

Medium-term Economic Forecast for Japan (FY 2000-2005) — Overcoming Two Structural Problems of the Economy

by the Economic Research Group

The last decade of the 20th century was a difficult one for Japan's economy. While the direct causes of economic weakness stem from the aftermath of the bubble economy, a more fundamental cause has been the persistent savings-investment imbalance, a problem aggravated by the population's aging.

However, as aging progresses further, it will begin to alleviate the excess savings problem, helping the economy improve to a growth rate of 1.9 percent by fiscal 2005. During the forecast period, the savings rate will decline moderately, while the current account surplus and fiscal deficit will persist.

Due to the transitory effect of the U.S. downturn, Japan's growth rate will be restrained to 1.5 percent per year in the first few years of the 21st century.

1. The Two Structural Problems

While the bubble economy's legacy explains much about the direct causes of the economy's poor performance, the source of its persistence has been the savings-investment imbalance, which is aggravated by the rapid aging of the population structure.

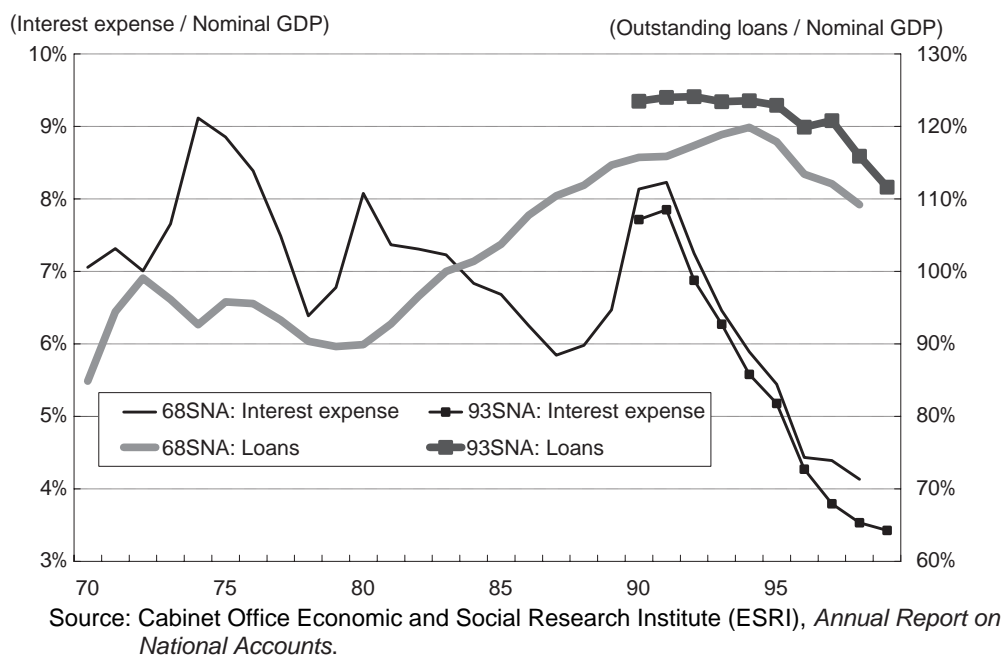
(1) Aftermath of the Bubble Economy: The Debt Problem

The collapse of the asset-bubble economy led to three excesses in the economy: capacity, debt, and employment. Stimulative monetary and fiscal policies brought temporary relief, but failed to produce a sustained recovery. A solution to the massive bad debt problem of financial institutions — which has plagued the post-bubble economy — remains elusive because progress is constantly being offset by an influx of new bad debt.

The debt problem has two aspects: the burden of interest payments, and the size of the debt. Thanks to ultra-low interest rates, the ratio of interest payments to nominal GDP in non-financial sectors is even lower than during the low interest rate period of the late 1980s, and still improving. On the other hand, the size of outstanding debt, while decreasing as a ratio to nominal GDP, remains a serious problem.

With deflation reducing the growth rate of nominal income, the ratio of debt (a stock variable) to income (a flow variable) has remained stubbornly high. In addition, as declining asset prices erode unrealized gains on stocks and land assets, companies are less able to reduce debt by selling off assets than in the past.

