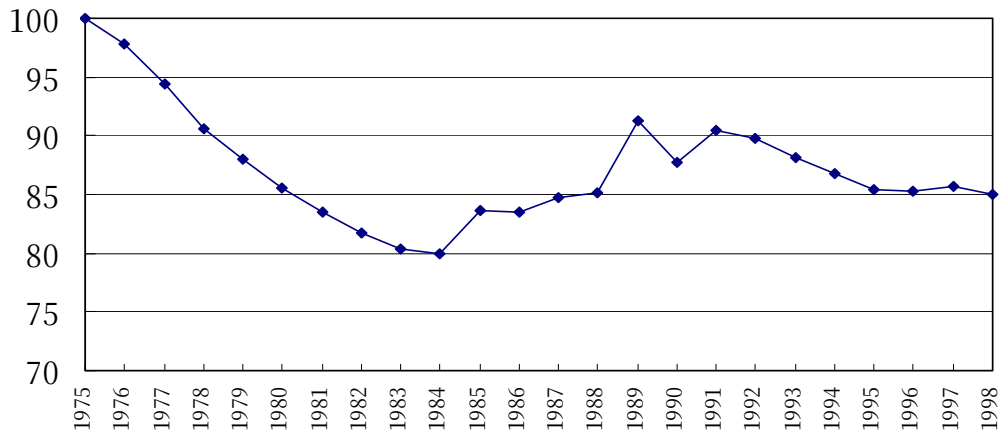
A distinction is made between the productivity of public investment and the short-term multiplier effect (flow effect). People ask how much of a positive contribution public investment makes in the long term (stock effect) to the increase in the production of the economy as a whole. One way to measure the productivity of public investment is to hypothesize a constant production function and to look at how much the social capital accumulated by the public investment contributes to the increase in production.

Here we will use the Cobb-Douglas production function (macro production function model using index function) and examine the trends in marginal productivity of social capital. The marginal productivity that we will measure here does not contain several qualities (external effects) such as safety, comfort, sense of space, improvement in the environment, being ignored by the market but are nevertheless very important goals of public investment.

It is thus not appropriate to comment on the effects of public investment by directly comparing its numerical values with values for the marginal productivity of private-sector investment. Nevertheless, the problem remains: Although levels of public investment have recovered since the mid 1980s, the relative marginal productivity of social capital is low compared with the marginal productivity of private-sector investment.

1-2-10 Trends of marginal productivity: social capital/private-sector capital

(1975=100)



Notes:

1. Data from the Cabinet Office, Ministry of Health, Labor and Welfare and estimates made by RICE based on data from the Economic Planning Agency and other sources.
2. The following Cobb-Douglas production function was used:
   $Y=AK^{\alpha}L^{\beta}G^{\gamma}$ $(\alpha+\beta=1)$
   Y: GDP(1995 price, unit of 1 billion yen) K: Private capital stock (1995 price, unit of 1 billion yen), L: Labor input (No. of employees, unit of 10 thousand people×man-hour index(1995=100)) G: Social capital stock (1995 price, unit of 1 billion yen)
   Dummy variables (1975-1986=0, 1987-1998=1) were used to reflect transfer from social to private capital after privatization of two government corporations (NTT and JR)
3. The next equation is an estimate by using trend terms of between FY1975 and FY1998:
   $LN(Y/L) = 0.6498 + 0.39LN(K/L) + 0.064\,LN(G) + 0.012D$
   (5.27) (7.66) (1.61) (2.41)
   $R^2 = 0.9965$ Figures in parenthesis are t values
4. Social capital marginal productivity: $dY/dG=\gamma(Y/G)$
   Private capital marginal productivity: $dY/dK=\alpha(Y/G)$

(The productivity effect of public investment on a prefectural basis)

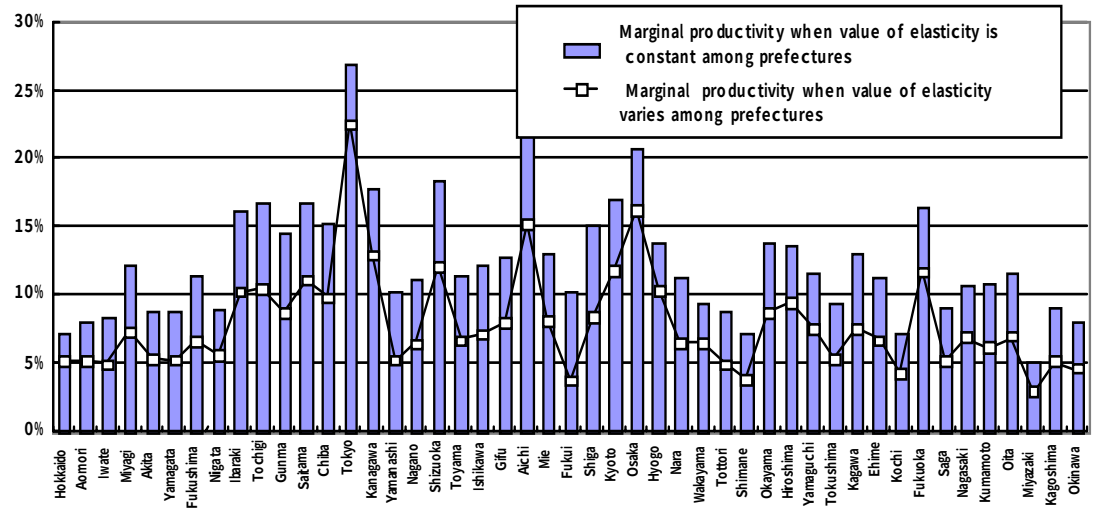
If a standard Cobb-Douglas production function model, equivalent to the whole-country macro model used above, is used to calculate the marginal productivity of social capital in each prefecture then we see that it is larger in prefectures where the metropolitan regions are. Even if we assume a fairly complex production function, where the elastic values for social capital are different for each prefecture, we obtain almost identical results.

This means that if the government increases public investment in prefectures where the marginal productivity of social capital is high and reduces public investment in prefectures where the marginal productivity is low, the production of society as a whole will increase and economic efficiency will improve. If the government makes additional public investment, it will be more effective if it is allocated to regions where marginal productivity is high.

It has been pointed out that in the metropolitan regions where the price of

land is high, the tremendous time and expense of public works means that public investment in these regions is inefficient. Nevertheless, measurements of the contribution that investment in these regions has to the productivity of social capital indicate that over the long term, public investment in the metropolitan regions, overall, is not inefficient.

1-2-11 Marginal productivity of social capital stock by prefecture (FY1995)



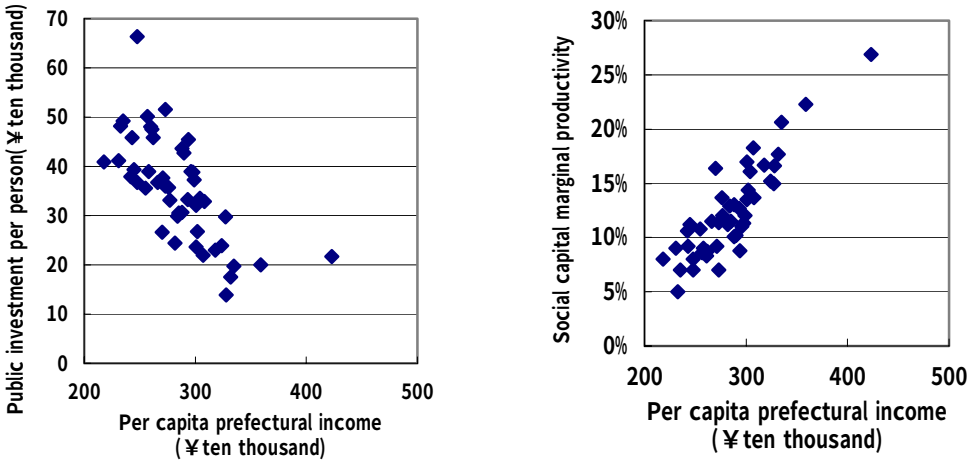
Notes:

1. Cobb-Douglas-based regression equation of standard production function by prefecture is as follows (bar graph):
   $LN(Y) = -1.6253 + 0.325LN(K) + 0.596\,LN(L) + 0.179\,LN(G)$
   (-32.2) (34.0) (53.2) (17.5)
   $R^2 = 0.983$ Figures in parenthesis are t values
   Estimates have been made for the period between FY1975 and FY1995
2. Regression equation of production function by prefecture, based on the assumption that the elastic values for social capital are different for each prefecture, is as follows:
   $LN(Y) = -1.644 + 0.446LN(K) + 0.265\,LN(L) + \alpha\,LN(G)$
   (3.02) (27.6) (8.79)
   $R^2 = 0.999$ Figures in parenthesis are t values
   Estimates have been made for the period between FY1975 and FY1995
3. In the equations above:
   Y: Prefectural income (in billion yen, FY1990 price, Data from the Cabinet Office)
   L: Labor input
   (No. of employees in 10 thousand × Working hours (hours/man-month), Calculation based on data from the Ministry of Health, Labor and Welfare and other sources, "Employees" refer to those working for companies with more than 30 employees)
   K: Private capital stock (in billion yen, FY1990 price, Estimate based on data from the Cabinet Office)
   G: Social capital stock (in billion yen, FY1990 price, Estimate based on data from the Economic Planning Agency)
4. Social capital marginal productivity: $dY/dG = \gamma\,(Y/G)$ (γ refers to elasticity value of social stock)
5. Other data source: Shunichiro Bessho, "Policy evaluation using macro production function by prefecture" in *Japan Research Review* (May 1999) published by The Japan Research Institute (The article is written in Japanese).

(The smaller the per-capita prefectural income level, the larger the public investment)

The trends in per-capita prefectural income in recent years reveals an inverse relationship between per-capita income and public investment per person—the lower the per capita income (Y/N) of a prefecture, the higher the level of public investment per person (Ig/N).

1-2-12 Relation among per capita prefectural income, public investment per person and social capital marginal productivity (FY1995, 47 prefectures)

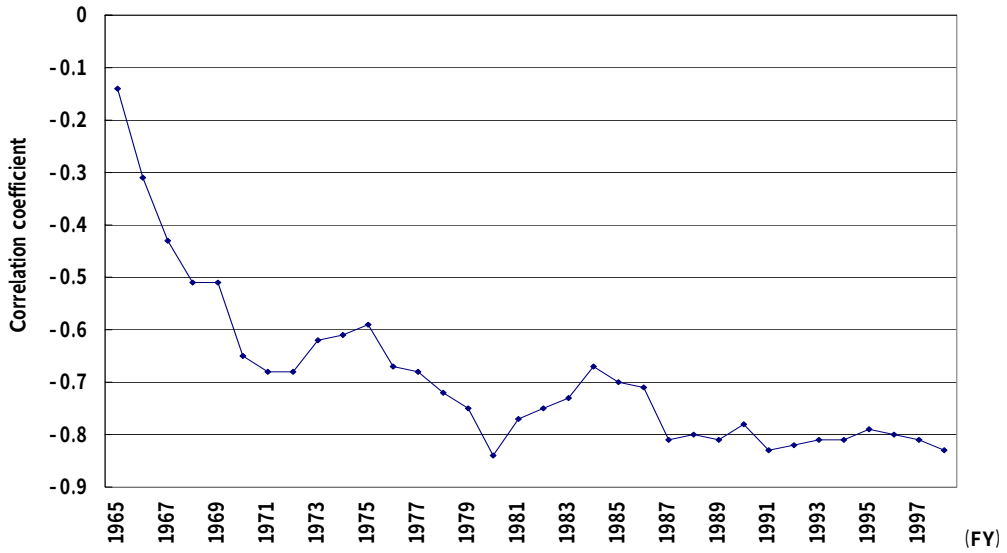


Note:Data from the Cabinet Office

As shown in the graphs, in the metropolitan regions, i.e., the prefectures where per capita income is high, the productivity of social capital is high. And yet, public investment tends to be allocated to the parts of the country where productivity is low, indicating that public investment is not always allocated solely on the basis of efficiency.

The higher the per capita income (Y/N) of a prefecture, the lower the public investment per capita (Ig/N). As a result, the inverse correlation where the degree of dependence on public investment (Ig/Y) is small is growing stronger year by year. The inverse correlation is considerably high from the viewpoint of whether efficiency is emphasized in public investment and is carried out in parts of the country where marginal productivity is high.

