INTERNATIONAL MONETARY FUND

# Staff Country Reports

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# Japan—Recent Economic Developments

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JAPAN

# Recent Economic Developments

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Approved by the Central Asia Department

August 25, 1995

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## Japan--Basic Data

| | |
|---|---|
| Area | 145,800 square miles |
| Total population (1994) | 124.9 million |
| Natural rate of increase (1991) | 0.4 percent |
| Life expectancy at birth (1991) | |
| Male | 76.1 years |
| Female | 82.1 years |
| Physicians per 1,000 inhabitants (1988) | 1.6 |
| GDP per capita (1994) | US$36,800 |

| | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|
| | (In trillions of yen) | | | | |
| GDP | | | | | |
| At constant 1985 prices | 399.0 | 416.0 | 420.6 | 419.8 | 421.9 |
| At current prices | 424.5 | 451.3 | 463.1 | 466.0 | 469.1 |
| | (Percentage change) | | | | |
| Real GDP | 4.8 | 4.3 | 1.1 | -0.2 | 0.5 |
| Domestic demand | 5.0 | 2.9 | 0.3 | -0.0 | 0.9 |
| Private consumption | 3.9 | 2.2 | 1.7 | 1.0 | 2.2 |
| Residential investment | 4.7 | -8.2 | -6.7 | 2.5 | 9.7 |
| Plant and equipment investment | 11.4 | 6.6 | -4.7 | -9.3 | -8.9 |
| Government consumption | 1.9 | 1.6 | 2.7 | 1.7 | 2.8 |
| Government investment | 4.5 | 4.7 | 15.3 | 16.5 | 5.0 |
| Stockbuilding 1/ | -0.3 | 0.3 | -0.5 | -0.2 | 0.2 |
| Foreign balance 1/ | -0.2 | 1.4 | 0.8 | -0.2 | -0.4 |
| Nominal GDP | 7.2 | 6.3 | 2.6 | 0.6 | 0.7 |
| | (Percentage change, unless otherwise indicated) | | | | |
| Prices, incomes, and employment | | | | | |
| Wholesale prices | 2.0 | -0.6 | -1.6 | -2.9 | -2.0 |
| Consumer prices | 3.1 | 3.3 | 1.7 | 1.3 | 0.7 |
| GDP deflator | 2.2 | 2.0 | 1.5 | 0.8 | 0.2 |
| Real disposable income 2/ | 3.5 | 3.2 | 1.7 | 0.5 | 2.7 |
| Household savings rate (in percent) | 14.1 | 15.1 | 15.0 | 14.7 | 15.2 |
| Unemployment (in percent, period average) | 2.1 | 2.1 | 2.2 | 2.5 | 2.9 |
| Manufacturing | | | | | |
| Employment of regular workers | 2.6 | 2.5 | 0.7 | -0.7 | -2.2 |
| Output | 4.1 | 1.8 | -6.1 | -4.6 | 0.9 |
| Hourly compensation 3/ | 6.5 | 5.9 | 4.6 | 2.6 | 2.7 |

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Basic Data (concluded)

| | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|
| Productivity | 2.8 | 1.6 | -3.7 | -1.6 | 3.5 |
| Unit labor cost | 3.5 | 4.3 | 8.6 | 4.3 | -0.7 |
| Inventory ratio to shipments | -1.2 | 7.0 | 9.7 | 2.0 | -4.8 |
| Financial aggregates | | | | | |
| M2 plus CDs (period average) | 11.7 | 3.6 | 0.6 | 1.1 | 2.1 |
| Domestic credit (end of period) | 9.2 | 2.9 | 2.9 | 0.8 | -0.4 |
| | (In trillions of yen) | | | | |
| Fiscal aggregates 4/ | | | | | |
| Central government | | | | | |
| Revenue | 65.8 | 67.5 | 62.2 | 64.1 | 60.3 |
| Expenditure | 67.2 | 68.3 | 72.4 | 77.7 | 79.5 |
| Deficit (-) | -1.4 | -0.8 | -10.1 | -12.6 | -13.7 |
| Deficit/GDP (-, in percent) | -0.3 | -0.2 | -2.2 | -2.9 | -4.1 |
| General government | | | | | |
| Deficit/GDP (-, in percent) | 3.5 | 3.5 | 0.1 | -1.1 | -3.2 |
| | (In billions of U.S. dollars, unless otherwise indicated) | | | | |
| Balance of payments | | | | | |
| Exports | 280.4 | 306.6 | 330.9 | 351.3 | 384.2 |
| Imports | -216.8 | -203.5 | -198.5 | -209.8 | -238.2 |
| Trade balance | 63.5 | 103.0 | 132.3 | 141.5 | 145.9 |
| Services and transfers | -27.8 | -30.1 | -14.8 | -10.1 | -16.8 |
| Current balance | 35.8 | 72.9 | 117.6 | 131.4 | 129.1 |
| Net long-term capital | -43.6 | 37.1 | -28.5 | -78.3 | -82.0 |
| Basic balance | -7.8 | 109.9 | 89.1 | 53.2 | 47.1 |
| Net short-term capital 5/ | 7.8 | -119.2 | -80.0 | -29.4 | -31.6 |
| Errors and omissions | -20.9 | -7.8 | -10.5 | -0.3 | -17.8 |
| Overall balance | -20.9 | -17.1 | -1.4 | 23.5 | -2.3 |
| Export volume (percentage change) | 5.8 | 2.4 | 1.6 | -1.1 | 0.9 |
| Import volume (percentage change) | 5.6 | 3.8 | -0.6 | 4.2 | 13.3 |
| Gross official reserves, minus gold | | | | | |
| End of period | 78.5 | 72.1 | 71.6 | 98.5 | 125.9 |
| Exchange rates (period average) | | | | | |
| Yen per U.S. dollar | 144.8 | 134.7 | 126.7 | 111.2 | 102.2 |
| Nominal effective exchange rate (1990 = 100) | 100.0 | 108.4 | 113.7 | 136.5 | 147.1 |
| Real effective exchange rate (relative normalized unit labor costs; 1990 = 100) | 100.0 | 105.8 | 109.0 | 127.5 | 135.9 |

1/ Contribution to real GDP growth.
2/ Disposable income deflated by the private final consumption deflator.
3/ Based on average employee compensation and monthly hours index (Labor Force Survey).
4/ Fiscal year beginning April 1.
5/ Includes bank and nonbank flows.

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# I. Introduction

This review of recent economic developments focuses on the weak recovery that began in 1994, against the background of the long and deep recession from mid-1991 to late 1993. Output and labor market developments are described in Chapter II. (Recent developments in inflation are analyzed in Chapter IV of the supplement to this paper.) Chapter III examines the sharp deterioration in the fiscal position, including the effects of fiscal policy actions. Chapter IV discusses the progressive easing of monetary policy since 1991. External sector developments are analyzed in Chapter V, followed by an overview of trade and structural policies in Chapter VI. Finally, Chapter VII reviews developments in the banking sector.

The annexes to the chapters study specific issues raised in the main text. Nonfinancial private sector balance sheet positions are examined in Annex I. Regarding fiscal issues, Annex II discusses the use of flow of funds data in fiscal monitoring, while Annex III analyzes the authorities' medium-term objectives for the "bond-financing ratio" and how it relates to the general government balance. Annex IV explores the impact of the decline in equity prices on the balance sheets of the banking sector.

# II. Output and Labor Market Developments

## 1. Aggregate demand and output

The 1991-93 economic recession, which ended in October 1993, was the second longest (at 30 months) and the deepest (with peak to trough growth averaging only 0.4 percent per annum) since the downturn associated with the first oil shock (Table 1 and Chart 1). 1/ The subsequent recovery has been much weaker than average, with output in the last five quarters increasing at an average annual rate of 3/4 percent, compared to an average annual increase of 5 1/2 percent in three previous recoveries (Chart 2). As

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1/ The dating of business cycles in Japan is undertaken by the Economic Planning Agency, and is determined by movements in coincident and diffusion indices, which are aggregations of indicators of economic performance (e.g., industrial production, retail sales, labor market indicators). With two exceptions, during 1954 and 1973-75, growth in real GDP during recessions has remained positive. Therefore, recessions in Japan are generally a slowdown in growth rather than a contraction in activity. Matsuoka and Rose (1994, Chapter 3) provide a good discussion of the components and construction of coincident and diffusion indices, while Ito (1992, Chapter 4) provides an overview of Japanese business cycles.

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Table 1. Japan: Growth Rates of Real GDP and Demand Components, 1989-95 1/

(Percentage change from previous year or quarter)

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1994 I | 1994 II | 1994 III | 1994 IV | 1995 I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Private consumption | 4.3 | 3.9 | 2.2 | 1.7 | 1.0 | 2.2 | 1.3 | -0.3 | 1.1 | -0.6 | 0.1 |
| Private gross fixed investment | 12.6 | 9.9 | 3.5 | -5.1 | -7.1 | -5.2 | -3.2 | 0.1 | 0.8 | -1.3 | 0.8 |
| Residential | 0.5 | 4.7 | -8.2 | -6.7 | 2.5 | 9.7 | -2.3 | 7.9 | 2.6 | -5.4 | 1.5 |
| Business | 16.6 | 11.4 | 6.6 | -4.7 | -9.3 | -8.9 | -3.4 | -2.1 | 0.3 | 0.1 | 0.6 |
| Final private domestic demand | 6.7 | 5.8 | 2.6 | -0.5 | -1.5 | 0.1 | 0.0 | -0.2 | 1.0 | -0.8 | 0.3 |
| Government consumption | 2.0 | 1.9 | 1.6 | 2.7 | 1.7 | 2.8 | 1.1 | 0.0 | 1.5 | 0.1 | 2.2 |
| Government fixed investment | -2.2 | 4.5 | 4.7 | 15.3 | 16.5 | 5.0 | 1.8 | 1.4 | 0.7 | -0.9 | -3.2 |
| Final domestic demand | 5.7 | 5.3 | 2.6 | 0.8 | 0.1 | 0.7 | 0.3 | -0.0 | 1.1 | -0.7 | 0.1 |
| Stockbuilding 2/ | 0.2 | -0.3 | 0.3 | -0.6 | -0.2 | 0.2 | 0.2 | 0.2 | -0.0 | 0.0 | -0.0 |
| Private | 0.2 | -0.4 | 0.4 | -0.6 | -0.2 | 0.0 | -0.1 | 0.1 | -0.1 | -0.0 | 0.1 |
| Government | 0.0 | 0.1 | -0.1 | 0.0 | -0.0 | 0.2 | 0.3 | 0.1 | 0.0 | 0.1 | -0.1 |
| Total domestic demand | 5.8 | 5.0 | 2.9 | 0.3 | -0.0 | 0.9 | 0.5 | 0.1 | 1.0 | -0.7 | 0.1 |
| Foreign balance 2/ | -1.2 | -0.3 | 1.5 | 0.9 | -0.2 | -0.4 | 0.3 | 0.0 | -0.1 | -0.3 | -0.0 |
| Exports | 9.0 | 7.3 | 5.2 | 5.2 | 1.3 | 5.1 | 3.6 | 3.4 | 0.5 | 2.4 | -0.0 |
| Imports | 17.6 | 8.6 | -4.1 | -0.4 | 2.7 | 8.4 | 1.7 | 3.2 | 1.4 | 4.4 | 0.2 |
| Real GDP | 4.7 | 4.8 | 4.3 | 1.1 | -0.2 | 0.5 | 0.8 | 0.2 | 0.9 | -1.0 | 0.1 |
| Memorandum items: | | | | | | | | | | | |
| Government expenditure 3/ | 0.2 | 3.0 | 2.9 | 8.3 | 8.6 | 3.9 | 1.4 | 0.7 | 1.1 | -0.4 | -0.5 |
| Nominal GDP | 6.7 | 7.2 | 6.3 | 2.6 | 0.6 | 0.7 | 1.0 | 0.2 | 0.2 | -1.2 | 0.1 |
| GDP deflator (1985=100) | 1.8 | 2.2 | 2.0 | 1.5 | 0.9 | 0.2 | 0.2 | 0.0 | -0.7 | -0.2 | 0.1 |
| Output gap (percent of potential GDP) | -2.3 | -2.9 | -3.0 | -0.6 | 2.4 | 4.1 | 3.6 | 4.0 | 3.7 | 5.2 | 5.6 |

Sources: Economic Planning Agency, Annual Report on National Accounts; and data provided by the Japanese authorities.

1/ At 1985 prices.
2/ Contribution to real GDP growth.
3/ Government consumption and investment.



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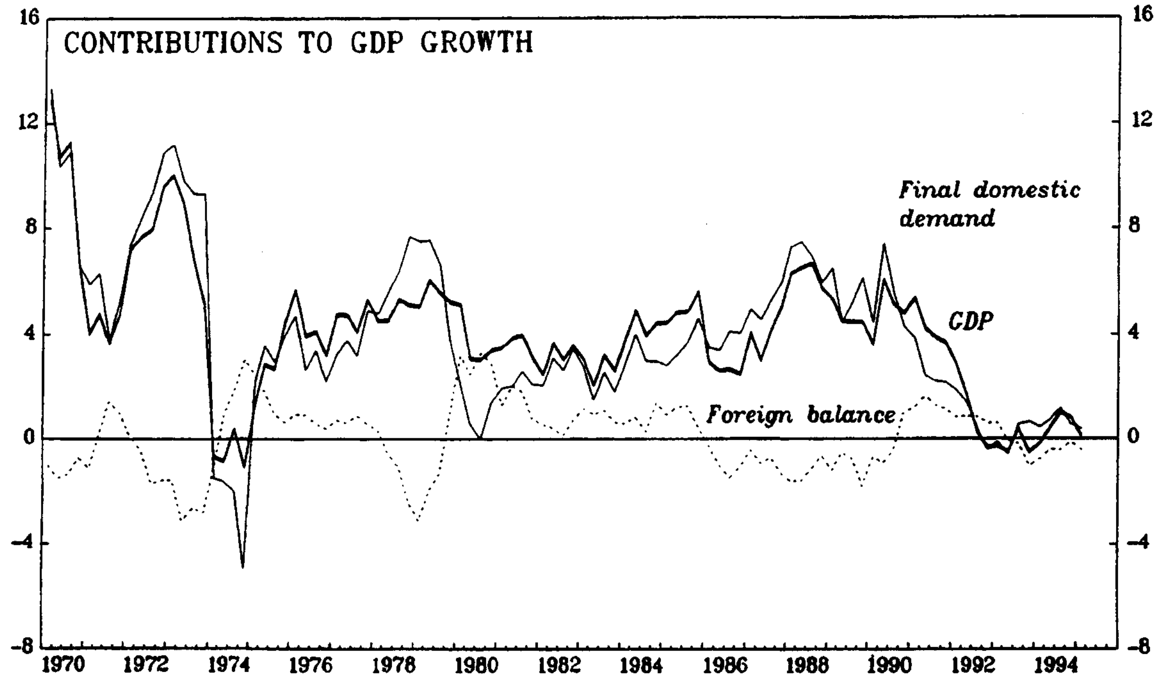
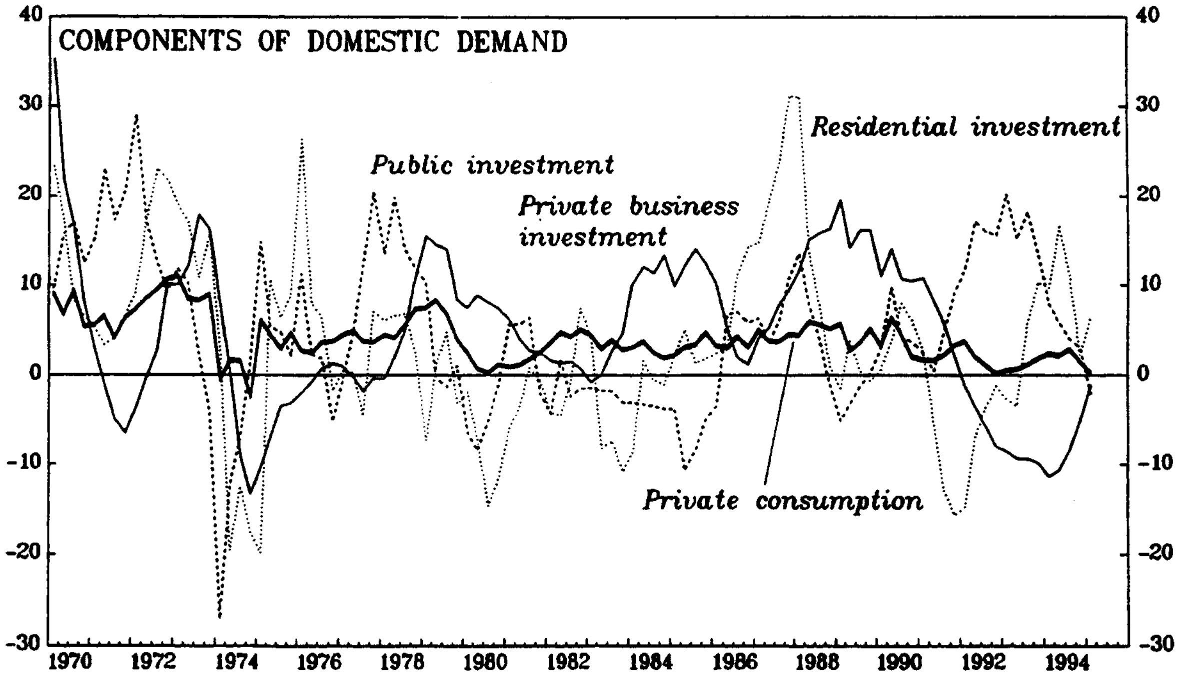
CHART 1

JAPAN

GROSS DOMESTIC PRODUCT AT 1985 CONSTANT PRICES, 1970-95

(Percentage change from previous year)




Source: EPA, National Income Accounts.

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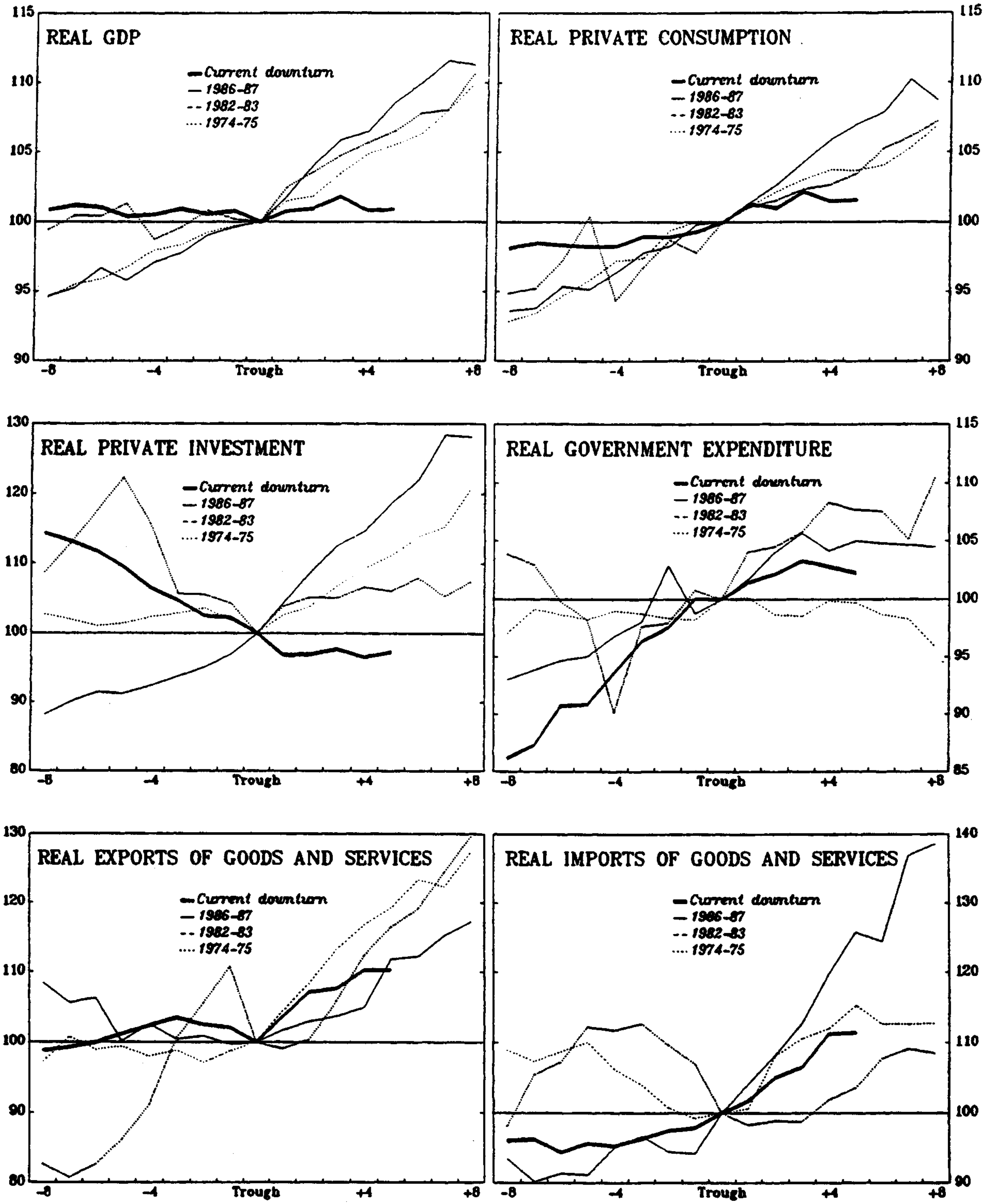
CHART 2

JAPAN

## COMPARISON OF FOUR CYCLICAL DOWNTURNS 1/

Index (trough of cycle=100)




Source: Nikkei Telecom.

1/ Troughs defined as: 1993Q4 for current downturn; 1987Q2 for 1986-87 downturn; 1983Q2 for 1982-83 downturn; 1975Q1 for 1974-75 downturn.

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a result, the gap between actual and potential output is estimated to exceed 5 percent of potential. 1/

Economic growth through 1994 was weak and uneven. Following a first quarter increase of 0.8 percent, led by private consumption growth of 1.3 percent and a positive contribution from net exports, both components worsened in the second quarter, drawing down overall growth to 0.2 percent. Growth again picked up in the third quarter, as abnormally hot weather induced higher consumption expenditures, and business fixed investment recorded its first increase in 11 quarters. However, almost all components of domestic and foreign demand fell in the fourth quarter, with overall output falling by 1 percent (quarterly rate). For the year as a whole, real GDP rose by only 0.5 percent.

The weak pace of economic activity continued in the first part of 1995. First quarter growth was only 0.1 percent, with increased private investment offset by falling public investment, while private consumption was basically flat. More recent indicators, including reductions in industrial production, weak retail sales, and declining net export volumes suggest that activity in the second quarter will also be subdued.

The fragile and erratic nature of the recovery has been the result of a number of factors. First, the process of working off excess capital stocks accumulated during the previous boom period has depressed private investment, typically an engine for economic recovery. Second, as land and equity prices have fallen significantly following the bursting of the asset price bubble of the late 1980s, households, enterprises and banks have attempted to restore their balance sheets by limiting expenditures. National net wealth has fallen by 12.5 percent over 1990-93, and by an estimated further 3 percent in 1994 (see Annex I). Third, the persistent rise of the yen, equivalent to over 40 percent since early 1990 in real effective terms, has placed downward pressure on wages, prices and profits, further restraining consumption and investment.

Real private consumption grew by 2.2 percent in 1994. The growth in employee compensation remained subdued at 2.3 percent (as in 1993), as the spring wage round ("shunto") resulted in an historically low increase of 3.1 percent, and hours worked fell by 0.5 percent. However, disposable incomes were boosted by tax cuts totaling ¥6 trillion, which were provided at end-June and end-December. Household debt ratios worsened slightly as net wealth remained constant, while an increase in net fixed assets (mainly housing) was financed through borrowing. This worsening, as well as the uncertainty resulting from unprecedented rates of unemployment, may have motivated the rise in the household saving rate in 1994. Nevertheless, consumption was boosted by weather-related expenditures in the summer, and increased expenditures on consumer durables were induced by rapid growth in

---

1/ See "Trends and Cycles in the Japanese Economy" in the supplement to this paper, for a discussion of measuring the output gap in Japan.

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residential investment. Consumption in the fourth quarter subsequently fell by 0.6 percent, in part reflecting an unwinding of the temporary effects in the previous quarter.

Consumption was basically flat in the first quarter of 1995, recording an increase of only 0.1 percent. Part of this weakness is thought to have been the result of the Kobe earthquake, disrupting business directly in the affected area, and inducing a more solemn attitude throughout the country. The 1995 spring "shunto" declined further to only 2.7 percent, while hours worked have remained flat, implying only a slight increase in the growth rate of labor compensation this year. Moreover, fears arising from continued increases in the unemployment rate and possible implications of the recent strength of the yen for employment prospects may further raise the household saving rate.

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 Q1 1/ |
|---|---|---|---|---|---|---|---|
| | (Percentage change, unless otherwise indicated) | | | | | | |
| Real private consumption 2/ | 4.3 | 4.0 | 2.1 | 1.7 | 1.0 | 2.2 3/ | 0.1 3/ |
| Real household disposable income | 4.7 | 3.5 | 3.2 | 1.7 | 0.5 | 2.7 3/ | ... |
| Household saving rates (levels): | | | | | | | |
| Total | 14.6 | 14.1 | 15.1 | 15.0 | 14.7 | 15.2 3/ | ... |
| Excluding asset income | 6.8 | 5.7 | 6.3 | 7.3 | 7.3 | 8.3 3/ | ... |

Private business investment declined by 8.9 percent in 1994, its third straight year of contraction. Following 11 consecutive quarters of negative growth beginning in early 1991, business fixed investment has recorded three quarters of positive, albeit weak, growth. The recent upturn reflects a number of factors. While levels of capacity utilization in manufacturing remain below their 1974-94 average of 92.3, the index has been increasing since late 1993, and is now 8 percent above its trough (Chart 3). Industrial production has displayed a similar pattern. Corporate profits have increased since late 1993, albeit somewhat erratically, in part due to the reduction in depreciation charges relating to the surge in investment

---

1/ Growth over the first quarter of 1994.
2/ These figures may differ slightly from those shown in Table 1, as the latter include consumption expenditures by non-profit institutions serving households.
3/ Staff estimate.

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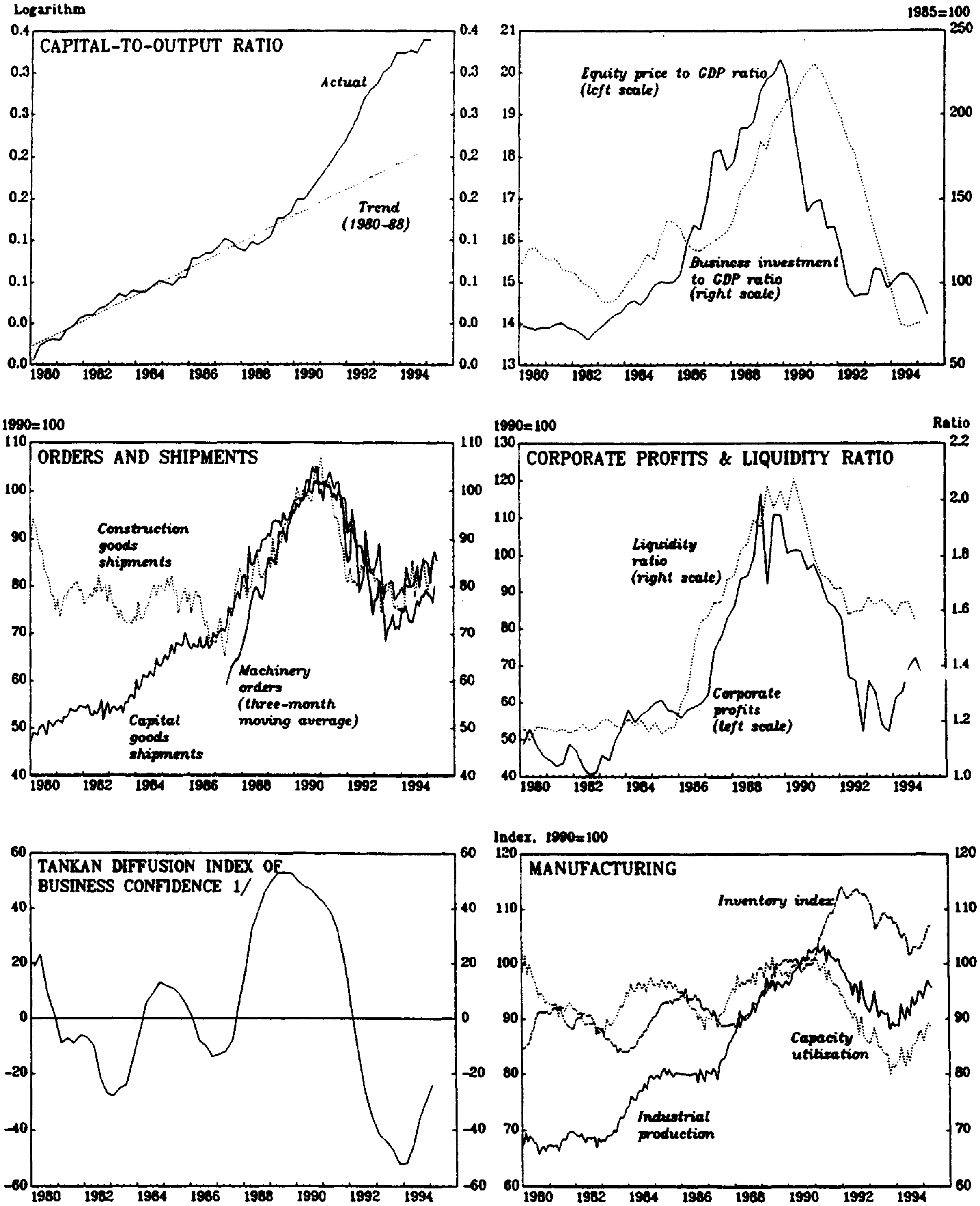
CHART 3

JAPAN
INDICATORS OF BUSINESS INVESTMENT, 1980-95




Source: Nikkei Telecom.
1/ Percentage of respondents reporting improving business conditions versus deteriorating.

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undertaken in the late-1980s. The Bank of Japan's May *Tankan* survey included an upward revision to investment intentions, registering expectations of positive growth for the first time since 1991.

While existing capital/output ratios remain above trend, a continuation of present investment levels implies a working off of excess capital in coming years. However, nonfinancial enterprise balance sheets have worsened significantly in recent years, with net wealth having declined by 23.6 percent over 1989-93, and by an estimated further decline of 10 percent in 1994. Moreover, the yen's recent sharp appreciation (increasing by 17 percent against the U.S. dollar between January and May) is expected to worsen export opportunities and accelerate the shift abroad of productive capacity by domestic producers. 1/ These factors imply that the growth of business fixed investment will most likely remain subdued in the near term.

Following the re-emergence of growth in residential investment in 1993, it accelerated to almost 10 percent in 1994. The number of new units started last year, at some 1.57 million, exceeded the 1.46 million started in the United States, despite twice the population in the latter country. This growth was fueled in part by low interest rates. In addition, both the loan ceiling and special premium on financing from the Housing Loan Corporation (HLC) were raised on three occasions over 1992-93, as was the maximum residential floorspace eligible for finance. As a result, the amount of outstanding credit with this institution increased by 14.8 percent in 1994, compared to a 2.4 percent increase with banks. At the end of 1994, the HLC held over 40 percent of outstanding housing credit, compared to 35 percent in 1992.

The number of starts remained above an annual pace of 1.5 million in the first two months of this year, while dipping only slightly below this rate in March and April. Although the rate of growth in residential investment is anticipated to fall significantly this year, the outlook remains strong for this sector for a number of reasons. First, the reduction in interest rates this spring should further lower borrowing costs. Second, in spite of the high rate of housing investment in 1994, it does not appear that there is an excess supply of housing stock. It is estimated that the ratio of residential housing stock to trend GDP, while increasing slightly in 1994, remains below its peak 1980 level, after having risen dramatically in the 1970s.

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1/ Moreover, a number of market analysts believe that the impact of the yen's appreciation was not fully reflected in the May Tankan survey.

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| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 Q1 1/ |
|---|---|---|---|---|---|---|---|
| | (Percentage change) | | | | | | |
| Private residential investment (at constant prices) | 0.5 | 4.7 | -8.2 | -6.7 | 2.5 | 9.7 | 1.5 |
| Housing construction starts | | | | | | | |
| Units | -1.6 | 2.7 | -19.2 | 1.7 | 5.8 | 5.8 | -3.0 |
| Floor space | -0.1 | 1.9 | -14.4 | 2.2 | 9.2 | 10.8 | 3.5 |

On a national accounts basis, stockbuilding contributed positively to growth in 1994, following two years of negative contributions. This pattern continued through the first quarter of 1995, albeit at a lesser rate. Industrial inventories, in contrast, fell in the first three quarters of 1994, and for the year as a whole. The inventory-shipment ratio also fell, for the first time in three years. In the first quarter of 1995, production increased by a further 1.3 percent, while shipments rose by only 0.1 percent, resulting in a small rise in inventories.

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 Q1 2/ |
|---|---|---|---|---|---|---|---|
| | (Contribution to real GDP growth, unless otherwise indicated) | | | | | | |
| Stockbuilding | 0.2 | -0.3 | 0.3 | -0.5 | -0.2 | 0.2 | 0.1 |
| Private | 0.2 | -0.3 | 0.4 | -0.5 | -0.2 | -- | 0.1 |
| Public 3/ | -- | -- | -0.1 | -- | -- | 0.2 | -- |
| Industrial inventory Index (1990 = 100 ) | 98 | 100 | 108 | 113 | 109 | 104 | 105 |
| Finished goods inventory-shipment ratio (1990 = 100) | 102 | 100 | 108 | 121 | 123 | 118 | 118 |
| Industrial production (change in percent) | 5.8 | 4.1 | 1.8 | -6.1 | -4.6 | 0.9 | 1.3 |

Real government spending on current goods and services grew by 2.8 percent in 1994, up from 1.7 percent in 1993. Public investment grew by 5 percent in 1994, compared to double-digit growth in 1992-93, the result of

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1/ Growth over the first quarter of 1994.
2/ Contribution to real GDP growth over the first quarter of 1994.
3/ Inventories of public enterprises.

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additional stimulative measures undertaken by the government (see Chapter III). Given that the growth in public investment has been greater than the growth in real GDP since 1991, the public investment to GDP ratio, equivalent to 9 percent in 1994, significantly exceeds its 1985-91 average of 6.7 percent. While it appears that this surge may have peaked, with negative growth in public investment in late 1994 and early 1995, and further reductions in current indicators of public works contracts and construction, the recently approved supplementary budget contains measures to further accelerate public goods spending (including earthquake-related reconstruction expenditures).

2. Saving-investment balances

The Japanese economy has experienced a remarkable shifting of domestic public and private net saving positions over the last five years (Table 2). Between 1989 and 1994, the private sector's net saving balance has improved by 7.3 percentage points of GDP, while the public sector balance has worsened by 6.4 percentage points. Within the former sector, the vast bulk of the improvement has been from private enterprises, while in the latter, the deterioration has been largely accounted for by a 5.0 percentage point worsening in the government's position.

The improved private sector net saving position is largely the result of a sharp fall in enterprise investment, which, as discussed earlier, resulted from an excess of capital accumulation during the bubble period and declining levels of capacity utilization, as well as falling equity prices and profitability, and tightened enterprise liquidity. 1/ Household net saving rose somewhat over this period, as expenditure growth was reduced in part to improve balance sheet positions, and the residential investment ratio declined, although the latter rose in the last two years. The worsening public sector position reflects both endogenous effects of changes in the business cycle, as well as policies adopted to provide countercyclical support to the economy. The reduction in the government saving ratio since 1991 reflects cyclically weak revenue performance, as well as, in 1994, tax cuts provided to households. The sharp increase in the government investment ratio since 1991 reflects successive stimulus packages.

3. Labor market activity

The labor market continued to face sizable pressures in 1994. The unemployment rate averaged 2.9 percent for the year, an historic high, with continued increases in early 1995 (Chart 4). Even so, the increase in the

---

1/ Gross national saving for private enterprises includes depreciation flows, which have been unusually large in recent years owing to previous high investment levels. In contrast, enterprise profits are net of these flows and have been therefore depressed, as well as from the downward pressures resulting from the cyclical weakness in economic activity.

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Table 2. Japan: Saving and Investment Balances, 1989-94

(In percent of GDP)

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|
| Foreign balance 1/ | 2.0 | 1.2 | 2.2 | 3.2 | 3.1 | 2.8 |
| Saving-investment balances | | | | | | |
| Private sector | -1.2 | -2.6 | -0.9 | 2.2 | 5.6 | 6.1 |
| Households | 3.8 | 3.4 | 4.6 | 5.1 | 4.8 | 4.9 |
| Private enterprises | -5.1 | -6.0 | -5.5 | -2.9 | 0.8 | 1.2 |
| Public sector | 3.1 | 3.8 | 3.1 | 1.0 | -2.5 | -3.3 |
| General government | 3.5 | 4.0 | 4.1 | 2.8 | -- | -1.5 2/ |
| Public enterprises | -0.4 | -0.2 | -1.0 | -1.7 | -2.4 | -1.8 2/ |
| Gross national saving | 33.7 | 33.9 | 34.6 | 34.2 | 33.1 | 31.7 |
| Private sector | 24.1 | 23.5 | 24.9 | 25.6 | 26.9 | 26.0 |
| Households | 9.7 | 9.3 | 9.9 | 10.0 | 9.9 | 10.4 |
| Private enterprises | 14.4 | 14.2 | 15.0 | 15.6 | 17.0 | 15.5 |
| Public sector | 9.6 | 10.4 | 9.7 | 8.6 | 6.2 | 5.7 |
| General government | 8.5 | 9.0 | 9.2 | 8.5 | 6.6 | 5.3 2/ |
| Public enterprises | 1.1 | 1.4 | 0.5 | 0.2 | -0.4 | 0.4 2/ |
| Gross domestic investment | 31.8 | 32.8 | 32.5 | 31.1 | 29.9 | 28.8 |
| Private sector | 25.3 | 26.1 | 25.8 | 23.5 | 21.3 | 19.8 |
| Households 3/ | 5.8 | 5.9 | 5.3 | 4.9 | 5.1 | 5.5 |
| Private enterprises | 19.4 | 20.2 | 20.6 | 18.6 | 16.2 | 14.3 |
| Public sector | 6.5 | 6.6 | 6.7 | 7.6 | 8.7 | 9.0 |
| General government | 5.0 | 5.1 | 5.1 | 5.7 | 6.6 | 6.8 2/ |
| Public enterprises | 1.5 | 1.6 | 1.5 | 1.9 | 2.0 | 2.2 2/ |
| Memorandum item: | | | | | | |
| Real GDP growth | 4.7 | 4.8 | 4.3 | 1.1 | -0.2 | 0.5 |

Sources: Economic Planning Agency, Annual Report on National Accounts; and staff estimates.

1/ Current account balance.
2/ Staff estimate.
3/ Residential investment.