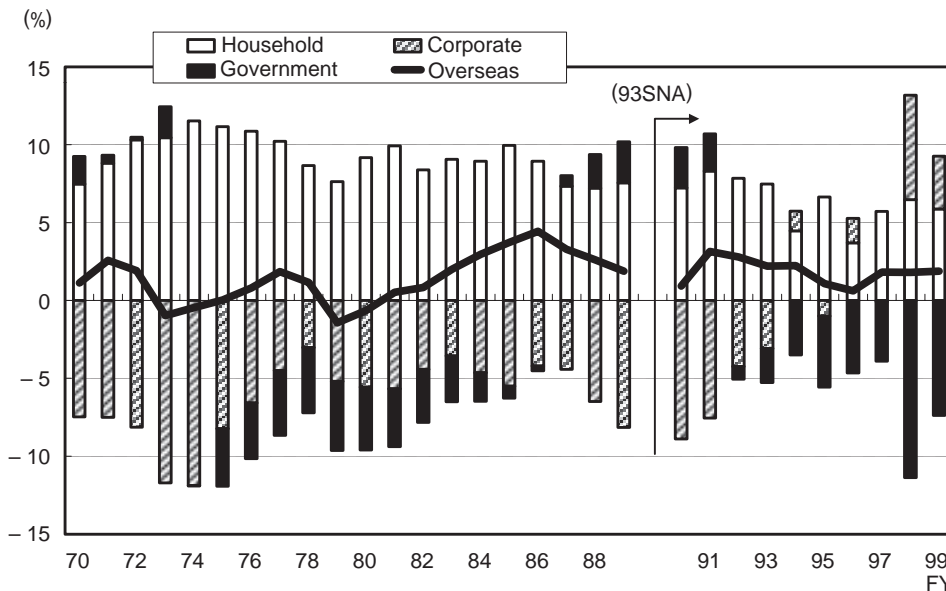
Figure 1 The Excess Debt Situation



(2) Imbalance of Savings and Investment

Underlying Japan's economic weakness is the imbalance between savings and investment, particularly because of higher savings rates during the early stages of the aging of the population. Back in the miracle growth years, aggressive capital investment by the corporate sector absorbed household savings, thereby balancing savings and investment. But when the economic growth rate declined following the first oil crisis, investment demand fell and the problem of excess savings surfaced.

Figure 2 Savings-Investment Balance by Sector (as ratio to nominal GDP)



Note: Figures are based on the 68SNA standard prior to 1990, and the 93SNA standard from fiscal 1990.

Source: ESRI

The savings-investment balance improved temporarily during the bubble economy of the late 1980s. As the expected growth rate rose, capital investment reached 20 percent of nominal GDP. Savings in the corporate sector grew scarce, while the household savings rate dropped because of the wealth effect on consumption. However, once the bubble collapsed and the economy plummeted, the excess capital investment of the bubble era became apparent, as did the excess capacity and excess debt. As investment spending fell, the corporate sector accumulated excess savings, causing the savings-investment imbalance to continue expanding.

Excess savings in the private sector must be alleviated in one of two ways: by a widening current account surplus, or a widening government deficit. Since a strong yen and trade friction work against sustaining a large current account surplus in the long term, the only possible outcome was for the government to run large and sustained fiscal deficits.

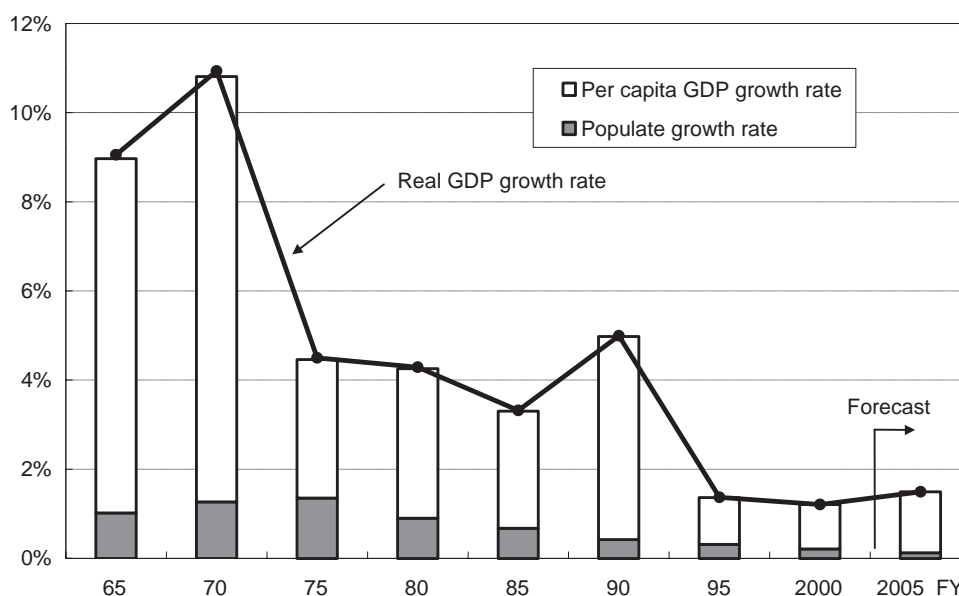
2. Medium-term Outlook for Japan

(1) Effect of Expected Population Decline

According to projections by the National Institute of Population and Social Security Research, as Japan's population growth rate steadily declines, the population will peak out in 2007 and subsequently start declining.