1-2-13 Time series change of correlation coefficient between per capita prefectural income and degree of dependence on public investment



Note: Data from the Cabinet Office

1.2.3. Reform of public investment

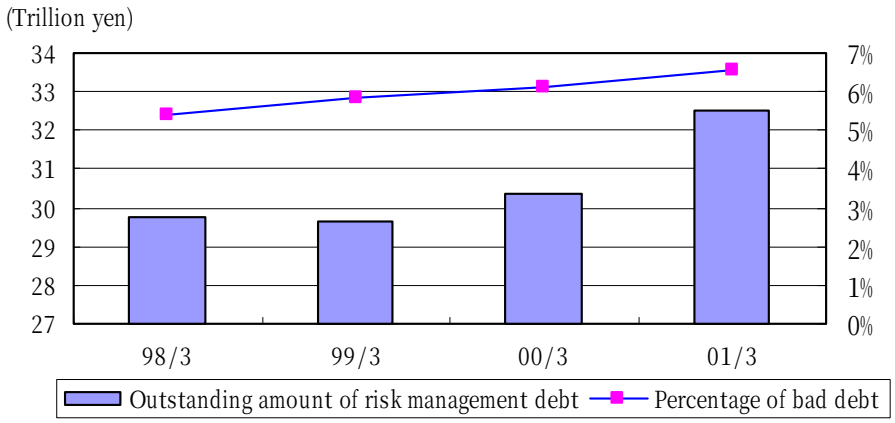
One important lesson that has been learnt from the "lost decade" is that although the additional public investment in the form of supplementary budgets (FY1992 to 2001) amounting to approximately 66 trillion yen aimed at economic recovery has propped up the economy and fended off asset deflation, the benefits have been offset by delays in disposing of non-performing debts and the stagnation in lending to corporations. Public investment has not been linked to the autonomous recovery of the Japanese economy, and it has failed to beat a path to sustainable economic expansion.

Although there has been some criticism that the multiplier effect of public investment has declined, the increase in public investment has always had a considerable demand-creating effect. Public investment alone is insufficient to resolve the fundamental problems of capital stock adjustment (except for some manufacturers) and the low productivity of private capital that are bedeviling the Japanese economy.

To prevent the "lost decade" from costing us another 10 years, most people will agree that the greatest challenge in the rejuvenation of the Japanese economy will be to create a private-sector-led sustainable economy less dependent on the government. There are mounting difficulties, sometimes conflicting with each other, that need to be addressed. These include: a) Manage the economy to improve the state of public finances (The government should avoid a deflationary spiral and carry out suitable financial policies.); b) Draw out the latent growth potential of the economy through structural reform (The government should promote structural reform to facilitate the

movement of capital and labor to highly productive sectors, thereby respond to the global changes in industrial structure.); c) Link a) and b) above to the autonomous recovery of the economy; and d) Establish reliable risk management systems including creating safety nets, reforming the labor market and supplying risk money.

1-2-14 Trends in the amount of bad debt (banks nationwide)



Notes:
1.Compiled based on data from the Financial Service Agency and other sources.
2.Percentage of bad debt is: Outstanding amount of bad debt / loaned money
3."Risk management debt" consists of four debt types including loans to failed companies, loans in default for three months or more and loans with eased lending terms.

We will examine public investment in terms of "activating the latent growth potential of the economy" rather than "boosting demand." To achieve these objectives, we will explore three different approaches to achieving the reform of public investment: (1) the five focal points of public investment, (2) a reconsideration of the scope of the public investment that the national government and local governments should shoulder, and (3) the reform of the systems of public investment.

(1) The five focal points of public investment

(Where the problems are)

The first problem is the focus of public investment. Many Japanese will probably say that although the level of social capital is being improved, the level is inadequate when one considers the topography of Japan, preparations for earthquake and natural disasters, the high population density, and the complications of the urban areas. Nevertheless, given the government's fiscal limitations, very few people would agree

that the government should seek to achieve the same stock of roading, airports, sewerage and other infrastructure at a uniform level across the entire country at the same pace as it has in the past.

"Primary balance" is the difference between annual revenue (excluding income from issuance of government bonds) and annual expenditure (excluding payments on government debt and redemption expenses.) The government's fiscal primary balance will be in the red to a level equivalent to about 3% of GDP (approx. 13 trillion yen) on the basis of the FY2002 initial budget of the General Account (4.3% of GDP including the national and local governments in FY2000). In the medium to long term, a worsening of the balance between savings and investment is unavoidable.

Since the government no longer has sufficient money, conventional methods of investment can no longer be maintained. Although the level of social capital in Japan has always been low in comparison to levels in the U.S. and Europe, it has achieved a certain level. Necessity to maintain a uniform national minimum, or the sense of urgency in building social capital is not as compelling as it used to be.

We will now discuss five focal points for better public investment in the future. These are: i) focus on target activities, ii) focus on target regions, iii) focus on investment goals, iv) focus on investment methods, and v) focus on target generations.

i) Focus on target activities

(The fields of focus of medium- and long-term public investment)

People expect public investment to play a role in the achievement of national goals. Public investment must properly respond to these expectations. What are the national goals that Japan should seek in the 21st century? We need to discuss what kinds of social capital are truly needed but would not be sufficiently supplied if the government were to hand over the role of their creation to market forces.

The internationalized Japan of the 21st century will seek to respond to a global market-based economy, maintain its Japanese identity based on its history and culture, and protect the environment. Japan will probably want to dispel the deep-seated sense of uncertainty and gloom that individuals and businesses have towards the future; enable sustainable, private-sector-led growth, and build a free and active economy and society. This will be a society where through self-expression people can achieve a highly spiritual lifestyle not limited by their income and consumption levels, and realize the joys of life and true affluence.

The fields of public investment in line with Japan's national goals in the 21st century should not limit the role of this investment to raising the ability of the

economy to grow, but needs to be applied in the broader sense. We consider that the following eight types of infrastructure exist.

(1) Telecommunications infrastructure

- Creating electronic government that will support a computer-networked society
- Supplementing the laying of optical fiber by the private sector, to overcoming the "digital divide"

(2) Intellectual (academic) infrastructure

- Contributing to the promotion of a nation scientifically and technologically advanced in such fields as life sciences and nano-technology
- Linking highly intellectual and diverse information exchanges with research institutes and universities
- Forming the basis for the training of people who will be able to create new forms of knowledge out of implicit knowledge of the past

(3) Global infrastructure

- Building airports, international ports, international cities that are safe and largely crime free. These will serve as strategic points to enable international exchange open to the world.

(4) Historical and cultural infrastructure

- Confirming the Japanese identity
- Forming the foundation for the human spirit

(5) Environmental coexistence infrastructure

- Enabling nature and man to coexist on a global environmental level
- Creating eco-towns with the objective of obtaining a zero-emission society
- Improving the recycling of industrial and other waste

(6) Long-life/health/welfare infrastructure

- Making social infrastructure barrier-free to assist the elderly in day-to-day life
- Creating special nursing home, building daycare centers, and other health/medical/care-giving facilities in concert with the overhaul of the social security system

(7) Urban space infrastructure

- Creating space that will receive international acclaim, where people will want to work, where foreigners will want to live, and where people can express their creative spirits

(8) Self-realization/self-sufficiency infrastructure

- Responding to the needs of schooling (self-improvement), health, travel, tourism, etc.

These fields should not become caught up in the mindset where people feel it necessary

to always seek a year-on-year increase in budgeted figures. To achieve the national goals, the budgets for these fields should be flexible and elastic—consisting of appropriate investment at the appropriate time, with elimination of budgets once the objectives are achieved.

(The creation of private-sector demand—an urgent task for public investment)

In its public investment in the immediate future, government should look more carefully at whether the investment will contribute to creating the basis for a sustainable, private-sector-led economic expansion. The government should plan the operational focus of its investment, and should promote highly efficient public investment that will enable sustainable growth in private investment and consumption.

The George Mason University Group of the U.S. is emphasizing this approach in the reform of Japanese public investment. For example, as work to build new arterial roads pushes ahead, the government can review the status of the land involved, and can relax the regulations governing the FARs of buildings to be built along the new roads. If owners have the responsibility to erect high-volume buildings, then the expansion of basic urban infrastructure and a unified private-sector investment in construction can be expected in a comparatively short period.

The construction of city plan roads in parts of the city where the level of urban infrastructure is lagging behind can be the trigger to the higher-level utilization of land. People can reform and repair buildings that are in harmony with the neighborhood; the local shopping street can undergo a regeneration and the streets can once again become busy and bustling. This kind of transformation can attract private investment and stimulate personal consumption. This is the meaning of the “crowding in” effect (creating private demand) that public investment can have, as pointed out by the Council on Economic and Fiscal Policy (CEFP). Putting it another way, it means giving serious consideration to the productive effects of public investment.

(Setting up special economic zones and achieving economic effects)

The most effective course of action, as the Japanese government promotes public investment projects in line with its national strategy, is to establish special economic zones like the Enterprise Zone set up by the U.K. government. In these zones, the government will apply schemes to concentrate public investment, relax restrictions,

and give preferential tax treatment with the objective of expanding the "crowding in" effect.

It was reported (January 10, 2002) that the government is planning to authorize a policy “High-Priority Urban Revival Zone” containing this special economic zone creation approach. Even in Japan, the idea of creating special economic areas has frequently been proposed in the past; however, the prevailing mindset in Japan of officialism and firm belief in treating everyone the same has stifled the creation of such zones. Nevertheless, many people now believe that the decline in the international competitiveness of the Japanese economy has reached a dangerous level; it is high time for the government to turn this concept of special economic zones into reality.

In designating a special economic zone, the government needs to:
(1) Consider the positioning of the public investment project in relation to national strategies, and select the locations that will serve as locomotives for the economy, without regard to regional balance and other political factors;
(2) Utilize the principle of inter-regional competition, and back those regions that clearly show that they will cooperate with national projects;
(3) Introduce one-stop government services, and simplify as much as possible the procedures for obtaining permits and licenses, including the transfer of city planning to the private sector; and
(4) Take steps to ensure that the investment effects become apparent as early and as clearly as possible, through such measures as limiting the period of preferential treatment and concentrating the investment into the early stages of the project.

(The telecommunications field—expected to yield “crowding in” effects)

In the telecommunications field, led by the private sector, public investment with a view to correcting the digital divide holds much promise as a means to create "crowding in" effects.

The advance of the IT revolution at the beginning of the 21st century will make many things possible. The costs of sending information have dramatically shrunk. The switch over to IPV6 Internet systems (Internet Protocol Version 6) announced in the “e-JAPAN Priority Policy Program” (adopted by the IT Strategy Headquarters on March 29th, 2001) will enable e-mail addresses to be assigned to all kinds of devices, including refrigerators, cars and electronic books. This will create a world of communication compatibility so that anyone will be able to easily use computers and networks at any time, anywhere—a world of “ubiquitous computing.”

The tools will be i-mode, household electronic communications devices, robots,

ITS (high-speed road transport systems)—all technologies where Japan has a comparative advantage over other countries. Not only major companies and organizations, but households, small- and medium-sized companies, small offices and others can enter the market for these tools. Information will then be added to all kinds of things in real time. New diversity will be created in this consumer-led lifestyle revolution. These new developments will bring about changes in the organization and style of business, surpassing the existing business patterns to allow a whole new range of latent potential in industry to burst forth. It is hoped that these effects of the IT revolution will manifest themselves.

These expectations for IT should not remain as mere blueprints in both the government and in the private sector; it is vital that the user—the ordinary person in the street—can enjoy the benefits. Therefore, within five years (the target period in the e-JAPAN Priority Policy Program) the government aims to set up a super-high-speed (aiming for a speed of 30 to 100 Mbps) Internet network that will link at least every main city in Japan, and be accessible for a reasonably inexpensive fee of 3,000 yen per month (the average fee internationally for such a service is believed to be 5,000 yen per month). Following the public announcement of this plan, the government should move to relax regulations and overcome problems through various means to quickly bring down the internationally high costs of telecommunications in Japan.

(Intensive investment for airports and other transport infrastructure)

In the 21st century people will travel more and more. In the Asia-Pacific region, where growth rates are high, the demand for air travel, including demand from tourism in China, is expected to skyrocket.

Japanese airports are pitiful, with poor access from the city centers, compared with the facilities in China (Shanghai Pudong International Airport), Hong Kong (Hong Kong International Airport), Korea (Inchon International Airport), and Singapore (Changi International Airport). Airports are the source of new business opportunities through which Japan can fulfill its role as a business center in East Asia, providing the basis for the free exchange of people, cargo and information.

The government has to focus on the standard size of international airports in Asia, i.e., sites of 1,000 hectares and cargo handling capacities of 7 million tons per year. It needs to extend Narita and Haneda airports, increase the capacity of the New Kansai Airport, and construct the Central Japan International Airport. In view of the high time costs, it needs to reduce travel times between airport and city centers. The government needs to work to build a new rail link and road access route between Tokyo

and Narita airport to cut travel times to within 30 minutes. The government must quickly create the kind of urban layout befitting an international city.

Prolonged construction and high construction costs will drive up air costs. The government should take measures to reduce costs for greater infrastructure use and to maintain international competitiveness. One example is a system where discounts for use of expressway networks are bundled with discounted air tickets.

1-2-15 Comparison of major Asian airports

	Kansai Int'l Airport	Shanghai Pudong Int'l Airport	Hong Kong Int'l Airport	Incheon Int'l Airport
Area (km^2)	5.1	9.5	12.5	11.7
Annual freight capacity (Thousand tons)	3,900	7,500	30,000	7,000
Construction period	1986-1994	1995-2000	1991-1998	1992-2000
Construction expense (Billion dollar)	25.	1.5	19.9	4

Notes:
1. Data from Korea Research Institute for Human Settlements (KRIHS)
2. Figures are as of when the survey was conducted.