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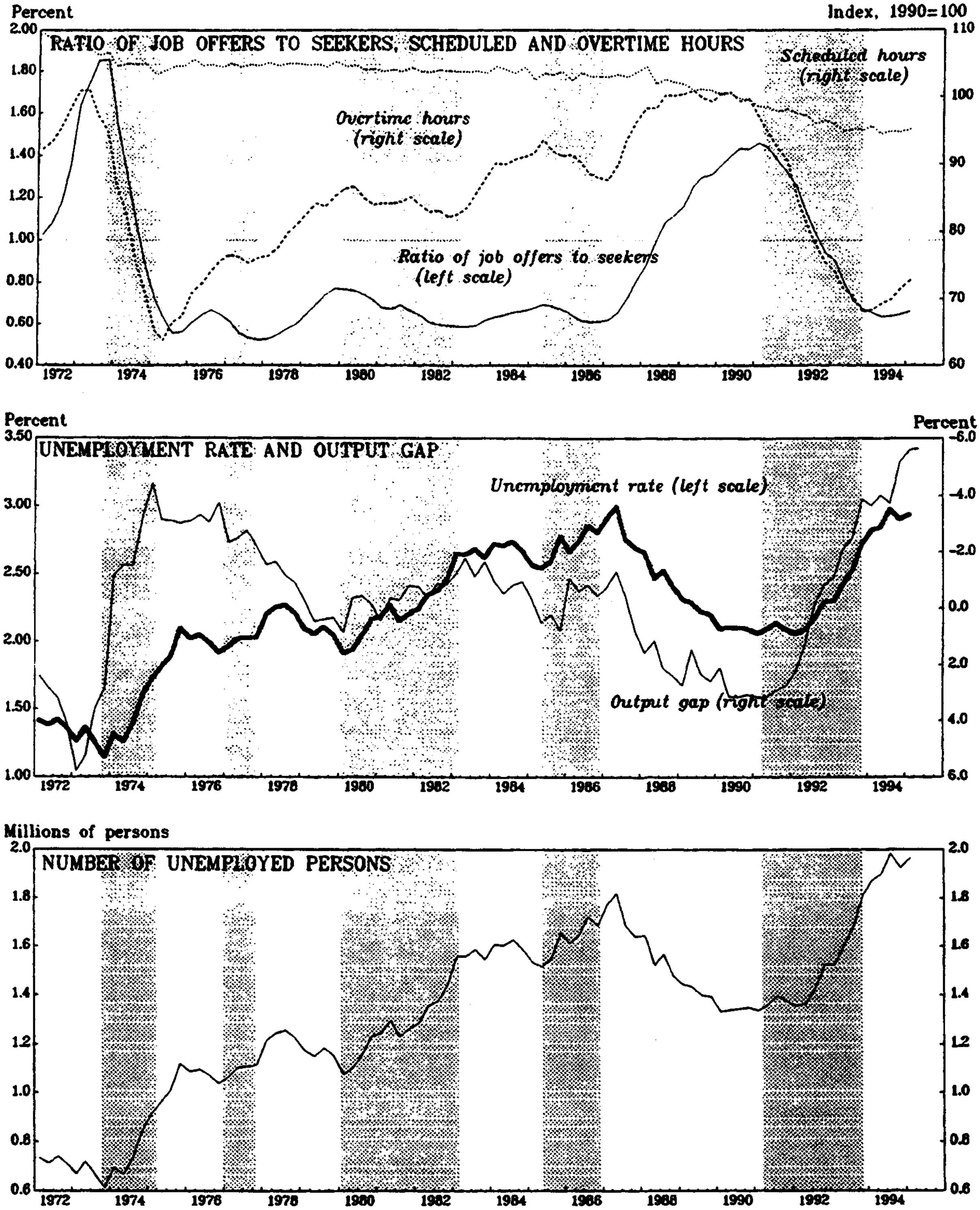
CHART 4

JAPAN

# SELECTED LABOR MARKET INDICATORS, 1972-95 1/




Sources: Ministry of Labor, Monthly Labor Statistics; Management and Coordination Agency, Labor Force Survey; and staff estimates.

1/ Seasonally adjusted data. Shaded areas refer to periods of recession as defined by the Japanese authorities.

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unemployment rate was restrained by reductions in labor force participation rates, especially for men (Chart 5). Following a cumulative 12 percent decline in scheduled hours worked over 1988-93, due both to the recession, and to government policy, scheduled hours worked have remained constant between the third quarter of 1993 and the first quarter of 1995. The level of total employment has also remained flat, while the ratio of job offers to seekers has returned to its pre-bubble average.

There are indications that labor market adjustments are not yet complete. Rather than hiring additional labor, firms are increasing overtime hours, which have risen by 7 percent since the end of 1993, although their level remains well below the historical average. Survey results in the May Bank of Japan *Tankan* indicate that the difference between enterprises which judged their employment levels as "excessive" rather than as "insufficient" was 24 percentage points (and was 31 percentage points for manufacturing enterprises). Moreover, these differences have hardly changed since the end of the recession. 1/ Private sector estimates of excess employment range from 2 to 3 million (equivalent to 3 - 4 1/2 percent of the labor force).

The growth of nominal monthly wages (including bonuses) slowed sharply as the recession persisted through 1993, but has since rebounded slightly. Monthly wage increases were persistently less than the amounts negotiated each spring ("shunto"), however, because of declining total hours worked and reduced bonus payments. Real wage growth has returned to levels seen in the late 1980s, after declining slightly in 1993. The 1995 "shunto" of 2.7 percent is an historic low, although flat or even declining consumer prices combined with increased overtime hours should result in real wage growth of about 3 percent. 2/ While wages in manufacturing grew at a somewhat faster pace, so too did output and productivity. As a result, unit labor costs declined in 1994, and the pace of decline accelerated in the first quarter of 1995.

---

1/ Notwithstanding the fact that manufacturers have shed about 620 thousand workers over the past five quarters (equivalent to a 4 percent decline in manufacturing employment).

2/ See "Recent Developments in Inflation," in the supplement to this paper, for a discussion of inflation in Japan.

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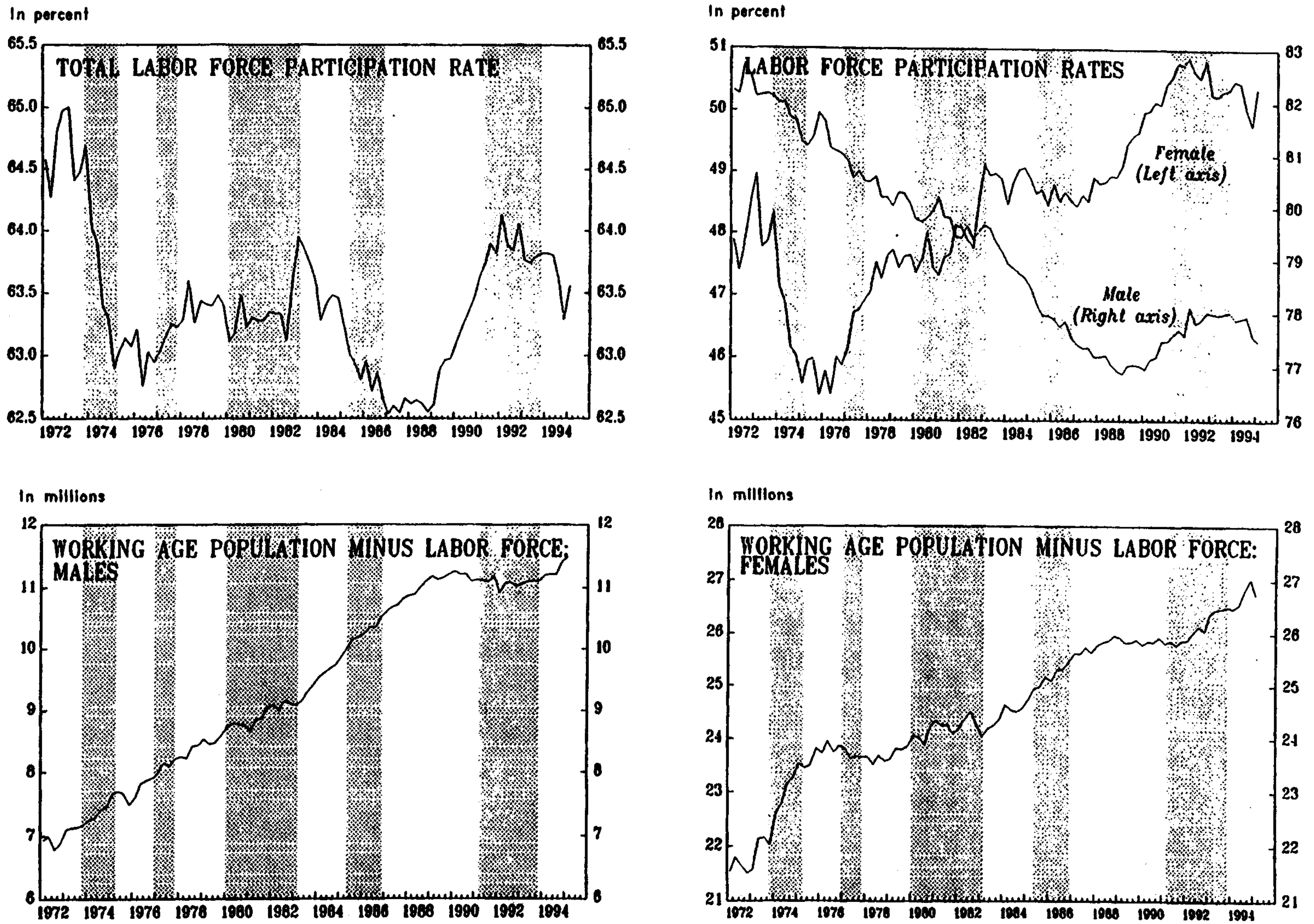
CHART 5

JAPAN

LABOR FORCE PARTICIPATION, 1972-95 1/




Source: Nikkei Telecom.

1/ Seasonally adjusted data. Shaded areas refer to periods of recession as defined by the authorities.



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| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 Q1 1/ |
|---|---|---|---|---|---|---|---|
| | | | (Percentage change) | | | | |
| All industries: | | | | | | | |
| Shunto wage settlements; (excluding bonuses) | 5.2 | 5.9 | 5.7 | 5.0 | 3.9 | 3.1 | ... |
| Nominal monthly wages (including bonuses) | 4.1 | 4.7 | 3.4 | 1.8 | 0.7 | 2.1 | 2.9 |
| Real monthly wages (including bonuses) | 1.8 | 1.6 | 0.3 | 0.6 | -0.9 | 1.6 | 3.0 |
| Of which: | | | | | | | |
| Manufacturing sector | | | | | | | |
| Nominal monthly wages (including bonuses) | 5.8 | 5.3 | 3.4 | 1.1 | 0.1 | 2.0 | 4.0 |
| Productivity | 5.9 | 4.0 | 2.4 | -5.3 | -1.7 | 3.1 | 8.0 |
| Unit labor costs | 0.3 | 0.9 | 1.5 | 6.8 | 1.7 | -1.4 | -3.8 |

## III. Fiscal Policy

This chapter discusses recent fiscal policy initiatives. Section 1 briefly reviews fiscal developments and budgetary performance since 1992. Section 2 highlights the policy initiatives announced last year--including the tax reform and pension reform plans, and the new 10-year public investment plan--and examines the medium-term implication of these initiatives. 2/ 3/

---

1/ Growth over the first quarter of 1994.

2/ The staff analysis uses national income accounts (NIA) data for the general government, consisting of the central government, local governments, and the social security funds. NIA data are available through FY 1993 (April-March); data for FY 1994 and FY 1995 are staff estimates. The main Japanese fiscal accounts concepts are narrower, focusing on the general account of the central government and the Fiscal Investment and Loan Program (FILP). These concepts are referred to as necessary below. See "Japan--Recent Economic Developments," SM/93/142 (7/6/93) especially Annexes I and II, for detailed descriptions of the structure of the public sector and FILP operations.

3/ Annex II discusses the possibility of using flow-of-funds data in fiscal analysis.

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1. Fiscal developments since 1992

a. Four fiscal stimulus packages introduced in FY 1992-93

Following a long period of consolidation beginning in the late 1970s that virtually eliminated the general government deficit (excluding social security) by FY 1990 (April-March), the fiscal position of the general government began to deteriorate with the onset of the economic slowdown in FY 1991 (Chart 6). As the recession deepened, the focus of fiscal policy shifted from consolidation to providing countercyclical support to domestic demand. To this end, four major fiscal stimulus packages were adopted between August 1992 and February 1994.

In total, the four packages amounted to over ¥45 trillion, equivalent to 9 1/2 percent of GDP (Table 3). The core of the packages were substantial increases in public investment (Chart 7). Direct spending on public investment was boosted by about ¥20 trillion (4 percent of GDP) over the baseline, and, as a result, real public investment rose by over 40 percent from 1991 to 1994. Other key components of the packages included: increased lending authority for the Housing Loan Corporation and other government-affiliated financial institutions; accelerated purchases of land for future public works sites; subsidies and tax incentives to promote housing acquisition and business equipment purchases; and measures to stabilize employment. In addition to these expenditure measures, the fourth package (announced in February 1994) included a major cut in income taxes. The tax cut amounted to ¥5.9 trillion (1 1/4 percent of GDP)--virtually all of the cut (¥5.5 trillion) was due to a 20 percent across-the-board reduction in national and local personal income taxes that was adopted as a temporary measure for FY 1994. 1/

b. FY 1994 budgetary operations

Notwithstanding the substantial effects of these packages, the economy remained weak, thus fiscal policy in FY 1994 continued to provide support to demand. This support was both from the revenue and expenditure sides, but was particularly pronounced on the revenue side, as the tax cuts announced in February 1994 package were implemented by reductions in withholding tax in June and December 1994. 2/ On the expenditure side, although no further major fiscal stimulus packages were introduced in FY 1994, public

---

1/ See Chapter III of "Japan--Recent Economic Developments" (SM/94/185, 7/14/94) for more detailed descriptions of the packages. For staff analyses of each package, see also "Japan--August 1992 Economic Stimulus Package" (EBD/92/193, 9/1/92), "Japan--April 1993 Economic Stimulus Package" (EBD/93/68, 4/23/93), and "Japan--February 1994 Economic Stimulus Package" (EBD/94/22, 2/14/94).

2/ The self-employed could realize their tax reductions through lowering scheduled tax payments in 1994, or via a tax refund after filing their 1994 returns in early 1995.

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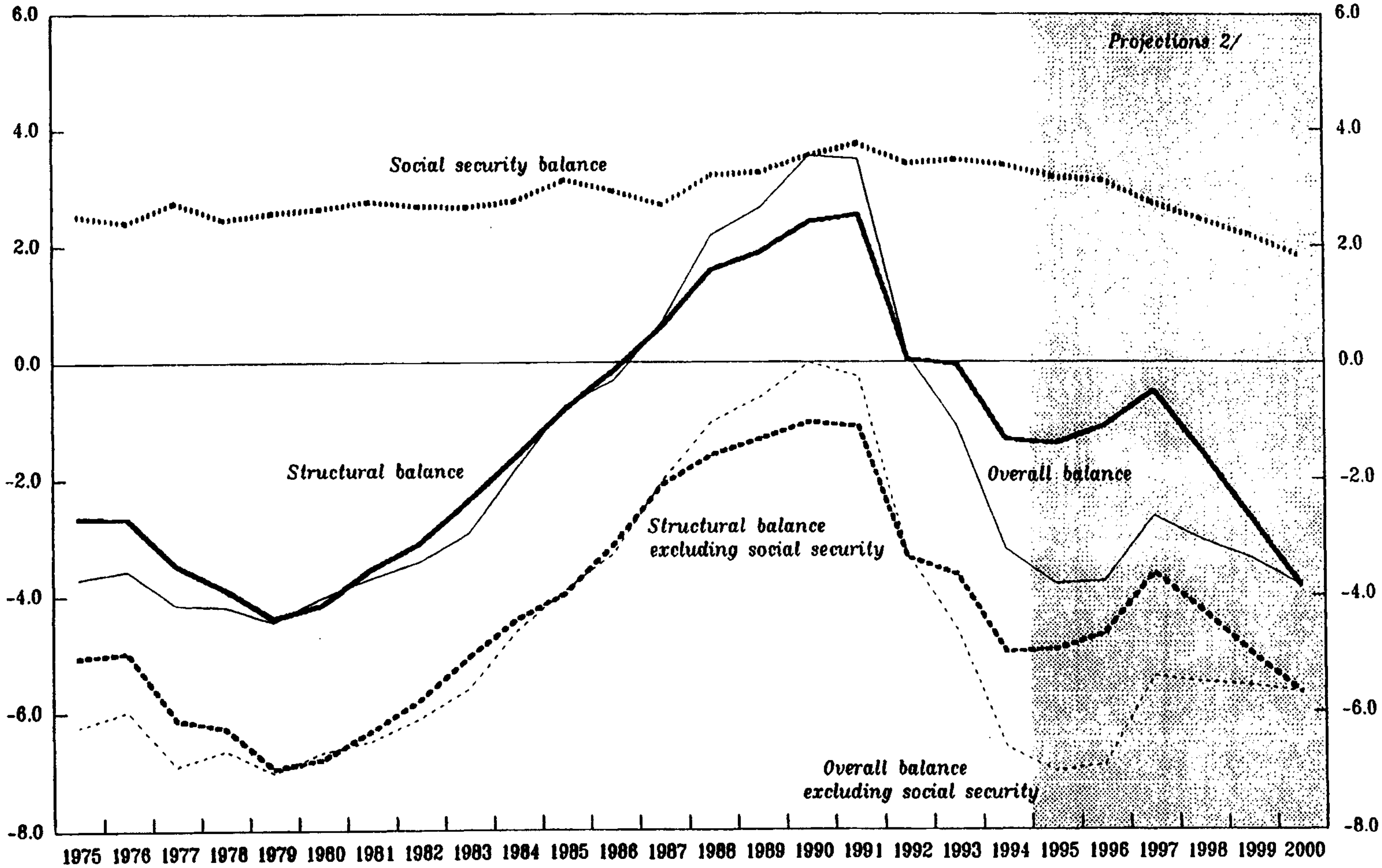
CHART 6

JAPAN

MEDIUM-TERM FISCAL PROJECTIONS, FY 1975-2000 1/

(In percent of GDP)




Sources: Ministry of Finance; Economic Planning Agency; and staff estimates and projections.

1/ The fiscal year is from April to March.

2/ Based on implementation of the 1994 pension reform and tax reform plans, and the ¥630 trillion public investment plan for 1995-2004.



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Table 3. Japan: Summary of Economic Stimulus Packages, 1992-94

(In trillions of yen, unless otherwise indicated)

| Date proposed | August 1992 | April 1993 | September 1993 | February 1994 |
|---|---|---|---|---|
| Total package | 10.7 | 13.2 | 6.2 | 15.3 |
| (in percent of GDP) | (2.3) | (2.8) | (1.3) | (3.2) |
| Tax reductions | -- | 0.2 | -- | 5.9 |
| (in percent of GDP) | (--) | (--) | (--) | (1.2) |
| Public investment 1/ | 5.8 | 7.6 | 2.0 | 4.0 |
| (in percent of GDP) | (1.2) | (1.6) | (0.4) | (0.8) |
| Land purchases | 1.6 | 1.2 | 0.3 | 2.8 2/ |
| (in percent of GDP) | (0.5) | (0.3) | (0.1) | (0.6) |
| Increased lending by Housing Loan Corporation | 0.8 | 1.8 | 2.9 | 1.2 |
| (in percent of GDP) | (0.2) | (0.4) | (0.6) | (0.3) |
| Increased lending by government-affiliated financial institutions | 2.1 | 2.4 | 1.0 | 1.5 |
| (in percent of GDP) | (0.5) | (0.5) | (0.2) | (0.3) |

Sources: Data provided by the Japanese authorities; and staff estimates.

1/ Includes disaster relief, unidentified land component of public investment, and FILP lending to public corporations for public works.

2/ Including ¥0.5 trillion of land purchases to be conducted over a five-year period.

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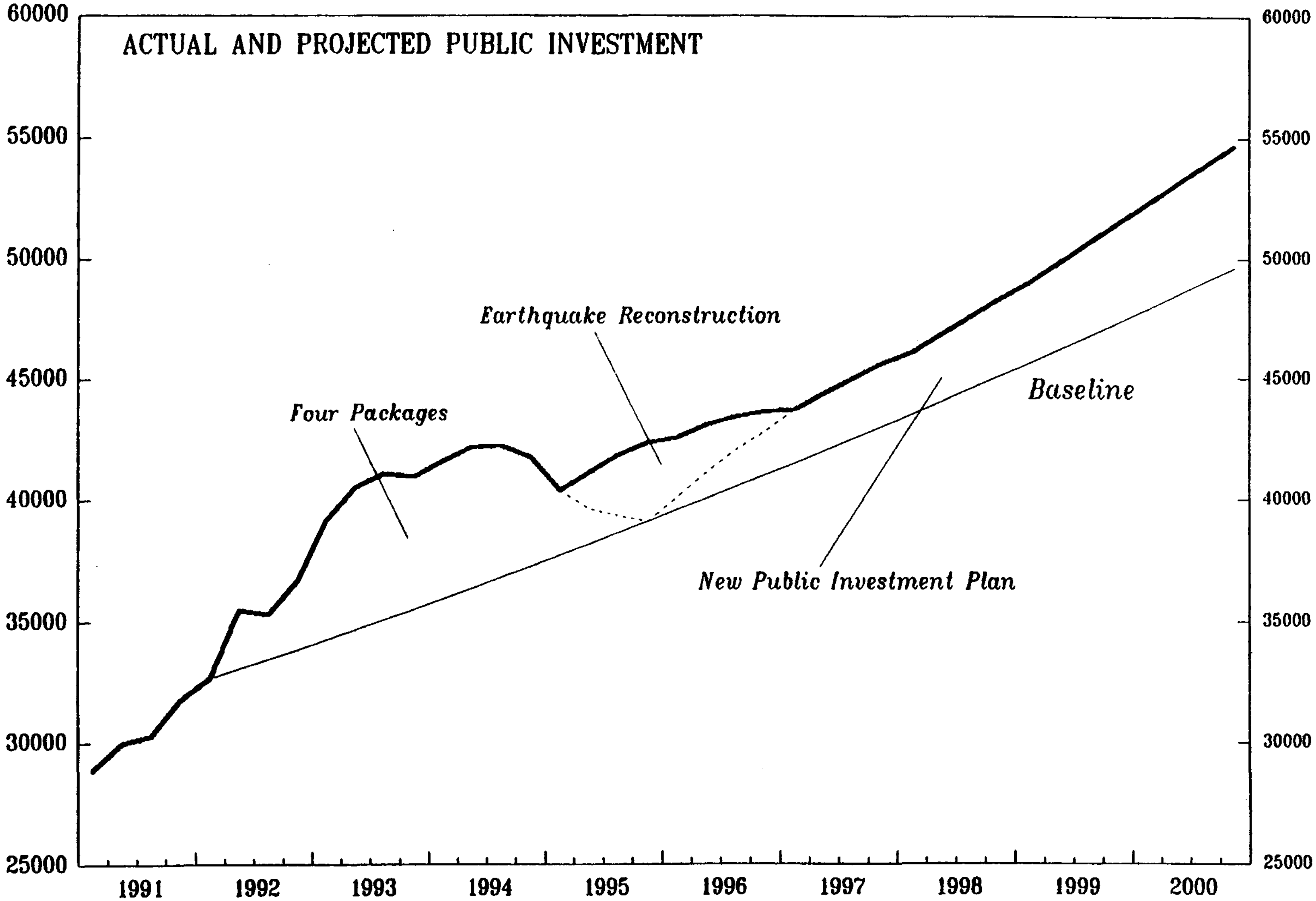
CHART 7.

JAPAN

**PUBLIC INVESTMENT PROFILE, 1991-2000**

**(Billions of Yen)**




Sources: Ministry of Finance; Economic Planning Agency; and staff estimates and projections.



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investment grew considerably over the rapidly expanded level in FY 1993 on account of the carryover spending of previous packages, and two supplementary budgets. 1/

Revenue developments reflected the weak economy as well as the impact of tax cuts. At the general government level, total revenues are estimated to have declined by 3/4 percent of GDP compared with FY 1993 levels, falling from 33 1/2 to 32 3/4 percent of GDP. While social security revenues are estimated to have grown by 6 1/4 percent, due partly to the pension reform plan, taxes and fines are estimated to have declined by about 5 1/2 percent compared with FY 1993 levels. As a share of GDP, taxes and fines are estimated to have declined from 19 3/4 percent in FY 1993 to 18 1/2 percent, the lowest level since FY 1980. 2/ Automatic stabilizers were allowed to operate, as the revenue shortfall was not offset by expenditure cutbacks.

While the initial budgetary plans (for both the general account and the FILP) for FY 1994 held the line on expenditure growth, two supplementary budgets were adopted in early 1995. The first included agricultural support in the wake of the Uruguay Round agreement, including ¥600 billion of public works on agricultural projects. The second included a total of ¥1 trillion additional expenditures (including ¥700 billion of public works) for urgent reconstruction and relief measures from the earthquake that hit the Kobe region on January 14.

Taking into account the carryover from previous packages, the initial general account and FILP budgets, and the two supplementary budgets, expenditures at the general government level are estimated to have risen by slightly over 4 percent, compared with 7 1/2 and 5 3/4 percent in FY 1992 and FY 1993, respectively. The growth rate in capital spending (public investment and land acquisition) moderated to 4 3/4 percent after double-digit growth in FY 1992-93, while growth in current spending remained at around 4 percent. Reflecting slow growth in nominal GDP, expenditures rose substantially in relation to GDP, reaching almost 36 percent in FY 1994 compared with 34 1/2 percent in FY 1993.

These revenue and expenditure developments have increased the general government deficit (excluding social security) sharply to 6 1/2 percent of GDP from 4 1/2 percent of GDP in FY 1993 (Table 4). The structural balance

---

1/ A distinction between the budgetary accounts and the NIA is important into understanding the expenditure carryover. While Japanese budgetary accounts monitor expenditures on a contracts-signed and disbursement basis, the NIA record fiscal activity as actual implementation occurs. Thus, on an NIA basis, the pipeline of contracted, but incomplete or uninitiated work represents a carryover of the package into the following year.

2/ At the level of the general account of the central government, total tax and stamp revenues fell by about 6 percent, compared with settlement figures for FY 1993. Individual income taxes fell by about 14 percent, reflecting the tax cut, while corporate income tax receipts increased marginally by 3/4 percent.

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Table 4. Japan: General Government Balances, FY 1987-95

| Fiscal year 1/ | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 Est. | 1995 Est. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | (In billions of yen) | | | | |
| General government | 2,394 | 8,214 | 10,702 | 15,329 | 15,920 | 571 | -5,215 | -15,042 | -18,027 |
| Central government | -6,830 | -4,189 | -4,875 | -1,401 | -829 | -10,057 | -13,668 | -19,245 | -21,133 |
| Local government | -373 | 261 | 2,423 | 1,349 | -363 | -5,295 | -7,818 | -11,702 | -12,006 |
| Social security | 9,596 | 12,141 | 13,154 | 15,381 | 17,111 | 15,923 | 16,271 | 15,906 | 15,113 |
| General government excluding social security | -7,202 | -3,927 | -2,452 | -52 | -1,191 | -15,352 | -21,486 | -30,947 | -33,139 |
| | | | | | (In percent of GDP) | | | | |
| General government | 0.7 | 2.2 | 2.7 | 3.5 | 3.5 | 0.1 | -1.1 | -3.2 | -3.8 |
| Central government | -1.9 | -1.1 | -1.2 | -0.3 | -0.2 | -2.2 | -2.9 | -4.1 | -4.5 |
| Local government | -0.1 | 0.1 | 0.6 | 0.3 | -0.1 | -1.1 | -1.7 | -2.5 | -2.5 |
| Social security | 2.7 | 3.2 | 3.3 | 3.6 | 3.8 | 3.4 | 3.5 | 3.4 | 3.2 |
| Structural balance 2/ | 0.6 | 1.6 | 1.9 | 2.4 | 2.5 | -- | -0.1 | -1.3 | -1.4 |
| General government excluding social security | -2.0 | -1.0 | -0.6 | -- | -0.3 | -3.3 | -4.6 | -6.6 | -7.0 |
| Structural balance excluding social security 2/ | -2.1 | -1.6 | -1.3 | -1.0 | -1.1 | -3.3 | -3.6 | -5.0 | -4.9 |
| Memorandum items: | | | | | | | | | |
| General government revenues | 32.9 | 33.6 | 34.0 | 34.7 | 34.6 | 32.9 | 33.4 | 32.7 | 32.8 |
| General government expenditures | 32.2 | 31.4 | 31.3 | 31.2 | 31.1 | 32.8 | 34.6 | 35.9 | 36.6 |

Sources: Economic Planning Agency, Annual Report on National Accounts, 1995; and staff estimates and projections.

1/ The fiscal year begins on April 1.

2/ In percent of potential GDP.



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of the general government (excluding social security) deteriorated by about 1 1/2 percent of GDP to 5 percent of GDP (Chart 6). 1/ The balance on social security was broadly unchanged from the previous year at 3 1/2 percent of GDP (Charts 8 and 9).

c. FY 1995 budgetary operations

In setting fiscal policy for FY 1995, the authorities initially sought to balance the need to pursue sound fiscal management, primarily through expenditure control, against the cyclical requirement of promoting and sustaining economic recovery. 2/ To this end, the expenditure side of the initial budget for FY 1995 was slightly contractionary compared with the revised budget for FY 1994, while the revenue side was cyclically neutral, continuing essentially the same size of tax cuts as FY 1994. A supplementary budget was introduced and approved by the Diet in May 1995, however, to appropriate a total of ¥2.7 trillion additional expenditures for earthquake reconstruction and measures to counter the impact of the yen appreciation. With this supplementary budget, the budget implies a neutral stance--at a continuing high level of support--of fiscal policy in FY 1995.

At the general account level, the FY 1995 supplementary budget offsets the decline in the deficit that would otherwise have occurred (Table 5). The initial deficit was projected at 2 1/2 percent of GDP, implying an unchanged initial-over-initial stance from FY 1994. As the outturn for the deficit was wider in FY 1994 than initially expected on account of revenue shortfalls and supplementary expenditures, the FY 1995 initial deficit was smaller than the FY 1994 revised deficit. The FY 1995 supplementary budget, however, raises the deficit to 3 1/4 percent of GDP, unchanged from FY 1994 revised deficit.

Revenue estimates for FY 1995 reflect the impact of the tax reform package that replaced the FY 1994 temporary income tax cut with a combination of temporary and permanent cuts, and the impact of tax breaks due to the earthquake (Table 6). Tax and stamp duty revenues are budgeted to rise by 5 1/2 percent (or 1/4 percent of GDP), compared with the FY 1994 revised figure. Among major tax items, corporate tax revenue is projected to be very buoyant with growth of 12 1/4 percent, reflecting an expected

---

1/ It should be noted that estimates of the structural budget balance are subject to a number of uncertainties (such as the elasticity of revenues with respect to the output gap as well as the measurement of the output gap itself), and thus should be interpreted, not as a precise point estimate, but as a broad indicator of trends in the budget balance adjusted for the cycle.

2/ In accordance with the conventional process of budget formulation, the proposals for the initial general account and FILP budgets for FY 1995 were finalized at end-December 1994, before the devastating earthquake hit the Kobe region.

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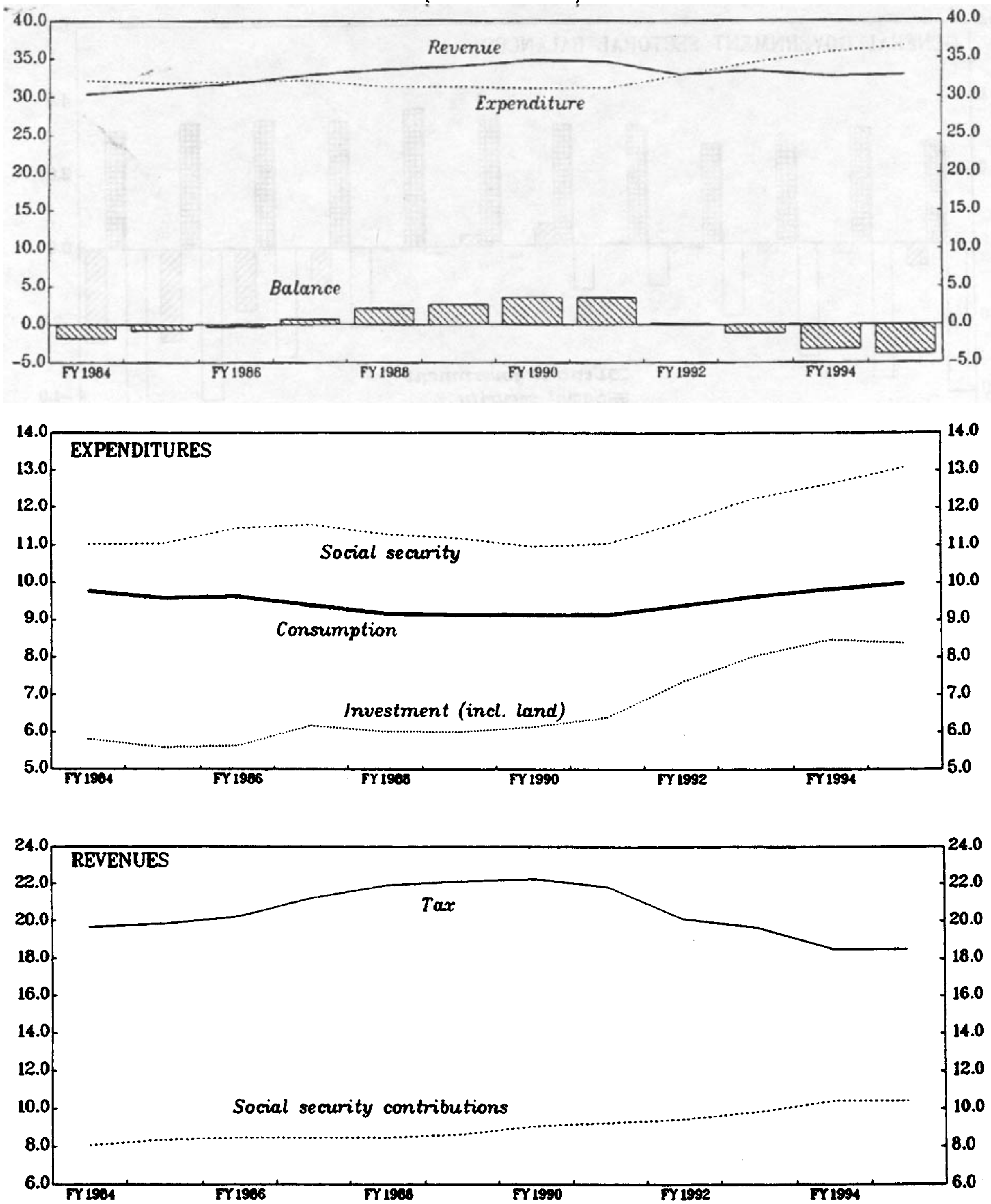
CHART 8

JAPAN
GENERAL GOVERNMENT EXPENDITURES AND RECEIPTS
FY1984-FY1995 1/

(Percent of GDP)




Sources: Economic Planning Agency, Annual Report on National Accounts; and staff estimates.

1/ Figures for FY 1994 and FY 1995 are staff estimates.

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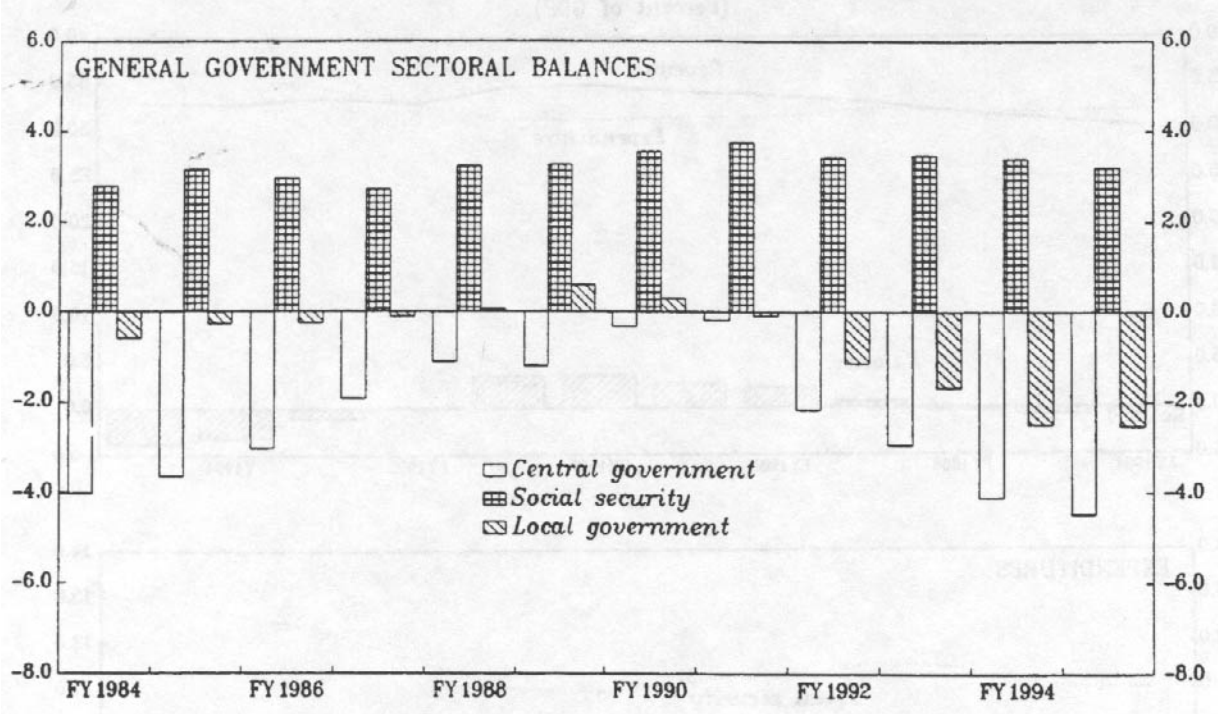
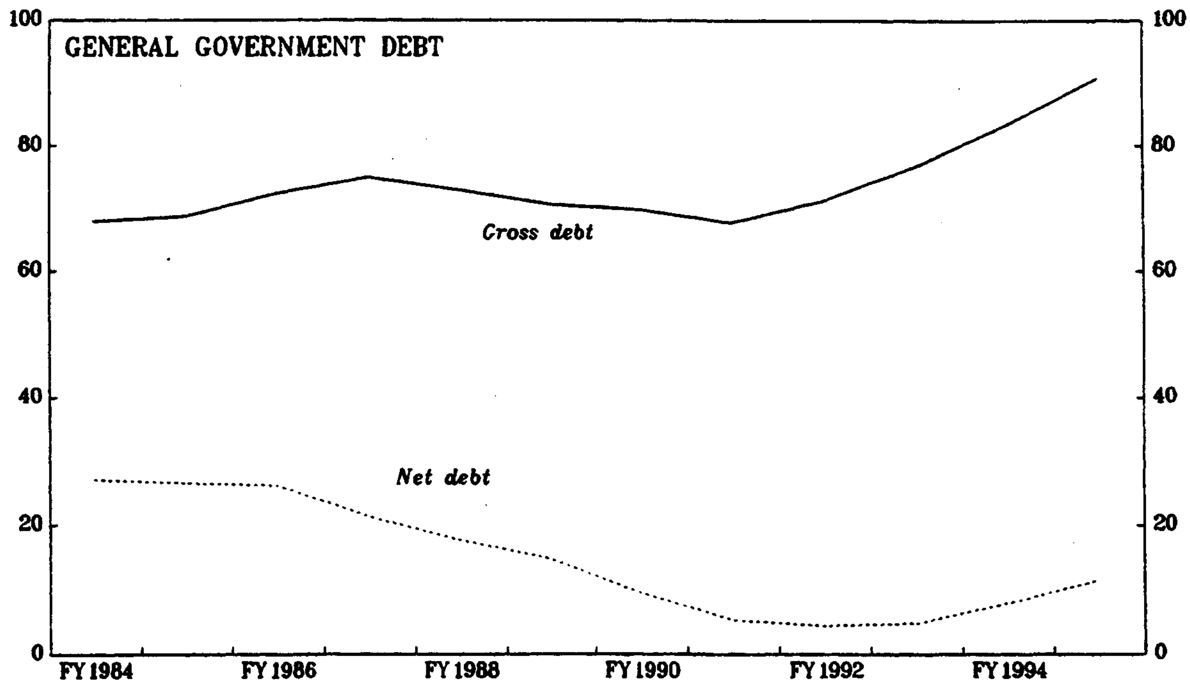
CHART 9

JAPAN
GENERAL GOVERNMENT FISCAL INDICATORS
FY1984-95 1/
(Percent of GDP)




Sources: Economic Planning Agency, Annual Report on National Accounts; and staff estimates.