A slowdown or reversal of the population growth rate does not necessarily imply contraction of the economy, but inevitably reduces its growth rate. Thus economic policy management, which in the past has focused on growing the overall economy, should in the future focus on per capita GDP and standard of living targets.

Figure 3 Real GDP and Population Growth Rates



Note: Shows 5-year average growth rates. Real GDP for 1980 and earlier is based on the 68SNA standard.

Sources: ESRI, *Annual Report on National Accounts*; National Institute of Population and Social Security Research, *Population Projections for Japan*; others.

For the corporate sector, a declining population means that markets will no longer keep growing as in the past. The seniority-based wage structure and personnel management system, which are predicated on a pyramid-shaped employment structure, are unsustainable and will have to be changed.

(2) Forecast to FY 2005

Although Japan's economy has been in a recovery since bottoming out in April 1999, the faltering U.S. economy and other factors make a recession likely in fiscal 2002. The economy will recover in fiscal 2003, but not very strongly. During the forecast period (fiscal 2000-2005), the real growth rate will peak in fiscal 2005 at 1.9 percent, and the average growth rate for the period will be 1.5 percent. The anomaly that has existed since fiscal 1998 — wherein the nominal growth rate has undercut the real growth rate — should continue until fiscal 2003, putting the average nominal growth rate for the forecast period at 1.3 percent.

Figure 4 Real GDP Growth Rate

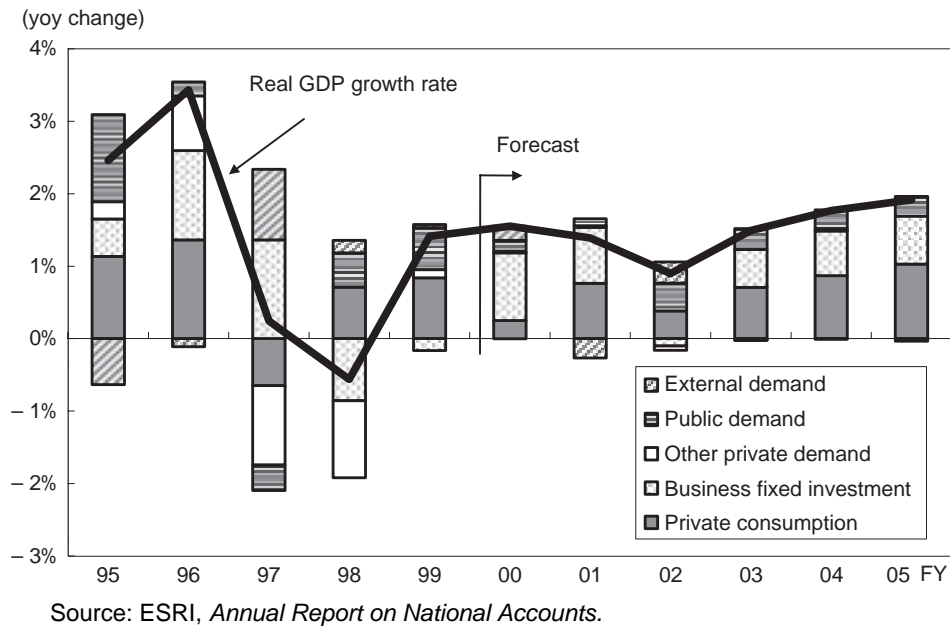
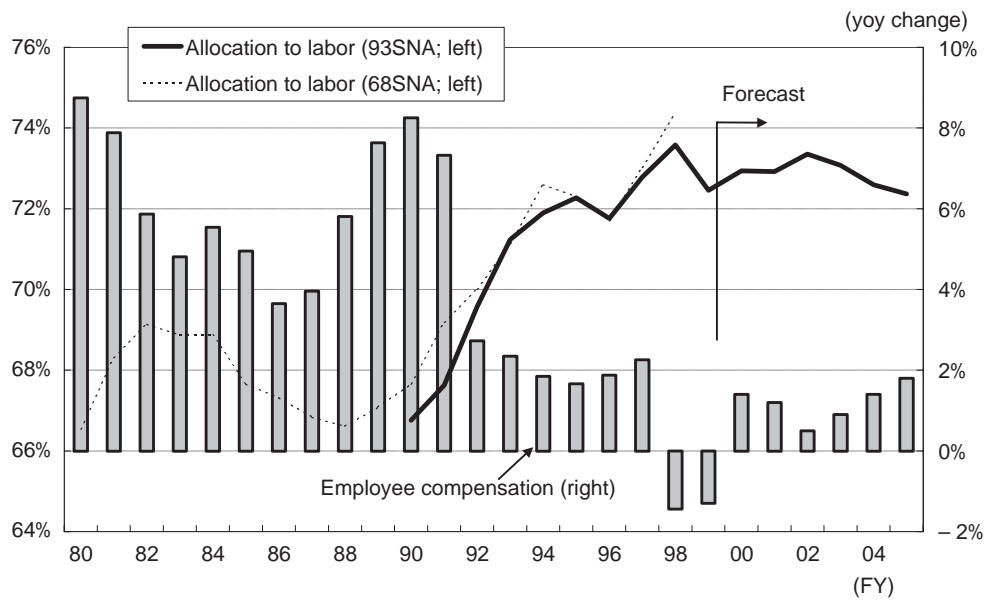