The functionality of international shipping container ports needs to be increased so that Japan can maintain its international competitiveness. The government needs to construct container terminals that have deepwater (15 meters or greater) berths, reduce the offloading time and lengthen operating times.

The ring roads around the major cities are still incomplete. A thorough reform of the flow of traffic in major cities will greatly improve the chronic congestion and degradation of the roadside environment.

Better transport infrastructure is expected to lower the reportedly high business costs in Japan to international levels. This is particularly important to achieve the “crowding in” effect.

(The importance of careful consideration of the order in which infrastructure is constructed)

Even though projects with the "crowding in" effect are emphasized in the previous section, that doesn't mean that the importance of riparian works, roads and other basic infrastructure that protect human life and assets can be denied.

The national government's Urban Renaissance Headquarters established in 2001

emphasized road and urban redevelopment projects that are expected to yield high economic effects. These include the widening of arterial roads, the obligation to build high FAR buildings along roads and rearrange the surrounding densely-packed wooden houses, enable roads to serve as effective fire breaks.

Apart from these, there is need for public investment of the type that the market cannot value in monetary terms and which does not exist in a form that will readily create private-sector demand or attract people. Examples of these kinds of investment include the role of the expressway road network in allowing ambulances and medical staff to beat the race against time to save lives, and the role of river improvement that raises the level of riparian safety and protects human life and assets in areas where populations and industries are concentrated. This kind of basic infrastructure that protects life and assets contributes to the national economy on a different dimension to that of inducing private-sector investment, and is a true form of social capital that bring benefits to citizens.

Nevertheless, it is required in Japan today to distinguish the three types of infrastructure and sort out the order in which they need to be built: a) Infrastructure that will soon yield a "crowding in" effect by strengthening Japan's international competitiveness; b) Basic infrastructure that known to be urgently required; and c) Basic infrastructure that known to be not so urgently required. To assess true benefits of basic infrastructure the government needs to develop objective pecuniary assessment methods and continuously strive to show just what level of benefit any particular basic infrastructure will bring in relation to other public investment, as suggested by the Council on Economic and Fiscal Policy.

ii) Focus on target regions

Some people argue that a reduction in public investment means that the sacrifice of the provinces, particularly the depopulated regions that have little industry, is far greater. It is certainly true that if public funding is cut back in depopulated regions where there are few opportunities for employment, opportunities for work will be lost. It cannot be denied that delays in public investment will cause suffering. A sudden, drastic decline in public investment will wreck people's lives.

Japan—facing a decline in its investment reserves and a declining population—should consider limiting, in the medium and long term, public investment over all parts of the country, as it has done so in the past. The government should consider gradually widening the areas where people's lives and efficient production activities will not be harmed even if public investment is limited. This is a challenge to prepare

Japan for the next generation.

iii) Focus on investment goals

The expected goal of public investment is to supply society with public assets that the market will not supply enough of or not supply at all. In this way, public investment has a resource allocating function that increases benefits to the public.

In addition to this role, people expect public investment to be a part of the state's income redistribution policy—stimulating and maintaining employment in selected regions. Some argue that a reduction in public investment will lead to a rise in unemployment. There can be no doubt that public investment plays a major role in job creation in the provincial regions, and that constant consideration be given to the use of public investment to dampen out short-term fluctuations.

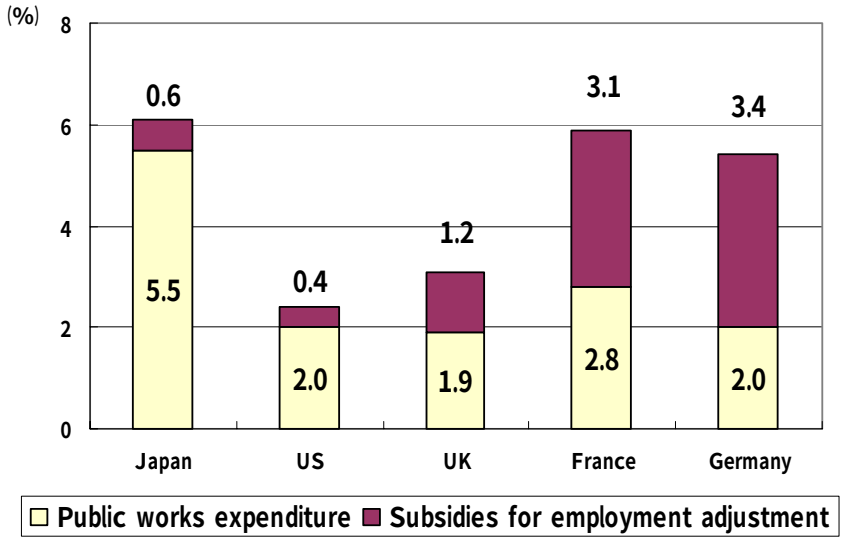
On the other hand, the construction industry is becoming increasingly dependent on public investment, sucking the resources of public investment into construction and directing it away from more productive industrial sectors. In the long term, such a trend will stifle the latent growth potential of the provincial regions in Japan.

When public investment is made to prop up the economies of declining regions, the allocation of resources become biased towards the construction sector. As a result, the transfer of people, hardware and capital between sectors, regions and industries is delayed. The growth of industries that should be forging ahead is retarded.

Although public investment will continue to have a role in the creation of employment to absorb the shocks of sudden economic fluctuations and play an important part in supporting temporary employment, there are limits to its use. The application of public investment as a permanent measure to create employment in provincial regions is extremely costly, and the relationship between the measures and the objectives of the investment are frequency unclear.

Public investment should be used to offset the risk of a rise of unemployment that accompanies economic changes. To maintain the levels of provincial employment that public investment has borne, the government will need to strengthen the safety net through boosting levels of employment subsidies and other measures. This approach was clearly evident in the first supplementary budget of FY2001. In France and Germany, the size of subsidies for employment adjustment, in relation to GDP, are far higher than in Japan. This suggests that in the U.S. and Europe, amounts that in Japan are responsible for the high Japanese IG/GDP ratio are instead spent as employment subsidies.

1-2-16 International comparison of ratios of public works expenditure and subsidies for employment adjustment to GDP



Notes:
1. Compiled based on data from OECD and data from Yoshio Higuchi, "Evaluation and outline of Japan's employment policy" in *Keizai Kenkyu* (April 2001; Hitotsubashi University).
2. Ratios of public works expenditure to GDP are those of 1997 for all countries.
3. Ratios of subsidies for employment adjustment to GDP are 1998-99 average for Japan and US, 1997-98 average for UK, 1998 for France and 1999 for Germany.

iv) Focus on investment methods

(Two approaches to public investment)

In *The Strategy of Economic Development* (1958) the author, Hirshman, discussed two approaches to public investment. In one, the creation of public capital stimulates private-sector productive activity. In the other, public investment comes after the expansion of private-sector productive activity.

In the history of the allocation of public investment in Japan, there has been tug-of-war between the two approaches. The government has used the first approach to bring out the development potential of provincial regions, and has applied the second approach to overcome bottlenecks in the metropolitan regions. In other words, there has been a tug-of-war between “the provinces come first” and “concentrate on the metropolitan centers” as well as between “emphasis on equal development” and “emphasis on investment results.” In the end, the provinces won out and there was a major shift to favoring public investment in the provincial regions.

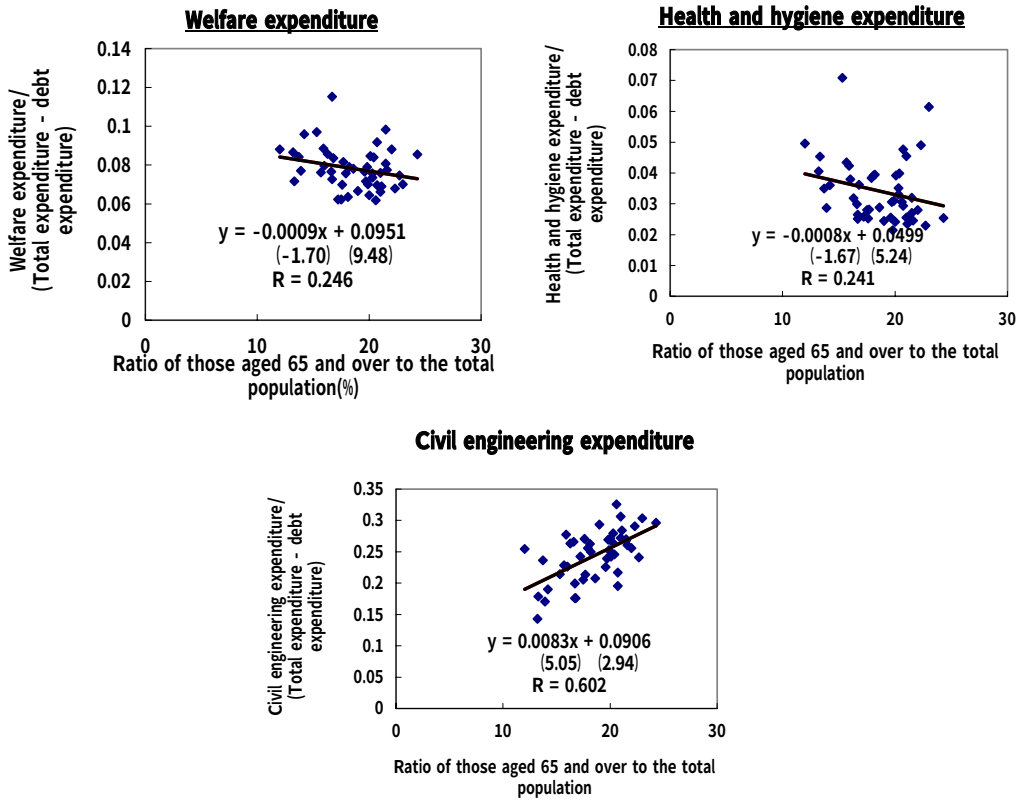
(The limits to using public investment to stimulate the private sector)

The current situation in Japan does not confirm the validity of these kinds of approaches. At a time where there is little public capital stock, it is clear that initial public investment does indeed have considerable power to attract business. Unfortunately, today, where the public capital has been improved to a certain level, the ability of public investment to attract business has greatly declined, along with the reduction in the scarcity of public capital stock.

Today, where much capital stock is in place, to continue to allocate public investment as in the past would cost a tremendous amount, sacrificing efficiency. In the end, it is possible that the provincial regions, including the depopulated parts of the country, will suffer harm as a result of the reduced balance.

While public investment accounts for a very high proportion of local government budgets in the depopulated regions where there is a high proportion of elderly, it is somewhat of a contradiction to see that the proportions earmarked for public welfare expenses are actually lower than in the metropolitan regions where the percentages of senior citizens in the populations are lower.

1-2-17 Ratios of senior citizens to total population, and ratios of public investment expenditure and welfare expenditure to total expenditure by prefecture



Notes:
1. Data from "Population Census Report" and the Ministry of Public Management, Home Affairs, Posts and Telecommunications
2. Figures for "ratio of those aged 65 and over to the total population" are of FY1995 and for others are of FY1998.
3. " Welfare expenditure" includes social welfare, welfare for senior citizens, children, social relief and disaster relief.
4. " Health and hygiene expenditure" includes expenditures related to public health and waste disposal.
5. "Civil engineering expenditure" includes expenditures for road, bridge, river, port, city planning and management, maintenance and repair.

(The importance of the investment effect of public investment)

The approach, whereby initial public investment creates capital stock that in turn forms the foundation for development in underdeveloped provincial regions to raise the standard of living, no longer always work. The trend of Japanese companies transferring their manufacturing bases to locations overseas is increasing. These and other factors are causing great changes in Japanese economic structure.

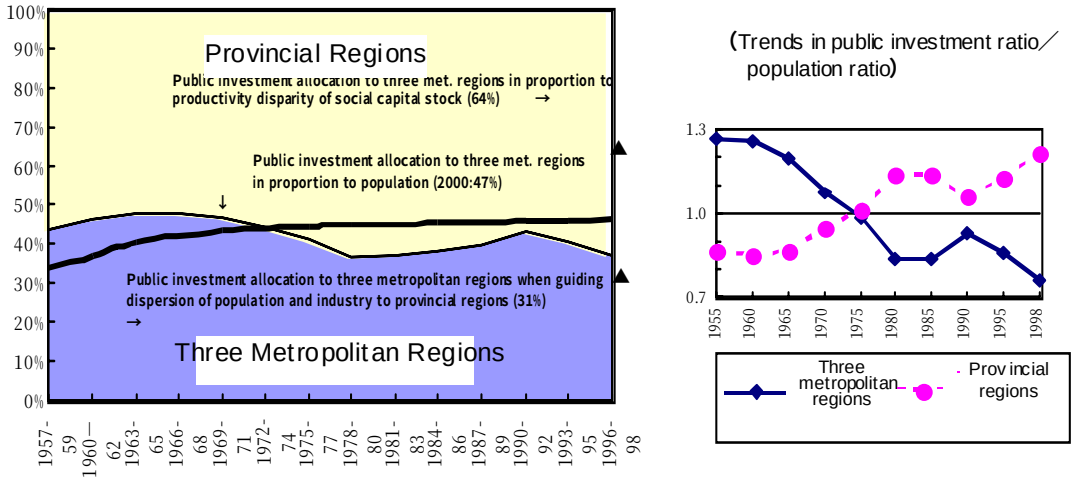
Although the level of social infrastructure is partially responsible for the slower economic development in the provinces, there are now other greater factors at work—non-infrastructure ones such as technology, location, insufficient accumulation of information, etc.