1/ Figures for FY 1994 and FY 1995 are staff estimates.

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Table 5. Japan: Central Government General Account Budget, FY 1990-95 1/

(In billions of yen)

| Fiscal years | 1990 Settle-ment | 1991 Settle-ment | 1992 Settle-ment | 1993 Initial | 1993 Revised | 1993 Settle-ment | 1994 Initial | 1994 Revised | 1995 Initial | 1995 Revised |
|---|---|---|---|---|---|---|---|---|---|---|
| Expenditure | 66,167 | 68,149 | 67,047 | 69,138 | 74,786 | 72,642 | 69,230 | 69,623 | 69,908 | 72,634 |
| General expenditure | 37,741 | 37,940 | 40,376 | 39,917 | 45,413 | 43,665 | 40,856 | 42,648 | 42,142 | 44,848 |
| Social security | 11,481 | 12,151 | 12,757 | 13,146 | 13,321 | 13,346 | 13,482 | 13,565 | 13,924 | 14,014 |
| Public works | 6,956 | 7,421 | 8,589 | 7,335 | 11,381 | 10,088 | 7,755 | 9,380 | 8,112 | 9,549 |
| Defense | 4,253 | 4,441 | 4,589 | 4,641 | 4,618 | 4,602 | 4,684 | 4,652 | 4,723 | 4,751 |
| Official aid | 819 | 860 | 893 | 957 | 957 | 950 | 999 | 992 | 1,035 | 1,035 |
| Foodstuff control | 404 | 379 | 349 | 311 | 311 | 308 | 274 | 265 | 272 | 272 |
| Other | 13,829 | 12,691 | 13,200 | 13,527 | 14,825 | 14,371 | 13,662 | 13,794 | 14,074 | 15,227 |
| No-interest lending program | 1,283 | 1,270 | 1,288 | 1,300 | 1,300 | 1,290 | 1,300 | 1,300 | 1,300 | 1,300 |
| Interest payments 2/ | 10,912 | 11,672 | 10,898 | 11,754 | 11,089 | 10,704 | 11,699 | 10,988 | 11,777 | 11,797 |
| Transfer of local allocation tax to local governments | 15,931 | 15,800 | 14,204 | 15,617 | 13,950 | 13,950 | 12,758 | 12,069 | 13,215 | 13,215 |
| Other 3/ | 301 | 1,467 | 281 | 549 | 3,033 | 3,033 | 2,618 | 2,618 | 1,404 | 1,404 |
| Revenue | 63,003 | 63,826 | 57,941 | 64,221 | 58,776 | 57,538 | 57,175 | 54,673 | 57,278 | 57,178 |
| Taxes and stamp duties | 60,106 | 59,820 | 54,445 | 61,303 | 55,680 | 54,126 | 53,665 | 50,816 | 53,731 | 53,593 |
| Miscellaneous | 2,897 | 4,005 | 3,496 | 2,918 | 3,096 | 3,412 | 3,510 | 3,857 | 3,547 | 3,585 |
| Of which: | | | | | | | | | | |
| Proceeds from sales of NTT and JNR shares | 1,283 | 1,270 | 205 | 187 | 187 | 177 | 173 | 173 | 173 | 173 |
| Deficit | 3,165 | 4,323 | 9,107 | 4,917 | 16,010 | 15,103 | 12,055 | 14,950 | 12,630 | 15,456 |
| Financing | 3,165 | 4,323 | 9,107 | 4,917 | 16,009 | 15,103 | 12,055 | 14,949 | 12,630 | 15,458 |
| Bond issues | 7,613 | 8,197 | 9,817 | 8,679 | 19,207 | 19,207 | 16,261 | 19,108 | 14,072 | 16,900 |
| Deficit-financing bonds | -- | -- | -- | -- | -- | -- | 3,134 | 4,144 | 2,851 | 3,415 |
| Construction bonds | 6,343 | 6,730 | 9,536 | 8,130 | 16,174 | 16,174 | 10,509 | 12,346 | 9,747 | 12,011 |
| Gulf contribution bonds | 969 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Other 4/ | 301 | 1,467 | 281 | 549 | 3,033 | 3,033 | 2,618 | 2,618 | 1,404 | 1,404 |
| Debt repayment | -3,403 | -3,865 | -3,730 | -3,767 | -3,202 | -3,010 | -2,661 | -2,618 | -1,444 | -1,444 |
| Other | -1,046 | -9 | 3,019 | 4 | 4 | -1,094 | -1,545 | -1,541 | 2 | 2 |
| Carried over surplus | -1,046 | -9 | 1,474 | 4 | 4 | -1,660 | -- | 4 | -- | -- |
| Carry in | 1,389 | 2,435 | 2,443 | 4 | 4 | 969 | -- | 4 | 2 | 2 |
| Carry out | -2,435 | -2,443 | -969 | -- | -- | -2,629 | -- | -- | 2 | 2 |
| Drawdown from reserve funds | -- | -- | 1,545 | -- | -- | 566 | -1,545 | -1,545 | -- | -- |
| Memorandum items: | | | | | | | | | | |
| In percent of GDP 5/ | | | | | | | | | | |
| Expenditure | 15.3 | 14.9 | 14.4 | 14.8 | 16.0 | 15.6 | 14.8 | 14.9 | 14.8 | 15.3 |
| Revenue | 14.6 | 14.0 | 12.4 | 13.8 | 12.6 | 12.3 | 12.2 | 11.7 | 12.1 | 12.1 |
| Deficit | 0.7 | 0.9 | 2.0 | 1.1 | 3.4 | 3.2 | 2.6 | 3.2 | 2.7 | 3.3 |
| Bond financing (net) | 1.0 | 1.0 | 1.3 | 1.1 | 3.4 | 3.5 | 2.9 | 3.5 | 2.7 | 3.3 |
| Deficit-financing bonds (gross) | -- | -- | -- | -- | -- | -- | 0.7 | 0.9 | 0.6 | 0.7 |
| General public works expenditure 6/ | 1.9 | 1.9 | 2.1 | 1.8 | 2.7 | 2.4 | 1.9 | 2.3 | 2.0 | 2.3 |

Source: Data provided by the Japanese authorities.

1/ This presentation differs from that of the authorities; certain revenue and expenditure items in the official presentation are reclassified as financing items.
2/ Includes administrative costs.
3/ Comprises cash expenditures related to commitments entered into in previous years as well as noncash expenditures, including equity contributions to international organizations. The figures for FY 1993-95 include central government debt cancellation of local governments' outstanding liabilities under the no-interest lending program.
4/ Bonds issued for noncash expenditures. The figures for FY 1993-95 include transfers to finance central government debt cancellation.
5/ Figures for FY 1994 and FY 1995 are based on staff projections of GDP.
6/ Includes public works spending under the no-interest lending program.



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Table 6. Japan: Tax Receipts of the Central Government General Account, FY 1990-FY 1995

| Fiscal Years | 1990 | 1991 | 1992 | 1993 | | | 1994 | | 1995 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Settlement | Settlement | Settlement | Initial | Revised | Settlement | Initial | Revised | Initial | Revised |
| | | | | | (In billions of yen) | | | | | |
| Individual income tax | 25,996 | 26,749 | 23,231 | 27,046 | 24,135 | 23,687 | 21,513 | 20,364 | 21,350 | 21,342 |
| Corporate income tax | 18,384 | 16,595 | 13,714 | 15,952 | 13,507 | 12,138 | 13,813 | 12,229 | 13,726 | 13,616 |
| Taxes on goods and services | 9,626 | 10,076 | 10,378 | 10,816 | 10,816 | 10,778 | 11,306 | 11,224 | 11,665 | 11,665 |
| Of which: Consumption tax | (4,623) | (4,976) | (5,241) | (5,458) | (5,458) | (5,587) | (5,740) | (5,684) | (5,980) | (5,980) |
| Liquor tax | (1,935) | (1,974) | (1,961) | (2,051) | (2,051) | (1,952) | (2,123) | (2,097) | (2,172) | (2,172) |
| Gasoline tax | (1,506) | (1,538) | (1,563) | (1,684) | (1,684) | (1,627) | (1,797) | (1,797) | (1,850) | (1,850) |
| Tobacco tax | (996) | (1,016) | (1,020) | (1,019) | (1,019) | (1,030) | (1,028) | (1,028) | (1,038) | (1,038) |
| Custom duties | 825 | 923 | 915 | 923 | 923 | 881 | 918 | 912 | 897 | 897 |
| Stamp revenue | 1,894 | 1,749 | 1,571 | 1,756 | 1,535 | 1,599 | 1,625 | 1,625 | 1,762 | 1,762 |
| Other | 3,381 | 3,728 | 4,636 | 4,810 | 4,764 | 5,039 | 4,490 | 4,462 | 4,331 | 4,311 |
| Total tax and stamp revenue | 60,106 | 59,820 | 54,445 | 61,303 | 55,680 | 54,126 | 53,665 | 50,816 | 53,731 | 53,593 |
| | | | | | (Percentage change) 1/ | | | | | |
| Individual income tax | 21.6 | 2.9 | -13.2 | 16.4 | 3.9 | 2.0 | -9.2 | -14.0 | 4.8 | 4.8 |
| Corporate income tax | -3.2 | -9.7 | -17.4 | 16.3 | -1.5 | -11.5 | 13.8 | 0.7 | 12.2 | 11.3 |
| Taxes on goods and services | 19.8 | 4.7 | 4.2 | 4.2 | 3.9 | 3.9 | 4.9 | 3.9 | 3.9 | 3.9 |
| Total tax and stamp revenue | 9.4 | -0.5 | -9.0 | 12.6 | 2.3 | -0.6 | -0.9 | -6.1 | 5.7 | 5.5 |

Source: Data provided by the Japanese authorities.

1/ Percentage changes calculated relative to most recent data of previous year.



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rapid pick up in corporate profits from the subdued level in FY 1994, while individual income taxes and taxes on goods and services are budgeted to rise by 4 3/4 and 4 percent, respectively. This performance is predicated on the official economic outlook--envisaging real GDP growth of 2 3/4 percent in FY 1995--which appears overly optimistic in light of recent developments.

With the supplementary budget in May, total general account expenditures are now budgeted to rise by 4 1/4 percent (or 1/4 percent of GDP) over FY 1994. Public works expenditures grow moderately by 1 1/2 percent, implying an unchanged ratio to GDP, which represents a continued return toward the underlying trend level following the rapid expansion in FY 1992-93. 1/

The FILP budget for FY 1995 also provides for a return toward the underlying trend level (Table 7). The revised FILP budget declines by 6 1/2 percent (excluding portfolio investment) to ¥40.8 trillion, compared with the revised FILP of ¥43.7 trillion in FY 1994. Still, at 8 1/2 percent of GDP, it remains substantially above its level before the recession. 2/ In formulating the FY 1995 FILP, the selective allocation of funds was emphasized, with the goal of contributing to stable economic growth and increasing standards of living. Priority sectors are housing, small businesses, and local governments and municipal enterprises.

Local government expenditures are officially estimated to increase by 4.3 percent in FY 1995 under the Local Finance Plan. Increasing financial needs, owing in part to slow growth in transfers from the central government as well as the permanent reduction in the local income tax, will be met by increased local government borrowing through bonds and FILP intermediation.

At the general government level, the staff estimates that the deficit (excluding social security) will worsen to 7 percent of GDP in FY 1995, compared with 6 1/2 percent of GDP in FY 1994. Total revenues are estimated to grow by only 1 1/4 percent over FY 1994 (unchanged at 32 3/4 percent of GDP), assuming lower real growth (3/4 percent) in FY 1995 than the official economic outlook (2 3/4 percent growth). Reflecting expenditure plans under the general account and FILP budgets and the Local Finance Plan, total expenditures are estimated to grow by 3 percent in FY 1995, rising to 36 1/2 percent of GDP from 36 percent of GDP in FY 1994. The structural deficit of the general government (excluding social security) is expected to remain unchanged at 5 percent of GDP. The social security surplus is expected to narrow slightly to 3 1/4 percent of GDP, resulting in an overall general government deficit of 3 3/4 percent of GDP.

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1/ Includes about ¥1.3 trillion of public works under no-interest lending programs.
2/ For FY 1989-91, FILP activities (excluding portfolio investments) averaged 6 3/4 percent of GDP.

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Table 7. Japan: Fiscal Investment and Loan Program (FILP), FY 1990-95

(In billions of yen)

| Fiscal years | 1990 | 1991 1/ | 1992 | 1993 Initial plan | 1993 Revised plan | 1993 Prel. Act. | 1994 Initial plan | 1994 Revised plan | 1995 Initial plan | 1995 Revised plan |
|---|---|---|---|---|---|---|---|---|---|---|
| Sources of funds | 37,814 | 49,528 | 48,086 | 46,771 | 57,495 | 55,429 | 47,858 | 52,132 | 48,190 | 48,744 |
| Trust Fund Bureau | 29,818 | 41,278 | 40,192 | 37,660 | 47,944 | 45,994 | 36,371 | 40,613 | 36,693 | 37,245 |
| Postal savings | (4,595) | (18,707) | (14,012) | (10,400) | (...) | (12,825) | (10,000) | (...) | (10,000) | (...) |
| Welfare and national pensions | (6,803) | (7,790) | (7,853) | (7,190) | (...) | (7,413) | (7,170) | (...) | (7,380) | (...) |
| Repayment and other | (18,420) | (14,782) | (18,327) | (20,070) | (...) | (25,756) | (19,201) | (...) | (19,313) | (...) |
| Postal life insurance | 6,033 | 6,288 | 6,023 | 7,053 | 7,072 | 6,990 | 8,682 | 8,682 | 8,182 | 8,182 |
| Industrial investment special account | 64 | 63 | 72 | 58 | 101 | 99 | 56 | 87 | 65 | 67 |
| Government-guaranteed bonds and borrowing | 1,899 | 1,900 | 1,799 | 2,000 | 2,378 | 2,346 | 2,750 | 2,750 | 3,250 | 3,250 |
| Uses of funds | 37,814 | 39,241 | 48,086 | 46,771 | 57,495 | 55,429 | 47,858 | 52,132 | 48,190 | 48,744 |
| Purchase of government bonds | 2,000 | 1,087 | 1,956 | 1,000 | 2,946 | 2,946 | -- | -- | -- | -- |
| FILP | 35,814 | 38,154 | 46,130 | 45,771 | 54,549 | 52,483 | 47,858 | 52,132 | 48,190 | 48,744 |
| Portfolio investments 2/ | (6,950) | (7,700) | (9,660) | (9,175) | (9,175) | (9,175) | (8,450) | (8,450) | (7,950) | (7,950) |
| Central government projects (special accounts) | (633) | (754) | (1,104) | (885) | (1,160) | (1,130) | (872) | (912) | (854) | (856) |
| Government nonfinancial enterprises | (8,533) | (9,008) | (10,996) | (11,716) | (12,281) | (11,246) | (11,007) | (11,322) | (9,521) | (9,550) |
| Government financial agencies | (15,040) | (15,557) | (17,756) | (17,903) | (23,169) | (22,244) | (20,643) | (23,906) | (22,240) | (22,762) |
| Of which: Housing Finance Corporation | 5,901 | 5,596 | 6,865 | 6,906 | 10,106 | 9,981 | 8,963 | 12,163 | 10,629 | 11,150 |
| Local governments | (4,286) | (4,742) | (6,222) | (5,700) | (8,050) | 7,975 | (6,500) | (7,150) | (7,250) | (7,250) |
| Other | (373) | (393) | (392) | (391) | (715) | (713) | (386) | (392) | (375) | (375) |
| Memorandum items: | | | | | | | | | | |
| Increase in FILP activities (in percent) 3/ | 6.6 | 5.5 | 19.8 | 0.3 | 24.4 | 18.7 | -9.0 4/ | 0.9 4/ | -7.9 5/ | -6.6 5/ |
| FILP activities as a percent of GDP 3/ | 6.7 | 6.7 | 7.9 | 7.8 | 9.7 | 9.3 | 8.3 | 9.2 | 8.3 6/ | 8.4 6/ |

Source: Ministry of Finance, Zaisei Kinyu Tokei Geppo (Financial and Monetary Statistics Monthly).

1/ Difference between "sources of funds" and "uses of funds" reflects short-term off-program investments of the Trust Fund Bureau.
2/ Reflects the funding of the "lend-back" system under which the postal savings system, public pension funds, and the postal life insurance fund receive funds for portfolio management on their own account.
3/ Excluding portfolio investment.
4/ Compared with preliminary outturn of the previous year.
5/ Compared with revised plan of the previous year.
6/ As a percentage of projected GDP.



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## 2. Medium-term implication of recent policy initiatives

### a. Three initiatives

In FY 1994, three major policy initiatives with important medium-term implications were adopted: tax reform; a new 10-year public investment plan; and pension reform.

The tax reform package was adopted in September 1994. The package consists of: a permanent cut in personal income taxes of ¥3.5 trillion (0.7 percent of GDP) starting in FY 1995; a temporary income tax cut of ¥2.0 trillion (0.4 percent of GDP) for FY 1995 and FY 1996; and a rise in the consumption tax rate from 3 to 5 percent in FY 1997 (raising revenues of 0.8 percent of GDP). Taking into account the small permanent portion of the FY 1994 tax cut (¥0.4 trillion, or 0.1 percent of GDP), the overall package is revenue neutral from FY 1997 onward. 1/ The staggered implementation of the reform measures--i.e., the time lag between reductions and increases in taxes--is a device to meet the short-term need to support the hesitant recovery. To provide flexibility to respond to cyclical developments, some measures are subject to review depending on economic conditions: the extension of the temporary tax cut into FY 1996 will be reviewed in formulating the budget for FY 1996, while a final decision on the size of the consumption tax increase will be made in late 1996. 2/

A new 10-year public investment plan was announced in October 1994. The plan calls for ¥630 trillion in spending from FY 1995 to FY 2004, replacing the previous plan that envisaged ¥430 trillion for FY 1991 to FY 2000. 3/ The annual allocation of the spending will be decided in each year's budget, including the shares undertaken by the central and local governments, and public enterprises. Assuming a smooth allocation of actual spending to each year, the new plan implies additional public investment equivalent to 3/4 percent of GDP per year over the previously projected medium-term path (Chart 7). With this plan, Japan's public investment (excluding land purchases) would continue to exceed 8 percent of GDP in the medium term, compared with the average level for other G-7 countries of about 3 percent. 4/ The plan emphasizes projects related to living standards, social welfare and culture--including increasing the availability

---

1/ The tax reform package differs from earlier proposals in that the permanent portion of the tax cut is smaller, as is the eventual rise in the consumption tax rate. The earlier proposals would have yielded about 1/2 percent of GDP in additional revenues per year.

2/ The package of measures announced in late-June 1995 confirmed the extension of the temporary tax cut into 1996 unless the economy shows particular improvement.

3/ The target of the new plan, as that of the previous plan, is set in nominal terms and includes land purchases

4/ Some measures of the existing *stock* of social capital, however, suggest that it is low in relation to other G-7 countries.

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of sewage treatment, park space, education facilities and public housing. Nearly 65 percent of the total is allocated for such projects. No sources of funding were specified in conjunction with the plan.

A pension reform plan was approved by the Diet in November 1994. Major reform items include: increases in contribution rates in stages from 14 1/2 percent in 1994 to 29 1/2 percent in 2025; 1/ 2/ a phased increase in the pension eligibility age from 60 to 65 during FY 2001-2020; and a change in the indexation method of benefits from gross to net income--after payments of taxes and social security contributions. As a result of the full implementation of the reform plan, the public pension fund would be in balance in FY 2025 and thereafter, with the current size of nominal reserves--about ¥100 trillion--maintained. 3/ For the period through 2000, the reform is projected to improve the social security balance by about 1 percent of GDP per year relative to a "nonreform" baseline. 4/

b. Medium-term fiscal position

As a result of weak activity and counter-cyclical fiscal actions, including four packages and tax cuts, the general government deficit (excluding social security) is estimated to have deteriorated from 1/4 percent of GDP in FY 1991 to 7 percent of GDP in FY 1995 (Chart 6). The deterioration indicates that a large part of the consolidation effort of the

---

1/ A 2.5 percentage point increase in contribution rates is scheduled every five years. However, considering the current weakness of the economy, the first raise was conducted in two steps: the rate was increased by 2.0 percentage points to 16.5 percent in November 1994, followed by a further increase by 0.85 percentage point to 17.35 percent in October 1996. The overall impact of this two-step increase on the social security balance is broadly the same as a 2.5 percentage point increase in 1994. Although the full schedule of rate increases during 1994-2025 was acknowledged by the Diet, separate approval by the Diet is required for each rate increase beyond 17.35 percent.

2/ For the Employees' Pension Insurance Scheme. Regarding the National Pension Scheme (NPS), the monthly contributions was raised from ¥11,100 to ¥11,700 in April 1995, and will be incremented by ¥500 every year between FY 1996-99.

3/ Reserves are expected to be equivalent to about 2 years of pension benefit payments in FY 2025, compared with 5-6 years in FY 1995.

4/ The reform also affects the central government balance to the extent that benefit levels are contained. This is because about one-fifth of overall pension benefits are financed by a transfer from the central government to the social security fund. The projections shown in the reform plan assume that this transfer scheme would remain unchanged over the medium term.

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1980s has been reversed. 1/ The swing in the structural balance during FY 1991-1995 suggests that slightly over one half of the deterioration reflects the impact of discretionary actions, while the rest is due to cyclical factors that tend to reverse themselves as output returns to potential.

As discussed in earlier sections, the general government deficit (excluding social security) in FY 1995 of 7 percent includes the impacts of the cycle (2 percent of GDP) and some temporary factors: one-off spending measures associated with the carry-over from the past fiscal packages and earthquake reconstruction (3/4 percent of GDP); and the temporary component of the income tax cut (1/2 percent of GDP). Excluding these factors, the underlying structural deficit in FY 1995 is estimated to be 3 3/4 percent of GDP.

Starting with this fiscal position in FY 1995, and taking into account the medium-term effects of the policy initiatives described above, the staff projects an improvement in the fiscal position through FY 1997. As the economic recovery eventually picks up, the impact of the cycle is projected to narrow to 1 3/4 percent of GDP in FY 1997. Moreover, the temporary factors will be unwound, and the consumption tax increase (3/4 percent of GDP) will take effect in April 1997. The improvement in balance due to these developments will be partially offset by higher spending (particularly on capital expenditure, social welfare expenditure, and interest payments). 2/ Consequently, the general government deficit (excluding social security) is projected to narrow to 5 1/2 percent of GDP in FY 1997, with the structural deficit (excluding social security) of 3 3/4 percent of GDP.

After 1997, despite the elimination of the impact of the cyclical weakness on revenues, the general government deficit is projected to widen. This is because: population aging raises social welfare expenditure; public investment spending rises in line with the 10-year public investment plan; and debt-servicing payments grow. By FY 2000, the deficit (excluding social security) rises to 5 3/4 percent of GDP. Combined with the decline in the social security surplus due to population aging, the overall general government balance is projected to worsen by 1 1/4 percent of GDP during FY 1997-2000 to reach almost 4 percent of GDP (Table 8).

c. Medium-term fiscal strategy

The fiscal consolidation has been guided by the announced medium-term objectives expressed in terms of the "bond-financing" ratio of the general

---

1/ If measured by the swing in the general government balance (excluding social security), virtually all of the consolidation of the 1980s has been offset.

2/ Social welfare expenditure includes medical expenditure and central government contribution to public pension funds and is projected to increase rapidly along with population aging.

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Table 8. Japan: Medium-Term Fiscal Position

(In percent of GDP)

| | FY 1995 | Change (95-97) | FY 1997 | Change (97-2000) | FY 2000 |
|---|---|---|---|---|---|
| General government balance | -3.8 | +1.1 | -2.7 | -1.2 | -3.9 |
| Social security surplus | +3.2 | -0.4 | +2.8 | -1.0 | +1.8 |
| Impact of cycle | -2.1 | +0.3 | -1.8 | +1.8 | -- |
| Structural balance, 1/ excluding social security | -4.9 | +1.2 | -3.7 | -2.1 | -5.7 |
| Consumption tax increase | | +0.8 | | -- | |
| Unwinding of: temporary tax cut | | +0.5 | | -- | |
| temporary spending | | +0.7 | | -- | |
| Revenue buoyancy | | +0.1 | | +0.2 | |
| Increase in capital expenditure (public investment and land purchases) | | -0.2 | | -0.7 | |
| Increase in current expenditure | | | | | |
| Social welfare expenditure 2/ | | -0.4 | | -1.1 | |
| Interest payments | | -0.3 | | -0.4 | |
| Other current expenditure | | -- | | -0.1 | |

Source: Data provided by the authorities; and staff estimates.

1/ In percent of potential GDP.
2/ Includes medical expenditure and central government contribution to pension funds.

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account budget, defined as the ratio of bond financing to the total size of the general account budget. Specifically, the bond-financing ratio is the ratio of new bond issues to the sum of revenues and new bond issues--or, the proportion of overall general account expenditure (including debt amortization) that is financed through new bond issues. 1/

The current target involves reducing this ratio to 5 percent or lower by FY 2000. 2/ As debt amortization is expected to remain at about 5 percent of the general account budget, attainment of this goal would imply that new bond issuance would be approximately equal to debt amortization; hence, the general account (excluding financing items) would be in balance, and the nominal stock of debt would stop rising. This, in turn, would imply that debt-to-GDP ratio would decline over time as nominal GDP grows. 3/

Regarding strategies to achieve this target, few quantified programs apart from pension reform have been presented. The authorities' strategies seem to be similar to those that played important roles in the fiscal consolidation process of the 1980s: restraint of expenditure through tight ceilings on budget requests by government agencies, coupled with tax revenue growth. In late 1980s, tax revenue growth was extraordinarily buoyant, owing in part to higher direct tax receipts due to the economic boom as well as to the effect of the sharp increase in asset prices on taxes related to property and securities transactions. Tax revenue buoyancy, however, has declined sharply in recent years, and a similar surge in buoyancy is unlikely to occur again. 4/ Thus, the large discrepancy between the target and the projected path based on the currently announced policies, as shown in Annex III, underscore the needs for further policy initiatives toward fiscal consolidation.

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1/ Financing items such as debt amortization and bond issuance are included in expenditures and revenues in the authorities' presentation of the general account budget.

2/ The target was initially set with the goal year to be FY 1995, right after the old objective to stop issuing deficit-financing bonds was achieved in FY 1990. While the bond-financing ratio was around 10 percent during FY 1989-91, the downturn and the counter-cyclical measures have led to an increase in the ratio to 22.5 percent in FY 1994. The goal year has been progressively shifted back through the downturn.

3/ The implication of the bond-financing ratio target in the national accounts context is discussed in Annex III.

4/ Tax revenue buoyancy (after adjusting for the effects of tax reforms) was in the range of 1.5-3.3 in 1986-89. In contrast, historical observations of a 10-year moving average of the actual buoyancy indicate the "normal" buoyancy in the medium term is about 1.1.

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## IV. Monetary Developments

### 1. Monetary policy and interest rates

The Bank of Japan (BOJ) began to ease monetary policy in mid-1991 in response to weakening economic activity. The official discount rate (ODR) was lowered gradually by a total of 4 1/4 percentage points to a record low rate of 1 3/4 percent in September 1993 (Chart 10). Short-term rates fell sharply from 8 percent in early 1991 to slightly below 2 percent at end-1993. Over the same period, the 10-year government bond rate declined steadily, from 6 1/2 percent to 3 percent.

The BOJ's accommodative stance was maintained through the first half of 1994, with the result that the overnight call money rate fell by 1/4 percentage point to slightly over 2 percent by May 1994. Short-term market rates rose slightly in the first quarter, however, reflecting signs of economic recovery. By the fall of 1994, amid expanding signs of a pick-up in activity, the BOJ allowed market conditions to tighten modestly, as the interest rate on overnight call money rose by 1/4 percentage point, leading to similar increases in other short-term market interest rates. Long-term rates rose steadily through the first half of 1994, to reach an average of 4 3/4 percentage points (an increase of 1 3/4 percentage points), reflecting improving economic prospects, reinforced by increases in overseas bond yields. These developments implied a steepening in the yield curve, as the differential between the 10-year government bond rate and 3-month CD rate widened to reach 2 1/2 percentage points, the largest spread since 1986. Nominal interest rates remained broadly stable in late 1994 and early 1995.

Developments in financial markets since mid-February 1995--following a period a period of broad stability in both the effective value of the yen since mid-1993 and in equity prices in 1994--prompted a change in the course of policy. Between mid-February and end-March, the effective value of the yen rose by 8 percent, while equity prices, as measured by the Nikkei 225, dropped by 10 percent to around 16,000. In response to the emergence of the downside risks to the recovery posed by the sharp appreciation of the yen and the drop in equity prices, the BOJ announced an easing of policy on March 31, via a reduction of the overnight call rate by 1/2 percentage point, bringing it for the first time to the level of the ODR. The initial market reaction to the method and the extent of the easing was unfavorable, propelling the yen even higher and causing equity prices to drop. Reflecting the decline in the call rate, short-term interest rates fell by roughly 1/2 percentage point, while long-term bond yields declined by over 1 percentage point. On April 14, citing the possible negative impact of the yen's rise and the weak state of the stock market on the economy, the BOJ announced a cut in the ODR of 3/4 percentage points. This step brought the ODR to 1 percent, a new historical low. The overnight call rate fell to

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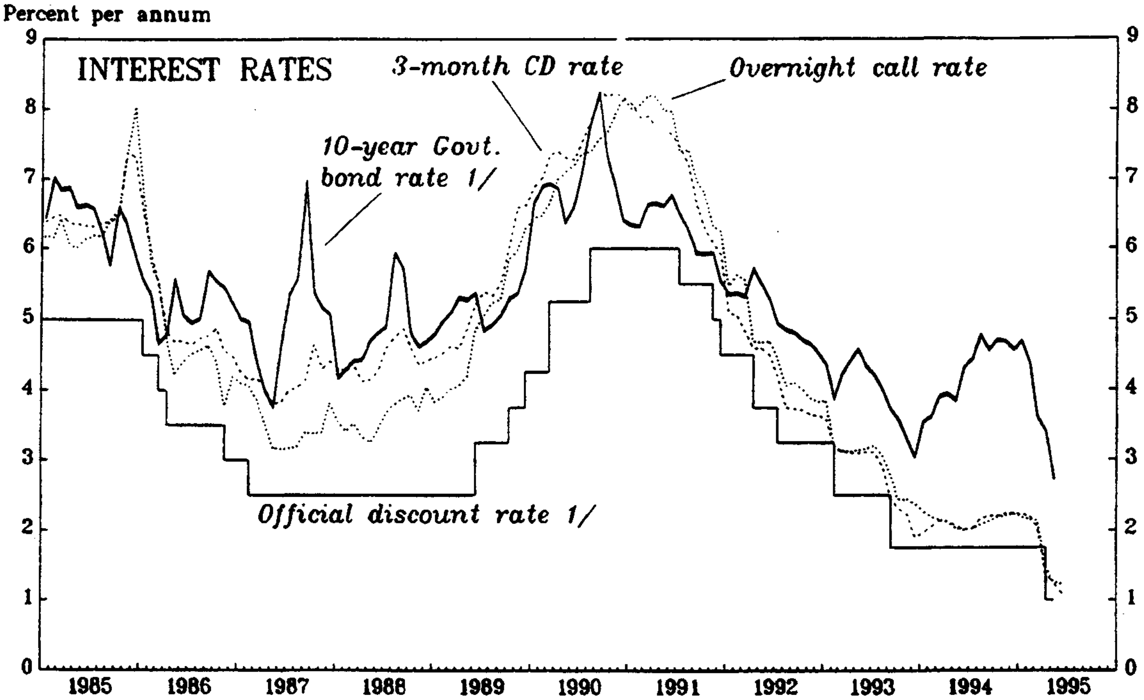
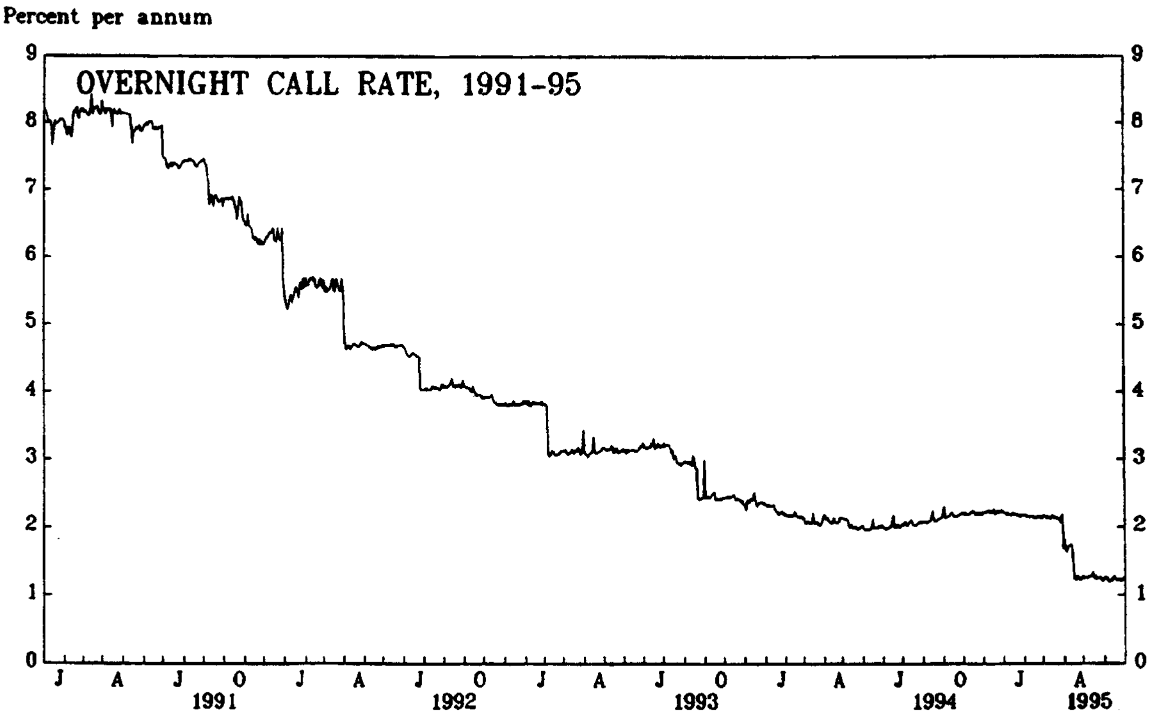
CHART 10

JAPAN

# SELECTED MONETARY INDICATORS 1985-95




Source: Bank of Japan, Economic Statistics Monthly; and staff calculations.
1/ End-period.

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1/4 percentage point above the ODR, reestablishing the long-standing differential with the ODR, while both short- and long-term interest rates fell by about 1/4 percentage point on the news. Short- and long-term rates continued to decline through early June to reach around 1 percent and 2 3/4 percent respectively, reflecting expectation of further monetary easing.

In all, since the onset of the downturn in mid-1991, short-term market rates have dropped by 7 percentage points, while bond yields have fallen by 3 3/4 percentage points. In terms of the effect on aggregate demand, however, part of the impact on monetary conditions has been offset by three factors: declining inflation, widening bank intermediation spreads, and the appreciation of the real exchange rate. CPI inflation (excluding fresh food and energy) has declined from over 3 percent in early 1991 to -1/4 percent recently, while domestic wholesale price inflation--the relevant price index from the point of view of production decisions--has fallen from 1 1/2 percent to -3/4 percent over the same period (Chart 11). Thus, real interest rates have declined by considerably less than the decline in nominal interest rates would suggest.

A second factor offsetting the effective easing of monetary conditions has been that bank lending rates have not declined by as much as market interest rates. As shown in the second panel of Chart 11, bank intermediation spreads widened gradually from 1990 to reach 2 percent in early 1994, before declining to 1 1/2 percent recently; nonetheless, they remain substantially above historical levels. Reflecting these factors, the real cost of bank lending, and in particular, adjusted for wholesale price inflation has fallen only moderately since 1991. Last year's consultation report examined the extent to which the widening of intermediation spreads could be attributed to normal lags in the adjustment of lending rates to market rates versus other factors. 1/ It was argued that banks had made

---

1/ In Chapter III of "Japan--Recent Economic Developments" (SM/94/185), an equation was estimated relating the average short-term lending rate (AVLEND) to the call money rate (CALL) and the ODR. Using quarterly data for 1980-89, the results were as follows (the number in parentheses is the t-statistic and Δ is the first difference of a variable):

$$\begin{aligned}\Delta(\text{AVLEND}) = \underset{(1.7)}{0.115} + \underset{(0.6)}{0.021}\,\Delta(\text{CALL}) + \underset{(8.8)}{0.548}\,\Delta(\text{ODR}) + \underset{(6.8)}{0.235}\,\Delta(\text{ODR})_{-1} \\ \underset{(2.5)}{0.061}\,\text{CALL}_{-1} - \underset{(2.4)}{0.081}\,\text{AVLEND}_{-1}\end{aligned}$$

The equation suggests that the average lending rate responds strongly to changes in the ODR in the short-run, and is determined over the longer term by past levels of the call rate. The equation was resimulated for 1990-95 and the results are presented in the second panel of Chart 11. As shown, the forecast error increases through early 1991 and then declines gradually through early 1995.