Figure 5 Allocation to Labor and Compensation to Employees



Note: For fiscal 1990 and earlier, compensation to employees is employee income under the former standard.

Source: ESRI, *Annual Report on National Accounts*.

1. Private consumption

Due to limited income growth, the average growth rate of consumption during the forecast period will be 1.4 percent. While we assume that the consumption tax rate will stay at 5 percent, it could be raised

toward the end of the forecast period depending on fiscal conditions.

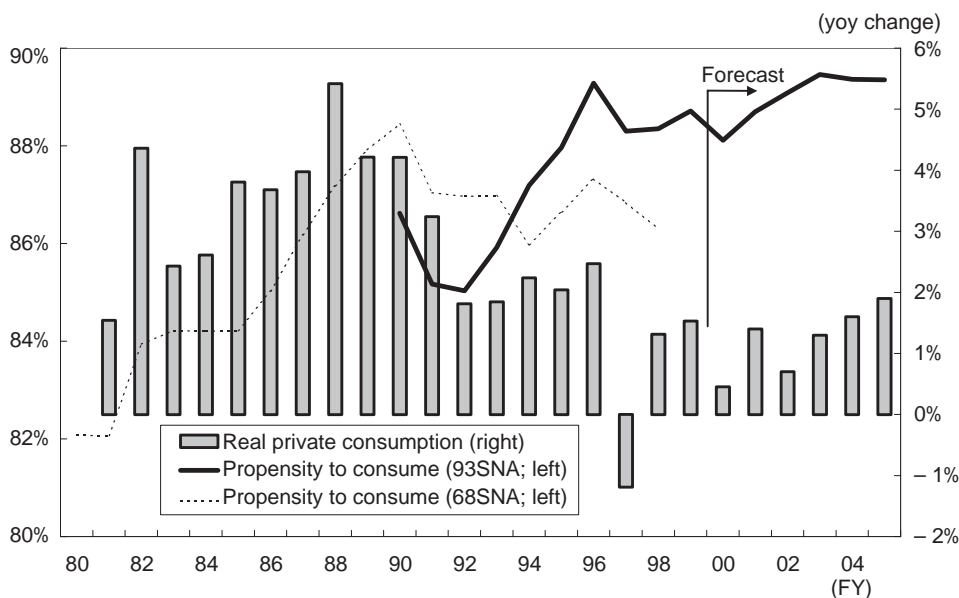
Income growth is limited by the already high allocation to labor — Despite the sharp decline in the economy’s growth rate following the bubble’s collapse, the allocation to labor rose sharply because cash earnings continued to grow. Although employee compensation (employee income under 68SNA) turned negative in fiscal 1998 and 1999, labor’s allocation has remained high because the economic growth rate also slumped.

As companies continue to trim labor costs, employee compensation growth will be limited to 1.2 percent during the forecast period. After peaking at 73.4 percent in fiscal 2002, the allocation to labor will gradually decline to 72.4 percent by fiscal 2005.

The average propensity to consume of households, which had declined in the post-bubble period under the 68SNA standard, has been revised under 93SNA to show a significant increase over the same period.