As was pointed out in the paper by the George Mason University Group of the U.S. criticizing Japanese public investment, even though social capital levels are one consideration in decisions involving private-sector investment, social capital levels themselves are derived demand and will not continually raise living standards. A rise in living standards becomes possible when offices and factories arrive, and jobs are created.

In future, important selection criteria for public investment will be whether it will induce private investment and private consumption (including investment in R&D and human resource training where the risks are high but the benefits to the economy as a whole are great). In such a case, one approach is public investment in people—the allocation of public investment in areas where people are concentrated.

Needless to say, in public investment, some projects in the provinces, such as the construction of bypass roads around regional core cities yield considerable time saving effects, while in the metropolitan regions the compensation to be paid to land owners is so high that the efficiency of some public investment projects can be very low. In assessing the efficiency of public investment, it is essential to accurately gauge individual costs and benefits.

1-12-18. Trends in public investment allocation ratio by region and standard of allocation



Notes:

1. Data from "Population Census" and the Ministry of Public Management, Home Affairs, Posts and Telecommunications.
2. Refer to 1-2-5 the definition of three metropolitan regions. "Provincial regions" refer to regions other than three metropolitan regions.
3. Production disparity is based on the assumption that three metropolitan regions are twice more productive than provincial regions. "Guiding dispersion of population and industry to provincial regions" is based on the assumption that twice more population and industry are "guided and allocated" to provincial regions.
4. Population ratio for 1998 is based on the 2000 figure.

v) Focus on target generations.

(The focus of public investment that is biased towards the current generation)

Some argue that in Japan, where there is a surplus balance in savings that will benefit future generations, it is a good idea for the government to issue bonds to pay for the building of social capital. In pure economic terms there is tremendous debate over whether the government debt should be left to future generations to bear.

One influential opinion states that the balance of outstanding public debt that has ballooned with the increase in the issuance of deficit bonds is tempting a sudden leap in long-term interest rates. This was noted in the Cabinet Office's "Short-Run Macroeconometric Model of the Japanese Economy (2001 provisional publication)" published in October 2001.

It has also been said that the increase in government spending accompanying the gradual rise in government debt may increase the public's expectation that a restructuring of public finances will occur in the future, and may have a non-Keynesian

effect where private demand is suppressed (also known as the “neutral proposition of public bonds” meaning the issuance of bonds and tax procurement have the same effect). If deflation accelerates a balanced contraction, and interest rates continue to exceed the nominal rate of growth, the government will not be able to meet the interest payments on its debt through taxes, and the risk of the collapse of public finances will increase.

The increase in the level of social capital now means a diversification of choice concerning social capital creation in the future. The future is looking increasingly uncertain. Today it is becoming more difficult for the present generation to accurately select the social capital of the future as was possible during the period of high economic growth. The present generation needs to exercise caution in making their own choices. If civil disasters occur frequently, the priority of flood control and landslide control becomes higher. The progress of global warming may elevate the importance of coastal works. If the current confirmation-type of social capital formation continues, the future generation may have to bear the risk of the growing obsolescence of inefficient capital stock that will be handed down to them without their consent.

Many of the major nations have succeeded in cleaning up their public finances and are keeping the lid on their issuance of public bonds. Japan is getting severe looks internationally. For example, Moody's Investor Services, the U.S. rating company, gave Japanese government bond “Aa1,” one notch lower than the highest possible rating of “Aaa” in November 1988. Later in September 2000, Moody's downgraded it further to “Aa2”. Finally on December 4th, 2001, the rating was further downgraded to “Aa3”—an extremely low rating equivalent to one given to the government bonds of Italy (another member of the G7)—citing the lengthening of the recession in Japan and the accelerating deterioration of the public finances.

vi) Attaining the five focal points for better public investment

Over the years, the government has boosted public spending to stimulate the economy by expanding demand; however, such an approach has courted inefficiency. The years of public handouts have preserved levels of low efficiency in the Japanese construction industry. We cannot deny that public investment is linked to the hollowing-out of the Japanese economy, particularly in the provincial regions.

To revitalize local economies outside the metropolitan regions, public investment needs to be conducted with focus. If future public investment is conducted with an eye to contributing to the growth of the Japanese economy, paradoxically, the increasing budgetary restrictions may actually encourage greater efficiency. Strict budgetary

constraints, in a way, offer an opportunity for the national government to encourage greater efficiency in public investment through the reform of the system of tax allocation to local governments (explained in the following section) and other innovative measures.

A uniform, mechanical cut to public investment budgets however, is not desirable. A system is needed, for example, a combination of a loose cap on budgets, to encourage the optimum choices to be made. The U.S. Balanced Budget Act of 1997 used such an approach and put into law the principle of "pay as you go." If government decides to spend new obligatory expenses or to lower taxes, the President can order that government to cover the expense (or decline in revenue) within that fiscal year by either increasing taxes or cutting back on expenditure (the general principle is that the total expenditure remains the same). This system incorporates flexibility and incentives for government to make expenditures more efficient.

(2) The scope of public finance that the central government and local regions should each bear

(Where the problems lie)

The second issue is the reconsideration of the scope of the government's public investment. In the fields of medicine, education and welfare, the government must provide standardized service throughout the country. However, in the field of social infrastructure, the national minimum has already been achieved and there is less need for the national government to be as involved in local public investment as in the past.

On the other hand, the local government can better select the projects and concentrate the resource, to build up social capital that suits the needs of the region. Therefore public investment should be divided into the two categories: (1) major public investment that should be made by the national government from the viewpoints of the national economy overall and the national as a whole, in which the resulting benefits will extend over a wide area; and (2) public investment that local governments should select and make because the expected benefits will be limited to a fixed area. Although there are various factors that need to be considered, such as economic externalities and the ability to decrease costs, a reconsideration of the best ways to conduct each approach is needed.

(Classification of public investment)

The works funded by public investment by either the national government of local governments can be grouped into several classes, based on the scope of the resulting benefits.

The first group is the major public investments that will bring benefits to a wide range of people across the entire country (major public goods). These can be divided into two sub-categories: The first is public goods from which the possibility of collecting user charges is very low (Type A). Examples of these would include main national highways, landslide and flood control, riparian works, and coastal sea control works.

The second group consists of those key public goods such as expressways, railways, communications networks, airports and ports where the government can make users pay fees, and where networking effects lower expenses and where externalities can be expected (Type B). Partial privatization of this type of public goods is possible. There is now a debate going on in Japan over whether to reform and privatize special government-affiliated corporations responsible for this type of pubic goods.

The second group is public investments where most of the beneficiaries will be people of a particular region, but where the infrastructure in certain regions will bring benefits to people in other regions. These include major local roads, regional industrial waste treatment facilities, and large parks (regional public goods). For example, if the benefits of the construction of a prefectural road spill over into the neighboring region, then investment funding solely by prefecture may not be the most appropriate. The national government might maintain a desirable level of support for the road through supplementary funding and participation in the operation at a certain level.

The third group is public investment that benefits a limited area (purely local public goods). Although this type of investment should be made by the region itself, the national government usually participates in the project and provides assistance to guarantee and encourage national minimums.

(A reconsideration of public investment and the need to raise the level of self-responsibility of local regions)

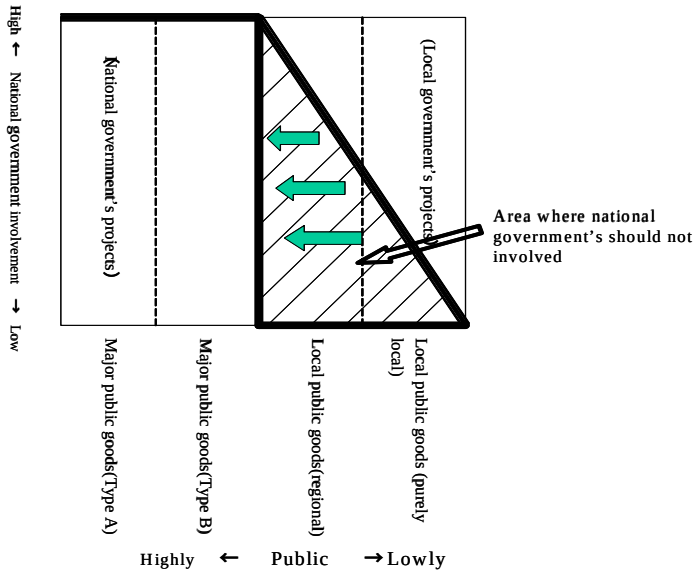
To organize the classification of public investments made in the previous paragraph we could prepare a graph. On the X-axis we could arrange the public goods in order of how widely they would be used; thus, first we would have major public goods (Type A), followed by major public goods (Type B), then regional public goods (involvement from the national government), and lastly, purely local public goods (no national

government's involvement). The Y-axis would indicate the degree of involvement by the national government (degree of weakness of local self-determination).

At present, the level of participation by the national government declines as we head out along the X-axis to the pure local public goods. In the future, the national government should focus on public investment in areas that will contribute to the growth of the Japanese economy as a whole—major public goods in types A or B. The national government should play less of a role in investment in regional public goods or purely local public goods. It should entrust the investment decisions, fund procurement and actual construction to either the local government or affiliated body.

In this way, regional public goods can be financed through increases in residents' tax and other basic local taxes—making full use of local financial resources. The procurement of financial resources for local public goods should, in principle, be borne by the local region. Further studies will be needed, to clarify the relationship between benefits and burden.

1-12-19 Types of public goods and degree of national government involvement



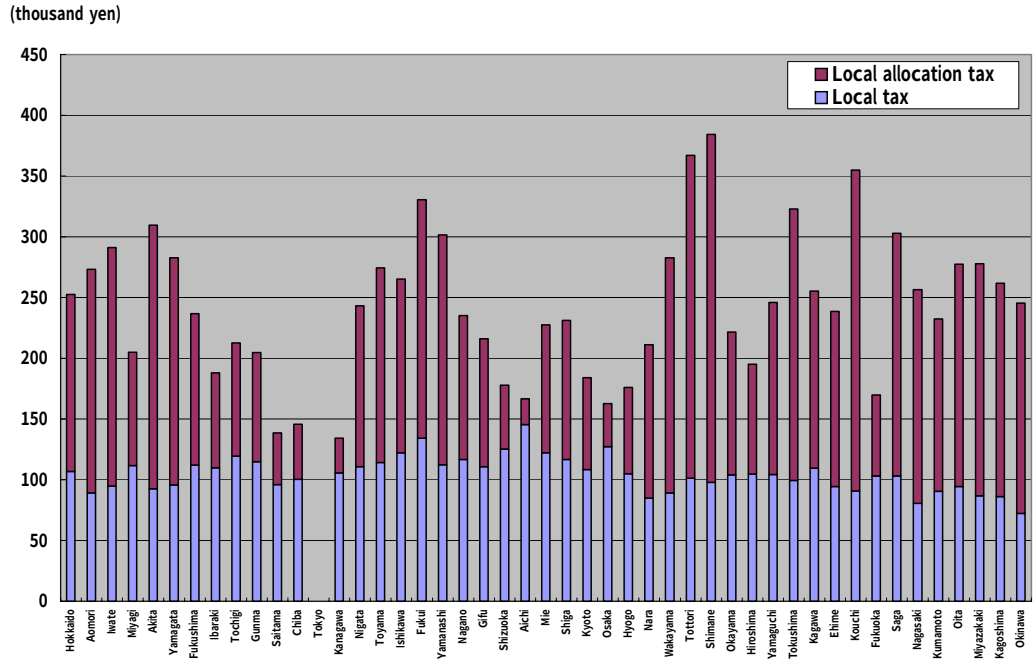
(The necessity of reform of tax allocated to local governments)

Reform of the system of tax allocation to local governments is one of the pillars to the structural reform of the Japanese economy. The reason is that this system, under which revenue from national tax is allocated to local government, overrides the revenue procurement function and provides local governments with a guaranteed income source. This system is partially responsible for increasing the participation of the national government in public investment, while dulling local governments' cost

awareness. This leads to larger and larger local public works projects, and local governments find it hard to put the brakes on such schemes.

The national government should limit the function of the system of national tax allocation to local governments to its original role of fund procurement adjustment. Its function as a system of public works cost assistance increases the tax allocation to local governments when specific projects are expanded. It also provides progressive assistance that favors small-scale governments in the amount of tax allocation.