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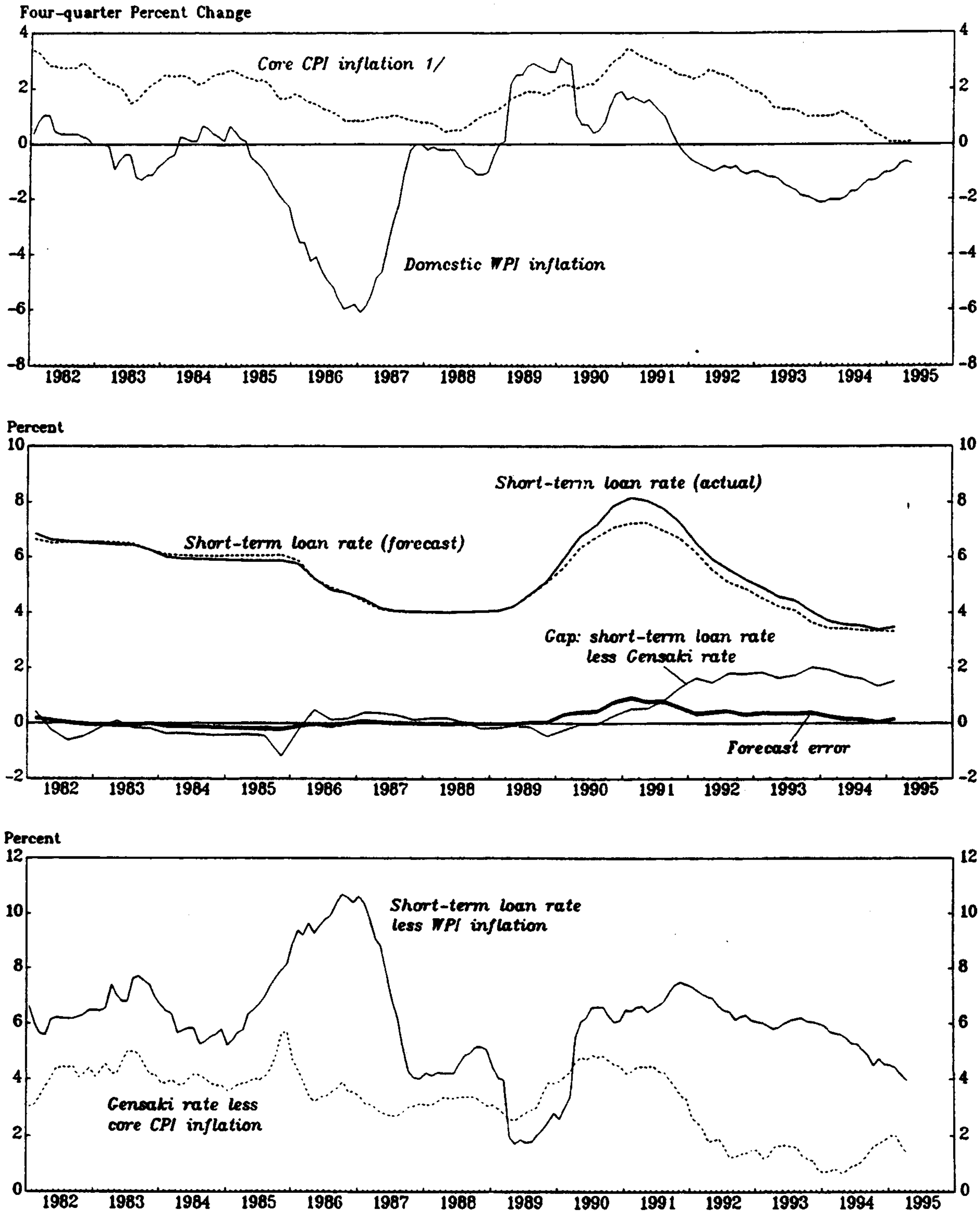
CHART 11

JAPAN

# FACTORS AFFECTING SHORT-TERM REAL INTEREST RATES, 1982-95




Source: Bank of Japan, Economic Statistics Monthly; and staff estimates.
1/ Excluding fresh food, energy, and the effect of the rise in consumption taxes in 1989.

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"unusually" large profits in 1990 and 1991, possibly in efforts to raise their operating profits to offset losses on bad loans to compensate for the higher credit risk during the recession, and to meet Bank for International Settlements (BIS) capital-adequacy ratios. Empirical work shows that the effect of these factors has declined progressively. By early 1995, average lending rates could be explained almost entirely by "normal" cyclical factors (Chart 11, second panel). Another indicator of monetary conditions is the *Tankan* index of banks' willingness to lend (Chart 12, second panel). The index suggests that businesses perceive that banks' have become increasingly willing to lend since the onset of the recession.

Also, the stimulative effect of lower interest rates on domestic demand has been tempered by the contractionary impact of yen appreciation on external demand since mid-1992. The estimated impact on aggregate demand of these offsetting factors is captured in the staff's monetary conditions index (MCI), which weights a 10 percent decline in the real effective exchange rate and a 1 percentage point drop in the real short-term interest rate roughly equally. Chart 12 shows that monetary conditions eased substantially between mid-1991 and mid-1992, reflecting the drop in real interest rates and a broadly stable real exchange rate. The MCI then rose sharply through mid-1993--due to a 25 percent appreciation of the real exchange rate--before declining through early 1994--in line with a reduction in short-term real interest rates. Since early 1994, however, monetary conditions have tightened further--reflecting rising short-term real interest rates in 1994 and the sharp appreciation of the yen by around 15 percent since early 1995. Thus, despite the substantial decline in nominal interest rates since the onset of the downturn in mid-1991, monetary conditions currently stand at their mid-1991 level.

## 2. Monetary and credit aggregates

There have been notable differences in the behavior of the monetary and credit aggregates since mid-1992. While M3 growth has remained broadly stable, the growth of M1, M2+CDs and broadly defined liquidity has picked up steadily (see tabulation below and Chart 13). In contrast, bank lending and domestic credit have continued to stagnate since 1993, reflecting weak loan demand. This section discusses the reasons for the divergent behavior of the monetary aggregates, and also for the gap between the growth of money versus the credit aggregates.

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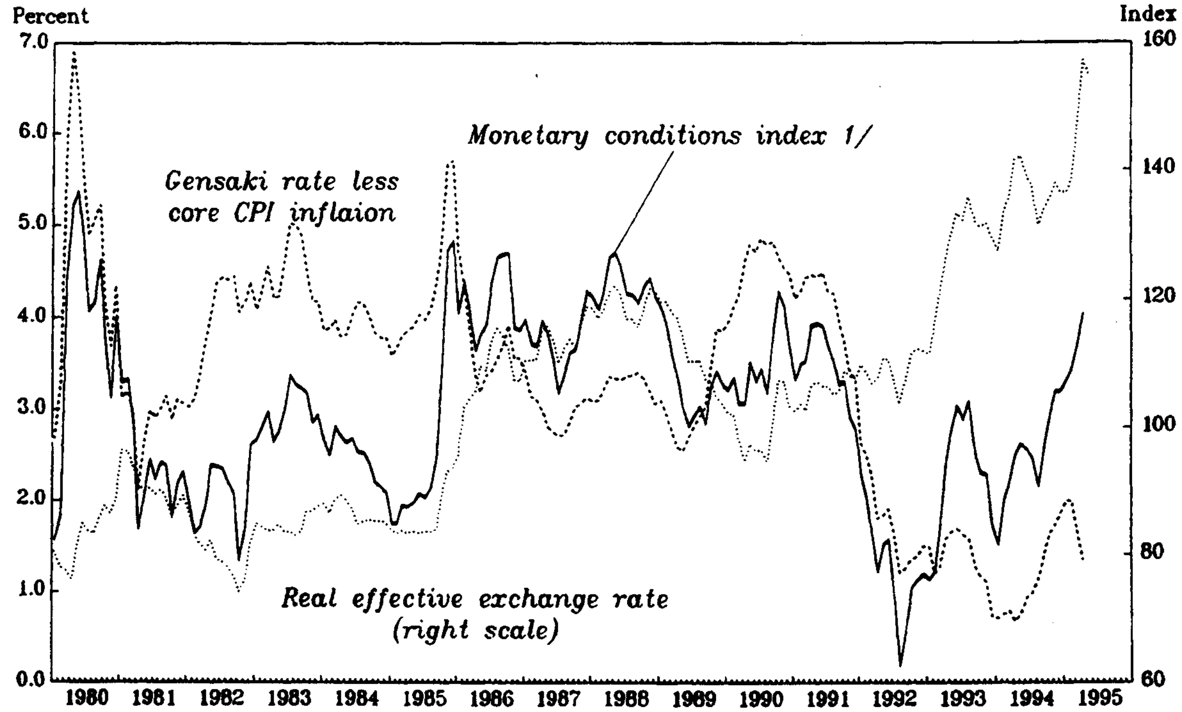
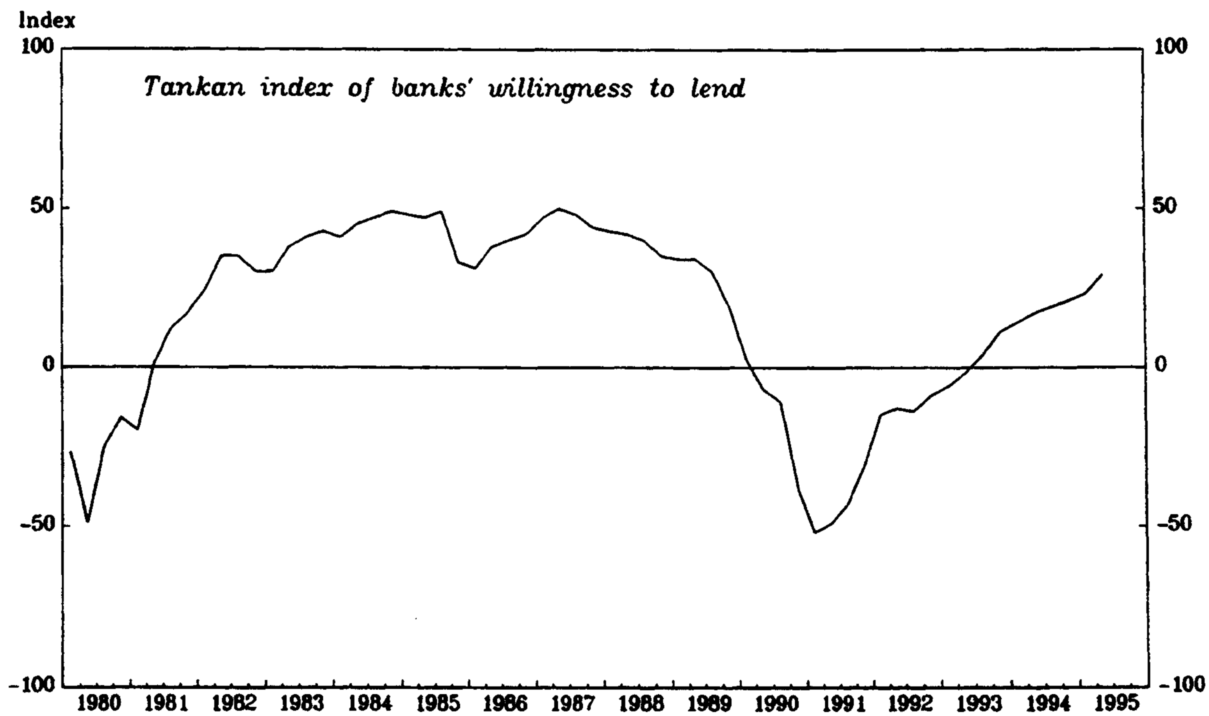
CHART 12

JAPAN

## ALTERNATIVE MEASURES OF MONETARY CONDITIONS, 1980-95

(Percent)




Source: Nikkei Telecom; and staff estimates.

1/ An increase indicates a tightening of monetary conditions.

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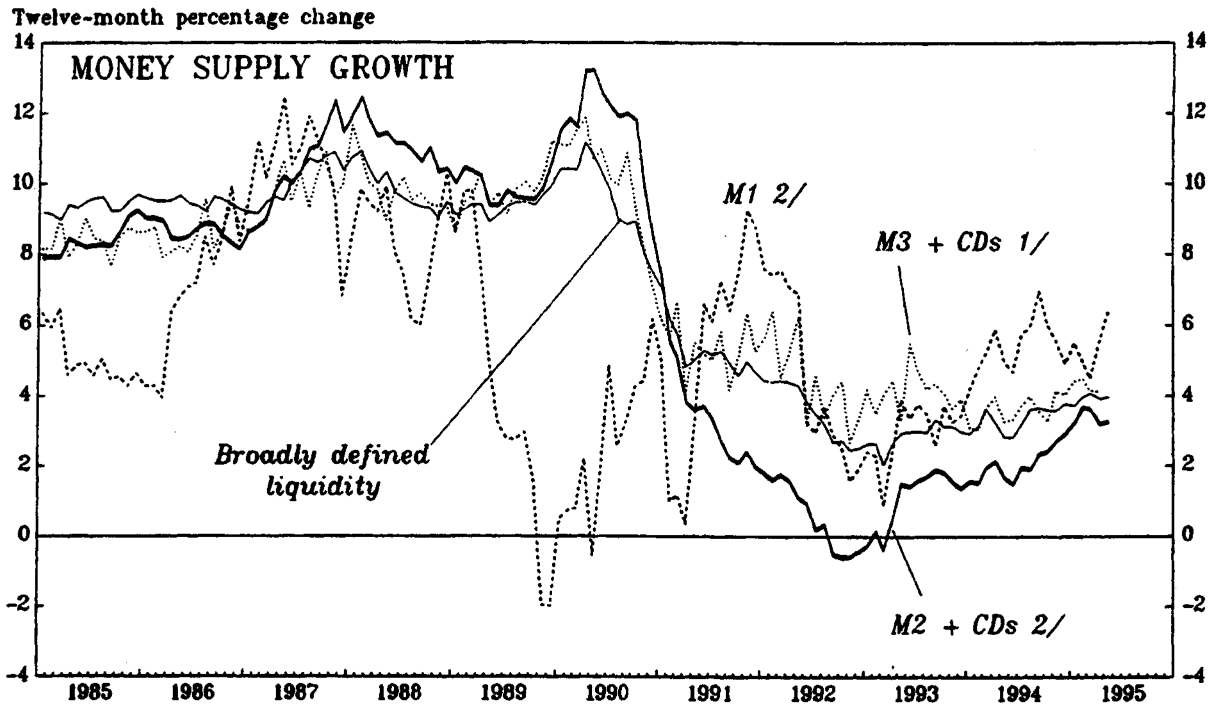
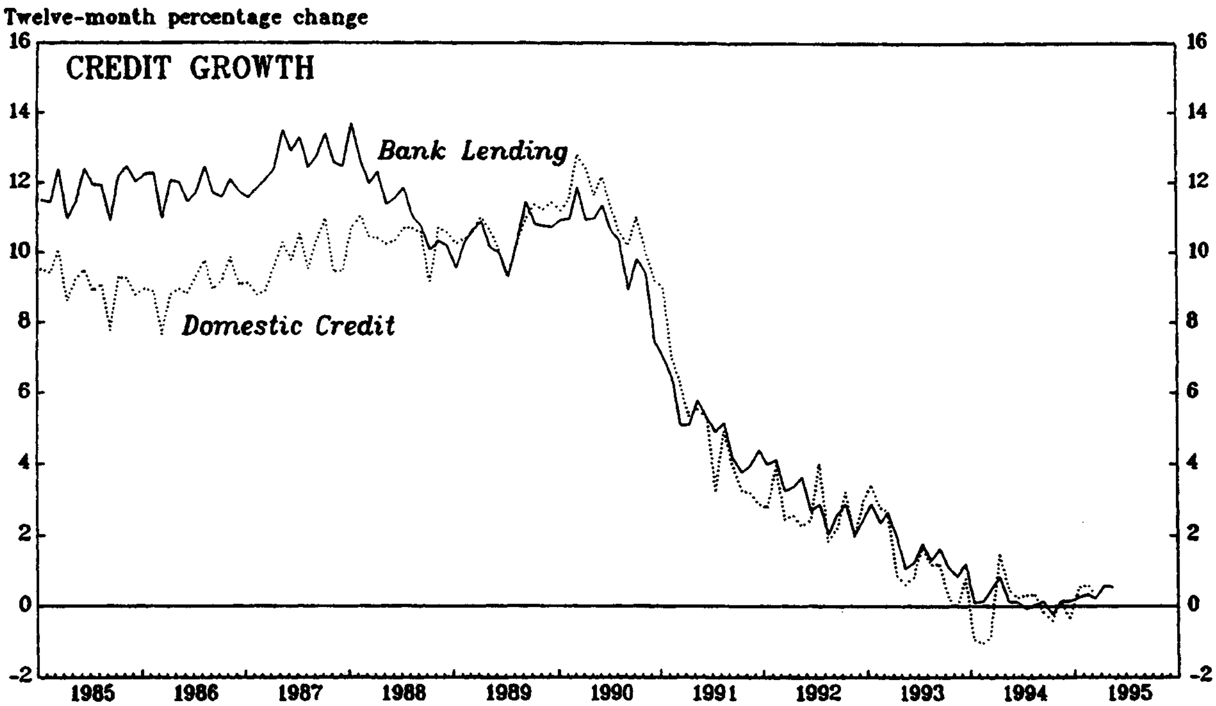
CHART 13

JAPAN

# SELECTED MONETARY AND CREDIT INDICATORS 1985-95




Source: Bank of Japan, Economic Statistics Monthly; and staff calculations.
1/ End-period.
2/ Monthly average.

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| | 1980-86 Average | 1987-90 Average | 1991 | 1992 | 1993 | 1994 | 1995 Q1 |
|---|---|---|---|---|---|---|---|
| | (Percent change over the previous year) | | | | | | |
| M1 1/ | 4.6 | 6.4 | 5.2 | 4.6 | 3.0 | 5.4 | 5.0 |
| M2 + CDs 1/ | 8.4 | 10.8 | 3.6 | 0.6 | 1.1 | 2.1 | 3.5 |
| M3 2/ | 9.0 | 9.4 | 5.3 | 3.4 | 3.9 | 4.0 | 4.2 |
| Broad liquidity 1/ | 10.0 | 9.7 | 5.3 | 3.5 | 2.9 | 3.6 | 3.9 |
| Domestic credit 2/ | 8.7 | 10.2 | 2.9 | 2.9 | 0.8 | -0.4 | 0.4 |
| Bank loans and discounts | 10.7 | 10.2 | 4.4 | 2.5 | 1.2 | 0.2 | 0.2 |

After bottoming out at about 3 percent in late 1992, the growth of M3 has remained in the range of 3 1/2 - 4 1/2 percent. 3/ In contrast, M2+CDs--the aggregate most closely watched by the BOJ--has risen by over 4 percentage points to reach 3 1/2 percent in early 1995. This divergence cannot be explained by a shift from the accounts of credit cooperatives, labor cooperatives or agricultural cooperatives to bank deposits, and only about 1/2 percentage point is accounted for by the much publicized shift from postal savings accounts to demand deposits. The remaining 2 1/2 percentage points divergence is attributable to a shift out of trust fund accounts into bank deposits, reflecting declining equity prices in the latter half of 1993 and since mid-1994. M1 growth has risen sharply since late 1992 to a range of 4 1/2 - 6 percent in 1994, reflecting falling interest rates.

On the asset side, both bank lending and domestic credit continued to stagnate through 1994, rising somewhat in early 1995. Banks have, in part, matched increases in deposit liabilities with decreases in short-term foreign liabilities. The remainder of the counterpart to the growth of M2+CDs in 1993 can be explained by increased holdings of government bonds by

1/ Period-average data.
2/ End-period data.
3/ M3 = M2+CDs + the deposits of Post Offices and Agricultural Cooperatives, Fishery Cooperatives, Credit Cooperatives, Labor Credit Associations (including certificates of deposit) and money trusts and loan trusts of All Banks (excluding inter-financial institution deposits, trust account and the checks and bills held by financial institutions).

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deposit money banks. In 1994, non-bank financial institutions also started to acquire bonds, while reducing their net lending to banks in the interbank markets. The counterpart to growth in M2 + CDs has thus been a decrease in banks net borrowing from nonbank institutions.

## V. External Developments

### 1. Current account

Having declined steadily in the second half of the 1980s, Japan's current account surplus rose sharply in 1991-92 both in U.S. dollar terms and as a proportion of GDP (Table 9 and Chart 14). In 1993, the surplus increased further in U.S. dollar terms, reaching a record high of $131 billion, though it declined moderately as a proportion of GDP. In 1994, the surplus declined moderately in terms of U.S. dollars. As a proportion of GDP, however, it declined more substantially, falling from 3.1 to 2.8 percent--well below the peak of 4 1/4 percent in 1986.

Movements in Japan's external surplus are well explained by cyclical factors and movements in the exchange rate. The marked decline in the surplus in the late 1980s was primarily caused by the extraordinary growth in domestic demand during the "bubble" period, leading to a rapid expansion of import volumes. The sharp appreciation of the yen in 1985-87 (with a lag) checked export volume growth while encouraging imports. Special factors--in particular large transfer payments related to the crisis in the Middle East in 1990-91--also contributed to the decline in the surplus. With regard to the subsequent increase in the external surplus during 1991-1993, simulations based on the staff's quarterly current account model suggest that one third was caused by differences in cyclical positions among the major industrial countries--a recession in Japan and the beginning of a recovery in the United States. Another third can be attributed to the valuation or "J-curve" effect of yen appreciation, with dollar export prices rising before trade volumes responded. A combination of other factors, such as lower commodity prices, a decline in Japanese investment in gold certificates, and increased overseas investment income from the accumulation of past surpluses, were responsible for the remaining part of the increase in the surplus. 1/

The moderate decline of the current account surplus in 1994 reflects the net effect of offsetting forces. The recovery in domestic demand, coupled with yen appreciation, provided a powerful boost to imports. At the

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1/ In Japan's balance of payments, gold investments are recorded in the current account although they are essentially capital transactions. The authorities plan to move gold investments to the capital account starting in 1996, as part of an overall revision of Japan's balance of payments accounting.

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Table 9. Japan: Current Account Summary, 1986-95

(In billions of U.S. dollars)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1994 I | 1994 II | 1994 III | 1994 IV | 1995 I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Current account balance 1/ | 85.8 | 87.0 | 79.6 | 57.2 | 35.8 | 72.9 | 117.6 | 131.4 | 129.1 | 34.9 | 35.2 | 29.0 | 29.3 | 30.8 |
| Trade balance 2/ | 92.8 | 96.4 | 95.0 | 76.9 | 63.5 | 103.0 | 132.3 | 141.5 | 145.9 | 36.5 | 36.8 | 36.7 | 35.1 | 35.6 |
| Exports | 205.6 | 224.6 | 259.8 | 269.6 | 280.4 | 306.6 | 330.9 | 351.3 | 384.2 | 91.1 | 94.8 | 97.5 | 100.1 | 103.4 |
| Imports | 112.8 | 128.2 | 164.8 | 192.7 | 216.8 | 203.5 | 198.5 | 209.8 | 238.2 | 54.6 | 58.0 | 60.8 | 65.0 | 67.8 |
| Services 3/ | -4.9 | -5.7 | -11.3 | -15.5 | -22.3 | -17.7 | -10.1 | -3.9 | -9.3 | 0.9 | -0.7 | -5.3 | -4.1 | -1.9 |
| Non-factor services | -14.4 | -22.4 | -32.3 | -39.0 | -45.5 | -44.4 | -46.3 | -45.4 | -50.3 | -10.9 | -12.2 | -14.3 | -12.9 | -13.8 |
| Travel | -5.8 | -8.7 | -15.8 | -19.3 | -21.4 | -20.5 | -23.2 | -23.3 | -27.2 | -6.3 | -6.3 | -7.8 | -6.9 | -7.6 |
| Receipts | 1.5 | 2.1 | 2.9 | 3.1 | 3.6 | 3.4 | 3.6 | 3.6 | 3.5 | 0.9 | 0.9 | 0.8 | 0.9 | 0.7 |
| Payments | 7.2 | 10.8 | 18.7 | 22.5 | 24.9 | 24.0 | 26.8 | 26.9 | 30.7 | 7.1 | 7.2 | 8.6 | 7.7 | 8.3 |
| Transportation | -2.5 | -6.1 | -7.4 | -7.8 | -9.5 | -10.3 | -10.0 | -11.2 | -12.6 | -2.5 | -2.9 | -3.7 | -3.4 | -3.7 |
| Receipts | 11.3 | 13.0 | 15.5 | 18.1 | 18.1 | 19.6 | 20.3 | 20.7 | 22.2 | 5.4 | 5.4 | 5.7 | 5.7 | 5.6 |
| Payments | 13.9 | 19.1 | 23.0 | 25.8 | 27.6 | 29.9 | 30.3 | 31.9 | 34.8 | 8.0 | 8.3 | 9.4 | 9.1 | 9.3 |
| Other | -6.1 | -7.6 | -9.1 | -11.9 | -14.6 | -13.6 | -13.1 | -10.9 | -10.4 | -2.1 | -2.9 | -2.8 | -2.6 | -2.5 |
| Receipts | 11.8 | 15.3 | 18.5 | 20.8 | 22.0 | 24.9 | 28.0 | 31.9 | 35.6 | 9.3 | 8.6 | 8.7 | 9.0 | 10.1 |
| Payments | 17.9 | 22.9 | 27.6 | 32.7 | 36.6 | 38.5 | 41.0 | 42.7 | 46.1 | 11.4 | 11.5 | 11.5 | 11.6 | 12.6 |
| Investment income | 9.5 | 16.7 | 21.0 | 23.4 | 23.2 | 26.7 | 36.2 | 41.4 | 41.0 | 11.8 | 11.4 | 9.0 | 8.8 | 11.9 |
| Net transfers 3/ | -2.0 | -3.7 | -4.1 | -4.2 | -5.5 | -12.5 | -4.7 | -6.1 | -7.5 | -2.5 | -0.9 | -2.4 | -1.7 | -3.0 |
| Public | -1.5 | -2.7 | -3.0 | -3.3 | -4.5 | -11.8 | -3.4 | -3.9 | -4.7 | -1.9 | -0.3 | -1.6 | -0.9 | -2.1 |
| Private | -0.6 | -1.0 | -1.1 | -1.0 | -1.0 | -0.6 | -1.3 | -2.2 | -2.8 | -0.6 | -0.6 | -0.8 | -0.9 | -0.9 |
| Memorandum items: | | | | | | | | | | | | | | |
| Current account, SA 4/ | 85.6 | 87.0 | 79.1 | 58.0 | 36.1 | 77.9 | 117.0 | 132.1 | 129.1 | 33.4 | 33.8 | 31.7 | 30.1 | 29.6 |
| Current account, NSA 3/ | 85.8 | 87.0 | 79.6 | 57.2 | 35.8 | 72.9 | 117.6 | 131.4 | 129.1 | 35.0 | 33.4 | 29.6 | 31.2 | 30.8 |
| Current account/GDP | 4.2 | 3.6 | 2.7 | 2.0 | 1.2 | 2.2 | 3.2 | 3.1 | 2.8 | 3.1 | 3.0 | 2.6 | 2.5 | 2.3 |
| BOP/customs-clearance ratio | | | | | | | | | | | | | | |
| Exports | 98.3 | 98.0 | 98.1 | 98.0 | 97.7 | 97.5 | 97.4 | 97.3 | 97.1 | 97.5 | 97.2 | 97.2 | 96.4 | 97.5 |
| Imports | 89.2 | 85.8 | 87.9 | 91.4 | 92.4 | 86.0 | 85.2 | 87.2 | 86.7 | 87.2 | 87.5 | 84.9 | 87.6 | 86.0 |
| Average exchange rate (¥/$) | 168.5 | 144.6 | 128.2 | 138.0 | 144.8 | 134.7 | 126.7 | 111.2 | 102.2 | 107.6 | 103.3 | 99.1 | 98.8 | 96.3 |

Sources: Bank of Japan, Balance of Payments Monthly; and staff estimates.

1/ Sum of the seasonally adjusted trade balance and the seasonally unadjusted invisibles balance.
2/ Seasonally adjusted.
3/ Seasonally unadjusted.
4/ Official seasonally adjusted current account.



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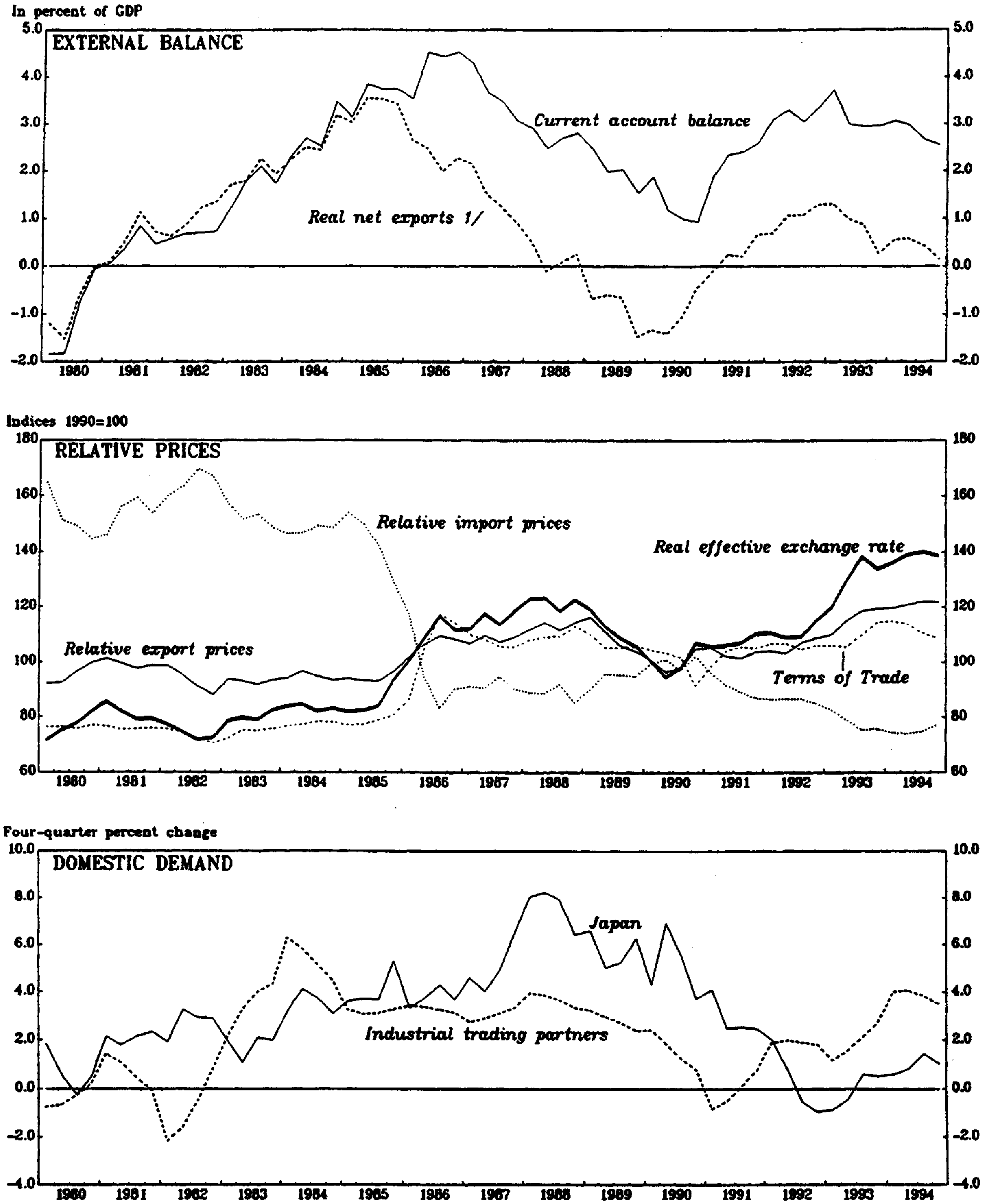
CHART 14

JAPAN

## EXTERNAL BALANCE AND ITS DETERMINANTS, 1980-94




Sources: Economic Planning Agency, National Income Accounts; Bank of Japan, Balance of Payments Monthly; and staff estimates.

1/ Real net exports of goods and services on a national accounts basis.

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same time, exports expanded moderately, with partner country growth in demand offsetting the negative effects of the yen appreciation. The resulting decline in the surplus was, however, largely offset by valuation (J-curve) effects due to the 8 percent nominal appreciation of the yen against the dollar during 1994, which is estimated to have inflated the surplus by almost $20 billion. In addition, the sharp fall in energy prices lowered the value of energy imports, further raising the surplus by $4 billion.

In the first quarter of 1995, the current account surplus fell to $30.8 billion compared with $34.9 billion in the first quarter of 1994. 1/ While the decline was in line with the ongoing adjustment to past exchange rate changes and the continued recovery in domestic demand, there were large new shocks during the quarter: in January the great Hanshin earthquake destroyed the port of Kobe; and in March there was a sharp appreciation of the yen, which rose against the U.S. dollar by 8 percent during the month. While export volumes were buffeted by the earthquake--falling precipitously in January, then rebounding quickly in February as alternative shipping routes were found--it appears that these temporary effects were largely over by March. Import volumes appeared to have been affected little by the earthquake. On net, the earthquake had only a small negative effect on the current account surplus during the quarter. The sharp appreciation of the yen in March abruptly checked export volume growth but, as it was passed through to dollar export prices, led to an almost unchanged dollar value of exports. In addition, during the quarter, higher oil prices acted to lower the surplus, while a deceleration in domestic demand increased it.

a. Merchandise trade

Merchandise exports rose by 9.6 percent in U.S. dollar terms in 1994, compared with average growth of 7 percent during 1992-93 (Table 10). Customs clearance data suggest that the increase was due largely to higher unit values (8.5 percent), with export volumes recovering moderately (0.9 percent). Customs data, however, likely overstate the increase in export prices and, therefore, understate volume growth. The reason is that much of the rise in export unit values in recent years appears to have been caused by a compositional shift to higher value products as opposed to increases in the prices of individual export products: since 1989, the unit value of exports calculated from customs-clearance data has persistently

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1/ These current account figures represent the sum of the seasonally adjusted trade balance and the seasonally unadjusted invisibles balance.

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Table 10. Japan: Merchandise Trade Prices and Volumes, 1986-95 1/

(Percentage change; U.S. dollar basis)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 Q1 |
|---|---|---|---|---|---|---|---|---|---|---|
| Exports | 19.0 | 9.6 | 15.6 | 4.0 | 4.0 | 9.8 | 8.0 | 6.3 | 9.6 | 2.1 |
| Price | | | | | | | | | | |
| Customs-clearance unit value | 19.7 | 9.2 | 10.8 | -0.1 | -1.8 | 7.1 | 6.3 | 7.4 | 8.5 | 3.0 |
| Bank of Japan price index | 20.3 | 10.3 | 11.1 | -2.5 | -3.3 | 1.7 | 2.5 | 4.6 | 5.6 | 0.3 |
| Difference | -0.6 | -1.1 | -0.3 | 2.3 | 1.5 | 5.4 | 3.8 | 2.8 | 2.9 | 2.7 |
| Volume | | | | | | | | | | |
| Value deflated by customs-clearance unit value | -0.5 | 0.4 | 4.3 | 4.2 | 5.8 | 2.5 | 1.6 | -1.1 | 0.9 | -0.9 |
| Value deflated by Bank of Japan price index | -1.0 | -0.6 | 4.0 | 6.5 | 7.9 | 7.8 | 5.3 | 1.6 | 3.7 | 1.7 |
| Imports | -2.4 | 18.2 | 25.4 | 12.5 | 11.1 | 1.1 | -1.6 | 3.3 | 14.2 | 6.1 |
| Price | | | | | | | | | | |
| Customs-clearance unit value | -10.8 | 8.0 | 7.6 | 4.3 | 5.3 | -2.6 | -1.0 | -0.9 | 0.6 | 4.6 |
| Bank of Japan price index | -10.0 | 7.9 | 8.5 | 0.5 | 3.3 | -1.7 | -0.1 | 1.8 | 2.9 | 3.4 |
| Difference | -0.8 | 0.2 | -0.9 | 3.9 | 2.1 | -0.9 | -0.9 | -2.7 | -2.3 | 1.2 |
| Volume | | | | | | | | | | |
| Value deflated by customs-clearance unit value | 9.7 | 9.0 | 16.8 | 7.9 | 5.6 | 3.8 | -0.7 | 4.2 | 13.3 | 1.5 |
| Value deflated by Bank of Japan price index | 8.5 | 9.7 | 15.5 | 12.0 | 7.9 | 2.5 | -1.4 | 1.5 | 11.0 | 2.6 |
| Terms of trade | | | | | | | | | | |
| Based on unit values | 34.3 | 1.1 | 3.0 | -4.3 | -6.8 | 10.0 | 7.4 | 8.4 | 7.9 | -1.5 |
| Based on Bank of Japan price indices | 33.7 | 2.2 | 2.4 | -2.9 | -6.4 | 3.4 | 2.6 | 2.8 | 2.7 | -3.0 |
| Difference | 0.5 | -1.1 | 0.6 | -1.4 | -0.4 | 6.6 | 4.7 | 5.6 | 5.2 | 1.5 |
| Export/import volume | | | | | | | | | | |
| Based on unit values | -9.1 | -8.4 | -10.5 | -3.6 | 0.4 | -1.1 | 2.2 | -5.0 | -11.0 | -3.1 |
| Based on Bank of Japan price indices | -8.7 | -9.4 | -9.9 | -4.9 | -- | 5.1 | 6.9 | 0.2 | -6.5 | -0.7 |
| Difference | -0.4 | 1.0 | -0.6 | 1.3 | 0.4 | -6.2 | -4.7 | -5.2 | -4.5 | -2.4 |
| Memorandum items: | | | | | | | | | | |
| World non-oil import volume 2/ | 6.1 | 16.4 | 12.9 | 10.1 | 8.0 | 6.8 | 10.3 | 8.4 | 11.2 | 2.2 |
| Relative export price (Japan/world) 3/ | 13.3 | 1.5 | 4.5 | -3.4 | -8.6 | 3.3 | 2.5 | 9.5 | 4.6 | -2.4 |
| Real domestic demand | 3.8 | 5.0 | 7.6 | 5.8 | 5.1 | 2.9 | 0.3 | -0.1 | 1.0 | 1.1 |
| Import price/wholesale price 4/ | -33.2 | -4.3 | -3.2 | 6.0 | 6.5 | -9.1 | -5.2 | -9.5 | -3.7 | -0.3 |

Sources: The Summary Report on Trade of Japan, Japan Tariff Association; and staff estimates.

1/ Annual price and volume figures are constructed as period averages of underlying monthly data.
2/ Data for trading partners weighted using Japan's export shares.
3/ Japan's export price based on Bank of Japan export price index, world export price based on weights using Japan's export shares.
4/ Japan's import price based on Bank of Japan import price index.