After declining in fiscal 2000, the average propensity to consume will rise moderately and consistently from fiscal 2001 onward. While the population’s aging tends to increase the propensity to consume, this effect will not be significant during the forecast period. Because of the recovery’s weakness, the average increase during the forecast period will be only 0.2 percentage points per year.

Figure 6 Private Consumption and the Propensity to Consume



Source: ESRI, *Annual Report on National Accounts*.

The excess of household savings over residential investment in fiscal 1999 was high at 5.9 percent of

nominal GDP. Although the moderate increase in propensity to consume (declining savings rate) will cause savings to decline, since residential investment will decline, the savings-investment gap will remain almost unchanged at 5.8 percent in fiscal 2005.

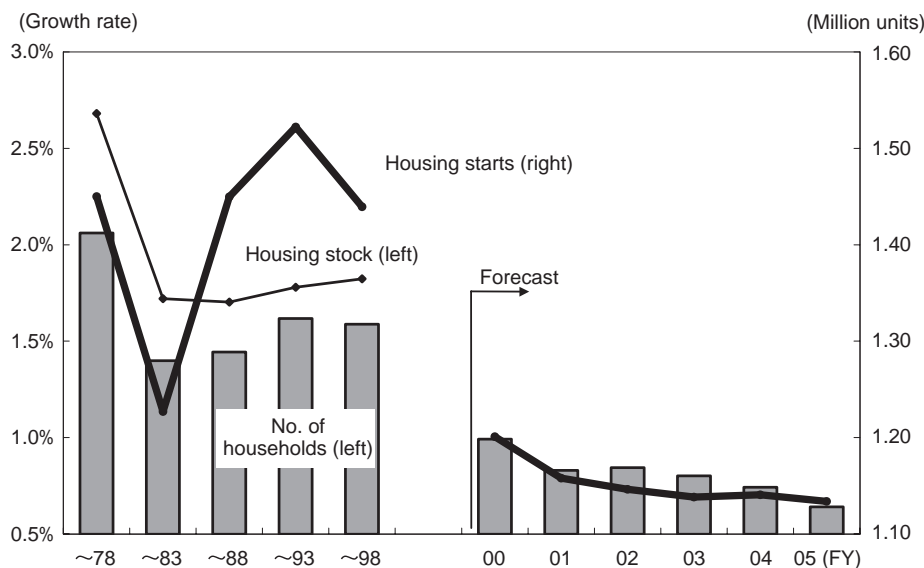
2. Residential investment

Following the surge in housing demand ahead of the consumption tax hike in 1997, housing starts dropped significantly in fiscal 1997 and 1998. Preferential tax measures gave a needed boost in fiscal 1999 and 2000, but only to about 1.2 million units (fiscal 2000 is estimate). From fiscal 2001, as tax measures lose traction, housing starts will drop again to the 1.1 million level, and remain sluggish thereafter.

Housing starts will slump in the long term as growth in households subsides — Over the long term, housing starts are strongly impacted by population and household trends.

Projections by the National Institute of Population and Social Security Research indicate that because of the trend toward nuclear families and smaller households, the number of households will continue to grow until 2014, even after the population stops growing in 2007. However, the declining population growth rate will have a large impact, and limit the average household growth rate to 0.8 percent during the forecast period. Growth in housing stock, which largely parallels growth in households, is thus predicted to slow down significantly in the future. For this reason, residential investment will remain lackluster.

Figure 7 Housing Starts and Number of Households



Notes: Shows 5-year averages up to fiscal 1998. For fiscal 2000 forward, forecast for housing starts is by NLI Research Institute, and number of households is by National Institute of Population and Social Security Research.

Sources: MPHPT, Statistical Survey of Housing Starts and Land; Ministry of Land, Infrastructure, and Transport (MLIT), *Monthly of Construction Statistics*.

3. Business fixed investment

Following two years of decline from fiscal 1998, we estimate that business fixed investment will grow 6.1 percent in fiscal 2000. However, the growth rate will fall to 4.8 percent in fiscal 2001 because of weakness in IT-related investment, and turn negative in fiscal 2002 as the economy enters a recession. Investment will resume growing from fiscal 2003, but not with enough strength to drive the economy. The average growth rate during the forecast period will be limited to 3.0 percent, which is extremely low compared to past economic recoveries.