1-2-20 More local tax and subsidy allocated to provincial prefectures than to metropolitan prefectures



Notes:
1. Compiled based on "Annual Report on FY2000 Local Finance Statistics (FY1998 data)" published by the Institute of Local Finance.
2. Tokyo Metropolis where special "ward tax" is imposed is not included.

(The rationalization the local bond system)

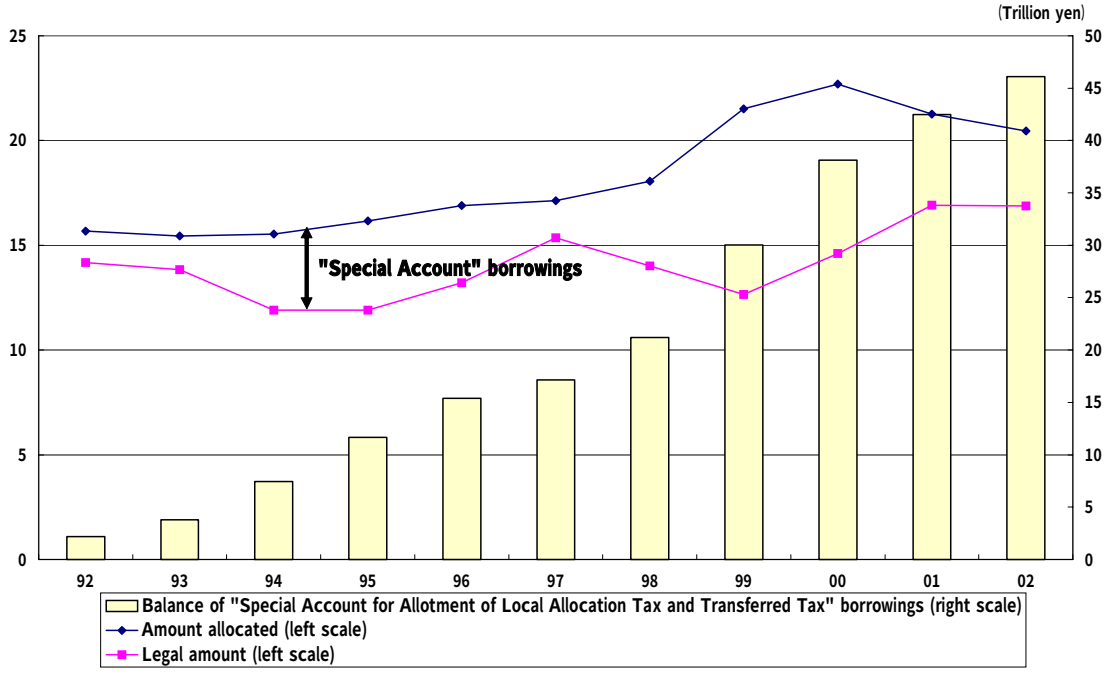
Many “local” public works projects are funded by the national government, and this funding is backed by the issuance of local bonds. Some of the interest to be repaid is supplied by local allocation tax that is financed by future national tax. This system reduces the actual burden on local government, so local governments often push ahead with their projects without considering whether they are really necessary or not.

In the past, local bonds to finance projects initiated by a single local government did not receive local allocation tax. That local government had the sole responsibility to

amortize the bond. However, local allocation tax from the national government became available through the creation of “Regional General Development Bonds” in FY1984 and “Temporary Local Road Development Project Bonds” in FY1991 and other systems. The use of these types of bonds has spread and thus the amount of tax passing from national to local government has increased.

If the national government wants local governments to be responsible for selecting public work projects and wishes to encourage efficient public investment, it needs to financially empower local governments. As a first step the local bond permit system will be abolished in 2006. The national government should continue reviewing the system of national tax allocation to local governments and its financial measures regarding local bonds for public investment.

1-2-21 Local tax and subsidy (the amount allocated and statutory amount) and balance of "Special Account for Allotment of Local Allocation Tax and Transferred Tax" borrowings



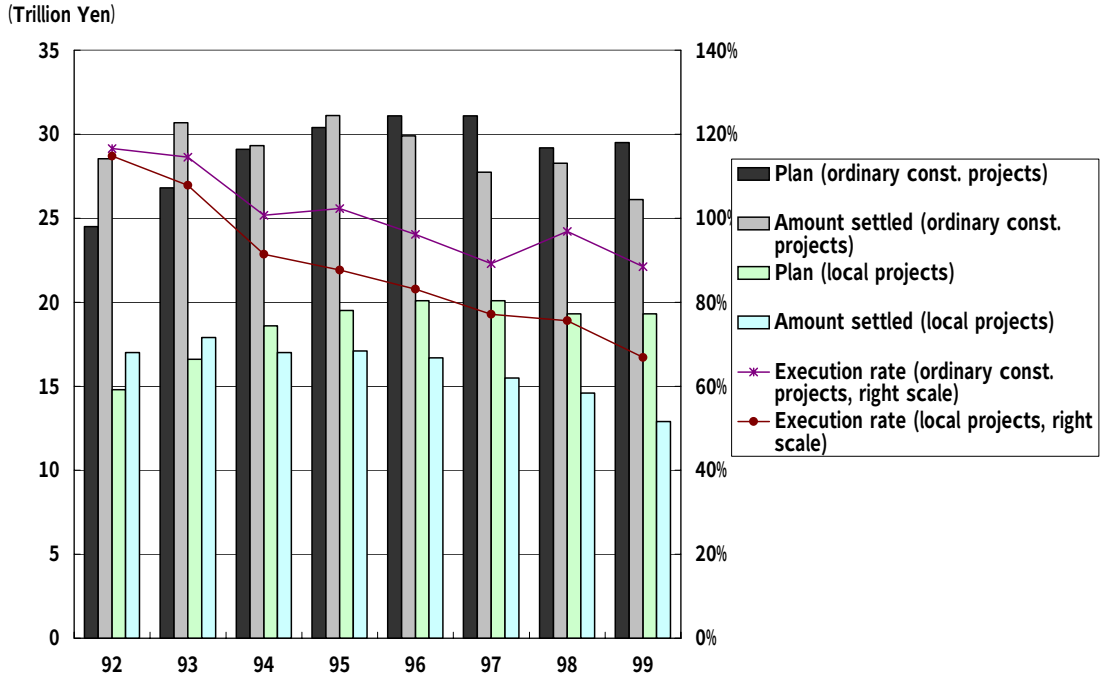
Notes:

1. Compiled by the Ministry of Public Management, Home Affairs, Posts and Telecommunications based on its data and data from the Ministry of Finance.
2. Figures for FY01 and FY02 are based on initial budgets
3. Figures from FY99 to FY02 include special local allocation tax.
4. Legal amount refers to legal percentage of five national taxes (income tax, corporation tax, liquor tax, consumption tax and tobacco tax) plus amounts added based on Local Allocation Tax Law and extraordinary fiscal measures

(Gap between planned and actual spending on ordinary construction projects)

In spite of support from the national government, the total debt of local governments has now reached 160 trillion yen due to a series of supplementary budgets to boost the economy. Local governments are now suffering from greater burden of local bond interest repayment and drop in tax income. As a result, many local governments cannot afford to implement construction projects (independent projects initiated by a single government in particular) as planned.

1-2-22 Gap between planned and actual amount of ordinary construction project expenses



Notes:
1. Data from the Ministry of Public Management, Home Affairs, Posts and Telecommunications
2. "Local projects" form a part of "ordinary construction projects."

(Taxpayer voting system)

In his book *The Proper Approach to Public Investment* (in the Chuko Shinsho series published by Chuokoron-shinsha, 2001, 199 pages), Professor Toshihiro Ihori of the University of Tokyo argues that one good way to efficiently carry out public works is to consider the introduction of a taxpayer voting system that would ensure the proper balance between benefit and burden in response to the needs of local residents who would benefit from public investment. Under such a system, taxpayers would have the

right to select how a specific portion of the taxes they pay is to be allocated to public investments whose benefits will be confined to their own region. The ability to select how a portion of their taxes will be spent is probably an effective means to ensure that the people get the social capital that they want.

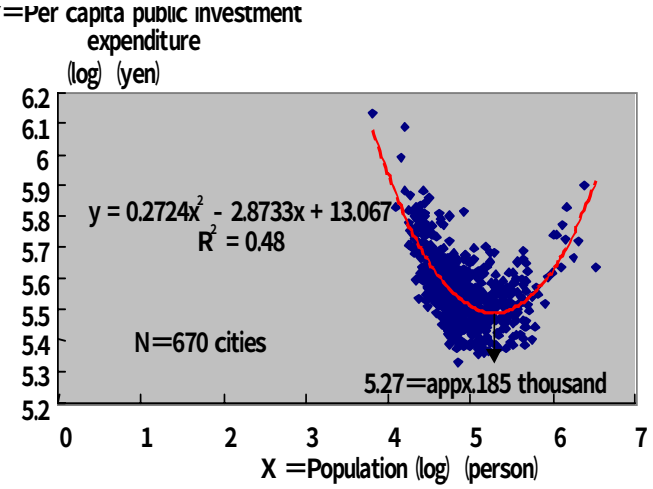
(The rationalization of the city/town/village system)

A major issue in the execution of efficient public investment is whether or not it is rational for the project to be carried out on a single city/town/village basis. The optimum scale for a particular public investment differs, depending on the facility (medical/welfare facility, sewer line or what have you). It is impossible to say for sure, but if the current system (under which the more than 3,000 cities, towns and villages across Japan each make their own public investments independently of one another) continues, then a decline in the efficiency of public investment due to the duplication of investment (even if regional interlinking schemes are used) is probably inevitable.

Graph 1-2-23 expresses a quadratic function that fits the relationship between population and the size of per-capita annual expenditure of 670 cities across Japan. The smaller a city's population, the larger the annual per-capita expenditure; and as the population size increases, scales of economy come into play—with the minimum population size being about 200 thousand.

Due to the differences in size among municipalities, there are differences in annual revenues, the level of public transportation infrastructure, as well as in topography and climate. Although it is not possible to say that this graph indicates the optimum size for a city in Japan to be, there needs to be careful consideration of the economy of city size in debate over the merger of certain cities, towns and villages.

1-2-23. Per capita public investment expenditure and size of municipality



Notes:

1.Data from Japan Association of City Mayors and the Ministry of Home Affairs (ex)

(3) Reform of the public investment system

(Where the problems lie)

The third issue is how to ensure the transparency of the public investment process. An analysis of public investment reveals that there are many different kinds of individual public works in different parts of the country, varying in level of benefit and range of scope. To a greater or lesser degree, all these projects are planned, budgeted and executed based on a keen demand for them in the local community.

The problem is that it is impossible not to feel a certain skepticism over whether the some projects are truly necessary, whether the costs are too high, whether the share for each projects is fixed, and so on. This is why government must make efforts to ensure transparency at each stage, from project planning through to maintenance management. The government also has a responsibility to clearly explain the general public the cost effectiveness of public works projects.

(Strengthening of measures to ensure transparency to contribute to the focus of public investment)

To overcome the public's misgivings over certain public investments, the government should offer clear and rational explanations using language that members of the general public can understand. These should be made from the planning stage onwards, and explain the need for the public investment, why a particular site has been selected, whether the job ordering process has been conducted properly, and should explain the economic and social effects of the investment. This information can be made public via the Internet and other channels.

The government should establish a decision-making process that incorporates procedures for public involvement that will enable the project planning selection and review process to incorporate public opinion. If public misgiving over public investments, to a large degree, is due to this lack of transparency, then the government must take a strict stance to ensure that projects that do not pass through the public involvement process are not given the green light. The strengthening of these kinds of policies that will ensure transparency may enable the rational screening of public investment projects and contribute to a better focus in public investment.

In June 2001, the Council on Economic and Fiscal Policy proposed the following

measures for the reform of the government policy selection process. “The people of Japan, as tax payers, bear the costs of public services, and are customers of the government who is the public service provider. The public have the right to receive services for the best possible prices in relation to the taxes they pay, and the government must seek to maximize customer (public) satisfaction levels. ‘New Public Management’ is a new approach to achieve this, as is becoming widely adopted all over the world. New Public Management is an innovative approach to administrative management that seeks the introduction of private-sector management techniques into the public sector to enable the more efficient supply of high-quality public services.”

During the process of making public investment, the government needs to include the backbone of the New Public Management theory, namely the notion of putting the customer first and the principle of market competition, and must continuously seek cost reductions. In addition, it is essential for the government to bear accountability in the following five factors of administration.

Firstly, from the planning stage onwards, government must strengthen public involvement procedures that are receptive to public opinion, including public calls for other project options or project cancellation.

Secondly, government should develop methods to measure the stock effect of public investment. Stock effects of public investment include factors that are difficult to quantify, such as safety and comfort; nevertheless, it is easier to assign numerical values to these factors compared with fields such as education and welfare. The government should work to develop methods to more accurately measure the effects of public investment and to release data to the public utilizing the latest information technology.

Thirdly, for more appropriate demand forecasts, the government needs to publish the background data, statistical details, details of costs and benefits, from the perspective of achieving full accountability.