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risen faster than the fixed-weight export price index published by the Bank of Japan. 1/

Using the Bank of Japan index to deflate nominal exports yields a volume increase of 3.7 percent in 1994. Export volumes were subject to conflicting effects. On the one hand, export volume growth was depressed by the effects of both past and continued yen appreciation which increased Japanese export prices by 10 percent relative to those of partner countries in 1993, and by a further 4 percent in 1994 (Chart 14, second panel). On the other hand, export volume growth was boosted by an increase in the growth of demand in Japan's trading partners (Chart 15, first panel). Export prices (measured by the Bank of Japan index) rose by 5.6 percent in U.S. dollar terms in 1994, reflecting the lagged effects of the yen's appreciation and the further 8 percent appreciation of the yen against the U.S. dollar (Table 10). 2/

Following modest growth of 3.3 percent in 1993, merchandise imports on a customs clearance basis rose by 14.2 percent in 1994. Import volumes increased by 11 percent, while prices increased by 2.9 percent (measured using the fixed-weight Bank of Japan index) (Table 10). 3/ The strong growth in import volumes during 1994 is attributable to several factors which acted in concert. First, yen appreciation caused domestic import prices to fall relative to domestic wholesale prices by 10 percent during 1993 and another 4 percent during 1994 (Chart 14, second panel). Second, domestic demand turned around, increasing by 1.3 percent during 1994 (Chart 15, second panel). Finally, the unusually hot summer boosted imports. The increase in aggregate import prices masks divergent behavior

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1/ There are a number of measurement issues in interpreting the differences in trade prices measured by unit values and by fixed-weight indices. Unit values are calculated as Fisher indices, whereas the fixed-weight series are Laspeyres indices. The fixed-weight export price index uses data for 184 items, compared with 1650 in the unit value. Since unit values are based on prices in customs declarations, and fixed-weight indices use contract data, there is also a timing difference. Finally, the exchange rates incorporated in the two indices are slightly different. Thus, the interpretation that the differences in the two series of trade prices represent a compositional shift, while plausible, is not conclusive.

2/ The historical evidence on the effect of exchange rate movements on export prices suggests a pass-through coefficient of about one half during the first year.

3/ The customs clearance import unit value and the fixed-weight import price index published by the Bank of Japan diverged markedly in 1994, with the latter rising 2 1/2 percent faster than the former. This suggests a shift in the composition of imports toward lower-value items as in 1993. This contrasts with developments in 1991-92, when the two indices moved more closely together, and during 1989-90 when there was a substantial difference in the other direction, possibly reflecting a compositional shift in imports toward luxury goods in the final years of the "bubble" era.

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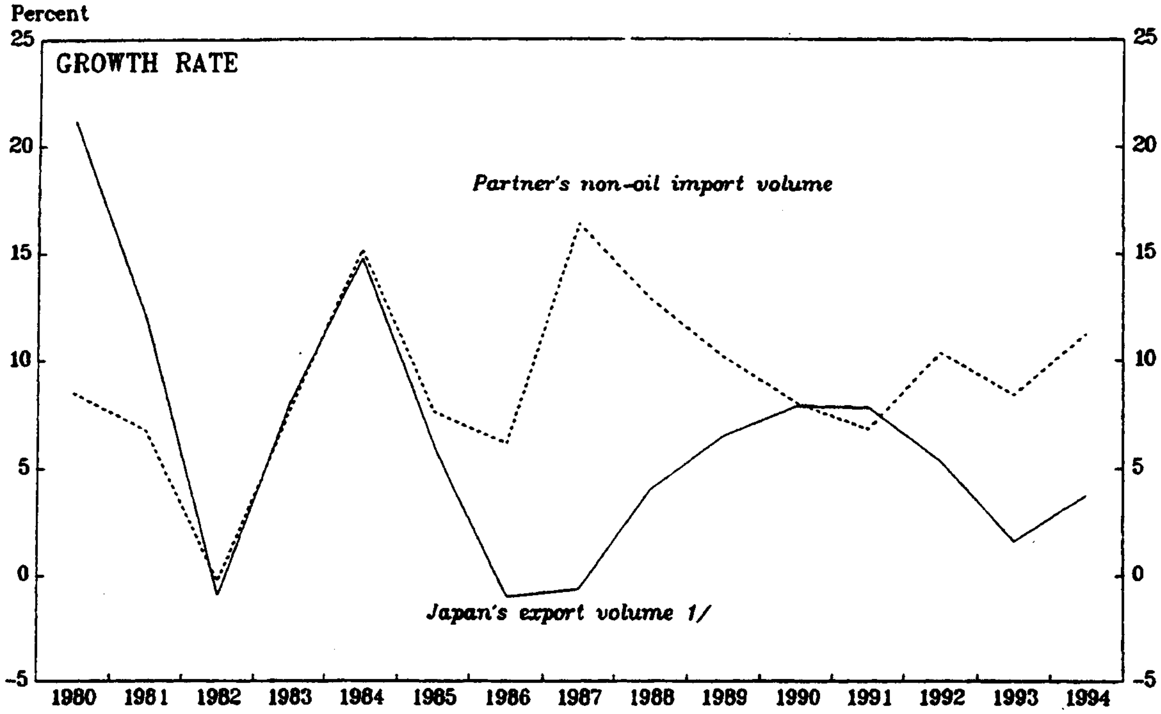
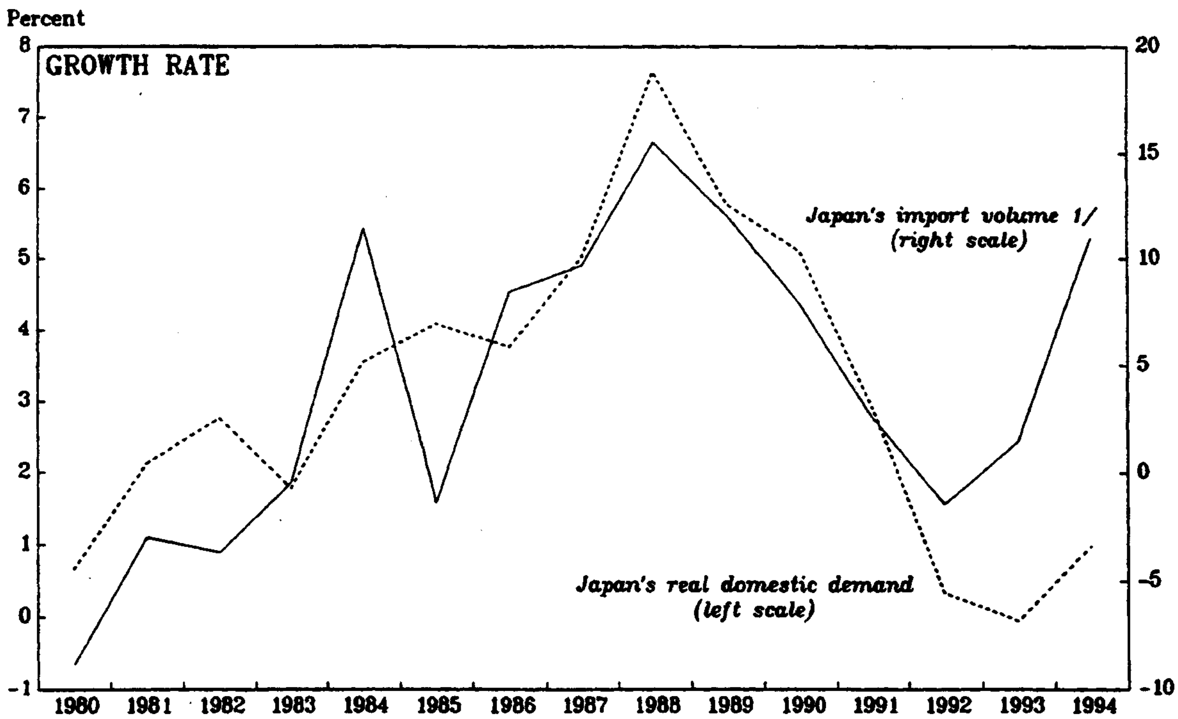
CHART 15

JAPAN

TRADE DEVELOPMENTS, 1980-94




Sources: Economic Planning Agency, National Income Accounts; Bank of Japan, Balance of Payments Monthly; and staff estimates.

1/ Value deflated by Bank of Japan price index.

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among the components: while the price of mineral fuel imports declined by 8 percent following the decline in world oil prices, the prices of manufactured imports, raw materials, and food items increased by 1.5, 4.2, and 5.4 percent, respectively.

b. Regional trade flows

South East Asia has continued to grow in importance as a destination for Japan's exports, while its relative importance as a source for Japan's imports has been maintained. The growth of Japan's exports to Southeast Asia has consistently outpaced the overall increase in exports owing to continued strong growth in the region and the relocation and outsourcing of Japanese manufacturing facilities to the region (Table 11). The relocation of Japanese manufacturing subsidiaries to the region has led to a steady growth of imports from the region. Traditionally, Japan has had trade surpluses with the Southeast Asian countries as a group, and with export growth outpacing import growth, this surplus has continued to increase rapidly. The combined surplus with these countries, at $71 billion in 1994, has, for the third consecutive year, continued to represent Japan's largest bilateral regional surplus.

The surplus with the United States reached a peak of $55 billion in 1994, compared with a low of $38 billion in 1990-91 and a previous peak of $52 billion in 1987. The share of Japan's total surplus represented by trade with the United States has declined from 65 percent in 1987 to 43 percent in 1992-94. The increase in the bilateral surplus since 1991 has been driven largely by differences in the cyclical positions--a recovery in the United States and a recession in Japan. Japan's trade surplus with the United States continues to be concentrated in a few sectors, such as automobiles, electronic goods, and semiconductors. The United States remains Japan's single most important trading partner, with a share in exports of 30 percent and in imports of 23 percent in 1994.

Japan's trade surplus with the European Union, which peaked in 1992, continued to decline in 1994. In contrast to 1993, however, when both exports and imports fell owing to weakness in economic activity in both Japan and Europe, in 1994 both exports and imports rose. With imports rising much more robustly than exports, however, there was a notable decrease in the bilateral surplus.

In the first quarter of 1995, the regional pattern of Japan's bilateral trade surpluses was broadly similar to that observed in 1994. Exports to Southeast Asia declined in line with the overall decline in exports, while those to the United States declined somewhat more, and those to the European union increased. Import growth from Southeast Asia was in line with the overall increase while that from the United States and the European union was substantially higher.

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Table 11. Japan: Regional Trade Flows, 1989-95

(In billions of U.S. dollars; customs clearance basis)

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 Q1 |
|---|---|---|---|---|---|---|---|
| United States | | | | | | | |
| Exports | 93.2 | 90.3 | 91.5 | 95.8 | 105.4 | 117.6 | 30.1 |
| (Percent change) | (4.0) | (-3.1) | (1.3) | (4.6) | (10.0) | (11.5) | (-3.8) |
| Imports | 48.2 | 52.4 | 53.3 | 52.2 | 55.2 | 62.7 | 17.0 |
| (Percent change) | (14.8) | (8.5) | (1.8) | (-2.0) | (5.7) | (13.5) | (7.0) |
| Balance | 44.9 | 38.0 | 38.2 | 43.6 | 50.2 | 54.9 | 13.1 |
| European Union | | | | | | | |
| Exports | 47.9 | 53.5 | 59.2 | 62.5 | 56.4 | 57.5 | 16.9 |
| (Percent change) | (2.2) | (11.7) | (10.5) | (5.6) | (-9.6) | (1.8) | (8.8) |
| Imports | 28.1 | 35.0 | 31.8 | 31.3 | 30.1 | 35.5 | 11.2 |
| (Percent change) | (16.9) | (24.5) | (-9.2) | (-1.6) | (-3.6) | (17.7) | (7.5) |
| Balance | 19.8 | 18.5 | 27.4 | 31.2 | 26.3 | 22.0 | 5.7 |
| Other industrial countries | | | | | | | |
| Exports | 26.3 | 26.1 | 26.2 | 26.5 | 25.8 | 26.3 | 5.4 |
| (Percent change) | (3.6) | (-0.5) | (0.5) | (1.0) | (-2.6) | (2.0) | (-27.1) |
| Imports | 30.9 | 31.9 | 31.8 | 30.4 | 30.6 | 34.5 | 8.3 |
| (Percent change) | (7.8) | (3.2) | (-0.5) | (-4.4) | (0.9) | (12.6) | (-11.0) |
| Balance | -4.7 | -5.8 | -5.5 | -3.9 | -4.8 | -8.2 | -2.9 |
| Southeast Asia | | | | | | | |
| Exports | 73.5 | 82.7 | 96.2 | 104.4 | 117.5 | 138.4 | 38.0 |
| (Percent change) | (9.5) | (12.5) | (16.3) | (8.5) | (12.5) | (17.8) | (-1.3) |
| Imports | 52.9 | 54.6 | 58.8 | 57.5 | 60.6 | 67.9 | 19.0 |
| (Percent change) | (10.7) | (3.2) | (7.7) | (-2.2) | (5.4) | (12.0) | (2.3) |
| Balance | 20.6 | 28.1 | 37.4 | 46.9 | 56.9 | 70.5 | 18.9 |
| Other developing countries | | | | | | | |
| Exports | 34.3 | 34.3 | 41.4 | 50.5 | 55.9 | 55.8 | 14.6 |
| (Percent change) | (-4.6) | (-0.1) | (20.9) | (22.0) | (10.6) | (-0.1) | (3.7) |
| Imports | 50.6 | 60.9 | 61.1 | 61.6 | 64.0 | 74.2 | 21.5 |
| (Percent change) | (13.1) | (20.3) | (0.3) | (1.0) | (3.9) | (15.9) | (-1.1) |
| Balance | -16.3 | -26.6 | -19.6 | -11.1 | -8.1 | -18.4 | -6.9 |
| Total | | | | | | | |
| Exports | 275.2 | 286.9 | 314.5 | 339.6 | 361.0 | 395.6 | 105.0 |
| (Percent change) | (3.9) | (4.3) | (9.6) | (8.0) | (6.3) | (9.6) | (-1.7) |
| Imports | 210.8 | 234.8 | 236.7 | 233.0 | 240.6 | 274.7 | 77.0 |
| (Percent change) | (12.5) | (11.4) | (0.8) | (-1.6) | (3.3) | (14.2) | (1.4) |
| Balance | 64.3 | 52.1 | 77.8 | 106.6 | 120.4 | 120.9 | 28.0 |

Source: Bank of Japan, Balance of Payments Monthly.

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c. Invisibles account

The overall services deficit narrowed steadily from its trough in 1990 until 1993 (Table 9). During 1991-93 the deficit in nonfactor services fluctuated in the range of $44-46 billion, and the narrowing of the overall services deficit was caused by the rapid increase in net overseas income, which rose from $23 billion in 1989-90 to $41 billion in 1993. The stability of the nonfactor services balance during this period can be attributed in large part to the behavior of net travel payments, which were stagnant after having risen sharply in the second half of the 1980s. The increased surplus on investment income mainly reflected the continuing accumulation of net foreign assets associated with the current account surpluses, which amounted to over $700 billion by end-1994--some 15 percent of GDP.

In 1994, there was a notable--though modest--deterioration in the overall services balance, with a reversal in the underlying behavior of the travel payments and investment income components. There was a deterioration on the travel account as increasing numbers of Japanese travelled abroad encouraged by the strong yen and the beginning of economic recovery at home. Net investment income from abroad levelled off in spite of increases in net foreign assets and foreign interest rates. While net direct investment income grew, growth in payments exceeded that of receipts due to low returns on financial investments by Japanese residents.

Net transfer payments rose to $7.5 billion in 1994. The increase was split almost evenly between official transfers (which account for about two thirds of the total) and private transfers. 1/ Despite the continued increase, net transfer payments were well below their peak in 1991. (In 1990-91, net transfers had been temporarily boosted by payments related to the Middle East crisis of $2 billion in 1990 and $9 billion in 1991.)

In the first quarter of 1995, the services account balance was weaker than in the corresponding period in the previous year, mainly because of higher travel and transportation payments. Net transfer payments were also unusually high, owing to increased official transfers.

2. Capital account

a. Overview of capital flows

The balance in the long-term capital account has fluctuated considerably in recent years (Table 12). In the second half of the 1980s, Japan was a large net exporter of long-term capital, with the annual outflow averaging $110 billion during 1986-90. In 1991, however, a net inflow of

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1/ In 1993 there was a change in the compilation method for private transfers. In particular, remittances by nonresidents from Japan are now included under private transfers.

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Table 12. Japan: Capital Account Summary, 1986-95

(In billions of U.S. dollars, not seasonally adjusted)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1994 I | 1994 II | 1994 III | 1994 IV | 1995 I |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Current account balance | 85.8 | 87.0 | 79.6 | 57.2 | 35.8 | 72.9 | 117.6 | 131.4 | 129.1 | 35.0 | 33.4 | 29.6 | 31.2 | 30.8 |
| Net long-term capital | -131.5 | -136.5 | -130.9 | -89.2 | -43.6 | 37.1 | -28.5 | -78.3 | -82.0 | 47.1 | -38.2 | -51.2 | -39.7 | 0.4 |
| By type of capital | | | | | | | | | | | | | | |
| Net direct investment | -14.3 | -18.4 | -34.7 | -45.2 | -46.3 | -29.4 | -14.5 | -13.6 | -17.0 | -5.2 | -3.8 | -4.2 | -3.8 | -5.6 |
| Net securities | -101.4 | -93.8 | -66.7 | -28.0 | -5.0 | 41.0 | -26.2 | -62.7 | -48.9 | 54.1 | -35.3 | -39.0 | -28.8 | 10.1 |
| All bonds | -78.6 | -34.1 | -70.5 | -17.1 | 14.5 | -2.2 | -37.9 | -67.4 | -83.9 | 20.6 | -43.5 | -33.6 | -27.5 | 2.3 |
| Equities | -22.8 | -59.7 | 3.8 | -10.9 | -19.5 | 43.1 | 11.7 | 4.7 | 34.9 | 33.5 | 8.2 | -5.4 | -1.4 | 7.9 |
| Net Loans | -9.3 | -16.3 | -15.3 | -4.7 | 16.9 | 25.0 | 8.3 | -3.8 | -17.4 | -2.1 | 0.5 | -10.1 | -5.7 | -6.1 |
| Other | -6.5 | -8.0 | -14.3 | -11.3 | -9.2 | 0.4 | 4.0 | 1.9 | 1.3 | 0.3 | 0.4 | 2.0 | -1.3 | 1.9 |
| By asset/liability | | | | | | | | | | | | | | |
| Assets | -132.1 | -132.8 | -149.9 | -192.1 | -120.8 | -121.4 | -58.0 | -73.6 | -110.2 | -0.7 | -40.6 | -30.5 | -38.4 | -10.2 |
| Direct investment | -14.5 | -19.5 | -34.2 | -44.1 | -48.0 | -30.7 | -17.2 | -13.7 | -17.9 | -5.1 | -4.2 | -4.3 | -4.4 | -5.5 |
| Securities | -102.0 | -87.8 | -86.9 | -113.2 | -39.7 | -74.3 | -34.4 | -51.7 | -83.6 | 8.0 | -38.3 | -22.7 | -30.6 | -1.9 |
| Bonds | -93.0 | -72.9 | -85.8 | -94.1 | -29.0 | -68.2 | -35.6 | -29.9 | -64.1 | 10.3 | -32.8 | -15.1 | -26.5 | -4.5 |
| ¥ denominated bonds | -1.9 | 2.0 | 1.9 | -1.2 | -4.5 | -2.5 | -1.7 | -6.4 | -5.4 | -1.3 | -0.7 | -3.4 | 0.0 | -1.4 |
| Equities | -7.0 | -16.9 | -3.0 | -17.9 | -6.3 | -3.6 | 3.0 | -15.3 | -14.1 | -1.0 | -4.8 | -4.2 | -4.1 | 4.0 |
| Loans | -9.3 | -16.2 | -15.2 | -22.5 | -22.2 | -13.1 | -7.6 | -8.2 | -7.7 | -3.8 | 1.7 | -4.4 | -1.4 | -2.7 |
| Other | -6.4 | -9.4 | -13.5 | -12.3 | -10.9 | -3.3 | 1.2 | -0.1 | -0.9 | 0.1 | 0.2 | 0.9 | -2.1 | -0.1 |
| Liabilities | 0.6 | -3.7 | 19.0 | 102.9 | 77.2 | 158.5 | 29.5 | -4.7 | 28.2 | 47.8 | 2.4 | -20.7 | -1.3 | 10.6 |
| Direct investment | 0.2 | 1.2 | -0.5 | -1.1 | 1.8 | 1.4 | 2.7 | 0.1 | 0.9 | -0.1 | 0.3 | 0.1 | 0.5 | -0.0 |
| Securities | 0.5 | -6.1 | 20.3 | 85.1 | 34.7 | 115.3 | 8.2 | -11.1 | 34.7 | 46.1 | 3.1 | -16.3 | 1.7 | 12.0 |
| Bonds | -2.1 | 6.7 | -21.6 | 2.4 | 17.0 | 21.2 | -8.2 | -0.2 | 0.5 | 7.0 | -5.1 | -7.6 | 6.2 | 12.7 |
| External bonds | 18.4 | 30.1 | 35.1 | 75.7 | 30.9 | 47.3 | 7.6 | -30.8 | -14.9 | 4.6 | -4.9 | -7.4 | -7.1 | -4.6 |
| Equities | -15.8 | -42.8 | 6.8 | 7.0 | -13.3 | 46.8 | 8.7 | 20.0 | 49.0 | 34.5 | 13.0 | -1.2 | 2.7 | 3.8 |
| Loans | -0.0 | -0.1 | -0.1 | 17.8 | 39.1 | 38.1 | 15.9 | 4.3 | -9.6 | 1.6 | -1.2 | -5.7 | -4.4 | -3.4 |
| Other | -0.1 | 1.3 | -0.8 | 1.0 | 1.7 | 3.7 | 2.7 | 1.9 | 2.3 | 0.2 | 0.2 | 1.1 | 0.8 | 2.1 |
| Errors and omissions | 2.5 | -3.9 | 2.8 | -22.0 | -20.9 | -7.8 | -10.5 | -0.3 | -17.8 | 6.3 | -7.8 | -10.1 | -6.2 | 12.0 |
| Basic balance 1/ | -43.2 | -53.4 | -48.5 | -54.1 | -28.7 | 102.1 | 78.6 | 52.9 | 29.3 | 88.4 | -12.6 | -31.8 | -14.7 | 43.3 |
| Short-term capital | 56.9 | 95.7 | 64.0 | 29.4 | 7.8 | -119.2 | -80.0 | -29.4 | -31.6 | -82.3 | 6.4 | 27.7 | 16.6 | 4.1 |
| Bank | 58.5 | 71.8 | 44.5 | 8.6 | -13.6 | -93.5 | -73.0 | -15.0 | -22.7 | -81.9 | 12.7 | 25.2 | 21.3 | -26.9 |
| Nonbank | -1.6 | 23.9 | 19.5 | 20.8 | 21.5 | -25.8 | -7.0 | -14.4 | -8.9 | -0.3 | -6.3 | 2.4 | -4.7 | 31.0 |
| Overall balance | 13.7 | 42.3 | 15.5 | -24.7 | -20.9 | -17.1 | -1.4 | 23.5 | -2.3 | 6.1 | -6.2 | -4.1 | 1.9 | 47.4 |
| Increase in reserves | 15.7 | 39.2 | 16.2 | -12.8 | -7.8 | -8.1 | -0.3 | 26.9 | 27.3 | 6.1 | 9.7 | 6.1 | 5.3 | 18.7 |
| Other 2/ | -2.0 | 3.0 | -0.7 | -11.9 | -13.0 | -9.0 | -1.1 | -3.5 | -29.5 | -0.1 | -15.9 | -10.2 | -3.4 | 28.7 |

Sources: Bank of Japan, Balance of Payments Monthly; and staff estimates.

1/ Including errors and omissions.
2/ Includes non-residents holdings of short-term official assets.



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$37 billion was recorded, owing in part to substantial purchases of Japanese equities by foreign residents in the aftermath of the collapse of the asset price bubble. With a drop-off in net purchases of Japanese securities by foreign residents during the following year, the balance on the capital account reverted to a deficit position for 1992. The net outflow of capital then accelerated, averaging $80 billion during 1993-94. This reflected large net redemptions of external bonds during 1993-94, after almost 20 years as persistent net issuers, and a sharp increase in Japanese purchases of foreign bonds during 1994. During 1994, a substantial net long-term capital inflow during the first quarter, driven by both a net sale of foreign bonds by Japanese residents and large purchases of Japanese equities by foreign residents, was more than offset by net outflows during the remainder of the year. While the long-term capital account has been in deficit over the last two years, net outflows are at levels well below those observed during 1986-88 when they averaged over $130 billion annually.

Outward direct investment, spurred by the rapid appreciation of the yen after 1985 and increases in corporate profitability during the bubble period, increased vigorously during the late 1980s, peaking at $48 billion in 1990. In the early 1990s, after the asset price bubble burst and domestic business conditions and corporate profitability fell, outward direct investment declined steadily, falling to $14 billion in 1993. Following the bottoming out of economic activity in late 1993, a pick-up in corporate profitability, and the substantial rise in the yen, there was a modest turnaround in outward direct investment during 1994. Data on a notification basis indicate that the declines in Japanese foreign direct investment during 1990-93 were concentrated in nonmanufacturing (Table 13). The subsequent pickup in 1994 has been spread somewhat evenly between manufacturing and non-manufacturing. While the United States remains by far the most important host country for Japanese foreign direct investments, its share in has fallen from 48 percent in 1989 to 42 percent in 1994. The share of Asia, on the other hand, has increased rapidly, rising from 12 percent in 1989 to 24 percent by 1994.

Fluctuations in short-term capital flows have been even sharper than those in long-term flows. During the second half of the 1980s, net inflows of short-term capital surged, reflecting mainly the activities of the bank sector, which accumulated net foreign liabilities of almost $200 billion during 1985-89. Starting in 1991, there were large short-term capital outflows, again mainly by banks. These outflows were related to adjustments in the banks' international strategy--concerns about capital adequacy, in particular the need to conform with BIS guidelines, made banks downsize their long-term foreign assets, and this was accompanied by a reduction in short-term liabilities. The net outflow of short-term bank capital declined sharply during 1993, and by the end of the year banks had reversed all of the run-up in short-term external liabilities of the late 1980s. During 1994, a massive short-term net capital outflow during the first quarter was offset to a large extent by net inflows during the remainder of the year, with a moderate net outflow for the year as a whole, comparable to that in 1993. Net reductions in the short-term external liabilities of the nonbank

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Table 13. Japan: Direct Investment by Sector and by Region, FY 1988-FY 1994 1/

| Fiscal Years | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|---|
| | (In billions of U.S. dollars) | | | | | | |
| Total | 47.0 | 67.5 | 56.9 | 41.6 | 34.1 | 36.0 | 41.1 |
| North America | 22.3 | 33.9 | 27.2 | 18.8 | 14.6 | 15.3 | 17.8 |
| (United States) | (21.7) | (32.5) | (26.1) | (18.0) | (13.8) | (14.7) | (17.3) |
| Europe | 9.1 | 14.8 | 14.3 | 9.4 | 7.1 | 7.9 | 6.2 |
| Asia | 5.6 | 8.2 | 7.1 | 5.9 | 6.4 | 6.6 | 9.7 |
| Other | 10.0 | 10.6 | 8.3 | 7.5 | 6.0 | 6.0 | 7.2 |
| Manufacturing | 13.8 | 16.3 | 15.5 | 12.3 | 10.1 | 11.1 | 13.8 |
| United States | 8.8 | 8.9 | 6.4 | 5.6 | 3.8 | 4.0 | 4.6 |
| Europe | 1.5 | 3.1 | 4.6 | 2.7 | 2.1 | 2.0 | 1.9 |
| Asia | 2.4 | 3.2 | 3.1 | 3.0 | 3.0 | 3.7 | 5.2 |
| Nonmanufacturing | 33.2 | 51.3 | 41.4 | 29.3 | 24.1 | 24.9 | 26.9 |
| United States | 13.1 | 24.3 | 20.4 | 12.4 | 10.0 | 10.7 | 12.7 |
| Europe | 7.3 | 11.7 | 9.7 | 6.7 | 5.0 | 5.9 | 4.4 |
| Asia | 3.0 | 5.0 | 4.1 | 2.9 | 3.4 | 2.9 | 4.2 |
| | (In percent) | | | | | | |
| Memorandum items: | | | | | | | |
| Shares of total | | | | | | | |
| United States | 46.2 | 48.1 | 45.9 | 43.3 | 40.5 | 40.9 | 42.1 |
| Europe | 19.4 | 21.9 | 25.1 | 22.6 | 20.8 | 22.0 | 15.1 |
| Asia | 11.9 | 12.1 | 12.5 | 14.2 | 18.8 | 18.4 | 23.6 |

Sources: Ministry of Finance, Zaisei Kinyu Tokei Geppo; and data provided by the Japanese authorities.

1/ On a notified basis, excluding direct real estate purchases (but not investment in the real estate industry).

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sector continued in 1994 as about a third of the $85 billion run-up in net liabilities during 1987-90 remained outstanding at end year.

Bank of Japan intervention to counter the strength of the yen during 1986-88 led to a cumulative increase in official reserves of $72 billion during the period. During 1989-91, as the yen depreciated, the Bank of Japan intervened to support the yen, with reserves falling by $28 billion over the period. Intervention to counter the rapid appreciation of the yen since 1993, prompted increases in official reserves of $27 billion in each of 1993 and 1994, and a further $31 billion during the first 4 months of 1995. This brought the stock of official reserves to a historic high--exceeding $150 billion at the end of April 1995. In Japanese balance of payments statistics, changes in non-residents (official and private) holdings of short-term Japanese official sector (Government and Bank of Japan) securities are recorded below the line, contributing to the sometimes substantial differences between the overall balance of payments and changes in reserves--as in 1994.

In the first quarter of 1995, the long-term capital account was in approximate balance while there was a small short-term net capital inflow. The lack of net long-term capital outflows during the quarter reflected a sharp drop-off in Japanese purchases of foreign bonds and increased purchases of Japanese bonds by foreign residents. The short-term net capital inflow reflected a large inflow by the nonbank sector that more than offset an outflow from private banks.

b. Flow of funds to developing countries

Over the past decade, Japan has taken several initiatives to stimulate the flow of financial resources to the developing countries, with the most recent being the "Funds for Development" initiative for 1993-97, with a target of $120 billion. The program consists of $70 billion in untied official development assistance (ODA) funds (yen loans and subscriptions and contributions to multi-lateral lending institutions) and $50 billion in non-ODA untied funds (including loans from the Export-Import Bank of Japan and international trade insurance).

In recent years, Japan's total net financial flows to developing countries have fluctuated around $20 billion annually (Table 14). About half of the total has been accounted for by ODA, taking the form of contributions to the multilateral financial institutions and bilateral loans, grants, and technical assistance. Other official loans, including loans by the Export-Import Bank of Japan, have been about 15 percent of the total. The remaining part has originated from the private sector, including loans from commercial banks, direct investment, and commercial bank cofinancing with the Export-Import Bank and with multilateral development institutions.

In response to declines in domestic interest rates, in mid-1995 Japan reduced interest rates on new official loans to developing countries. The

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Table 14. Japan: Net Flow of Financial Resources to Developing Countries and Multilateral Agencies, 1988-94 1/

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|---|
| | | | (In billions of U.S. dollars) | | | | |
| ODA | 9.1 | 9.0 | 9.1 | 11.0 | 11.2 | 11.3 | 13.1 |
| Bilateral | 6.4 | 6.8 | 6.8 | 8.9 | 8.4 | 8.0 | 9.4 |
| Multilateral | 2.7 | 2.2 | 2.3 | 2.1 | 2.8 | 3.2 | 3.7 |
| Other official flows | -0.6 | 1.6 | 3.4 | 2.6 | 3.3 | 3.8 | ... |
| Private flows | 12.8 | 14.3 | 6.3 | 11.2 | 1.5 | 0.6 | ... |
| Grants by private voluntary agencies | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | ... |
| Total resource flows | 21.4 | 25.6 | 18.7 | 24.9 | 16.2 | 15.9 | ... |
| | | | (In percent of GNP) | | | | |
| ODA | 0.32 | 0.31 | 0.31 | 0.32 | 0.30 | 0.27 | 0.28 |
| Total resource flows | 0.75 | 0.84 | 0.63 | 0.73 | 0.44 | 0.37 | ... |

Source: Data provided by the Japanese authorities.

1/ Calendar years, Development Assistance Committee basis.



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changes in interest rates were linked to the borrower's status of development. While interest rates on loans to the least-developed countries remained unchanged at 1 percent, those for low-income countries were lowered from 2.6 to 2.3 percent, those for lower-middle, and upper-middle-income countries were each lowered from 3 percent to 2.7 percent, and for those to high-income countries from 5 to 4 percent. 1/ It was also announced that loans for environmental projects would receive an additional 0.2 percentage point subsidy.

Japan remains the world's largest provider of nonmilitary aid, accounting for over 20 percent of the total official development assistance supplied by the members of the OECD in 1994. Japan's net disbursements of ODA, after remaining relatively stable at around $11 billion during 1991-93, rose to $13 billion during 1994, while the ODA-to-GNP ratio dropped from a peak of 0.32 percent in 1991 to 0.28 percent in 1994. The FY 1995 ODA budget provides for a 4.0 percent increase (in yen terms) over FY 1994. The target for 1993-97 has been set at $70-75 billion, enhancing Japan's position as the largest donor but implying little change in the ODA-to-GNP ratio; the present ratio is well below the United Nations target of 0.7 percent.

Japan's ODA is well diversified regionally. While Asia receives the bulk of Japan's bilateral aid--with China, India, Indonesia, the Philippines, and Thailand accounting for over 40 percent of the total--Africa, the Middle East, and Latin America are also major recipient areas. Japan is now the leading donor in some 32 countries, not only in Asia but also in parts of Africa. The allocation of Japan's aid is governed by an ODA Charter that was adopted in 1992. The Charter outlines four principles that mandate more stringent conditions for foreign aid. They stipulate that Japan must pay close attention to: environmental concerns; restraint in military expenditures and weapons development; democratization and human rights; and the fostering of market-oriented economies.

### 3. Exchange rate developments

Having depreciated between late 1988 and early 1990, the yen has appreciated sharply since 1991 (Chart 16). The real effective appreciation (based on consumer price indices) was initially moderate, averaging 5 1/2 percent annually in 1991-92, then accelerated sharply to 16 percent in 1993, and a further 7 percent in 1994. Starting in late February of 1995 the yen began to strengthen rapidly again, shooting up by 6 percent in March and another 7 percent in April. Since the trough in 1990, there has been a cumulative increase in the real effective value of the yen of 60 percent, leaving it 33 percent above the previous peak in 1988.

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1/ The least developed countries were identified as Bangladesh and Nepal. Low-income countries were defined as having per capita income of less than $695, lower-middle-income as $696-1,345, upper-middle-income as $1,346-2,785, and high-income as $2,786 or more.

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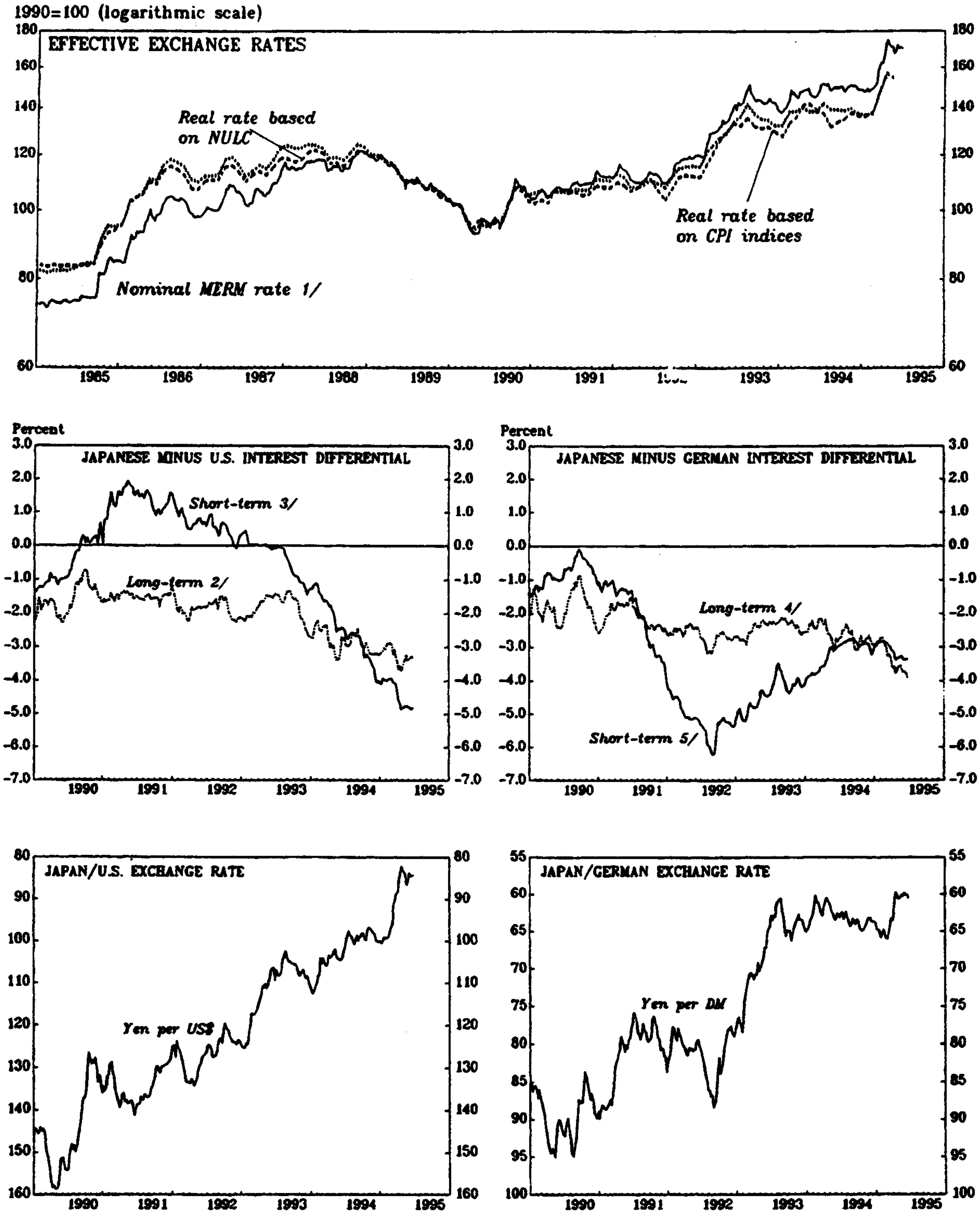
CHART 16

JAPAN

## EXCHANGE RATES AND INTEREST RATE DIFFERENTIALS, 1985-95




Sources: IMF, Information Notice System; and Nikkei Telecom.
1/ Based on IMF MERM rate.
2/ Japan: ten-year government bond rate; United States: ten-year government bond rate.
3/ Japan: three-month CD rate; United States: three-month CD rate.
4/ Japan: ten-year government bond rate; Germany: ten-year government bond rate.
5/ Japan: three-month CD rate; Germany: three-month interbank rate.