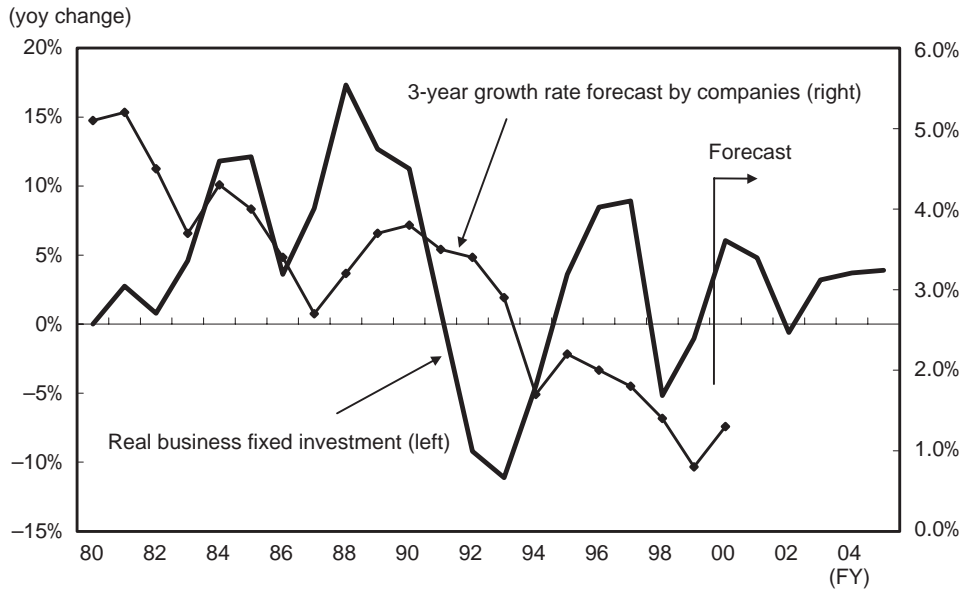
Excess capacity problem remains unresolved — According to estimates by the Economic Planning Agency (now the Cabinet Office), excess capacity declined from 56 trillion yen in January-March 1999 to 35 trillion yen in April-June 2000.

While the recent reduction in excess capacity is attributed to the economic recovery, the structural excess capacity from the bubble area has not been alleviated. Thus should demand weaken in the future, excess capacity will resurface as a major problem.

Although business fixed investment has grown since the second half of fiscal 1999, its growth remains limited by this structural problem. Thus while investment will increase significantly in IT-related industries and other growth industries, new investment will be restrained over the long term in structurally depressed industries. Thus overall investment activity will remain narrowly confined and heavily influenced by fluctuations in IT-related investment.

Moreover, the economic growth rate expected by companies (expected real economic growth rate over the next three years) gradually declined from over 5 percent in the 1970s, to 4 percent in the early 1980s, and 3 percent in the late 1980s. Although the expected growth rate temporarily rose in the bubble period, it plunged when the bubble collapsed, and has recently been in the neighborhood of 1 percent. A low expected growth rate means that the expected rate of return — and hence corporate investment intentions — will probably remain subdued.

Figure 8 Business Fixed Investment and Economic Growth Rate Forecast by Companies



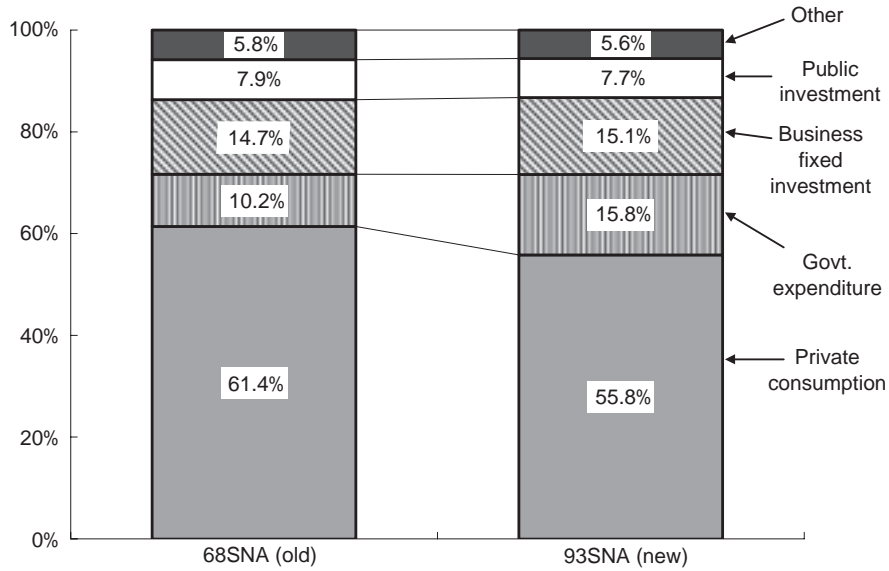
Sources: ESRI, *Annual Report on National Accounts*, and *Survey of Corporate Activity*.