Fourthly, the government should improve its output indices and use proper outcome indices (for example, certain road improvement has eliminated traffic congestion, cutting travel time by half, etc.) and try to make clear explanations that are easy to understand.

Fifthly, the government should follow up on the results of cost effect analyses and put in place a system to compare the outcomes of each analysis. Particularly in the case of regions targeted to generate economic effect, such as special economic zones (see Section 1.2.3-(1)), the government should not simply confine its explanations to the reasons for the selection of the area, but should attempt to continuously explain to the public in an understandable manner the kinds of effect are expected, for example, two or three years after the region is selected.

Through such efforts, members of the public will have the opportunity to express their opinions about a project from the planning stage onwards. For each project, the government will clearly state the necessity and effects to the public in a form that the people will easily understand. People can then make relative comparisons with other possible uses, and will make a great contribution to the practical advancement of New Public Management.

(The use of the private sector is still important for public investment)

Since the public sector has not been baptized in the ways of the market mechanism, public investment is often conducted inefficiently. To ensure efficient public investment, more approaches to achieve efficiency, such as the ones listed below, need to be examined

The first approach is privatization. In fields where specific projects will generate their own profits, the private sector can supply the public goods and the role of government can be minimized. In the current discussion of privatization, the form that privatization will take—and its merits—are often unclear. Further discussion is needed from the perspectives of many factors. These include the transparency of the selection process and transparency of business, form of budgetary assistance, selection of organizational goals, assuring employee incentives, and ease of organizational control.

The second approach is PFI (Private Finance Initiative). In fields where the project will not yield a collectable profit, the government can introduce and promote this system where the government pays the costs and the private sector plans, builds and then operates public investment projects. PFI is a useful approach for industrial waste facilities, hospitals, government and municipal offices, and other facilities where the private sector has superior technical and operational skills and is able to provide services at a lower cost than could be achieved through public investment. Although PFI has not been used due to the high financial burden, it may become more widely used if it is treated as more of a mainstream approach and is used in conjunction with financial assistance to the operator.

The third approach is public-private partnership. In this field are those projects that have a huge cost burden and only yield a fraction of the money invested. This approach includes: i) private-sector administration of public facilities where only a fraction of the capital cost will be recovered through revenues, and ii) projects where revenues will exceed administrative costs but will fall below total costs (including capital cost) in which case the government provides assistance such as capital input.

(A proposal from Professor Button of George Mason University)

A group of academics from George Mason University of the United States published a report titled “Public Works Policy and Outcomes in Japan and the USA,” in October 2001. A summary of the proposals made in is listed below.

(1) New Growth Theory tells us that the market mechanism, through which local economic growth rates tend towards a state of equilibrium, as neo-classicists claim, is not working, and if nothing is done, the economic environments of stagnating regions will worsen.

(2) New Growth Theory tells us that although there is a positive relationship between the level of public investment and economic growth rate, public investment is easily affected by changes in the economic conditions, and thus government must carry out public investments prudently, with careful consideration to efficiency.

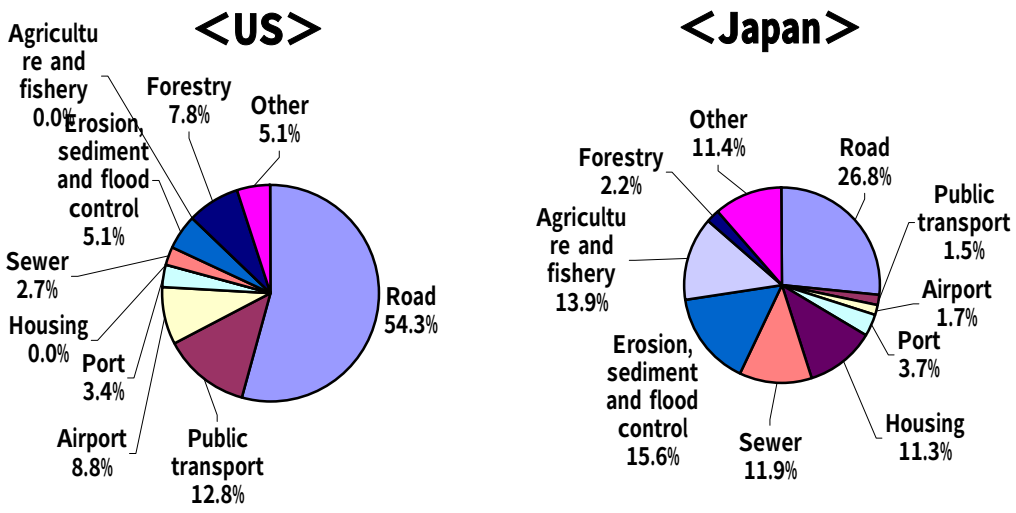
(3) In the United States, the goal of public investment is to raise economic productivity. Recently, the government has cut back total operating expenses and has shifted public investment to the area of transportation, where productivity is high.

(4) On the other hand in Japan, economic efficiency is not the only goal of public investment: Other social and political goals are often more important. The distribution of public works investment in Japan tends to be rigid and has been skewed toward sectors such as agriculture and housing.

(5) As pointed out in the 2000 OECD report, the following reforms to public investment are urgently needed.

- Focus national government resources on sectors that yield high benefits to the overall economy, principally in transportation infrastructure.
- Assume new leadership roles in defining overall objectives and standards to be carried out at the local level;
- Transfer capital and responsibility to local governments and the private sector. Strengthen the principle of beneficiary responsibility to implement efficient project selection and delivery.

1-2-24 Central government's public works expenditure by sector: Japan and US



Notes:

1. Data from George Mason University, "Public Works and Outcomes in Japan and the USA" (October 2001)
2. Figures for US are 1998-2001 averages. Figures for Japan are FY2001 budgets. 1 dollar = 120 yen.
3. Figures for US do not include federal government's spending on state and local governments. Figures for Japan include allocation tax and subsidy to local governments.

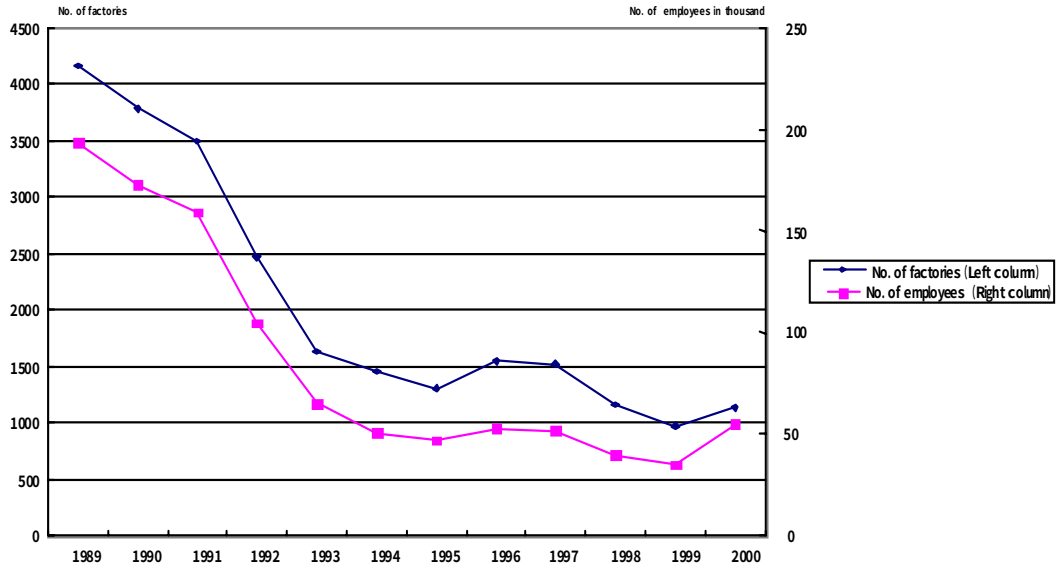
1.2.4 Strengthening regional economies to make them less dependent on public investment

The fiscal limitations of government are growing more severe and total public investment is being reigned in. An important issue is how to empower local economies in Japan through the utilization of the private sector.

The possibility of stimulating regional economies—trends in factory location

First of all, when we look at trends in the opening of factories (a factor that has a considerable influence of local economies) we see that they reflect recent changes in Japanese industrial structure. Over the last 10 years, the number of factories opening per year has dropped fourfold.

Figure1-2-25 Trends in the opening of factories



Note: Data from Ministry of Economy, Trade and Industry (METI)

Businesses with head offices in the metropolitan regions were encouraged to open their factories in the provincial regions. In the wake of the economic bubble, however, the annual average number of factory openings by these businesses fell from 1,000 to 300, and the proportion of factories opened in the provincial regions also fell.

Fig. 1-2-26 Pre- and post-bubble trends in the location of headquarters

(Unit: No. of headquarters, %)

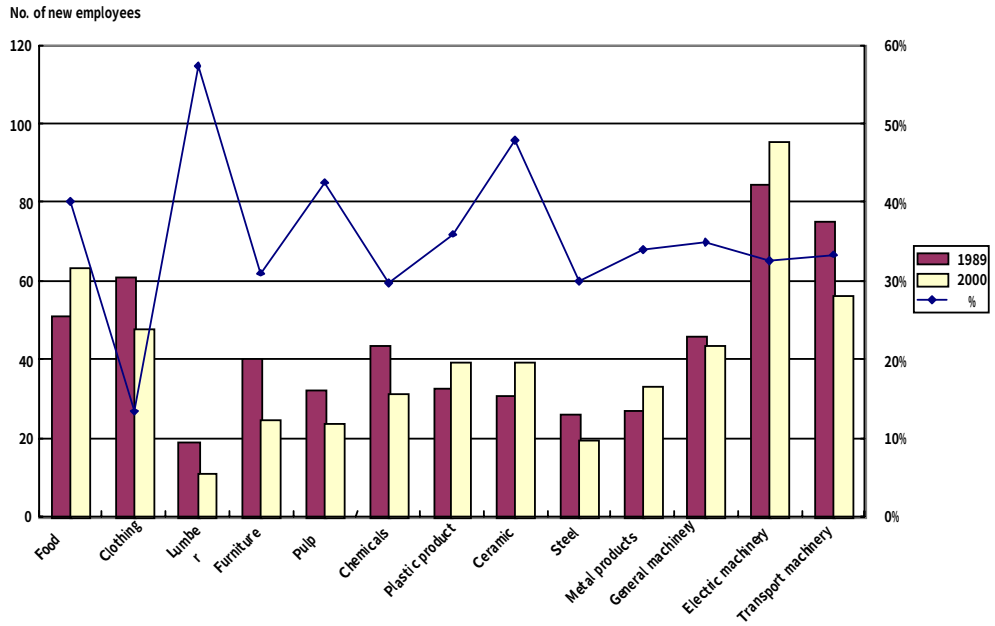
Location of headquarters	Location	1989-1991						1992-1998					
		Three metropolitan regions	% down	Provincial regions	% down	Total	% down	Three metropolitan regions	% down	Provincial regions	% down	Total	% down
Three metropolitan regions		1481	96%	3047	31%	4528	40%	1561	97%	2228	23%	3789	34%
	% across	33%		67%		100%		41		59%		100%	
	Year average	494		1016		1509		223		318		541	
Provincial regions		30	2%	6877	69%	6907	60%	45	3%	7260	77%	7305	66%
	% across	0.4%		99.6%		100%		0.6%		99.4%		100%	
	Year average	10		2292		2302		6		1037		1044	
Total		1511	100%	9924	100%	11435	100%	1606	100%	9488	100%	11094	100%
	Year average	504		3308		3812		229		1355		1585	

Note: Data from Ministry of Economy, Trade and Industry (METI)

The number of jobs created by the opening of new factories is relatively high in knowledge-intensive assembly industries such as machinery, electrical goods and transport. But the numbers in general are declining, suggesting that there are limitations to the strategy of boosting local employment by enticing metropolitan-based businesses to come and open local factories.

In addition to this decline, companies are steadily consolidating their domestic production bases and pulling back from some areas. According to the Ministry of Economy, Trade and Industry's "Survey of Overseas Business Activities," the proportion of manufacturing performed overseas has rapidly increased, from 6.4% in 1990 to 9.0% by 1995, to 14.5% (preliminary figure) in 2000. According to survey conducted by the Nihon Keizai Shimbun Inc. (the *Nikkei*), the number of closures or suspension of operations of domestic factories by companies listed on the Japanese stock exchange in 2001 has climbed to 122 (as of November 25th, 2001), far higher than the 69 cases in the previous year.