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Movements of the real effective exchange rate have been driven almost entirely by movements in the nominal effective rate. These in turn have reflected movements in the important bilateral exchange rates of the yen vis-à-vis the U.S. dollar and the deutsche mark. While the movements of the exchange value of the yen against the two currencies have been broadly similar since 1990, there have been some notable differences (Chart 16, bottom two panels). First, the appreciation of the yen against the U.S. dollar during the period of 41 percent exceeds the 29 percent appreciation against the deutsche mark. Second, there have been some notable divergences in direction. In particular, during early and mid-1992 as the short-term bilateral interest differential peaked, the yen depreciated sharply against the deutsche mark, while it continued to appreciate against the U.S. dollar. More recently, during 1994, the yen was relatively stable against the deutsche mark, while it appreciated against the U.S. dollar. During the most recent bout of yen appreciation that began in February of 1995, the appreciation has again been more substantial vis-à-vis the U.S. dollar than the deutsche mark.

A chapter of the supplement to this paper provides an in-depth discussion of recent movements in the yen from a long-run perspective. It shows that the Japanese CPI- and WPI-based real effective exchange rates during the postwar period have fluctuated around stable trends, while the prices of Japanese exports relative to those of partner countries have fluctuated around a stable mean level since the mid-1960s. The secular appreciation of the CPI- and WPI-based real exchange rates can be explained by differential rates of productivity growth between the traded and non-traded sectors in Japan relative to its trading partners, while allowing it to maintain the competitiveness of its export industries. While the yen has been appreciating since late 1990, it is only in 1993 that its real effective value rose above trend. The continued appreciation of the yen during 1994, and the sharp appreciation since February of 1995 has raised all three measures of the real exchange rate at the end of May substantially above trend: the CPI- and WPI-based real effective exchange rates are estimated to be 21 and 22 percent, respectively, above their trend levels, while the prices of Japanese exports relative to partner countries are estimated to be 28 percent above their historical average level. Several factors have been ascribed important roles in explaining the movements of the yen during 1991-94: the recession in Japan; the relative stance of monetary policies; portfolio effects reflecting changes in the willingness of Japanese investors to hold foreign exchange assets; and trade frictions and negotiations between the United States and Japan. While some of these factors may have contributed to a short-term appreciation of the yen during 1991-94, they do not suggest a structural shift in the real exchange rate. Almost the same cast of factors as during 1991-94 has been ascribed important roles in the very recent appreciation of the yen since February of 1995 (a new entrant has been the effects of the Mexico crisis on the United States). It is, however, difficult to reconcile the role of most of these factors with the speed and magnitude of the recent appreciation.

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## VI. Developments in Trade and Structural Policies

### 1. Trade policy

Over the past year, there have been significant developments regarding both the multilateral trading environment and in bilateral trade issues. While the conclusion of the Uruguay Round helped relieve protectionist pressures, trade frictions with some partner countries, especially the United States, have continued.

#### a. Multilateral trade issues

At a special Diet session in the fall of 1994, all Uruguay round agreements, as well as necessary amendments to the relevant domestic laws, were approved. 1/ The Uruguay Round agreement will affect Japan's trade in a number of ways: market access for agricultural and industrial goods to Japan will improve; Japanese exporters will face a new trading environment; and multilateral trading rules will be extended to new areas, particularly services.

In agriculture, the conclusion of the Uruguay Round included agreements in three areas: domestic support, export subsidies, and market access. 2/ Japan had already achieved the targeted cut in domestic support (of 20 percent from the 1986-88 base period) by 1992 through reductions in administrative prices and a product limitation program. Japan did not have any export subsidies. Thus, the main changes in agriculture concern market access. Japan's commitments consist of three elements. First, all agricultural products (except rice) that were previously subject to quotas (31 products on a 4-digit Harmonized System basis, including wheat, barley, dairy products, beans, peanuts, starches, raw silk, and pork), are to be tariffied. Second, tariffs for all agricultural products except rice are to be cut by an average of 36 percent during the 6-year implementation period. This implies a reduction in tariffs from 14.4 to 9.2 percent on a simple average basis (excluding the products to be newly tariffied) (Table 15). Third, while rice was exempted from tariffication, Japan committed to provide minimum access, equivalent to 4 percent of domestic consumption in 1995, rising to 8 percent by 2000.

For industrial goods, Japan committed to lowering its tariffs by 61 percent over the five-year implementation period, bringing industrial

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1/ Major laws revised included: the Customs Tariff Law, Temporary Tariff Measures Law, Food Control Law, Manufacturing Milk Producer Compensation Temporary Act, Special Measures Law regarding Handling of Business by Foreign Lawyers, Employees Pension and Insurance Law, Patent Law, Trademark Law and Copyright Law.

2/ A more detailed review of Japan's commitments in Agriculture in the Uruguay round agreement are reviewed in a chapter of the supplement to this paper.

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Table 15. Japan: Outline of Tariff Changes Under the Uruguay Round

1. Number of Items (Harmonized System 9-digit system)

| | Offer |
|---|---|
| Agricultural products | about 1,500 |
| Wood products | about 140 |
| Fishery products | about 250 |
| Industrial products | about 6,700 |
| Total | about 8,500 |

2. Tariff Reductions (in percent)

| | From agreement base 1/ | From Applied rate 2/ |
|---|---|---|
| Agricultural products | 36 | ... |
| Wood products | 50 | 30 |
| Fishery products | 33 | 29 |
| Industrial products | 61 | 32 |

3. Average Tariff Rates (in percent) 3/

| | Base rate | Applied rate in 1993 | Post Uruguay Round in 2000 |
|---|---|---|---|
| Agricultural products | 14.4 | 11.9 | 9.2 |
| Wood products | 2.0 | 1.4 | 1.0 |
| Fishery products | 6.1 | 5.7 | 4.1 |
| Industrial products | 3.8 | 2.2 | 1.5 |

Source: Data provided by the Japanese authorities.

1/ Offer rate relative to the base rate (in 1986-88).
2/ Offer rate relative to the applied rate (in 1993).
3/ Simple average for agricultural products and a trade-weighted average (in 1988) for other products. Newly tariffied products are excluded from agricultural products in the calculation.

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duties to an average level of 1.5 percent (Table 15)--among the lowest in the world. Duties will be eliminated altogether on 9 product groups (pharmaceuticals, construction equipment, medical equipment, steel, beer, furniture, farm equipment, whiskeys and brandies, and pulp and paper). Japanese exporters are likely to benefit from the Uruguay Round agreement because of the reduction in tariffs on industrial goods worldwide and also because of several changes to GATT rules. These changes include improved antidumping rules and strengthened dispute settlement mechanisms, tighter discipline for safeguards temporarily restricting imports to protect domestic industries, and the phasing out of most nontariff barriers during the next four years. In line with the Uruguay Round agreement, Japan aims to eliminate all voluntary export restraints during the four-year period allowed for phasing out grey-area measures except that on exports of automobiles to the European Union, which is to be eliminated upon expiry in 1999. 1/

Beyond industrial and agricultural goods, Japan offered a one-half cut in tariffs on wood products and a one-third cut in tariffs on fisheries.

In services--an area that will for the first time be governed by multilateral rules--Japan presented liberalization commitments in more than 100 sectors, including banking, securities, insurance, transport, construction, telecommunications, distribution, legal services, and accounting. Japan was the only major trading country not seeking any most-favored-nation (MFN) exemption. While most of Japan's commitments were a codification of existing policies, there were important additional commitments, especially in financial services (pension funds and insurance).

b. Bilateral trade issues with the United States

The latest bilateral discussions with the United States were conducted under the Framework Agreement announced in July 1993. A key goal of the framework talks, which have covered not only structural and sectoral issues but also macroeconomic policies, was to increase access and sales of competitive foreign goods and services through market-opening and macroeconomic measures. For its part, Japan pledged to pursue strong and sustainable domestic demand-led growth and increase market access, with a view to achieving, over the medium term, a "highly significant" decrease in its current account surplus and a significant increase in its imports of goods and services.

There were initially four priority areas in the sectoral and structural discussions under the Framework Agreement: government procurement, particularly in the areas of medical equipment and telecommunications; automobiles and parts; insurance; and the promotion of competition and competitiveness. The assessment of the implementation of measures and

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1/ The VER for auto exports to the United States, which had been in effect for 13 years, expired on April 1, 1994.

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policies were to be based on sets of "objective criteria," either qualitative or quantitative, or both, as appropriate. Progress under the agreement, scheduled to be in force initially for two years, was to be reviewed at biannual meetings of the heads of the two governments.

Despite several rounds of discussions at the sectoral level, the first biannual summit in February 1994 failed to result in an agreement in any of the priority areas. The major outstanding issue was the interpretation of "objective criteria." In late March 1994, Japan unilaterally announced a set of deregulation and market-opening measures, including measures in the three priority sectors of the Framework talks (government procurement in medical technology and telecommunications, insurance, and automobiles and parts). Further discussions in May 1994 led to a resumption of the framework talks, with the understanding that objective criteria did not constitute numerical targets.

The United States administration then established end-September, 1994 as a twin deadline to complete consultations with Japan under Title VII of its 1988 Trade Act--for discriminatory public-sector procurement practices--and Section 301 of the 1974 Trade Act--for identifying unfair foreign trade practices in various sectors. Against the backdrop of these deadlines, agreements were reached in a number of critical areas: the procurement of telecommunications and medical equipment by the Japanese government and its agencies; on foreign access to the Japanese insurance market; and an "understanding" on increased foreign access to the Japanese flat-glass market that was later made more specific. The agreement in procurement practices ended the threat of United States sanctions under the Title VII process. Agreement could not be reached, however, in the area of automobiles and automobile parts.

The pact reached on Japanese public sector procurement of telecommunications products and services actually comprised two pacts. The first applied to purchases by the Japanese government and its agencies. The second applied to purchases by the Nippon Telegraph and Telephone Corporation, which is 65 percent government owned. The pacts were similar. It was agreed that for each year's procurement needs, detailed information would be made available early in the process. Suppliers, including foreign suppliers, would be invited to comment on various aspects of planned purchases before proposals were finalized. International standards, when available, would be employed for technical specifications, and when these were not available, consideration would be given to de facto international standards. The number of sole-source contracts which, according to the United States, favored domestic suppliers, were to be reduced. An "overall best-value" bid evaluation system, rather than simply a least-cost bid system, would be instituted. To monitor progress in the implementation of the agreements, the two sides agreed on annual consultations for an evaluation of "progress in the value and share" of Japanese purchases with a "significant" increase in market access and sales by foreign suppliers expected over a four-year period.

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The pact on government procurement of medical equipment called for the use of open and transparent procedures by the Japanese government and its agencies. As in the purchases of telecommunications, Japan agreed to institute a system where decisions on bids would be made on an "overall greatest-value" system, rather than solely on the basis of minimum price, whereby western medical technology products which were typically more sophisticated, had often been excluded in the past. Public hospitals would be required to publish annually information on the top 10 medical technology products they planned to buy in the coming year. Finally, the agreement included comprehensive complaint mechanisms and procedures for dealing with unfair bids.

In the accord on insurance, the Japanese government agreed to make more transparent its regulatory framework. It agreed to compile and publish requirements for the approval of business licenses and new products and other regulatory information that had in the past been conveyed on a discretionary basis by the Ministry of Finance at the time when permission was sought for the sales of insurance products and/or premium rates. The Japanese government committed to liberalizing, in three stages, restrictions on insurance products which limited insurance providers to specializing in a single insurance product, and gradually freeing premium rates, which were largely controlled. In response to pressure from the United States, however, Japan agreed to slow deregulation in the so called "third sector" (an area between life and casualty insurance, including hospitalization and injury), where American firms dominated the market, until the life and non-life insurance markets were deregulated. To increase competition on price and product design, it was agreed that insurance brokers would be allowed to operate in Japan. Finally, the Japanese government agreed to a stronger antitrust enforcement policy in the insurance market where corporate ties are alleged to have been the strongest determinant of the choice of insurance provider. Stronger antitrust enforcement was initiated by a study by Japan's Fair Trade Commission (FTC) on competitive conditions in the insurance market. To monitor progress, it was agreed that in joint consultations to be held semi-annually over the next three years and annually, thereafter, a number of quantitative indicators would be reviewed: the number of new or modified insurance products and rate changes approved by the Ministry of Finance as well as the approval ratios, and the value and market share of insurance premiums accruing to foreign providers.

The market for flat glass in Japan has been dominated by three big domestic producers with separate, tightly linked distribution arrangements. While a survey by Japan's FTC in 1993 found no violations of the Anti-Monopoly Act, the report suggested that manufacturers take actions to improve market transparency. Subsequently, the Ministry of International Trade and Industry requested the elimination of certain rebate practices that may have made it harder for foreign suppliers to compete. The agreement with the United States sought to increase the access of foreign firms to the domestic market with measures aimed at both producers and distributors. Under the terms of the agreement, the three big producers issued public statements that distributors were free to handle flat glass

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made by any producer, foreign or domestic, that no special rebates would be granted to distributors for exclusive distribution of manufacturer's products, and traditional distributors would not be cut off by suppliers for handling competitors' products. Similarly, under the agreement, primary wholesalers committed publicly to expanding their sources of supply to include the products of foreign manufacturers. Progress on increased foreign access to the domestic glass market was to be evaluated by monitoring the sales and market share of imported flat, insulated, and safety glass, and the number of distributors wholesaling foreign products.

Automobiles and parts have long been a source of friction in bilateral trade relations between the United States and Japan. The United States, arguing that exclusionary practices in Japan discriminate against imports and limit the sales of foreign automobiles and parts in Japan, has sought three goals in negotiations: increased access of foreign cars to Japan's domestic market; increased opportunities for the purchases of foreign automobile parts by Japanese manufacturers; and the revision of rules governing automobile maintenance and repairs in Japan that it views as barriers to the use of foreign replacement parts. The Japanese Government, on the other hand, has maintained that, though there may earlier have been exclusionary practices in the distribution of automobiles in Japan, changes in regulations--partly as a result of earlier bilateral agreements--had corrected these problems. It has pointed to the results of an enquiry by Japan's FTC in 1993, which found no violations of the Anti-Monopoly Act in the industry. The FTC concluded that, while there were close economic relationships between car manufacturers and distributors, these relationships were longstanding, and the result of voluntary choices.

Regarding the regulatory framework, the United States contends that the automobile safety inspection system in Japan is too stringent, while the Japanese maintain that their safety standards have led to a lower automobile accident rate than in the United States. The United States has argued that the existing inspection system for replacement parts, by requiring official re-inspection when key parts such as engines and brakes were repaired or replaced, unless the repairs were done at an officially licensed "automobile maintenance factory," (in which case they were exempt), discriminated against the use of imported replacement parts.

A prime source of disagreement in the negotiations on the automobile sector has been how progress on increased foreign access to the sector should be evaluated. The United States proposed the use of several criteria including: the number of franchise agreements between foreign auto makers and Japanese dealers; the number of foreign vehicles sold; measures by Japanese auto makers to assist in the establishment of distribution arrangements for foreign manufacturers; the annual growth rate in purchases by Japanese manufacturers of parts made in the United States; and the number of foreign-designed parts in Japanese automobiles produced in Japan. Japanese negotiators balked at these proposals, countering that the U.S. position amounted to seeking numerical targets, was tantamount to managed trade, and that it was unreasonable to expect the Japanese Government to

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produce results in a sector where government participation was largely absent. The Japanese proposed an alternative set of indicators to monitor progress including: the number of dealerships selling foreign automobiles; the number of auto imports; the value of auto parts purchased by Japan's transplant auto makers from the United States; the price competitiveness of parts imported from the United States; and the number of Japanese-speaking sales staff at U.S. auto parts dealers.

While the Framework Agreement is limited to matters within the scope and responsibility of the two governments, there have been actions in the disputed areas through private sector agreements. In particular, in January 1992, Japan's automobile industry set "voluntary" targets to expand purchases of foreign auto parts and materials for their plants at home and abroad during fiscal years 1993 and 1994. 1/ The plan expired at the end of March 1995 and, negotiations in April were reported to be bogged down by U.S. insistence on a new plan. On May 16th the United States announced the imposition of a 100 percent tariff on imports of 13 models of Japanese luxury cars if no agreement was reached by June 28. The following day Japan filed a complaint with the WTO stating that unilateral sanctions violated the WTO treaty, ignored bilateral agreements that set the tariff rates on cars, violated the MFN principle, and the announcement of sanctions had already harmed Japanese business interests. The complaint set in motion a dispute settlement mechanism, the first step in which is bilateral discussions that continued up to the U.S. deadline of June 28.

In the event, an agreement was reached. While details of the official accord have not, as yet, been released, reports suggest that the agreement includes: the extension of "voluntary" parts purchases by Japanese manufacturers from U.S. suppliers; measures to encourage the sale of U.S. cars at Japanese dealerships; measures to increase the use of foreign parts at repair shops in Japan; measures to increase the number of repair shops; and the expansion of production at Japanese plants in the United States.

As part of the Framework negotiations, in January 1995 agreement was reached on an accord providing greater foreign access to Japan's financial services market. The agreement covered several areas. First, it opened large parts of the ¥100 trillion Japanese public and private pension market to participation by foreign fund managers. It immediately increased access to certain public and private pension schemes, increasing the total market accessible to foreign fund managers from ¥25 trillion to ¥60 trillion. After a period of time (still unspecified) this is to be increased by another ¥20 trillion, leaving a ¥20 trillion portion reserved for management by Japanese entities. Under the agreement, pension fund managers would be required under new accounting rules to use market values in disclosing assets and liabilities, making their performance more transparent and more readily subject to independent evaluation. Second, the agreement sought to

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1/ Similarly, a cellular telephone agreement was reached involving the U.S. firm Motorola and Japan's IDO during 1994.

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increase opportunities for foreign financial firms in the ¥50 trillion Japanese corporate securities market for underwriting, where no foreign firm had so far lead-managed an offering. Third, the process of identifying what instruments constitute securities was clarified. Fourth, the Japanese mutual fund market was to be deregulated to reduce entry and operating costs, permit greater flexibility on instruments offered, including foreign funds, and improve disclosure procedures. Fifth, the agreement increased procedural protection for foreign financial institutions operating in Japan. Sixth, the current system, which effectively forced Japanese corporations and financial institutions to channel management of their offshore assets to Japanese banks and securities companies by limiting the amount that Japanese non-financial bodies could hold in the form of foreign currency assets to ¥100 million, would be ended. Finally, the agreement was to end the "lock up" period, under which Japanese residents were unable to trade offshore-issued Euro-yen securities for at least 90 days after issue. The effect of this rule had been to control the issue of yen securities outside Japan and thereby limit international use of the yen. In future, residents and non-residents were to be able to obtain effective "shelf-registration" for Euro-yen issues, subject only to prior notification.

To gauge progress in market-opening, the financial services agreement included various measures to be monitored: the transparency and availability of standards and measures in Japan; the speed of review of applications and notifications; the amount of new corporate issues underwritten by foreign firms; the diversification of securities products issued; the monitoring of Euro-yen issues; the share and value of total pension fund management mandates awarded to foreign and Japanese entities.

In May Japan refused to grant approval of additional new routes for U.S. air-cargo carriers through Japan to other Asian destinations. The U.S. government has argued that under the existing bilateral aviation treaty, the approval of new routes should be automatic. The Government of Japan has argued that the aviation accord, signed in 1952, before Japan had its own international airlines, was biased in favor of U.S. carriers, and needed to be renegotiated. Both sides have threatened sanctions.

c. Bilateral trade issues with the European Union

There are a number of trade issues between Japan and the European Union (EU). The main Japanese concern involves protectionist pressures and discriminatory standards in the EU. Several EU members still maintain quantitative import restrictions against Japan; these are expected to be eliminated under the Single Market Program. On automobiles, there is an arrangement to monitor Japan's automobile exports to the EU market (both for overall exports and for exports to individual member countries). In recent years, the overall monitoring target was reduced gradually on the grounds of

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depressed markets in Europe. It appears to have troughed, and is now increasing gradually. For 1994, Japanese automobile exports to the EU were limited to 984,000 units. For 1995 the level has been set at 1,105,000 units including, however, exports to Austria, Sweden and Finland, which acceded to the EU during the year. The monitoring agreement is to expire in 1999.

For their part, EU members have been concerned about possible discrimination against them resulting from U.S.-Japan bilateral discussions--Japan has emphasized that all benefits under the Framework Agreement will be provided on an MFN basis. In response to an EU initiative, a trade statistics expert group was established in January 1993. Under this mechanism, experts from both sides have engaged in a product-by-product analysis to compare how EU exports were performing in the Japanese market, and vice versa. So far, some 30 products exported from the EU, and 30 exported from Japan, have been taken up for analysis.

The EU has alleged recently that the system of Japanese alcohol taxes resulted in effective discrimination against imports. Bilateral discussions are scheduled.

2. Structural policies

Structural reform has been a high priority of the Japanese Government in recent years. Major policy initiatives in the early 1990s included: an overhaul of land taxes in 1991; reforms in the distribution system in 1990-91; and further measures to liberalize financial markets. 1/ More recently, structural reform plans have emphasized the promotion of broadbased deregulation and market opening, with a view to improving market access, reducing price differentials from those abroad, and raising consumer welfare.

The basic policy intentions for deregulation and structural reform in recent years were developed by two advisory groups. The recommendations of the first group, the Maekawa report, issued in 1986, were ambitious and wideranging. Many of these recommendations did not materialize, however, in part because mechanisms were lacking to ensure that measures were implemented in a timely manner. The latest reform efforts are based on the work of the Advisory Group for Economic Structural Reform, set up in September 1993. While the bulk of the group's recommendations, issued in December 1993 as the Hiraiwa report, were devoted to structural reform, they covered a wide range of other issues, including the creation of a domestic demand-led economy, making the economy more outward oriented, reforming the fiscal structure, and activating money and capital markets.

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1/ A discussion of structural reform up to 1991 is presented in Section VIII of "Japan--The Recent Past and Longer-Term Prospects" (SM/91/135, 7/3/91).

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With the basic policy intent having been announced in the Maekawa and Hiraiwa reports, the formulation and implementation of specific deregulation measures has been through a series of announced packages of measures. In 1993, the Hosokawa government endorsed a 102-item program. In February 1994, the Hata government announced a package of 800 measures. In June 1994, the Murayama government announced a 280-item package. Finally, on March 31, 1995 the Government unveiled the five-year Deregulation Action Program (DAP) covering 1,091 items. Subsequently, as part of a package of emergency measures announced on April 15 in response to the rapid appreciation of the yen, the Government promised to speed up the implementation of the DAP to three years. The measures announced in the various packages have sometimes overlapped, and differed widely in scope. While some items have been very specific, others have been designated as items for further review.

Major deregulation measures adopted during 1994 spanned various areas. In the distribution sector, rules on hours of operation of large retail stores were eased as mandatory closing times were extended from 7:00 to 8:00 p.m., and large stores (over 10,000 square meters) were permitted to acquire liquor licenses. In the telecommunications sector, sales of cellular phones, which were previously only allowed to be leased, were permitted, and international satellite communications were opened to foreign firms. In the transportation sector, trucking and domestic air fares were deregulated. In the construction sector, foreign inspection data on imported construction materials were to be accepted; in the energy sector, gas charges to large-lot users were deregulated. In the financial sector, interest rates on demand deposits were liberalized and commercial banks were allowed to participate in the securities business through subsidiaries.

Highlights of the DAP announced on April 1, 1995 include: the abolition of the oil products import control law; the planned alignment of the system of standards, certification, and labelling with international norms; simplification and computerization of import inspection procedures that would allow imports to clear customs faster; and the use of containers used on ships were permitted to be used on trucks. A large number of items in the DAP have been listed as items for review: rules on market entry in various sectors; further liberalization of the Large-Scale Retail Store Law; business cartels that are allowed to operate as exceptions to the Anti-Monopoly Act with a view to their abolition; and the ban on holding companies. To enhance competition policy, measures to strengthen the FTC are also to be reviewed.

Progress on deregulation is to be reviewed annually through a government White Paper. An Administrative Reform Committee, consisting of businessmen, academics and other non-governmental representatives was established with the mandate of monitoring progress in the deregulation process and making recommendations directly to the Prime Minister.

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## VII. Recent Developments in the Banking Sector

The Japanese banking system suffered an unprecedented deterioration in asset quality starting with the bursting of the bubble in equity prices in 1990, and exacerbated by the prolonged recession. Estimates of the value of problem loans have varied widely. Most recently, the Ministry of Finance (MOF) announced an official estimate of nonperforming loans held by financial institutions amounting to around ¥40 trillion in June 1995. 1/ Private estimates, in contrast, are in the range of ¥55-80 trillion. Despite banks' efforts to improve their balance sheets, progress has been slow: the weak and erratic recovery, continuing asset price deflation and lack of liquidity in the real estate market--which has impeded the disposal of collateral associated with the nonperforming loans--have been obstacles to resolving the problems. The seriousness of the difficulties was once again highlighted in early 1995, amid the sharp decline in asset prices and the public outcry over the recapitalization of two insolvent institutions, prompting renewed efforts to address the problem.

This chapter examines the scale of banks' problem loans, the steps adopted by the authorities to resolve the difficulties, and the progress made thus far. It also discusses the strategy announced in June 1995 aimed at accelerating the resolution of nonperforming loans in the financial sector.

### 1. Problem loans and capital adequacy at the 21 major banks

Official data on problem loans has, until recently, been restricted to the narrow definition of nonperforming assets. 2/ Indeed, the MOF only released an estimate of "restructured" loans at the 21 major banks in early 1995. 3/ Overall, the MOF estimated total problem loans at the 21 major banks to be around ¥22 1/2 trillion at end-March 1995, including disclosed nonperforming loans of ¥12 1/2 trillion and restructured loans of about

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1/ While relatively complete data are available on the asset quality of the 21 major banks, which account for around 55 percent of total financial sector loans, information for the remaining financial institutions is very limited. It appears that estimates of problem loans for the entire financial system are based largely on an extrapolation of figures for the 21 major banks.

2/ The official definition of nonperforming loans includes loans to borrowers which have legally been declared bankrupt and loans on which interest has not been paid for 180 days.

3/ Restructured loans include loans on which interest has been reduced (often to zero), loans on which interest is paid infrequently, and loans on which payment has been due for less than 180 days. Also included are those loans which are performing only because banks have made new loans to cover past due interest. As restructured loans are not considered to be nonperforming, banks have been unable to make tax-deductible provisions against possible loan losses.

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¥10 trillion. 1/ Private estimates are considerably higher, placing total problem loans at the 21 major banks in the range of ¥30-35 trillion at end-March 1995. This estimate covers disclosed nonperforming loans; restructured loans, mainly to non-banks and real estate companies (including those to the troubled housing loan companies (Jusen)); and loans sold to the Cooperative Credit Purchasing Company (CCPC) and to "special purpose companies" (SPCs). 2/3/

The 21 major banks have met BIS capital adequacy guidelines of 8 percent since they became effective in March 1993. 4/ The banks' average risk weighted capital ratio increased during the early 1990s, from 8.3 percent in FY 1991 to 9.7 percent in FY 1993, bolstered by the appreciation of the yen and the recovery of stock prices; banks also issued subordinated debt and reduced their foreign assets to strengthen their capital ratios. The capital ratio fell to 8.9 percent in FY 1994. This decline was mainly attributable to the fall in Tier 2 capital, reflecting a reduction in "hidden" reserves--to ¥4.1 trillion in FY 1994 from

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1/ Narrowly-defined nonperforming loans declined to ¥12.5 trillion at end-March 1995 from ¥13.6 trillion in FY 1993, after having increased between FY 1991 and FY 1993. Despite large write-offs during the year, recession-related corporate bankruptcies continued to increase.

2/ The 21 major banks have a large exposure to Jusen, which, in the second half of the 1980s, expanded their lending to real estate companies with funds borrowed from city banks, agricultural cooperatives, and other financial institutions. A substantial portion of their loans--reportedly an average of around 60 percent--are nonperforming. Of the total, the 21 major banks have an exposure of around ¥5 trillion. Although these loans are collateralized, the Jusen often rank low among the mortgage holders. Thus, with little or negative net worth, losses are likely to equal the value of their problem loans.

3/ The CCPC (discussed below) is an asset liquidation company established by banks to take over their nonperforming loans at a discount and enabling them to take tax-deductible write-offs on the losses. The treatment of loans to the CCPC differs among private analysts: some consider the aggregate value of the loan sold to the CCPC to be nonperforming and the loss on the sale to be equivalent to a loan-loss reserve, while others consider the value of loans paid by the CCPC to be nonperforming. The two treatments amount to the same in terms of unreserved potential losses. The SPC scheme (discussed below) was introduced in 1994 to facilitate banks' writing down their rescheduled loans to nonbanks.

4/ The capital adequacy ratio = (Tier 1 capital + Tier 2 capital - Deductions)/(Risk weighted on-balance-sheet assets + off-balance-sheet risk). Tier 1 capital consists of shareholders' funds and minority interests in subsidiaries; proposed distributions are deducted. Tier 2 capital consists of general loan loss reserves, subordinated debt and 45 percent of "hidden" reserves.

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¥8.6 trillion in FY 1993--following the sharp decline in equity prices. 1/ To supplement Tier 2 capital, the banks raised subordinated debt by close to ¥1 trillion.

2. The strategy for resolving problem loans

Efforts to resolve problem loans in the banking sector have relied on banks' generating sufficient operating profits to write off nonperforming loans. To boost loan-loss provisions, banks have realized capital gains on their "hidden reserves"--unrealized profits on investment securities. In recent years, the authorities have tried to expedite financial rehabilitation by permitting banks to take tax-deductible write-offs by selling their nonperforming loans to financial institutions set up specifically for this purpose. Despite the introduction of these facilities, the pace of write-offs remained constrained by MOF guidelines that effectively precluded banks from realizing a net loss for any given year. In this respect, 1994 marked a departure from this constraint, with the authorities' endorsement of Sumitomo Bank's decision to declare a net loss, presumably signalling the acceptability of this practice for other banks. Yet, at the end of FY 1994, the banks still had a significant stock of nonperforming loans on their books.

Following the sharp decline in equity prices in the first half of 1995, the authorities announced a plan in June 1995 to address the banking sector's difficulties within five years. While the announcement, for the most part, restated the current strategy for resolving problems, it represents a welcome recognition of the difficulties in the financial system. The plan (elaborated below) also contained some new ideas but did not propose concrete measures to put them into action.

a. Net business profits of the 21 major banks, loan loss and hidden reserves

The 21 major banks' net business profits (or "core" earnings), from which loan-loss provisions and write-offs are made, declined by 2 percent relative to March 1994 to ¥2.7 trillion, the second consecutive year of decline (Table 16). Among the three groups of major banks, the profitability of both the city banks and long-term credit banks deteriorated by around 7 percent, while the net business profits of the trust banks increased by around 19 percent. Changes in net interest revenues were the main reason for the differences in the behavior of core earnings among the 21 major banks. After peaking in FY 1992, city banks' net interest revenue has declined, as narrowing spreads between lending and deposit rates since mid-1993 have more than offset the reduced burden of funding nonperforming and restructured loans. Net interest income of the long-term credit banks has fallen by 24 percent, reflecting the peak in their burden of high cost

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1/ See Annex V for a discussion of the impact of equity price declines and the appreciation of the yen on the banks' capital ratios.

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Table 16. Japan: Indicators of Banking Performance, 1992-95

(In billions of yen, except where indicated)

| | March 1992 | March 1993 | March 1994 | March 1995 |
|---|---|---|---|---|
| 21 Major banks | | | | |
| Nonperforming loans | 7,900.0 | 12,774.6 | 13,575.9 | 12,547.3 |
| Specific loan loss reserves | 1,044.2 | 1,866.0 | 3,022.4 | 4,297.5 |
| Hidden reserves | 16,754.9 | 17,430.0 | 20,325.6 | 8,640.1 |
| Total loans | 397,464.5 | 390,761.4 | 387,916.1 | 351,942.1 |
| Risk-weighted capital ratio (in percent) | 8.27 | 9.32 | 9.71 | 8.93 |
| Net business profits | 2,432.3 | 3,223.5 | 3,155.6 | 2,768.1 |
| Adjusted net business profits 1/ | 2,610.3 | 3,092.0 | 2,724.9 | 2,662.0 |
| Of which: Net interest income | 5,213.1 | 5,909.3 | 5,580.6 | 5,515.7 |
| Net gains/losses on securities | ... | 27.0 | 1,800.9 | 3,067.8 |
| Loan loss provisions and write-offs 2/ | 550.3 | 1,321.4 | 3,538.7 | 4,815.7 |
| Net income | 940.9 | 506.0 | 447.8 | 120.5 |
| City banks | | | | |
| Nonperforming loans | 5,214.0 | 8,454.9 | 8,947.3 | 8,114.6 |
| Specific loan loss reserves | 835.9 | 1,459.0 | 2,102.1 | 2,956.1 |
| Hidden reserves | 10,575.5 | 10,845.4 | 13,024.9 | 5,464.5 |
| Total loans | 274,757.6 | 269,616.0 | 271,142.0 | 266,564.4 |
| Risk-weighted capital ratio (in percent) | 8.19 | 9.26 | 9.68 | 8.88 |
| Net business profits | 1,922.7 | 2,516.8 | 2,382.3 | 2,038.9 |
| Adjusted net business profits 1/ | 2,167.9 | 2,512.4 | 2,179.7 | 3,026.8 |
| Of which: Net interest income | 4,145.8 | 4,658.3 | 4,439.6 | 4,304.1 |
| Net gains/losses on securities | ... | -109.1 | 1,068.7 | 1,962.7 |
| Loan loss provisions and write-offs 2/ | 437.3 | 1,011.6 | 2,490.0 | 3,319.3 |
| Net income | 647.4 | 367.7 | 318.3 | (69.9) |
| Long-term credit banks | | | | |
| Nonperforming loans | 1,106.0 | 1,850.2 | 1,887.5 | 1,915.3 |
| Specific loan loss reserves | 123.1 | 231.0 | 493.4 | 716.1 |
| Hidden reserves | 3,350.5 | 3,643.7 | 3,908.6 | 1,899.1 |
| Total loans | 56,374.9 | 54,548.8 | 53,169.0 | 51,565.5 |
| Risk-weighted capital ratio (in percent) | 8.31 | 8.98 | 9.25 | 8.77 |
| Net business profits | 292.6 | 401.1 | 367.6 | 268.0 |
| Adjusted net business profits 1/ | 270.9 | 336.5 | 175.6 | 169.9 |
| Of which: Net interest income | 470.7 | 526.3 | 341.2 | 259.5 |
| Net gains/losses on securities | ... | -66.3 | 413.4 | 642.0 |
| Loan loss provisions and write-offs 2/ | 49.0 | 197.3 | 546.9 | 592.5 |
| Net income | 161.5 | 70.4 | 68.1 | 58.9 |
| Trust banks | | | | |
| Nonperforming loans | 1580.0 | 2,469.5 | 2,711.6 | 2,499.4 |
| Reserves for possible loan losses | 307.2 | 398.4 | 601.7 | |
| Specific loan loss reserves | 85.2 | 175.0 | 426.9 | 625.3 |
| Hidden reserves | 2,828.9 | 2,940.6 | 3,392.4 | 1,278.9 |
| Total loans | 66,332.0 | 66,596.6 | 63,605.1 | 63,879.3 |
| Risk-weighted capital ratio (in percent) | 8.66 | 10.01 | 10.47 | 9.39 |
| Net business profits | 217.6 | 305.6 | 405.7 | 411.2 |
| Adjusted net business profits 1/ | 171.5 | 243.0 | 369.6 | 177.3 |
| Of which: Net interest income | 596.6 | 724.7 | 799.8 | 952.1 |
| Net gains/losses on securities | ... | 69.8 | 318.8 | 463.0 |
| Loan loss provisions and write-offs 2/ | 64.0 | 112.5 | 501.8 | 903.9 |
| Net income | 132.0 | 67.8 | 61.4 | 109.5 |
| Memorandum item: | | | | |
| Nikkei 225 index | 19,346 | 18,591 | 19,112 | 16,139 |

Sources: Bloomberg; IBCA; Ministry of Finance; and IMF staff estimates.

1/ Adjusted to exclude investment bond profits and losses.
2/ Specific provisions and write-offs against non-developing country loans plus losses on loans sold to the Cooperative Credit Purchasing Company (CCPC).

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funding after having issued 5-year debentures bearing compound interest of 8 percent in late 1990. In contrast, trust banks' net interest income has increased by some 19 percent. Among the components of noninterest revenues, fees and commissions and profits on foreign exchange transactions rose modestly, while revenues from bond dealings fell sharply.

Another source of revenue--and means of increasing loan-loss provisions and write-offs above the level of core earnings--has been by the realization of profits on "hidden" reserves. 1/ In FY 1994, net realized capital gains jumped to a record high of ¥3.1 trillion, a 70 percent increase over the previous year. Most of the stocks sold by the banks were subsequently repurchased after realizing capital gains--it is estimated that only around 4 percent were sold outright--thereby raising the book value of the banks' equity investments and increasing their stock market exposure. 2/ At the same time, banks sustained large valuation losses--a charge in their income statements--amounting to almost ¥1 trillion, or over 30 percent of their operating profit, as a result of the sharp decline in stock prices in early 1995.

"Core" profits and the realization of capital gains on investment securities together totalled ¥5.7 trillion in FY 1994. This enabled the 21 major banks to substantially increase their provisions and charge-offs. 3/ In FY 1994, loan-loss provisions, losses on loan sales to the CCPC and SPC and direct charge-offs against profits increased to a record high of ¥5.2 trillion, compared to ¥3.7 trillion in FY 1993. 4/ As a result, net income--defined as net business profits adjusted for capital gains on securities, loan-loss provisions, losses on loans sales to the CCPC and SPC, and other specific items--was negative, at -¥0.1 trillion; this loss was mainly attributable to the large net loss declared by Sumitomo Bank.

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1/ Banks value listed securities at the lower of cost and market value, while unlisted securities are valued at cost. As cost is well below market value for most equity holdings, the banks have "hidden" reserves.

2/ If banks realize capital gains on their securities holdings and subsequently repurchase them at a higher price, their reported income becomes more dependent on stock market variations as they would suffer valuation losses if the market falls below cost.

3/ Banks provision against potential losses by setting aside general reserves and specific reserves. See Japan--Recent Economic Developments (SM/94/185).

4/ This includes general provisions of ¥0.02 trillion; provisions against LDC loans of ¥0.3 trillion; specific provision of ¥1.6 trillion; losses on sales of loans to the CCPC and SPC of ¥2.5 trillion; and direct charge-offs against profits and losses of ¥0.8 trillion.

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b. Tax-deductible write-offs through the sale of loans

Banks have been permitted to make tax-deductible loan-loss provisions against specific domestic loans, although the requirements for tax deductions have been rather stringent. 1/ They have also been allowed to take tax-deductible write-offs on the difference between the book value and market value of their loans. However, as problem loans have been largely secured by real estate, the market for which has been illiquid, banks have been unable to write off problem loans. Thus, to facilitate the disposal of problem loans, two financial institutions, the Cooperative Credit Purchasing Company (CCPC) and "special purpose companies" (SPCs) were established.