The investment deflator is likely to remain negative during the forecast period. While the deflator's sharp decline in fiscal 1998 and 1999 is largely attributed to the weak economy and demand side factors, from fiscal 2000 the cause will shift to the supply side, as seen by the decline in the IT-related investment deflator. As the weight of IT-related investment increases, the investment deflator is likely to remain negative even in the economy recovery.

4. Government consumption

With the transition from the 68SNA to 93SNA standard, nominal GDP was revised upward by approximately 17 trillion yen for fiscal 1998. By demand component, the largest revision occurred in government consumption.

Figure 9 Change in Demand Composition Under 93SNA (for FY 1998)



Source: ESRI, *Annual Report on National Accounts*.

Total government consumption for fiscal 1998, which was approximately 50 trillion yen under the former standard, was revised to approximately 80 trillion yen under the new standard. The main causes were the inclusion of: (1) depletion (depreciation and loss from damage) of infrastructure such as roads, sewerage, dams, etc., and (2) medical expenditures (paid by health insurance) which had previously been counted under private consumption. As a result, the share of government consumption in GDP rose from 10 percent to approximately 15 percent.

Although personnel cuts will hold government employee compensation in check, government consumption will continue to grow at a relatively high rate due to the depletion of infrastructure built under numerous economic packages, and to the growth of entitlement spending as the population ages.

5. Public works investment and fiscal policy

Due to declining tax revenues from the ailing economy and numerous economic packages containing public works outlays, the government's ordinary fiscal budget has been in deficit since fiscal 1992. In recent years, the fiscal deficit's growth has been particularly pronounced.

While the severity of the present economic situation makes an outright fiscal tightening unlikely in the near future, cutbacks in locally funded public works projects could be interpreted as a form of fiscal tightening already underway. Despite the government's four economic packages implemented since 1998, nominal fixed capital formation (national and local) has continued to slide due to weakness in investment spending at the local level. Considering the continued severity in local conditions, public works investment is predicted to decline 4.5 percent in fiscal 2001 on the assumption that no more

economic packages will be implemented. We assume that public works investment will be maintained at the same level in fiscal 2002 to prop up the economy, but subsequently trend downward at -1.5 percent per year from fiscal 2003 forward.

The fiscal deficit will gradually shrink as the recovery boosts tax revenues and as public works investment is held in check. However, the fiscal debt will balloon from approximately 65 percent of GDP in fiscal 1999 to over 90 percent by fiscal 2005.

6. External surplus

The ratio of current account surplus to nominal GDP has fluctuated between approximately 2.5 to 3 percent since fiscal 1997.

Although export growth will slow in fiscal 2001 as the U.S. economy weakens, Japan's sluggish economy in fiscal 2002 will cause import growth to decline, widening the surplus again (2.1 percent of nominal GDP in fiscal 2001, and 2.3 percent in fiscal 2002). The surplus will subsequently contract as the recovery in domestic demand boosts imports and the yen strengthens. The current account surplus will decline from 2.5 percent of nominal GDP in fiscal 1999 to 1.7 percent in fiscal 2005.

Figure 10 Medium-term Forecast for Japan

(% yoy change; < > indicates contribution to real GDP growth rate)