Fig. 1-2-27 Number of new employment by industry (No. per factory)

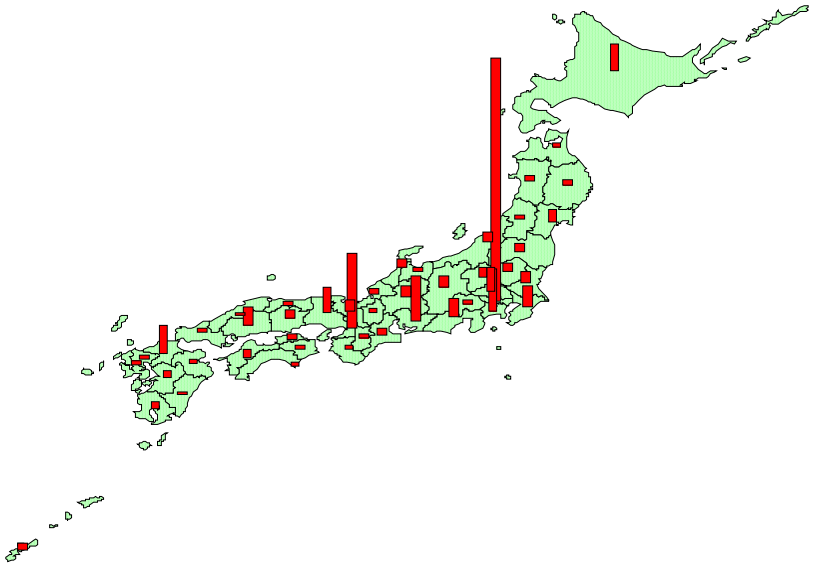


Notes:
1. Data from Ministry of Economy, Trade and Industry (METI)
2. Broken line in the graph indicates 1989/2000 ratio when 1989 figures for each industry are converted to 100 (right column)

The possibility of stimulating regional economies — from the viewpoint of the distribution of growth businesses

Next, we will look at the types of growth business and their distribution throughout Japan on a stock basis. Conducting a search of a Teikoku Databank business summary file containing data for the year 2000, and looking for "companies with sales in the last year of at least 500 million yen" and "companies whose sales in each of the last two years have grown by at least 10%" revealed 12,239 companies throughout Japan. Of these, 60% were located in metropolitan regions, and 40% were located in Tokyo or Osaka.

Fig. 1-2-28 Location of growing companies by prefecture

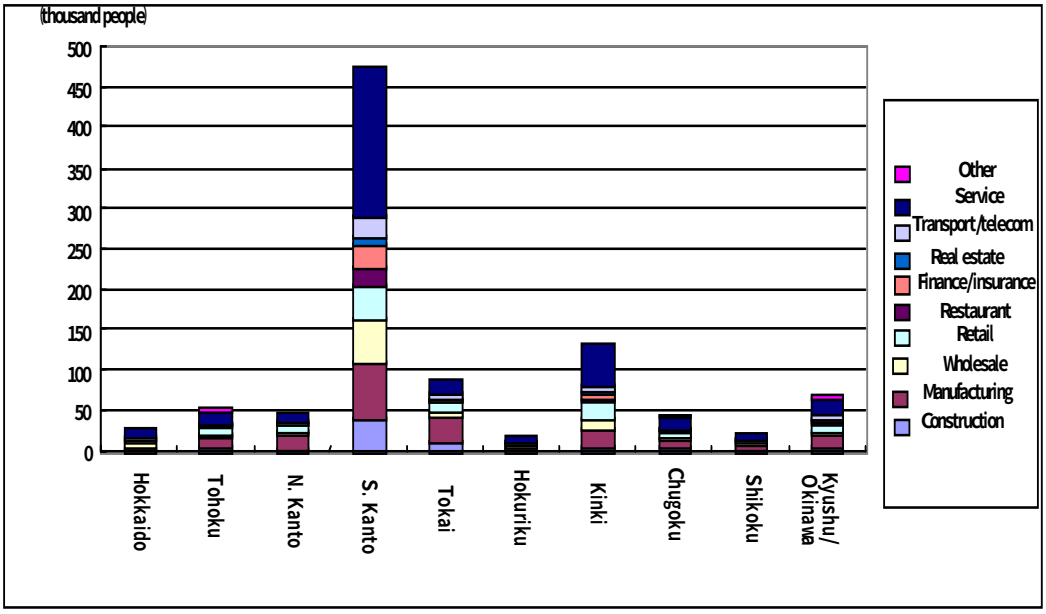


Notes:
1.Teikoku Databank business summary file containing data for the year 2000 (1.12 million companies) was searched to find companies meeting the following requirements:
a) Companies with sales in the last year of at least 500 million yen
b) Companies whose sales in each of the last two years have grown by at least 10%
2.Companies were then classified by headquarters location.

Looking at the number of people employed in each type of business, we see that it is highest in the service industries. By region, about half of the businesses are concentrated in the southern Kanto and Kinki regions. The main facility investment required to set up an information service business is in telecommunication equipment and data processing machinery. Since this type of business is not dependent on roads,

railways or other social infrastructure, it can be located in any part of the country. On the other hand, considering the ease of gathering information, the availability of IT specialists and other factors, the metropolitan areas may have an insurmountable advantage over the provinces.

Fig. 1-2-29 Number of people employed in region and in each type of business



Note: Data from Teikoku Data Bank

The characteristics of regional structure

As discussed above, the provincial regions are losing two major sources of funding for empowerment. Firstly, the amount of public investment is being scaled back. Secondly, both secondary industry and the predominantly metropolitan-based knowledge-intensive high-added-value industries are losing global competitiveness and are unlikely to come to set up shop in the countryside. The issue is how each provincial region will formulate a strategy to enable their local economies to achieve internally driven and independent growth.

The analysis of the structure of regions begins with the study of regional economics. In this study, “regions” refers to individual local governments (municipalities). “City-regions” refers to economically interdependent multiple municipalities (mostly small- and medium-sized cities, towns and villages). In a single prefecture (including Tokyo, Osaka, Kyoto and Hokkaido as “prefectures”) there are usually more than one “city region.”

Each “city region” is composed of the following three local areas. The first is the core city (prefectural capitals and other major cities). The second is made up of the small- and medium-sized local cities that ring the core city. The third local area is composed of surrounding towns and villages closely related with these local cities.

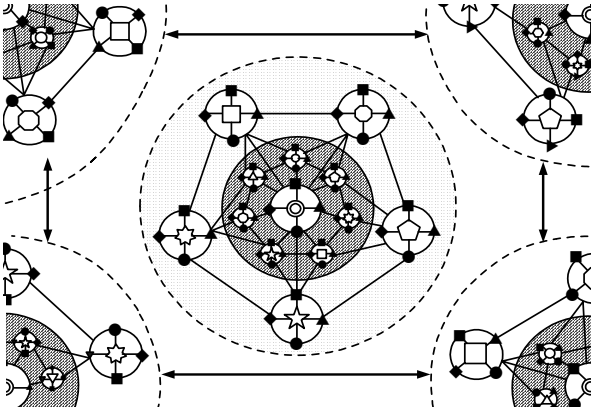
The three layers of a “city region” are interlinked to one another by road networks and are more or less economically interdependent. For example, while office services and advanced medical services are concentrated in the core city, retail services for daily necessities are offered in surrounding local areas.

The distinctive feature is that the core city, where the accumulation of urban functions is relatively high, is often capable of self-sustained and independent

expansion due to the growth in a) R&D, design, planning and other business services; and b) education, culture, medical services, welfare and other consumer services. Success of these services leads to growing populations and a high level of accumulation of industry and commerce.

On the other hand, the mechanism of accumulation in the prefecture's small- and medium-sized cities, as well as in its towns and villages, does not work so well. There is a so-called "sucking effect," whereby the core city sucks in the urban functions from its surrounding cities, towns and villages. In many instances, this effect leads to the decline of the local areas ringing the core city.

Fig. 1-2-30 Conceptual chart of horizontal and inter-regional network



Notes:

1. ■ ● ▲ indicate commercial, medical and educational functions that each city should provide to its citizens. There should be an access to daily necessities within a city, for example.
2. ☆ ○ □ indicate inter-regional functions including culture, sports and academic and research institutions. Large-scale concert halls and athletic fields can be located in each city-region, instead of each city.
3. The network should enable each city to interact with each other, regardless of distance, without going through the core city.
4. Circles with wiggled lines; Core cities
   Circles; Regional cities
   Dotted circles; City-regions.

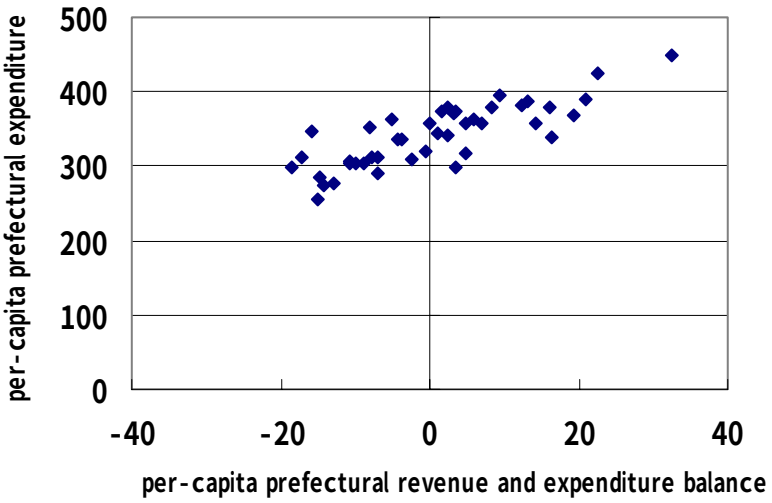
Outflow, inflow and prefectural economies

Let us next take a look at the level of regional economic activities in terms of a) outflows, due to demand for a certain region's products or services in outside regions (or regional "exports"), and b) inflows where demand within a certain region seeks products or services outside the region ("imports"). Here, "regions" are defined as prefectures, based on the data available.

It appears that generally, the larger a prefecture's per-capita value (outflow-inflow) "per-capita regional revenue and expenditure," the larger the

per-capita prefectural total production. This is the same as in cases where the greater the (import-export) level, the larger the growth potential of the national economy, i.e., the larger the positive per-capita regional revenue and expenditure, the greater the per-capita prefectural income.

Fig. 1-2-31 Per-capita prefectural income and prefectural "trade" balance



Notes:
1.Data from the Ministry of Public Management, Home Affairs, Posts and Telecommunications.
2. Correlation of the two are: Y=0.855X+328.1
(10.4) (89.5)
Y: Per-capita real prefectural expenditure in ten thousand yen
X: Per-capita prefectural revenue and expenditure balance
R^2=0.725 Figures in parenthesis are t figures
3 Cross-sectional data by prefecture of 1997 (1990 price).

Strengthening self-reliant regional economic infrastructure

Although the regions throughout Japan are working as hard as possible to revitalize their local economies, crucial factors in determining whether the effort will bear fruit are whether or not: a) the region possesses products and services that are superior to those of other regions and are in common use throughout Japan or the rest of the world, and b) each of the three layers that comprise the city-region cooperate to enhance the intra-regional economic cycle and build up the basis for self-reliance that will heighten their reliance on business between themselves without undermining the local economy.

In other words, small- and medium-sized cities, towns and villages should not seek to become independent from the local core city, but should strengthen the level of mutual dependence between themselves and the core city. Through cooperation between difference kinds of business, and a diversification in products and services, the outsourcing of urban industry and other “sub-contracting” can occur between the core city and the surrounding cities, towns and villages. Through this kind of dynamic partnership, the formation of monocultures in the small- and medium-sized cities can be avoided, and the flexibility in response to diversification and change in types of business can be retained. The “city region” as a whole can support particular products

or services (including primary products, welfare, the environment and tourism) that will in turn reinforce the intra-regional cycle.

The key concepts here are “parallel networked exchanges” among the three layers of city regions utilizing the accumulated functions of the core city to create favorable economic cycles, and a “regional portfolio strategy” involving the products and services in which they have a comparative advantage.

For example, if a tourist company decides to buy certain foodstuff ingredients produced within the same city-region instead of buying them from outside, the intra-regional cycle (or self-sufficiency) can be improved.

In Europe and the U.S. where levels of public investment are low, small- and medium-sized regional cities are able to maintain their vitality not because the local people act solely as rational consumers—seeking to buy the best quality product at the lowest price—but because they act as citizens that form the cooperative system of the region, based on a philosophy of community support and community business development.

Japan should likewise try to make it possible for community-based economic systems to develop. Professor Shozaburo Kimura, Professor Emeritus at the University of Tokyo in an interview article published in a public relations magazine of the Ministry of Land, Infrastructure and Transport in January 2002, discussed "region-based production and consumption" as a means to stimulate provincial economies.

Experiments with local currency

One strategy to encourage intra-regional cycles is the creation of local currencies. Most of the trials of local currency involve the valuation of volunteer activities such as care-giving and welfare, which are difficult to price in today's market economy. The currency is allowed to circulate within a specified area.

The period that the currency can be used is limited, and no interest can be earned. If a local currency with these constraints can be used to purchase locally produced products and promote intra-regional economic cycles, then the sale of local products within a region will be encouraged and this will contribute to the vitalization of the region.