In February 1993, the 21 major banks, together with many regional banks, insurance companies and credit cooperatives, set up the CCPC. It provides an avenue though which banks can realize losses on their nonperforming loans that are collateralized by real estate and are eligible for tax-deductibility. The price of the loans sold to the CCPC is determined by a committee based on an assessment of the market value of the collateral. The purchase is financed by a credit issued by the selling bank; interest and principal payments on these loans accrue from the time of purchase, although payment of both is only made when the collateral is sold. Each bank remains responsible for the losses incurred by the CCPC on the sale of the collateral associated with its loan. As such, the selling bank retains a (off-balance-sheet) contingent liability until its collateral is sold by the CCPC.

While the CCPC has played an important role in facilitating the write-down of problem loans, it has not been successful in liquidating the collateral associated with them. 2/ Indeed, as of end-March 1995, ¥8.6 trillion in loans had been sold to the CCPC by all financial institutions at an average discount of 55 percent, although the CCPC had sold only ¥0.2 trillion (or 2 percent) of the total collateral at an average discount of 15 percent (Table 17). As such, the banks had contingent liabilities of ¥3.7 trillion arising from possible losses on their loans to the CCPC. For FY 1994, a record high of ¥4 trillion was sold to the CCPC at a total discount from book value of ¥2.4 trillion.

The SPC scheme was introduced to provide banks with a way of writing down the value of rescheduled loans to nonbanks by selling them at a

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1/ Either the borrower must have initiated bankruptcy procedures or have been in "excess liabilities" (i.e., insolvent) for more than a year (until September 1992, the regulation stipulated a period of more than two years).

2/ City banks, in particular, have relied so heavily on the CCPC as a means of marking down the value of their loan portfolios that it was necessary for the MOF to grant an exception to a clause in the banking law that restricts loans to a single borrower from exceeding 20 percent of capital.

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Table 17. Japan: Business Results of Cooperative Credit Purchasing Company (CCPC), 1992-95

| | Number of transactions | Face Value | Price | Discount (in percent) | Value of recoveries |
|---|---|---|---|---|---|
| FY 1992 | 229 | 681.7 | 452.1 | 33.7 | -- |
| FY 1993 | 1,891 | 3,838.3 | 1,778.9 | 53.6 | 30.2 |
| FY 1994 | 3,077 | 4,038.0 | 1,591.0 | 60.6 | 141.5 |
| 1994 | | | | | |
| April | 24 | 65.1 | 22.9 | 64.8 | 7.4 |
| May | 12 | 15.5 | 4.5 | 80.0 | 10.9 |
| June | 33 | 71.2 | 25.1 | 64.7 | 4.4 |
| July | 138 | 147.1 | 52.1 | 64.6 | 5.9 |
| August | 280 | 299.9 | 121.9 | 59.4 | 11.7 |
| September | 1,123 | 1,394.0 | 609.0 | 56.3 | 22.0 |
| October | 85 | 183.9 | 77.3 | 58.0 | 10.2 |
| November | 34 | 51.0 | 17.0 | 66.7 | 14.2 |
| December | 81 | 126.0 | 48.0 | 62.0 | 22.6 |
| 1995 | | | | | |
| January | 94 | 131.3 | 42.3 | 67.8 | 7.2 |
| February | 240 | 328.3 | 113.1 | 65.6 | 12.3 |
| March | 933 | 1,224.7 | 457.8 | 62.6 | 12.7 |
| Total | 5,197 | 8,558 | 3,822 | 55.3 | 171.7 |

Source: Data provided by the Japanese authorities.

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discount to an SPC. In return, the selling bank receives an equity stake in the SPC worth the discounted price of the loan. The selling bank improves its asset quality by writing off the problem loan, receives an immediate tax write-off, but remains responsible for the original loan if it or the underlying collateral cannot be sold. The SPC scheme has not been used extensively, as it limits the loss to around 25 percent of the principal of the loan. Thusfar, only one SPC scheme has been established which acquired the loans to the nonbank affiliates of Hyogo Bank.

c. Reporting negative net income

Sumitomo Bank took an unprecedented step for a major Japanese bank by announcing a net loss of ¥335 billion in FY 1994. The action involved making large loan-loss provisions, while realizing only a small part of its "hidden" reserves and thus increasing its stock market exposure by only a limited extent. 1/ Sumitomo Bank's move represents a departure from the traditional approach of writing off questionable loans by making loan-loss provisions over a number of years and sustaining low profits. The authorities' endorsement of this action signifies a more aggressive approach to resolving the problems of the banking sector and possibly a change in the attitude that the Japanese banking sector should operate on a "convoy system," with the strongest banks being forced to move at the speed of the slowest. Three regional banks have subsequently liquidated their troubled nonbank affiliates, resulting in net losses.

There remain two restrictions on banks reporting a net loss: (1) that the capital adequacy ratio should be maintained above the minimum 8 percent, and (2) that banks should not report a net loss in two consecutive years.

## 3. The June 1995 package

The continued delay of economic recovery, further weakness in land prices, the sharp decline in the stock market since the beginning of 1995, and the difficulties in resolving the two failed credit cooperatives have created greater concern about the health of the banking sector. As a result, the authorities announced a package in June 1995 intended to address difficulties in the financial system.

The major elements of the package are as follows. First, the deposit insurance system is to be strengthened. Financial institutions will be required to contribute more to the Deposit Insurance Company (DIC), so that it will have sufficient reserves in five years to provide, if necessary, payments to depositors at failed institutions. Coverage may be extended to

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1/ The move has, however, had an adverse impact on Sumitomo Bank's risk-weighted capital adequacy ratio, and on its Tier 1 capital ratio. Reporting a net loss reduces Tier 1 capital, while realizing "hidden reserves" reduces Tier 2 capital; both impact on the capital-adequacy ratio.

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cover interest as well as principal. 1/ Second, the DIC may be used to provide loans or grants to failed financial institutions. However, as in the recent case of the two failed credit cooperatives, financial assistance will be given on condition that management be replaced, that shareholders bear some of the losses, that operations be rationalized, and that maximal support be provided by financial institutions with business ties to the failed institution. Third, the announcement reiterated the conditions under which the Bank of Japan will be permitted to provide emergency loans under Article 25 of the Bank of Japan Law. 2/ Fourth, the liquidation of real estate and other collateral will be encouraged. Fifth, disclosure of problem loans is to be improved. Starting in March 1996, the 21 major banks, Norinchukin Bank, the Shoko Chukin Bank and the Zenshinren Bank will be required for the first time to disclose their restructured loans, in addition to nonperforming loans. 3/ Regional banks, which currently report loans to borrowers that have been declared legally bankrupt, will also be expected to report loans on which interest has not been paid for 180 days starting in March 1996. Cooperative-type institutions are to improve their disclosure of asset quality, although the exact details are yet to be announced. Sixth, nonbank financial institutions, including the Jusen, are to review their current restructuring plans, while the future of credit associations, shinkin banks and credit cooperatives is to be examined. Seventh, mergers of financial institutions are to be promoted as a means of accelerating the resolution of ailing financial institutions. Finally, supervision of financial institutions is to be enhanced, with particular emphasis on improving the supervision of credit cooperatives.

The new elements in the package include the proposals that the resources of the DIC be expanded and that disclosure requirements be broadened. The announcement also appears to place greater attention on the need to address the problems of the Jusen.

A major impediment to a solution of the Jusen problem--and the reason the banks have not been permitted to write down or provision against loans to the Jusen--is that agricultural financial institutions would be seriously affected as a result. These institutions have lent approximately ¥5 1/5 trillion of the total of ¥13.9 trillion borrowed by the Jusen, and

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1/ The DIC had ¥820 billion in assets at end-FY 1994.

2/ Article 25 of the Bank of Japan Law (February 24, 1942) states: "The Bank of Japan may, with the permission of the competent Minister, undertake such businesses as are necessary for the maintenance and fostering of the credit system." The wording of the law appears to give the BOJ extensive freedom to implement policies to assure financial system stability. Whatever actions are taken, though, must be accounted for by the Minister of Finance to the Diet.

3/ At present, the 21 major banks report narrowly defined nonperforming loans. Banks are to have some flexibility in what they include in restructured loans, although all loans carrying interest rates below the official discount rate are supposed to be included.

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the losses inherent in these loans are too large for the agricultural institutions to absorb. The Jusen negotiated a ten-year plan for interest payment relief in 1993 to avoid default on interest payments to their creditors. However, to date, no scheme has been devised to reduce their stock of nonperforming assets. Discussions of the issue suggest that a solution to the problem will include the use of public money to rescue the agricultural institutions and/or the separation of performing loans from nonperforming Jusen loans in a "bad bank."

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Table 1. Japan: General Government Balances, FY 1986-FY 1993

| Fiscal Years | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| | | | | (In billions of yen) | | | | |
| Saving 1/ | 17,998 | 23,785 | 30,511 | 34,413 | 43,097 | 44,776 | 34,534 | 32,640 |
| Central government | -2,907 | 810 | 2,761 | 1,978 | 7,114 | 6,452 | -365 | 304 |
| Local government | 10,161 | 12,675 | 15,202 | 18,847 | 20,121 | 20,595 | 18,350 | 15,354 |
| Social security | 10,744 | 10,300 | 12,548 | 13,588 | 15,862 | 17,729 | 16,548 | 16,982 |
| Capital transfers 2/ | -37 | 442 | 377 | 432 | -1,225 | 266 | 148 | -344 |
| Central government | -4,364 | -4,001 | -3,444 | -3,440 | -4,855 | -3,403 | -4,878 | -8,115 |
| Local government | 4,982 | 5,051 | 4,138 | 4,211 | 4,011 | 4,174 | 5,491 | 8,270 |
| Social security | -655 | -607 | -316 | -339 | -381 | -505 | -465 | -500 |
| Gross fixed capital formation | 16,253 | 18,451 | 18,701 | 20,226 | 21,831 | 23,799 | 28,033 | 31,191 |
| Central government | 2,690 | 3,297 | 3,090 | 3,139 | 3,215 | 3,419 | 4,355 | 5,312 |
| Local government | 13,491 | 15,074 | 15,538 | 17,010 | 18,534 | 20,293 | 23,558 | 25,724 |
| Social security | 72 | 80 | 74 | 77 | 83 | 87 | 120 | 155 |
| Land acquisition | 2,780 | 3,382 | 3,973 | 3,918 | 4,713 | 5,322 | 6,077 | 6,320 |
| Central government | 279 | 342 | 416 | 274 | 446 | 458 | 459 | 545 |
| Local government | 2,485 | 3,024 | 3,540 | 3,624 | 4,249 | 4,838 | 5,579 | 5,718 |
| Social security | 16 | 16 | 17 | 20 | 18 | 26 | 39 | 57 |
| Balance | -1,071 | 2,394 | 8,214 | 10,702 | 15,329 | 15,920 | 571 | -5,215 |
| Central government | -10,240 | -6,830 | -4,189 | -4,875 | -1,401 | -828 | -10,057 | -13,668 |
| Local government | -832 | -373 | 261 | 2,423 | 1,349 | -363 | -5,295 | -7,818 |
| Social security | 10,002 | 9,596 | 12,141 | 13,154 | 15,381 | 17,111 | 15,923 | 16,271 |
| | | | | (In percent of GDP) | | | | |
| Saving | 5.3 | 6.7 | 8.1 | 8.6 | 10.0 | 9.8 | 7.4 | 7.0 |
| Central government | -0.9 | 0.2 | 0.7 | 0.5 | 1.6 | 1.4 | -0.1 | 0.1 |
| Local government | 3.0 | 3.6 | 4.0 | 4.7 | 4.7 | 4.5 | 4.0 | 3.3 |
| Social security | 3.2 | 2.9 | 3.3 | 3.4 | 3.7 | 3.9 | 3.6 | 3.6 |
| Capital transfers | -- | 0.1 | 0.1 | 0.1 | -0.3 | 0.1 | -- | -0.1 |
| Central government | -1.3 | -1.1 | -0.9 | -0.9 | -1.1 | -0.7 | -1.1 | -1.7 |
| Local government | 1.5 | 1.4 | 1.1 | 1.0 | 0.9 | 0.9 | 1.2 | 1.8 |
| Social security | -0.2 | -0.2 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| Gross fixed capital formation | 4.8 | 5.2 | 5.0 | 5.0 | 5.0 | 5.2 | 6.0 | 6.7 |
| Central government | 0.8 | 0.9 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 1.1 |
| Local government | 4.0 | 4.3 | 4.1 | 4.2 | 4.3 | 4.5 | 5.1 | 5.5 |
| Social security | -- | -- | -- | -- | -- | -- | -- | -- |
| Land acquisition | 0.8 | 1.0 | 1.1 | 1.0 | 1.1 | 1.2 | 1.3 | 1.4 |
| Central government | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Local government | 0.7 | 0.9 | 0.9 | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 |
| Social security | -- | -- | -- | -- | -- | -- | -- | -- |
| Balance | -0.3 | 0.7 | 2.2 | 2.7 | 3.5 | 3.5 | 0.1 | -1.1 |
| Central government | -3.0 | -1.9 | -1.1 | -1.2 | -0.3 | -0.2 | -2.2 | -2.9 |
| Local government | -0.2 | -0.1 | 0.1 | 0.6 | 0.3 | -0.1 | -1.1 | -1.7 |
| Social security | 3.0 | 2.7 | 3.2 | 3.3 | 3.6 | 3.8 | 3.4 | 3.5 |

Source: Economic Planning Agency, Annual Report on National Accounts, 1995.
1/ Gross saving (includes capital consumption allowance).
2/ Includes capital transfers within the general government and with entities outside the general government.



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Table 2. Japan: Public Sector Balances, FY 1986-FY 1993

| Fiscal Years | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| | | | | (In billions of yen) | | | | |
| Saving 1/ | 18,104 | 24,518 | 31,881 | 39,744 | 47,147 | 47,203 | 35,335 | 29,650 |
| General government | 17,962 | 24,227 | 30,888 | 34,846 | 41,873 | 45,042 | 34,681 | 32,296 |
| Public enterprises | 142 | 291 | 993 | 4,898 | 5,274 | 2,161 | 654 | -2,646 |
| Investment | 25,801 | 27,933 | 28,474 | 30,242 | 33,344 | 36,354 | 42,980 | 47,265 |
| General government | 19,032 | 21,833 | 22,674 | 24,144 | 26,544 | 29,122 | 34,111 | 37,511 |
| Gross fixed capital formation | 16,253 | 18,451 | 18,701 | 20,226 | 21,831 | 23,800 | 28,033 | 31,191 |
| Land acquisition | 2,780 | 3,382 | 3,973 | 3,918 | 4,713 | 5,322 | 6,077 | 6,320 |
| Public enterprises 2/ | 6,769 | 6,101 | 5,800 | 6,098 | 6,800 | 7,233 | 8,869 | 9,754 |
| Balance | -7,697 | -3,416 | 3,407 | 9,503 | 13,804 | 10,849 | -7,644 | -17,614 |
| General government | -1,071 | 2,394 | 8,214 | 10,702 | 15,329 | 15,921 | 571 | -5,215 |
| Public enterprises | -6,627 | -5,809 | -4,807 | -1,199 | -1,526 | -5,072 | -8,215 | -12,400 |
| | | | | (In percent of GDP) | | | | |
| Saving 1/ | 5.4 | 6.9 | 8.5 | 9.9 | 10.9 | 10.4 | 7.6 | 6.4 |
| General government | 5.3 | 6.8 | 8.2 | 8.7 | 9.7 | 9.9 | 7.5 | 6.9 |
| Public enterprises | -- | 0.1 | 0.3 | 1.2 | 1.2 | 0.5 | 0.1 | -0.6 |
| Investment | 7.6 | 7.9 | 7.6 | 7.5 | 7.7 | 8.0 | 9.3 | 10.1 |
| General government | 5.6 | 6.2 | 6.0 | 6.0 | 6.1 | 6.4 | 7.3 | 8.0 |
| Gross fixed capital formation | 4.8 | 5.2 | 5.0 | 5.0 | 5.0 | 5.2 | 6.0 | 6.7 |
| Land acquisition | 0.8 | 1.0 | 1.1 | 1.0 | 1.1 | 1.2 | 1.3 | 1.4 |
| Public enterprises 2/ | 2.0 | 1.7 | 1.5 | 1.5 | 1.6 | 1.6 | 1.9 | 2.1 |
| Balance | -2.3 | -1.0 | 0.9 | 2.4 | 3.2 | 2.4 | -1.6 | -3.8 |
| General government | -0.3 | 0.7 | 2.2 | 2.7 | 3.5 | 3.5 | 0.1 | -1.1 |
| Public enterprises | -2.0 | -1.6 | -1.3 | -0.3 | -0.4 | -1.1 | -1.8 | -2.7 |

Source: Economic Planning Agency, *Annual Report on National Accounts*, 1995.

1/ Includes capital consumption allowances and capital transfers (net) of the general government. For public enterprises, data on capital transfers are not available.
2/ Includes inventory accumulation. Data on land acquisition are not available.

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## Balance Sheet Positions and Spending Behavior

### 1. Introduction

Following a boom in asset prices in the latter half of the 1980s, asset price deflation has occurred over the past five years. This, in turn, has depressed spending by households and enterprises. This annex describes recent national and nonfinancial private sectoral balance sheet positions and their implications for spending behavior. 1/

### 2. Income and balance sheet developments

Balance sheet positions have changed substantially in recent years, as a result of a continuing period of asset price deflation. Equity values increased by 269 percent between 1985 and 1989, while land values increased by 119 percent between 1985 and their peak value in 1990. 2/ The asset price boom, by raising collateral values, allowed for sharp increases in financial liabilities, which, given the subsequent bursting of the asset price bubble, resulted in higher debt/net worth ratios for the nation and most institutional sectors.

Table 1 contains data on national disposable income and balance sheets through 1993, the latest date for which national income-based (SNA) income and balance sheet data is available. As can be seen, the growth of national disposable income slowed dramatically starting in 1992. The nation's operating surplus--the share of national income paid to capital-- actually fell in nominal terms over 1992-93. In contrast, consumption expenditures continued to grow in both nominal and real terms over this period, implying reductions in the nation's domestic saving rate. 3/

The collapse of the bubble in equity prices, starting in mid-1989, and for land prices from mid-1990, is reflected in a significant slowing in the growth of total national assets in 1991, and in an actual decline in 1992. Between 1990 and 1993, total land values declined by 22 percent, and the value of equities by 31 percent. National net wealth began declining in 1991, reflecting lower asset prices as well as an accumulation of total liabilities. Although the continued accumulation of net fixed assets and non-equity financial assets resulted in an increase in total assets in 1993, national net wealth again fell, with a cumulative decline since 1990 of

1/ Developments in the financial sector are discussed in Chapter VII of this paper.
2/ Kähkönen (1995) provides a detailed analysis of movements in asset prices from the mid-1980s through 1992.
3/ Private final consumption expenditures grew by 1.7 percent and 1.0 percent in real terms in 1992-93, respectively, while public consumption grew by 2.7 percent and 1.7 percent, respectively.

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Table 1. Japan: National Income and Balance Sheets, 1970-93

| | 1970 | 1975 | 1980 | 1985 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| | | | (In trillions of yen) | | | | | |
| National disposable income | 63.5 | 128.5 | 208.9 | 277.5 | 366.3 | 386.4 | 392.9 | 393.7 |
| Employee compensation | 31.9 | 81.6 | 130.4 | 173.9 | 233.4 | 251.7 | 261.8 | 267.0 |
| Operating surplus | 27.4 | 39.6 | 64.8 | 81.5 | 99.8 | 100.7 | 92.9 | 89.2 |
| Net indirect taxes | 4.4 | 7.5 | 14.1 | 21.2 | 30.6 | 31.1 | 34.0 | 33.7 |
| Indirect taxes | 5.2 | 9.7 | 17.7 | 24.9 | 35.2 | 35.0 | 37.3 | 37.2 |
| Subsidies | -0.8 | -2.2 | -3.6 | -3.6 | -4.6 | -3.9 | -3.3 | -3.5 |
| Net income from the rest of the world | -0.2 | -0.2 | -0.3 | 0.9 | 2.6 | 2.9 | 4.2 | 3.9 |
| Private final consumption expenditure | 38.3 | 84.8 | 141.3 | 188.8 | 243.6 | 255.1 | 264.8 | 270.9 |
| Government final consumption expenditure | 5.5 | 14.9 | 23.6 | 30.7 | 38.8 | 41.2 | 43.3 | 44.7 |
| Saving 1/ | 19.7 | 28.8 | 44.0 | 58.1 | 83.9 | 90.1 | 84.8 | 78.1 |
| | | | (Share of national disposable income) | | | | | |
| National disposable income | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Employee compensation | 50.2 | 63.5 | 62.4 | 62.7 | 63.7 | 65.1 | 66.6 | 67.8 |
| Operating surplus | 43.2 | 30.8 | 31.0 | 29.4 | 27.2 | 26.1 | 23.6 | 22.7 |
| Net indirect taxes | 6.9 | 5.9 | 6.7 | 7.7 | 8.3 | 8.1 | 8.6 | 8.6 |
| Indirect taxes | 8.2 | 7.6 | 8.5 | 9.0 | 9.6 | 9.1 | 9.5 | 9.4 |
| Subsidies | -1.3 | -1.7 | -1.7 | -1.3 | -1.3 | -1.0 | -0.8 | -0.9 |
| Net income from the rest of the world | -0.3 | -0.2 | -0.2 | 0.3 | 0.7 | 0.7 | 1.1 | 1.0 |
| Private final consumption expenditure | 60.4 | 66.0 | 67.6 | 68.0 | 66.5 | 66.0 | 67.4 | 68.8 |
| Government final consumption expenditure | 8.6 | 11.6 | 11.3 | 11.1 | 10.6 | 10.7 | 11.0 | 11.3 |
| Saving 1/ | 31.1 | 22.4 | 21.1 | 20.9 | 22.9 | 23.3 | 21.6 | 19.8 |
| | | | (Percent change) 2/ | | | | | |
| National disposable income | 17.6 | 15.1 | 10.2 | 5.8 | 5.7 | 5.5 | 1.7 | 0.2 |
| Employee compensation | 17.1 | 20.7 | 9.8 | 5.9 | 6.1 | 7.8 | 4.0 | 2.0 |
| Operating surplus | 18.6 | 7.6 | 10.3 | 4.7 | 4.1 | 0.9 | -7.8 | -4.0 |
| Net indirect taxes | 15.2 | 11.4 | 13.4 | 8.6 | 7.5 | 1.8 | 9.2 | -0.8 |
| Net income from the rest of the world | 15.8 | 1.8 | 9.1 | ... | 24.0 | 11.6 | 45.7 | -8.1 |
| Private final consumption expenditure | 14.8 | 17.2 | 10.8 | 6.0 | 5.2 | 4.7 | 3.8 | 2.3 |
| Government final consumption expenditure | 15.2 | 22.2 | 9.6 | 5.4 | 4.8 | 6.2 | 4.9 | 3.3 |
| Saving 1/ | 25.6 | 7.9 | 8.8 | 5.7 | 7.6 | 7.4 | -5.8 | -7.9 |
| | | | (In trillions of yen) | | | | | |
| Total assets | 590.6 | 1,438.7 | 2,642.5 | 3,935.9 | 7,153.2 | 7,184.2 | 6,926.6 | 6,981.3 |
| Stocks | 22.8 | 45.0 | 65.5 | 68.1 | 76.9 | 79.1 | 79.2 | 77.6 |
| Net fixed assets | 98.1 | 287.4 | 526.7 | 687.4 | 972.3 | 1,050.0 | 1,101.8 | 1,141.5 |
| Non-reproducible tangible assets | 173.9 | 405.0 | 745.0 | 1,048.9 | 2,442.6 | 2,253.5 | 2,025.3 | 1,913.0 |
| Financial assets | 295.8 | 701.4 | 1,305.4 | 2,131.5 | 3,661.4 | 3,801.7 | 3,720.3 | 3,849.2 |
| Corporate shares | 27.4 | 61.1 | 122.0 | 241.9 | 594.3 | 586.5 | 401.8 | 407.6 |
| Other financial assets | 268.4 | 640.3 | 1,183.4 | 1,889.7 | 3,067.1 | 3,215.2 | 3,318.5 | 3,441.5 |
| Total liabilities | 266.1 | 636.9 | 1,177.1 | 1,845.3 | 3,005.6 | 3,146.7 | 3,237.3 | 3,351.4 |
| Corporate shares | 28.0 | 62.3 | 125.4 | 253.3 | 606.6 | 603.3 | 416.2 | 425.7 |
| Net worth | 296.5 | 739.5 | 1,340.0 | 1,837.3 | 3,541.0 | 3,434.2 | 3,273.1 | 3,204.2 |
| | | | (Share of corporate shares plus net worth) | | | | | |
| Total assets | 182.0 | 179.4 | 180.3 | 188.3 | 172.5 | 177.9 | 187.7 | 192.3 |
| Stocks | 7.0 | 5.6 | 4.5 | 3.3 | 1.9 | 2.0 | 2.1 | 2.1 |
| Net fixed assets | 30.2 | 35.8 | 35.9 | 32.9 | 23.4 | 26.0 | 29.9 | 31.4 |
| Non-reproducible tangible assets | 53.6 | 50.5 | 50.8 | 50.2 | 58.9 | 55.8 | 54.9 | 52.7 |
| Financial assets | 91.2 | 87.5 | 89.1 | 102.0 | 88.3 | 94.2 | 100.8 | 106.0 |
| Corporate shares | 8.5 | 7.6 | 8.3 | 11.6 | 14.3 | 14.5 | 10.9 | 11.2 |
| Other financial assets | 82.7 | 79.9 | 80.8 | 90.4 | 73.9 | 79.6 | 89.9 | 94.8 |
| Total liabilities | 82.0 | 79.4 | 80.3 | 88.3 | 72.5 | 77.9 | 87.7 | 92.3 |
| Corporate shares | 8.6 | 7.8 | 8.6 | 12.1 | 14.6 | 14.9 | 11.3 | 11.7 |
| Net worth | 91.4 | 92.2 | 91.4 | 87.9 | 85.4 | 85.1 | 88.7 | 88.3 |
| | | | (Percent change) 2/ | | | | | |
| Total assets | 19.6 | 19.5 | 12.9 | 8.3 | 12.7 | 0.4 | -3.6 | 0.8 |
| Stocks | 15.4 | 14.5 | 7.8 | 0.8 | 2.5 | 2.8 | 0.2 | -2.0 |
| Net fixed assets | 19.6 | 24.0 | 12.9 | 5.5 | 7.2 | 8.0 | 4.9 | 3.6 |
| Non-reproducible tangible assets | 20.9 | 18.4 | 13.0 | 7.1 | 18.4 | -7.7 | -10.1 | -5.5 |
| Financial assets | 19.2 | 18.8 | 13.2 | 10.3 | 11.4 | 3.8 | -2.1 | 3.5 |
| Corporate shares | 30.5 | 17.4 | 14.8 | 14.7 | 19.7 | -1.3 | -31.5 | 1.5 |
| Other financial assets | 18.3 | 19.0 | 13.1 | 9.8 | 10.2 | 4.8 | 3.2 | 3.7 |
| Total liabilities | 17.9 | 19.1 | 13.1 | 9.4 | 10.2 | 4.7 | 2.9 | 3.5 |
| Corporate shares | 32.7 | 17.3 | 15.0 | 15.1 | 19.1 | -0.6 | -31.0 | 2.3 |
| New worth | 20.2 | 20.1 | 12.6 | 6.5 | 14.0 | -3.0 | -4.7 | -2.1 |
| Memorandum items: | | | (In percent) | | | | | |
| Tot. consump./corp. shares & net worth | 13.5 | 12.4 | 11.3 | 10.5 | 6.8 | 7.3 | 8.4 | 8.7 |
| National disposable income/GDP | 86.6 | 86.6 | 87.0 | 86.6 | 86.3 | 85.6 | 84.8 | 84.5 |
| Corp. shares & net worth/nat. disp. inc. | 511.0 | 624.0 | 701.4 | 753.3 | 1,132.2 | 1,045.0 | 939.0 | 921.9 |

1/ Net of depreciation.
2/ At average annual rates for five-year intervals.

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12 1/2 percent. National net wealth also fell sharply as a multiple of national disposable income, from a peak value of 12.0 in 1990 to 9.2 in 1993. Nevertheless, the latter figure remains significantly above the levels recorded prior to the asset bubble. 1/

Balance sheets for the nonfinancial private sector are presented in Tables 2 and 3. The growth of household disposable income has slowed significantly since 1991. 2/ This has reflected a decline in the growth of employee compensation, resulting from a sharp decline in hours worked as well as in lower bonus payments, declining net property incomes, and (in 1993) households' operating surplus. The latter has also deteriorated for nonfinancial enterprises.

While the net wealth positions of these sectors have declined since 1990, the reasons vary, depending upon changes in relative asset prices and the distribution of assets and liabilities. As seen in Chart 1, equity prices have been more volatile than land prices since the early 1980s. While some of the asset price inflation and deflation since 1985 can be explained by changes in "fundamentals," speculative forces also appear to have played an important role. 3/ Table 4 contains data on the distribution of national assets and liabilities across sectors. As can be seen, almost two-thirds of the nation's land assets are owned by households, with nonfinancial enterprises holding about 25 percent. Financial and nonfinancial enterprises each hold about 35 percent of corporate shares, with households holding the remainder. As a result, households and nonfinancial enterprises, which were more heavily invested in non-equity financial assets and land, saw their net wealth positions decline comparatively less than those of financial enterprises, which were much more heavily exposed to variations in equity prices. Household net wealth declined by 10.6 percent between its peak value in 1990 and 1993, while nonfinancial enterprises' net wealth declined by 23.6 percent from its peak in 1989.

The differential holding of various assets across sectors, and therefore exposure to varying asset price patterns, is also reflected in indicators of financial leverage, such as debt/net worth ratios and debt/asset ratios. As expected, these ratios have been more volatile for enterprises, and less so for households (Chart 2). The runup in equity values resulted in debt ratios that were at their lowest recorded levels in

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1/ The net wealth to disposable income ratio averaged 6.2 during the 1970s, and 7.3 over 1980-85.

2/ The year/year growth rate for the first quarter of 1994, the latest data available, was 0.9 percent, compared to an increase in the private consumption expenditure deflator of 0.8 percent.

3/ Based upon equations for equity and land prices estimated prior to the bubble period using variables reflecting "fundamental" determinants of asset prices, Kähkönen (1995) was able to explain only a small portion of asset price movements over 1986-92.

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Table 2. Japan: Households' Income and Balance Sheets, 1970-93

| | 1970 | 1975 | 1980 | 1985 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| | | | | (In trillions of yen) | | | | |
| Disposable income | 45.9 | 108.7 | 169.9 | 220.7 | 280.0 | 296.2 | 307.5 | 313.2 |
| Employee compensation | 31.9 | 81.7 | 130.4 | 173.8 | 233.5 | 251.8 | 261.0 | 267.2 |
| Operating surplus | 13.6 | 24.1 | 33.2 | 40.9 | 46.6 | 47.6 | 49.8 | 46.5 |
| Net property income | 3.4 | 8.9 | 15.5 | 19.3 | 24.9 | 27.6 | 25.6 | 25.1 |
| Net social security 1/ | 0.4 | 2.4 | 7.6 | 10.5 | 12.3 | 10.8 | 12.2 | 13.4 |
| Micellaneous net income | -0.4 | -0.9 | -1.8 | -2.6 | -4.0 | -4.0 | -4.2 | -4.1 |
| Direct taxes on households | -3.0 | -7.4 | -14.9 | -21.2 | -33.4 | -37.6 | -37.0 | -34.9 |
| Final consumption expenditure | 37.8 | 83.9 | 139.5 | 186.2 | 240.5 | 251.5 | 261.2 | 267.1 |
| Saving | 8.1 | 24.8 | 30.4 | 34.4 | 39.5 | 44.6 | 46.3 | 46.1 |
| | | | | (Share of disposable income) | | | | |
| Disposable income | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Employee compensation | 69.6 | 75.1 | 76.7 | 78.8 | 83.4 | 85.0 | 84.9 | 85.3 |
| Operating surplus | 29.7 | 22.1 | 19.5 | 18.5 | 16.7 | 16.1 | 16.2 | 14.9 |
| Net property income | 7.3 | 8.2 | 9.1 | 8.8 | 8.9 | 9.3 | 8.3 | 8.0 |
| Net social security 1/ | 0.9 | 2.2 | 4.5 | 4.7 | 4.4 | 3.7 | 4.0 | 4.3 |
| Micellaneous net income | -1.0 | -0.9 | -1.1 | -1.2 | -1.4 | -1.3 | -1.4 | -1.3 |
| Direct taxes on households | -6.6 | -6.8 | -8.8 | -9.6 | -11.9 | -12.7 | -12.0 | -11.1 |
| Final consumption expendture | 82.3 | 77.2 | 82.1 | 84.4 | 85.9 | 84.9 | 85.0 | 85.3 |
| Saving | 17.7 | 22.8 | 17.9 | 15.6 | 14.1 | 15.1 | 15.0 | 14.7 |
| | | | | (Percent change) 2/ | | | | |
| Disposable income | 15.5 | 18.8 | 9.3 | 5.4 | 4.9 | 5.8 | 3.8 | 1.9 |
| Employee compensation | 17.1 | 20.7 | 9.8 | 5.9 | 6.1 | 7.8 | 3.7 | 2.3 |
| Operating surplus | 12.4 | 12.0 | 6.6 | 4.3 | 2.7 | 2.0 | 4.8 | -6.6 |
| Net property income | 18.9 | 21.5 | 11.6 | 4.6 | 5.2 | 10.9 | -7.2 | -2.0 |
| Net social security 1/ | 3.6 | 40.7 | 26.1 | 6.6 | 3.2 | -11.6 | 12.8 | 9.8 |
| Micellaneous net income | 5.1 | 16.1 | 13.9 | 7.5 | 8.8 | 0.1 | -6.6 | 1.9 |
| Direct taxes on households | 19.5 | 19.6 | 15.0 | 7.4 | 9.4 | 12.9 | -1.6 | -5.9 |
| Final consumption expenditure | 15.0 | 17.3 | 10.7 | 5.9 | 5.2 | 4.6 | 3.8 | 2.3 |
| Saving | 18.2 | 25.0 | 4.2 | 2.5 | 2.8 | 13.0 | 3.7 | -0.4 |
| | | | | (In trillions of yen) | | | | |
| Total assets | 210.7 | 519.1 | 986.3 | 1,433.0 | 2,718.1 | 2,665.2 | 2,512.6 | 2,490.9 |
| Land assets | 114.8 | 266.1 | 493.6 | 693.5 | 1,531.5 | 1,413.1 | 1,265.7 | 1,199.1 |
| Financial assets | 72.2 | 175.2 | 341.3 | 559.1 | 949.6 | 1,003.8 | 993.1 | 1,032.4 |
| Corporate shares | 11.0 | 21.9 | 40.0 | 65.9 | 162.7 | 161.8 | 107.3 | 103.7 |
| Total liabilities | 27.6 | 67.7 | 130.4 | 195.8 | 325.1 | 341.1 | 340.3 | 351.2 |
| Net worth | 183.1 | 451.4 | 855.9 | 1,237.1 | 2,393.0 | 2,324.1 | 2,172.3 | 2,139.7 |
| | | | | (Share of net worth) | | | | |
| Total assets | 115.1 | 115.0 | 115.2 | 115.8 | 113.6 | 114.7 | 115.7 | 116.4 |
| Land assets | 62.7 | 59.0 | 57.7 | 56.1 | 64.0 | 60.8 | 58.3 | 56.0 |
| Financial assets | 39.4 | 38.8 | 39.9 | 45.2 | 39.7 | 43.2 | 45.7 | 48.2 |
| Corporate shares | 6.0 | 4.8 | 4.7 | 5.3 | 6.8 | 7.0 | 4.9 | 4.8 |
| Total liabilities | 15.1 | 15.0 | 15.2 | 15.8 | 13.6 | 14.7 | 15.7 | 16.4 |
| Net worth | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | | | | (Percent change) 2/ | | | | |
| Total assets | ... | 19.8 | 13.7 | 7.8 | 13.7 | -1.9 | -5.7 | -0.9 |
| Land assets | ... | 18.3 | 13.1 | 7.0 | 17.2 | -7.7 | -10.4 | -5.3 |
| Financial assets | ... | 19.4 | 14.3 | 10.4 | 11.2 | 5.7 | -1.1 | 4.0 |
| Corporate shares | ... | 14.7 | 12.8 | 10.5 | 19.8 | -0.6 | -33.7 | -3.4 |
| Total liabilities | ... | 19.7 | 14.0 | 8.5 | 10.7 | 4.9 | -0.2 | 3.2 |
| Net worth | | | | | | | | |
| Memorandum items: | | | | (In percent) | | | | |
| Private consumption/net worth | 20.6 | 18.6 | 16.3 | 15.1 | 10.0 | 10.8 | 12.0 | 12.5 |
| Disposable income/GDP | 62.6 | 73.3 | 70.8 | 68.9 | 65.9 | 65.6 | 66.4 | 67.2 |
| Gross interest payments/disposable inc. | 0.5 | 0.4 | 0.4 | 0.6 | 0.9 | 1.1 | 0.9 | 0.8 |
| Net worth/disposable income | 398.8 | 415.2 | 503.7 | 560.7 | 854.7 | 784.7 | 706.5 | 683.2 |
| Net property inc./net financial liab. | 7.5 | 8.3 | 7.3 | 5.3 | 4.0 | 4.2 | 3.9 | 3.7 |

1/ Includes social assistance grants.
2/ At average annual rates for five-year intervals.