Fiscal year	98 act.	99 act.	00 act.	01 fore.	02 fore.	03 fore.	04 fore.	05 fore.	Annual average		
									90-95	95-00	00-05
Nominal GDE (GDP) (¥ trillion)	-1.1 (514.5)	-0.2 (513.7)	0.1 (514.4)	0.6 (517.6)	0.3 (519.1)	1.3 (525.7)	1.8 (535.3)	2.3 (547.5)	2.2	0.5	1.3
Real GDE (GDP) (¥ trillion)	-0.6 (518.4)	1.4 (525.7)	1.6 (533.9)	1.4 (541.3)	0.9 (546.1)	1.5 (554.3)	1.8 (564.1)	1.9 (574.9)	1.4	1.2	1.5
Domestic demand	-0.8	1.4	1.4	1.7	0.6	1.5	1.8	2.0	1.4	1.0	1.5
Private demand	-1.6	1.1	1.6	2.1	0.3	1.6	2.0	2.3	0.5	1.0	1.7
Final consumption expend.	1.3	1.5	0.5	1.4	0.7	1.3	1.6	1.9	2.2	0.9	1.4
Residential investment	-10.4	5.1	-2.1	-2.5	-1.0	-0.7	0.2	-0.6	-2.1	-3.7	-0.9
Business fixed investment	-5.2	-1.0	6.1	4.8	-0.6	3.2	3.7	3.9	-4.2	3.3	3.0
Public demand	2.0	2.5	0.7	0.4	1.7	1.2	1.2	1.2	4.9	0.9	1.1
Final consumption expend.	2.5	4.0	3.2	2.1	2.0	2.0	2.0	2.0	3.2	2.7	2.0
Fixed capital formation	1.8	-0.7	-4.5	-3.2	0.9	-0.6	-0.8	-0.9	8.0	-2.4	-0.9
Net exports of goods & services	<0.2>	<0.0>	<0.2>	<-0.3>	<0.3>	<-0.0>	<-0.0>	<-0.0>	<-0.0>	<0.3>	<-0.0>
Exports	-3.7	5.3	10.0	2.6	4.2	3.2	3.8	3.7	3.1	5.5	3.5
Imports	-6.6	6.2	10.3	6.3	2.0	4.1	4.8	4.9	4.3	3.5	4.4
Domestic wholesale price index	-2.1	-1.0	0.1	-0.6	-0.8	-0.4	-0.1	0.3	-1.0	-0.7	-0.3
Consumer price index	0.2	-0.5	-0.7	-0.3	-0.1	0.2	0.6	0.8	1.2	0.3	0.2
Unemployment rate	4.3	4.7	4.6	4.4	4.6	4.4	4.1	3.9	2.6	4.1	4.3
Current account balance (¥ tril.)	15.2	12.6	12.6	10.9	12.2	10.7	10.9	9.5	12.5	12.1	10.9
(as ratio to nominal GDP)	2.9	2.5	2.4	2.1	2.3	2.0	2.0	1.7	2.6	2.3	2.1
Average exchange rate (¥/\$)	128	112	111	112	113	109	106	102	112	117	108
Average call rate (%)	0.30	0.03	0.16	0.25	0.25	0.25	0.63	1.13	3.35	0.29	0.50
Official discount rate (end of period)	0.50	0.50	0.50	0.50	0.50	0.50	0.75	1.25	2.20	0.50	0.70
Average long-term interest rate (%)	1.6	1.8	1.8	1.9	1.7	2.0	2.4	2.8	4.6	2.1	2.2

Sources: Actual figures are from ESRI, *Annual Report on National Accounts*; MPHPT, *Monthly Report of Retail Prices, and Labor Force Survey*; BOJ, *Financial and Economic Statistics Monthly*.

Figure 11 Medium-term Forecast for the U.S.

	1999 act.	2000 forecast →	2001	2002	2003	2004	2005
Real GDP	4.2	5.1	2.7	3.8	4.1	3.5	3.4
Personal consumption expenditures	5.3	5.3	3.5	3.5	3.8	4.1	4.0
Nonresidential fixed investment	10.1	13.0	6.5	7.1	7.5	8.3	6.1
Residential investment	5.9	- 0.2	2.1	3.0	5.1	1.1	- 2.1
Change in business inventories (% contrib.)	- 0.4	0.3	0.0	0.2	0.1	0.0	- 0.2
Government consump. exp. & gross invest.	3.3	2.7	3.3	2.1	2.5	3.3	2.8
Net exports of goods & services (% contrib.)	- 1.0	- 1.0	- 0.2	- 0.2	- 0.4	- 0.8	- 0.4
Exports	2.9	10.6	8.6	7.5	7.2	7.7	8.0
Imports	10.7	14.9	7.7	6.5	7.5	10.1	8.0
Nominal GDP	5.7	7.5	5.0	6.5	6.9	6.5	5.8
PPI	1.8	3.6	2.1	2.8	3.0	3.1	2.5
CPI	2.2	3.2	2.8	2.9	3.3	3.6	3.2
FF rate (%)	5.0	6.3	5.3	5.8	6.3	6.5	6.0
10-year Treasury constant maturity (%)	.56	6.0	5.5	6.0	6.5	6.4	6.2
Current account balance (\$ billion)	- 3315	- 4117	- 4296	- 4450	- 4816	- 5081	- 5236
(as ratio to nominal GDP)	- 3.6	- 4.1	- 4.1	- 3.9	- 4.0	- 4.0	- 3.9

Note: Shows % yoy change unless otherwise indicated; change in business inventories and net exports are expressed as % contribution to real GDP growth rate.