Strategies for the revitalization of the provincial regions

Practical problems make it impossible for every single local government in Japan to revitalize their economies by promoting industry. Here, the concept of “local revitalization” is not confined to the narrow meaning of industrial promotion, but will respond to the needs of a broad cross-section of society, including senior citizens (who have ample leisure time) and the younger generation living with them. Examples of local revitalization include:

- The creation of a desirable environment allowing senior citizens to enjoy a peaceful old age;
- Comprehensive support for child-raising;
- The creation of an environment that students find attractive;
- The offering of opportunities for lifestyles that pursue the protection of the environment; and
- Support for healthy living.

These efforts at local revitalization will take advantage of the local natural environment, landscape, culture, history and other factors. They will offer products and services that do not appear to be available anywhere else in the country, and utilize

local resources and originality so that people will be able to appreciate the unique qualities of the region. Through such actions, it is hoped that each region in Japan will use its unique characteristics and create value for the local area.

Strengthening and enhancing the basis for important industries in core cities

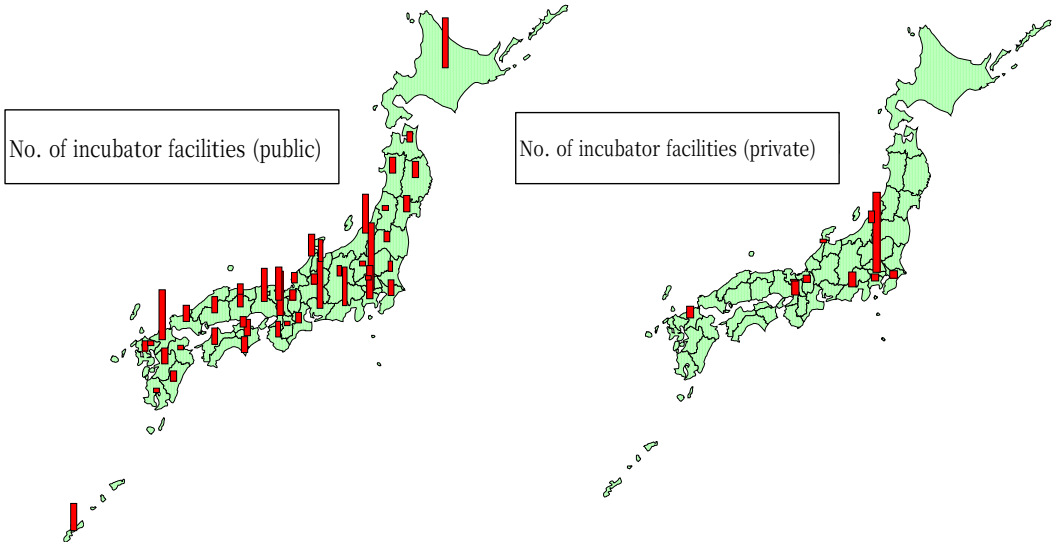
Next, we would like to consider the enhancement of industry functions of core cities, a key factor in enabling city-regions to attain independent growth.

In recent years, in the face of fierce competition from China and other nations, Japan has surrendered her position as a manufacturing base to Asia. Manufacturing in Japan seeks to add a high degree of value in services based on Japanese history and culture, and utilizes “soft” resources such as R&D ability and knowledge for use with “hard” manufactured products. In this sense, the workshop of manufacturing in Japan is changing into a place of creativity and intellectual activity—a place where knowledge and R&D ability is interwoven with Japanese history, culture and natural features.

Amid such changes, strategic centers to accumulate regional industries are needed if provincial city-regions are to achieve suitable levels of growth. These city-regions have great advantages of cheap land and plenty of space that can attract highly trained personnel from metropolitan and other regions to their universities and research institutes. Exchanges of knowledge and information among these people will lead to the creation of seeds for future science and technology, and eventually, to new value. To enable the formation of such bases, support for new business (including venture business) is essential. There needs to be research and development that will contribute to management diversity, human resource training, information exchange, and business support.

According to data published by the Japan Association of New Business Incubation Organizations (JANBO), there were 201 incubator facilities in Japan at the end of 2000 (159 public and 42 private). It is hoped that these will act as new nurseries for regional development. (“Incubator facilities” supply much-needed resources such as service and personnel support and low-rent space, to businesses that are planning to expand into new fields, and business that are not yet established or have just become established.)

Fig. 1-2-32 Location of incubator facilities by prefecture



Note: Data from Japan Association of New Business Incubation Organizations

Cooperation between businesses and universities

The regulations hindering cooperation between businesses and universities have been loosened with the passing of a law to promote technology transfer from universities to industry (the TLO (Technology Licensing Organization) Law) in 1998, and a change in the attitude of universities. Universities that in the past have done little to work with industry have come to recognize the necessity of contributing to and being receptive to local regions in the wake of dwindling student numbers and increasing inter-university competition.

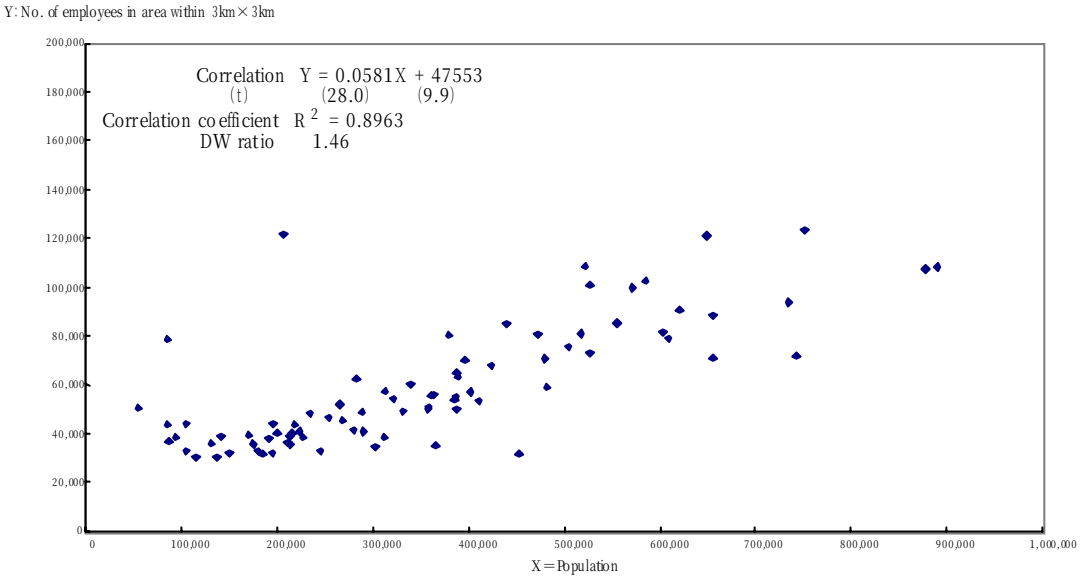
As of the end of 2001, with the approval of the national government, Technology Licensing Organizations (TLOs) had been set up in 25 universities to help mine the tremendous accumulation of dormant knowledge in those academic institutions. The role of the TLO is to manage the results of university research, and license the use of this research to businesses. Universities can receive patent royalties from the businesses. After deducting expenses from the royalties, any net income is returned and split roughly three ways between the university, research laboratory and researchers.

More and more universities are setting up VBLs (Venture Business Laboratories) that are a combination of a TLO and a business incubator. The creation of VBLs, together with the special features of the more than 600 universities all over Japan, is highly likely to create a basis for the expansion of local industry. In the First Supplementary Budget of FY2001, a total of about 16.5 billion yen was set aside for use in local regions to contribute to the revitalization of local economies through: a) promotion of the development of applied technology that is directly linked to commercialization, through cooperation between government, industry and universities; b) “soft” (service and personnel) assistance for university developed venture start-ups; and c) the promotion of the creation of new industries.

Utilization of urban functions in city centers

The downtown area of core city plays a crucial role in to enable the core city to supply industrial functions, including services and other intangibles required in manufacturing. Graph 1-2-33 looks at two indices of core cities: a) the city-region population, including the number of people commuting or studying there, and b) the accumulation of offices (in terms of the number of people working in them) inside a 3-km square within an almost 2-km radius of the center of the core city downtown area. “Core cities” are mostly prefectural capitals and other major cities. The graph reveals that in a constant area in the downtown part of each core city, the level of industrial accumulation is almost proportional to the population of the city-region.

Fig. 1-2-33 Business accumulation in 93 city centers



Notes:

1. Data from the Ministry of Public Management, Home Affairs, Posts and Telecommunications offered by Mr. Kosuke Motani of the Development Bank of Japan.
2. "City centers" refer to 3km×3km areas centering on a square kilometer with the heaviest concentration of offices.
3. "Population" refers to core city population - daytime population outflow to surrounding municipalities + daytime population inflow from surrounding municipalities

The revitalization of the city centers

Redevelopment projects have succeeded in revitalizing the downtown areas of healthy cities in some places, but there are many parts of Japan where the hollowing-out of the downtown district has resulted in the city being unable to provide a sufficient level of urban functions.

This hollowing-out process is not something that has happened over a short period of time; rather, it has been the result of several phases. These began after the period of high economic growth in the 1960s with skyrocketing land prices in the city centers and the development of the suburbs accompanying the rise of the automobile-based society. The construction of suburban bypasses, the relocation of public facilities to the suburbs, and the enactment of the 1974 Large-scale Retail Stores Law accelerated the location of supermarkets in suburbs. A recent phase has been the opening of numerous convenience stores in city centers forcing many non-chain shops out of business. For many would-be newcomers, high land prices mean that the costs of maintaining and using real estate may often exceed income levels—spurring on the hollowing-out process.

Given the limitations of government finances and a declining population, however, strategies to utilize existing resources and infrastructure accumulated in city centers should be sought. These strategies should be the ones to turn accumulated resources into high-potential business infrastructure to promote R&D, human resource training and the exchange of information as important industrial functions. The success of these strategies can contribute to raising the quality of life of people living in the city-region

and can revitalize the entire region.

Prerequisites for the revitalization of the city centers

"Revitalizing the city centers" means to seek the recovery of the centrality of the city by making it a place that is bustling, full of charm, a place of work, and a place where people can meet. Through measures to increase the number of residents, people working there and people coming to the area, several functions (things people coming to the downtown area will do, i.e., gathering, relaxing, talking, studying) can be concentrated in a compact area within a given walking distance. Measures to revitalize city centers should be coordinated with a) the expansion of the suburban residential areas, and b) the regulation and guidance of location of businesses and stores in the suburb within the city/region's master plan.

The city centers can serve as a platform to support a diversification and expansion of functions that will aid the regeneration of the local region and strengthen and heighten the industrial base. Examples of these functions include:

(1) Being a place where residents (including the types of households that will become more common in future, such as singles, the elderly, and the handicapped) can feel a sense of affluence;

(2) Having the business infrastructure to enable face-to-face discussions, and support small offices that utilize communications networks;

(3) Having tourist spots that have a connection to local legends, cultural assets that are associated with moments in history, old-style streets that bring traditions to life, and other more modern attractions.

These functions can be created through the following measures:

(1) The improvement and leasing of downtown residential rental housing that does not directly reflect the high land cost, and assistance in helping residents to find such housing;

(2) Building accommodation with care-giving services, and locating medical and welfare facilities on large lots, like the spacious place where factories, schools, and other large facilities are located;

(3) The utilization of vacant shop space to support the creation of community businesses and SOHOs (satellite offices/home offices);

(4) The opening of social facilities where people can gather and socialize;

(5) The strengthening of social education functions, with a view to cooperation with universities; and

(6) The development of walking areas and tourist spots, and the necessary parking areas just outside the downtown area.

The approach taken in the U.K. single regeneration budget

In April 1994, the British government took 20 urban regeneration projects formerly undertaken by four ministries (environment, transport, employment and education) and combined them into a single budget—the SRB (Single Regeneration Budget).

The objective of the merging was to more efficiently use public funds to initiate a comprehensive regeneration program. The program aimed to respond to the needs of impoverished regions, both tangible (improving the environment, supplying housing, improving roads), and intangible (vocational training, employment security, reviving community activities, eradicating crime).

The SRB calls for the national government to provide direct assistance to partnerships—with the requirement that local residents' organizations participate in the partnerships. The projects to be undertaken are selected through competitions

where the participants clearly demonstrate the cost effectiveness of each project. After selection, the partnership is responsible for periodically examining the cost effectiveness of the project. At any time, assistance can be terminated if the project is insufficiently effective. Each partnership decides the term and details of the assistance, but on average the projects last for five to seven years. The number of projects involving service and other "intangible" assistance is increasing.

Since 1999, RDAs (Regional Development Agencies) were established in nine regions of England and the national government delegated its SRB responsibilities to these nine RDAs (the delegation did not take place until 2001 in London). It has been decided that the SRB will be absorbed in new programs designed to strengthen community units. (For details, refer to "The Regeneration of U.K. Cities Through Partnerships" (July 2001: Regional Planning Department, Development Bank of Japan)).

The Japanese government has created integrated financial assistance programs such as a project to comprehensively support city/community planning but needs to expand such programs to adequately support local initiatives. The government needs to formulate new and innovative inter-ministerial assistance schemes to achieve the revitalization of the provincial regions that are facing far tougher times than the metropolitan regions.