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Table 3. Japan: Nonfinancial Incorporated Enterprises Income and Balance Sheets, 1970-93

| | 1970 | 1975 | 1980 | 1985 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| | | | (In trillions of yen) | | | | | |
| Operating surplus | 15.0 | 19.2 | 37.3 | 49.7 | 68.6 | 69.5 | 62.3 | 60.1 |
| Net property income | -6.4 | -15.9 | -22.2 | -25.1 | -35.1 | -39.9 | -36.8 | -33.1 |
| Micellaneous net income | -0.2 | -0.3 | -0.6 | -0.8 | -1.4 | -1.5 | -1.3 | -0.9 |
| Direct taxes | -2.5 | -5.3 | -9.2 | -13.7 | -20.6 | -20.6 | -18.0 | -15.8 |
| Saving (net profit) | 6.0 | -2.3 | 5.4 | 10.1 | 11.4 | 7.6 | 6.1 | 10.2 |
| | | | (Share of operating surplus) | | | | | |
| Operating surplus | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Net property income | -42.7 | -83.0 | -59.5 | -50.5 | -51.2 | -57.4 | -59.1 | -55.1 |
| Micellaneous net income | -1.0 | -1.4 | -1.5 | -1.7 | -2.1 | -2.1 | -2.1 | -1.6 |
| Direct taxes | -16.4 | -27.8 | -24.6 | -27.6 | -30.1 | -29.6 | -29.0 | -26.3 |
| Saving (net profit) | 39.9 | -12.2 | 14.4 | 20.3 | 16.6 | 10.9 | 9.7 | 17.0 |
| | | | (Percent change) 1/ | | | | | |
| Operating surplus | 25.9 | 4.9 | 14.3 | 5.9 | 6.6 | 1.3 | -10.4 | -3.5 |
| Net property income | 16.9 | 19.9 | 6.9 | 2.5 | 7.0 | -13.5 | 7.6 | 10.1 |
| Micellaneous net income | 4.1 | 11.6 | 15.4 | 8.1 | 11.6 | -3.5 | 10.5 | 29.0 |
| Direct taxes | 20.0 | 16.7 | 11.5 | 8.4 | 8.5 | 0.2 | 12.2 | 12.3 |
| Saving (net profit) | 54.0 | ... | ... | 13.5 | 2.4 | -33.4 | -20.0 | 68.4 |
| | | | (In trillions of yen) | | | | | |
| Total assets | 203.6 | 473.7 | 786.6 | 1,095.5 | 1,983.3 | 1,969.8 | 1,829.5 | 1,805.3 |
| Stocks | 19.6 | 38.7 | 56.7 | 58.9 | 67.3 | 69.3 | 69.9 | 68.0 |
| Net fixed assets | 48.8 | 136.6 | 224.8 | 299.1 | 437.0 | 479.4 | 503.1 | 515.2 |
| Non-reproducible tangible assets | 44.6 | 106.1 | 188.1 | 261.7 | 674.2 | 617.1 | 558.1 | 527.9 |
| Financial assets | 90.6 | 192.3 | 317.0 | 475.8 | 804.8 | 803.9 | 698.5 | 694.2 |
| Corporate shares | 9.2 | 20.4 | 46.0 | 88.3 | 236.0 | 230.9 | 150.7 | 147.9 |
| Total liabilities | 118.4 | 260.4 | 402.2 | 562.5 | 855.2 | 907.3 | 916.9 | 932.7 |
| Corporate shares | 25.0 | 52.3 | 110.0 | 196.0 | 495.7 | 487.3 | 331.5 | 331.5 |
| Net worth | 60.3 | 161.1 | 274.4 | 337.0 | 632.5 | 575.2 | 581.1 | 541.0 |
| | | | (Share of corporate shares plus net worth) | | | | | |
| Total assets | 238.9 | 222.0 | 204.6 | 205.5 | 175.8 | 185.4 | 200.5 | 206.9 |
| Stocks | 23.0 | 18.2 | 14.7 | 11.1 | 6.0 | 6.5 | 7.7 | 7.8 |
| Net fixed assets | 57.3 | 64.0 | 58.5 | 56.1 | 38.7 | 45.1 | 55.1 | 59.0 |
| Non-reproducible tangible assets | 52.3 | 49.7 | 48.9 | 49.1 | 59.8 | 58.1 | 61.2 | 60.5 |
| Financial assets | 106.3 | 90.1 | 82.5 | 89.3 | 71.3 | 75.7 | 76.5 | 79.6 |
| Corporate shares | 10.8 | 9.6 | 12.0 | 16.6 | 20.9 | 21.7 | 16.5 | 16.9 |
| Total liabilities | 138.9 | 122.0 | 104.6 | 105.5 | 75.8 | 85.4 | 100.5 | 106.9 |
| Corporate shares | 29.3 | 24.5 | 28.6 | 36.8 | 43.9 | 45.9 | 36.3 | 38.0 |
| Net worth | 70.7 | 75.5 | 71.4 | 63.2 | 56.1 | 54.1 | 63.7 | 62.0 |
| | | | (Percent change) 1/ | | | | | |
| Total assets | 94.8 | 18.4 | 10.7 | 6.8 | 12.6 | -0.7 | -7.1 | -1.3 |
| Stocks | ... | 14.6 | 7.9 | 0.8 | 2.7 | 2.9 | 0.8 | -2.7 |
| Net fixed assets | ... | 22.9 | 10.5 | 5.9 | 7.9 | 9.7 | 4.9 | 2.4 |
| Non-reproducible tangible assets | ... | 18.9 | 12.1 | 6.8 | 20.8 | -8.5 | -9.6 | -5.4 |
| Financial assets | ... | 16.2 | 10.5 | 8.5 | 11.1 | -0.1 | -13.1 | -0.6 |
| Corporate shares | ... | 17.2 | 17.6 | 13.9 | 21.7 | -2.2 | -34.7 | -1.9 |
| Total liabilities | 76.9 | 17.1 | 9.1 | 6.9 | 8.7 | 6.1 | 1.1 | 1.7 |
| Corporate shares | ... | 16.0 | 16.0 | 12.2 | 20.4 | -1.7 | -32.0 | 0.0 |
| Net worth | ... | 21.7 | 11.2 | 4.2 | 13.4 | -9.0 | 1.0 | -6.9 |
| Memorandum items: | | | (In percent) | | | | | |
| Liabilities/corporate shares & net worth | 138.9 | 122.0 | 104.6 | 105.5 | 75.8 | 85.4 | 100.5 | 106.9 |
| Direct taxes/operating surplus | 16.4 | 27.8 | 24.6 | 27.6 | 30.1 | 29.6 | 29.0 | 26.3 |
| Saving/corporate shares & net worth | 7.0 | -1.1 | 1.4 | 1.9 | 1.0 | 0.7 | 0.7 | 1.2 |

1/ At average annual rates for five-year intervals.

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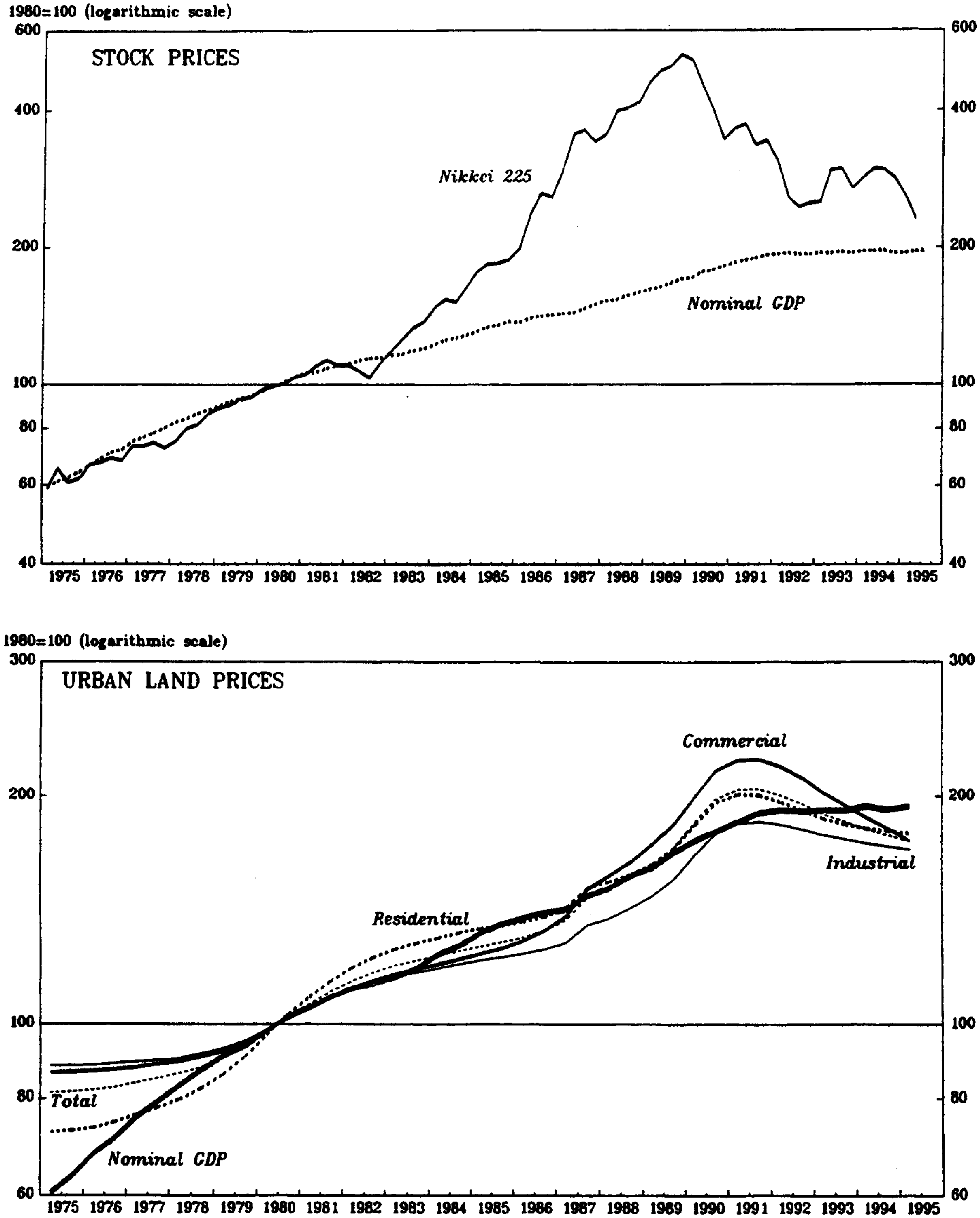
CHART 1

JAPAN
ASSET PRICES, 1975-95




Source: Bank of Japan, Economic Statistics Monthly; Japan Real Estate Research Institute; Economic Planning Agency.

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Table 4. Japan: Sectoral Distribution of Assets and Liabilities, 1970-93

| | 1970 | 1975 | 1980 | 1985 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| | | | | (Shares of totals) | | | | |
| Total Assets | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 35.7 | 36.1 | 37.3 | 36.4 | 38.0 | 37.1 | 36.3 | 35.7 |
| Nonprofit serving households | 1.6 | 1.5 | 1.5 | 1.4 | 1.2 | 1.2 | 1.3 | 1.3 |
| Nonfinancial enterprises | 34.5 | 32.9 | 29.8 | 27.8 | 27.7 | 27.4 | 26.4 | 25.9 |
| Financial enterprises | 20.5 | 20.8 | 21.4 | 24.5 | 23.9 | 24.5 | 25.4 | 26.0 |
| Government | 7.7 | 8.7 | 10.0 | 9.9 | 9.2 | 9.7 | 10.7 | 11.1 |
| Net fixed assets | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 20.9 | 24.9 | 27.1 | 24.9 | 23.4 | 22.7 | 22.2 | 21.9 |
| Nonprofit serving households | 5.5 | 3.5 | 3.2 | 3.1 | 2.9 | 2.9 | 2.9 | 2.9 |
| Nonfinancial enterprises | 49.8 | 47.5 | 42.7 | 43.5 | 44.9 | 45.7 | 45.7 | 45.1 |
| Financial enterprises | 1.5 | 1.4 | 1.3 | 1.3 | 1.6 | 1.7 | 1.7 | 1.7 |
| Government | 22.4 | 22.7 | 25.8 | 27.2 | 27.1 | 27.0 | 27.5 | 28.4 |
| Nonreproducible tangible assets | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 66.0 | 65.7 | 66.2 | 66.1 | 62.7 | 62.7 | 62.5 | 62.7 |
| Nonprofit serving households | 0.9 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 |
| Nonfinancial enterprises | 25.6 | 26.2 | 25.3 | 24.9 | 27.6 | 27.4 | 27.6 | 27.6 |
| Financial enterprises | 1.7 | 1.4 | 1.4 | 1.6 | 2.9 | 2.9 | 2.7 | 2.5 |
| Government | 5.8 | 5.8 | 6.2 | 6.3 | 5.7 | 5.9 | 6.2 | 6.3 |
| Of which: Land | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 66.1 | 65.7 | 66.2 | 66.2 | 62.6 | 62.6 | 62.3 | 62.5 |
| Nonprofit serving households | 0.9 | 0.8 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Nonfinancial enterprises | 25.8 | 26.5 | 25.6 | 25.2 | 27.8 | 27.6 | 27.8 | 27.9 |
| Financial enterprises | 1.8 | 1.5 | 1.5 | 1.7 | 3.0 | 3.0 | 2.8 | 2.6 |
| Government | 5.5 | 5.4 | 5.8 | 5.9 | 5.6 | 5.8 | 6.1 | 6.1 |
| Financial assets | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 24.4 | 25.0 | 26.1 | 26.2 | 25.9 | 26.4 | 26.7 | 26.8 |
| Nonprofit serving households | 0.8 | 1.1 | 1.3 | 1.1 | 0.9 | 0.9 | 1.0 | 1.0 |
| Nonfinancial enterprises | 30.6 | 27.4 | 24.3 | 22.3 | 22.0 | 21.1 | 18.8 | 18.0 |
| Financial enterprises | 39.5 | 41.3 | 41.9 | 44.0 | 44.2 | 44.2 | 45.3 | 45.5 |
| Government | 4.6 | 5.2 | 6.4 | 6.3 | 7.0 | 7.4 | 8.3 | 8.7 |
| Of which: Corporate shares | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 40.1 | 35.8 | 32.8 | 27.2 | 27.4 | 27.6 | 26.7 | 25.4 |
| Nonprofit serving households | 0.1 | 0.1 | 0.1 | -- | -- | -- | -- | -- |
| Nonfinancial enterprises | 33.7 | 33.4 | 37.7 | 36.5 | 39.7 | 39.4 | 37.5 | 36.3 |
| Financial enterprises | 26.1 | 30.7 | 29.5 | 36.0 | 32.8 | 32.9 | 35.5 | 38.1 |
| Government | 0.1 | 0.1 | -- | 0.3 | 0.1 | 0.1 | 0.2 | 0.2 |
| Total liabilities | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 10.4 | 10.6 | 11.1 | 10.6 | 10.8 | 10.8 | 10.5 | 10.5 |
| Nonprofit serving households | 1.0 | 1.0 | 1.0 | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 |
| Nonfinancial enterprises | 44.5 | 40.9 | 34.2 | 30.5 | 28.5 | 28.8 | 28.3 | 27.8 |
| Financial enterprises | 40.9 | 42.3 | 43.1 | 46.0 | 50.1 | 49.8 | 50.1 | 50.2 |
| Government | 3.3 | 5.2 | 10.6 | 11.9 | 9.9 | 9.7 | 10.2 | 10.6 |
| Net wealth | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Households | 56.4 | 56.3 | 58.4 | 59.2 | 57.7 | 57.6 | 58.9 | 58.9 |
| Nonprofit serving households | 2.1 | 1.8 | 1.9 | 1.8 | 1.5 | 1.5 | 1.6 | 1.6 |
| Nonfinancial enterprises | 26.3 | 26.6 | 26.2 | 25.5 | 27.2 | 26.3 | 24.7 | 24.0 |
| Financial Enterprises | 3.9 | 3.8 | 3.9 | 5.5 | 4.9 | 4.8 | 3.7 | 3.8 |
| Government | 11.4 | 11.5 | 9.6 | 8.1 | 8.8 | 9.8 | 11.1 | 11.6 |

Sources: Annual Report on National Accounts, 1995, EPA; and staff calculations.

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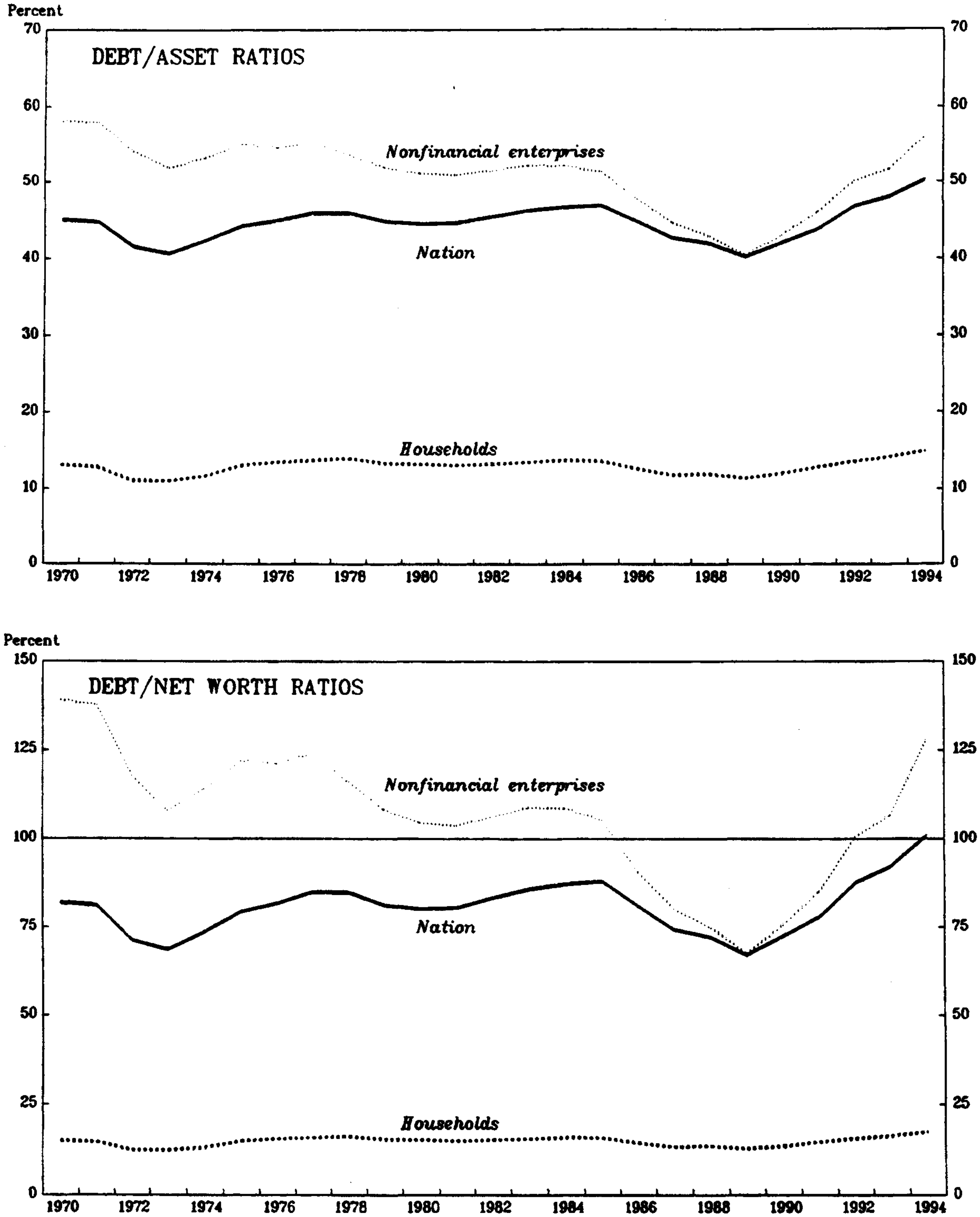
CHART 2

JAPAN
DEBT TO ASSET AND NET WORTH RATIOS, 1970-94




Source: EPA, Annual report on National Accounts

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1989. Subsequently, declining asset values led to a return of households' and nonfinancial enterprises' debt ratios returning to their pre-bubble levels in 1993. 1/

While comprehensive national accounts-based income and balance sheet data are not available beyond 1993, other more timely data imply that national net wealth may have declined further in 1994. Chart 1 indicates that urban land prices fell by an average 4.3 percent in 1994. Tables 5 and 6 compare SNA and the Bank of Japan's Flow of Fund (FOF) data on financial assets and liabilities for households and nonfinancial enterprises. The latter contains figures through the third quarter of 1994. While the figures from the two datasets differ, in part because of different classification of economic sectors, the major differences appear to be centered on the values of corporate shares. 2/ Abstracting from this asset, the pattern of indices of other financial assets, total financial debt and net financial assets are similar using NIA and FOF data. Table 7 provides estimates of Japan's net fixed assets for 1994. 3/ While the total capital stock is estimated to have increased by 3.4 percent, changes in the government's stock accounted for 63 percent of this rise, and are in part the result of recent fiscal stimulus measures. Households accounted for 30 percent of the increase, as residential investment surged in response to lower interest rates and a relaxation of borrowing terms by public loan institutions. Nonfinancial enterprises' capital stock increased by only about 1/2 percent, due to continued low rates of existing capacity utilization, low stock prices and weak corporate profits.

As shown in these tables, the net financial asset position of nonfinancial enterprises worsened further in the first three quarters of 1994. Commercial and industrial land prices also declined. Moreover, their net fixed assets were basically flat throughout 1994. In sum, the net

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1/ The increase in debt ratios for enterprises also reflects continued increases in liabilities, while households, in contrast, reduced their nominal liabilities over 1991-93.

2/ Among the differences in sectoral classifications, household accounts in the FOF contain data pertaining to households in the SNA, as well as data relating to private non-profit institutions serving households, and health insurance unions (which are classified as government in the SNA). Nonfinancial incorporated enterprises in the FOF include some institutions classified as part of general government under the SNA, while a number of institutions classified as part of public corporations and local authorities in the FOF are counted as non-financial incorporated enterprises in the SNA. See Bank of Japan (1994) and Matsuoka and Rose (1994) for discussions of the relationship between these two datasets.

3/ These estimates are based upon actual data for national gross fixed capital formation and its deflator (including disaggregation among residential, nonresidential and government sectors), and estimates for capital consumption and capital stock revaluation (the reconciliation items), based upon historical ratios.

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Table 5. Japan: Nonfinancial Incorporated Enterprises: Financial Assets and Liabilities, 1990-94

| | 1990 | 1991 | 1992 | 1993 | 1993Q3 | 1994Q3 |
|---|---|---|---|---|---|---|
| | | | (In trillions of yen) | | | |
| System of National Accounts | | | | | | |
| Financial assets | 804.8 | 803.9 | 698.5 | 694.2 | ... | ... |
| (Index, 1990 = 100) | (100.0) | (99.9) | (86.8) | (86.3) | (...) | (...) |
| (1) Currency | 3.6 | 3.7 | 3.7 | 4.0 | ... | ... |
| (2) Transferable deposits | 39.0 | 48.1 | 50.9 | 54.7 | ... | ... |
| (3) Other deposits | 179.3 | 162.3 | 153.5 | 146.2 | ... | ... |
| (4) Bills and bonds, short-term | 0.4 | -- | 0.8 | 0.8 | ... | ... |
| (5) Bonds, long-term | 12.5 | 13.3 | 12.2 | 14.0 | ... | ... |
| (6) Corporate shares | 236.0 | 230.9 | 150.7 | 147.9 | ... | ... |
| (7) Commercial papers | 5.1 | 4.2 | 3.9 | 2.2 | ... | ... |
| (8) Loans by public sector | -- | -- | -- | -- | ... | ... |
| (9) Trade credit and advances | 253.4 | 268.4 | 249.2 | 252.1 | ... | ... |
| (10) Other financial assets | 75.4 | 73.1 | 73.5 | 72.3 | ... | ... |
| Financial liabilities | 855.2 | 907.3 | 916.9 | 932.7 | ... | ... |
| (Index, 1990 = 100) | (100.0) | (106.1) | (107.2) | (109.1) | (...) | (...) |
| (1) Bills and bonds, short-term | 0.5 | 0.4 | 0.2 | -- | ... | ... |
| (2) Bonds, long-term | 98.5 | 111.2 | 114.3 | 115.6 | ... | ... |
| (3) Commercial papers | 15.8 | 12.4 | 12.2 | 11.0 | ... | ... |
| (4) Loans by private sector | 434.7 | 458.8 | 471.4 | 478.3 | ... | ... |
| (5) Loans by public sector | 73.2 | 78.1 | 82.7 | 89.2 | ... | ... |
| (6) Transfers from general government | 0.1 | 0.2 | 0.2 | 0.2 | ... | ... |
| (7) Trade credit and advances | 193.9 | 204.9 | 191.5 | 193.0 | ... | ... |
| (8) Other liabilities | 38.4 | 41.3 | 44.4 | 45.4 | ... | ... |
| Net financial assets | -50.4 | -103.3 | -218.4 | -238.5 | ... | ... |
| (Index, 1990 = 100) | (100.0) | (205.1) | (433.6) | (473.5) | (...) | (...) |
| Flow of Funds | | | | | | |
| Financial assets | 626.5 | 628.7 | 578.1 | 594.5 | 599.7 | 601.5 |
| (Index, 1990 = 100) | (100.0) | (100.4) | (92.3) | (94.9) | (95.7) | (96.0) |
| (1) Demand deposits | 37.9 | 47.0 | 49.9 | 53.5 | 49.8 | 49.6 |
| (2) Time deposits | 131.8 | 117.0 | 112.7 | 111.0 | 114.5 | 116.2 |
| (3) Certificates of deposit | 9.7 | 8.6 | 8.3 | 8.1 | 9.9 | 6.6 |
| (4) Securities | 137.3 | 37.9 | 107.6 | 119.7 | 131.6 | 127.3 |
| Bonds | 11.4 | 12.2 | 11.7 | 11.0 | 12.3 | 10.3 |
| Stocks | 121.0 | 120.8 | 90.7 | 98.6 | 110.5 | 109.0 |
| (5) Trade credits | 251.0 | 256.8 | 237.6 | 242.1 | 232.5 | 237.7 |
| Financial liabilities | 770.8 | 808.0 | 820.1 | 842.6 | 887.3 | 892.5 |
| (Index, 1990 = 100) | (100.0) | (104.8) | (106.4) | (109.3) | (115.1) | (115.8) |
| (1) Borrowing | 490.8 | 521.1 | 543.4 | 560.8 | 554.0 | 560.1 |
| (2) Industrial bonds | 39.3 | 42.9 | 47.2 | 51.7 | 51.5 | 54.6 |
| (3) Foreign bonds | 31.0 | 35.7 | 34.7 | 28.9 | 28.7 | 26.5 |
| (4) Trade credits | 193.9 | 195.8 | 182.6 | 190.3 | 176.6 | 175.2 |
| Net financial assets | -144.3 | -179.3 | -242.1 | -248.1 | -287.6 | -291.0 |
| (Index, 1990 = 100) | (100.0) | (124.3) | (167.8) | (172.0) | (199.4) | (201.7) |
| Memorandum items: | | | | | | |
| (Indices, 1990 = 100) | | | | | | |
| Financial assets, net of stocks (SNA) | 100.0 | 100.7 | 96.3 | 96.0 | ... | ... |
| Financial assets, net of stocks (FOF) | 100.0 | 100.5 | 96.4 | 98.1 | 96.8 | 97.4 |
| Net financial assets, net of stocks (SNA) | 100.0 | 116.7 | 128.9 | 134.9 | ... | ... |
| Net financial assets, net of stocks (FOF) | 100.0 | 113.1 | 125.5 | 130.7 | 150.1 | 150.8 |

Sources: Annual Report on National Accounts, 1995, EPA; Economic Statistics Monthly, BOJ, August 1994 and April 1995.

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Table 6. Japan: Household Financial Assets and Liabilities, 1990-94

| | 1990 | 1991 | 1992 | 1993 | 1993Q3 | 1994Q3 |
|---|---|---|---|---|---|---|
| | | | | (In trillions of yen) | | |
| System of National Accounts | | | | | | |
| Financial assets | 949.6 | 1,003.8 | 993.1 | 1,032.4 | ... | ... |
| (Index, 1990 = 100) | (100.0) | (105.7) | (104.6) | (108.7) | (...) | (...) |
| (1) Currency | 32.2 | 33.0 | 33.2 | 35.5 | ... | ... |
| (2) Transferable deposits | 53.6 | 56.0 | 58.5 | 61.7 | ... | ... |
| (3) Other deposits | 438.7 | 477.9 | 504.7 | 530.5 | ... | ... |
| (4) Bonds, long-term | 69.1 | 65.9 | 64.4 | 57.4 | ... | ... |
| (5) Corporate shares | 162.7 | 161.8 | 107.3 | 103.7 | ... | ... |
| (6) Net equity on life insurance reserves and pension funds | 173.6 | 189.4 | 204.4 | 222.5 | ... | ... |
| (7) Other financial assets | 19.7 | 19.8 | 20.5 | 20.9 | ... | ... |
| Financial liabilities | 325.1 | 341.1 | 340.3 | 351.2 | ... | ... |
| (Index, 1990 = 100) | (100.0) | (104.9) | (104.7) | (108.0) | (...) | (...) |
| (1) Loans by private sector | 214.6 | 222.7 | 224.3 | 225.3 | ... | ... |
| (2) Loans by public sector | 53.5 | 57.6 | 61.1 | 69.8 | ... | ... |
| (3) Trade credit and advances | 56.9 | 60.8 | 54.8 | 56.1 | ... | ... |
| (4) Other liabilities | -- | -- | -- | -- | ... | ... |
| Net financial assets | 624.5 | 662.7 | 652.8 | 681.2 | ... | ... |
| (Index, 1990 = 100) | (100.0) | (106.1) | (104.5) | (109.1) | (...) | (...) |
| Flow of Funds | | | | | | |
| Financial assets | 924.6 | 980.9 | 1017.8 | 1075.1 | 1054.6 | 1105.0 |
| (Index, 1990 = 100) | (100.0) | (106.1) | (110.1) | (116.3) | (114.1) | (119.5) |
| (1) Currency | 32.3 | 33.1 | 33.3 | 35.6 | 29.6 | 31.5 |
| (2) Demand deposits | 55.8 | 58.3 | 61.0 | 64.4 | 56.6 | 62.4 |
| (3) Time deposits | 409.9 | 446.9 | 469.1 | 492.6 | 484.4 | 507.5 |
| (4) Trusts | 64.5 | 69.2 | 75.5 | 78.9 | 78.4 | 80.4 |
| (5) Insurance | 194.1 | 213.2 | 234.3 | 257.7 | 251.1 | 274.3 |
| (6) Securities | 167.5 | 159.9 | 144.4 | 145.8 | 154.3 | 148.6 |
| Government bonds | 12.6 | 11.1 | 7.8 | 4.3 | 4.7 | 4.3 |
| Bank debentures | 23.5 | 25.3 | 26.4 | 25.8 | 26.2 | 25.4 |
| Stocks | 82.9 | 79.5 | 63.2 | 70.9 | 80.0 | 76.1 |
| Securities investment trusts | 39.0 | 34.6 | 37.8 | 35.3 | 33.9 | 33.0 |
| Financial liabilities | 327.8 | 345.4 | 346.8 | 349.5 | 351.4 | 365.9 |
| (Index, 1990 = 100) | (100.0) | (105.4) | (105.8) | (106.6) | (107.2) | (111.6) |
| (1) Borrowing | 270.8 | 284.5 | 291.8 | 297.6 | 295.5 | 303.2 |
| (2) Trade credit | 57.0 | 60.9 | 55.0 | 51.9 | 56.0 | 62.7 |
| Net financial assets | 596.8 | 635.5 | 671.0 | 725.7 | 703.2 | 739.1 |
| (Index, 1990 = 100) | (100.0) | (106.5) | (112.4) | (121.6) | (117.8) | (123.8) |
| Memorandum items: | | | | | | |
| (Indices, 1990 = 100) | | | | | | |
| Financial assets, net of stocks (SNA) | 100.0 | 107.0 | 112.6 | 118.0 | ... | ... |
| Financial assets, net of stocks (FOF) | 100.0 | 107.1 | 113.4 | 119.3 | 115.8 | 122.2 |
| Net financial assets, net of stocks (SNA) | 100.0 | 108.5 | 118.1 | 125.0 | ... | ... |
| Net financial assets, net of stocks (FOF) | 100.0 | 108.2 | 118.3 | 127.4 | 121.3 | 129.0 |

Sources: Annual Report on National Accounts, 1995, EPA; Economic Statistics Monthly, BOJ, August 1994 and April 1995.

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Table 7. Japan: Capital Stocks and Flows, 1987-94

| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Staff Est. 1994 |
|---|---|---|---|---|---|---|---|---|
| | | | | (In trillions of yen) | | | | |
| Stock | | | | | | | | |
| Nonfinancial enterprises | 330.7 | 355.3 | 394.8 | 437.0 | 479.6 | 503.1 | 515.0 | 517.8 |
| Financial enterprises | 10.0 | 11.2 | 13.3 | 15.7 | 17.7 | 19.0 | 19.8 | 20.8 |
| General government | 207.6 | 221.4 | 242.1 | 263.7 | 283.6 | 303.4 | 323.8 | 348.1 |
| Private nonprofit institutions | 22.9 | 24.2 | 26.4 | 28.6 | 30.6 | 31.9 | 33.0 | 33.3 |
| Households | 184.0 | 194.0 | 212.4 | 227.4 | 238.6 | 244.4 | 249.8 | 261.4 |
| Total | 755.6 | 806.2 | 888.8 | 972.2 | 1049.5 | 1102.0 | 1141.1 | 1179.7 |
| Flow | | | | | | | | |
| Plus: Gross fixed capital formation | | | | | | | | |
| Nonfinancial enterprises | 52.8 | 59.9 | 68.6 | 78.7 | 84.4 | 79.9 | 72.6 | 64.0 |
| Financial enterprises | 1.5 | 2.0 | 2.5 | 3.1 | 3.0 | 2.7 | 2.3 | 2.5 |
| General government | 17.5 | 18.9 | 19.8 | 21.5 | 23.1 | 26.4 | 30.8 | 31.8 |
| Private nonprofit institutions | 1.2 | 1.3 | 1.4 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 |
| Households | 26.2 | 29.0 | 30.4 | 31.9 | 31.3 | 31.5 | 31.5 | 34.2 |
| Total | 99.2 | 111.1 | 122.8 | 136.7 | 143.4 | 142.2 | 138.8 | 134.1 |
| Less: Consumption of fixed capital | | | | | | | | |
| Nonfinancial enterprises | 30.3 | 32.7 | 36.8 | 40.1 | 44.4 | 47.4 | 47.4 | 48.0 |
| Financial enterprises | 1.1 | 1.2 | 1.4 | 1.6 | 1.5 | 1.7 | 1.5 | 1.6 |
| General government | 2.2 | 2.3 | 2.5 | 2.5 | 2.5 | 2.6 | 2.8 | 3.0 |
| Private nonprofit institutions | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 |
| Households | 14.4 | 15.3 | 16.4 | 17.6 | 18.9 | 19.8 | 20.5 | 20.6 |
| Total | 48.9 | 52.3 | 57.9 | 62.8 | 68.4 | 72.6 | 73.3 | 75.8 |
| Equals: Net fixed capital formation | | | | | | | | |
| Nonfinancial enterprises | 22.4 | 27.2 | 31.9 | 38.6 | 40.0 | 32.4 | 25.2 | 16.0 |
| Financial enterprises | 0.4 | 0.8 | 1.1 | 1.5 | 1.5 | 1.1 | 0.8 | 0.9 |
| General government | 15.3 | 16.5 | 17.3 | 19.0 | 20.6 | 23.8 | 28.0 | 28.8 |
| Private nonprofit institutions | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 |
| Households | 11.8 | 13.7 | 13.9 | 14.3 | 12.4 | 11.7 | 11.0 | 13.6 |
| Total | 50.3 | 58.8 | 64.8 | 73.9 | 75.0 | 69.6 | 65.5 | 58.3 |
| Plus: Reconciliation items | | | | | | | | |
| Nonfinancial enterprises | -4.1 | -2.9 | 7.6 | 3.7 | 2.4 | -8.8 | -13.1 | -13.2 |
| Financial enterprises | 0.4 | 0.4 | 0.9 | 1.0 | 0.5 | 0.3 | -- | -- |
| General government | -2.9 | -2.8 | 3.3 | 2.6 | -0.6 | -4.2 | -7.6 | -4.5 |
| Private nonprofit institutions | 0.8 | 0.8 | 1.7 | 1.6 | 1.5 | 0.8 | 0.6 | -- |
| Households | -1.0 | -3.7 | 4.4 | 0.8 | -1.2 | -5.8 | -5.7 | -2.0 |
| Total | -6.8 | -8.2 | 17.9 | 9.7 | 2.7 | -17.8 | -25.7 | -19.7 |

Sources: Annual Report on National Accounts, 1995, EPA; and staff estimates.

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wealth for nonfinancial enterprises appear to have declined by a further 10 percent in 1994. 1/ As a result, nonfinancial enterprises' debt/asset and debt/net worth ratios are estimated to have increased to 56.2 percent and 128.1 percent, respectively--levels were last seen in 1971. In contrast, households' net wealth position is estimated to have remained unchanged in 1994, with an increase in net fixed and financial assets offset by losses in land values and increases in financial liabilities. 2/ Nevertheless, their debt/asset and debt/net worth ratios are also estimated to have further risen to 14.9 percent and 17.5 percent, respectively. While much lower than for other economic sectors, these values are historic highs.

In 1993, households and nonfinancial enterprises together accounted for 83.9 percent of the nation's net wealth. It is estimated that for 1994 their combined net wealth declined by 2.9 percent. Financial institutions reported combined losses on their operations in 1994; moreover, they hold the largest share of equity, whose values further declined. Therefore, it can be assumed that their net wealth also fell in 1994. The Government, in contrast, increased its stock of net fixed assets by almost ¥25 billion, although it also was affected by lower land and equity prices, and (based upon FOF data), saw a reduction in net financial liabilities. While the Government may have posted a small increase in net wealth in 1994, their small share of national net wealth, at about 12 percent, makes it likely that total national net wealth fell by about 3 percent in 1994, implying a cumulative decline of 15 percent since 1990.

3. Recent spending patterns

Clearly, balance sheet positions influence, and are influenced by, sectoral spending patterns. Household net wealth rose from 5.6 times disposable income in 1985 to a peak of 8.7 in 1989, before falling back to an estimated 6.6 in 1994. Financial wealth, which is thought to be a more important factor for consumer spending, rose from 1.6 times household disposable income in 1985 to 2.5 in 1989, before falling to 2.1 in 1992. Typical estimates of propensities to consume out of real financial wealth of about 3 to 6 percent imply that consumption was boosted by about 4 percent, and subsequently reduced by about 2 percent. Households have boosted their

---

1/ Nonfinancial enterprises' total assets are estimated to have decreased by about ¥11.5 trillion, comprising a ¥25.9 trillion reduction in land values, offset in part by an ¥10.7 trillion increase in financial assets, ¥2.6 trillion increase in net fixed assets, and a ¥1 trillion increase in physical stocks. Total liabilities are estimated to have increased by about ¥74.7 trillion, resulting in a ¥86.2 trillion reduction in net wealth, equivalent to about an 9.9 percent decline from 1993.

2/ Households' total assets are estimated to have increased by some ¥20.7 trillion, with an increase in net fixed assets and in financial assets by some ¥11.6 trillion and ¥38.0 billion,respectively, more than offsetting a ¥29 trillion reduction in land values. Financial liabilities are estimated to have increased by ¥22.1 trillion.

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saving rate since 1990 by about one percentage point to 15 1/4 percent. This has allowed for a further small increase in the financial asset multiple to an estimated 2.2 times disposable income in 1994, which should, ceteris paribus, bolster consumption.

Shifts in net wealth positions may also affected business fixed investment. The surge in asset prices lowered capital costs, and raised collateral values that could be used in obtaining loans. Between 1986 and 1990, the stock of nonfinancial enterprises' net fixed assets rose by 46 percent (compared to 28 percent over 1980-85). In contrast, growth fell to an estimated 15.6 percent over 1991-94 (equivalent to 19.9 percent on a five-year basis). Clearly, other factors also played a role in influencing investment decisions, including the effect of monetary policies on interest rates, enterprise profitability and capacity utilization. Nevertheless, Kähkönen (1995) estimated that the rise in the Nikkei 225 index accounted for one third of the acceleration in the growth of investment over 1987-90, and depressed investment by a similar magnitude over 1991-93. More recently, a significant appreciation of the yen has led to a drop in equity prices to near their 1992 lows, and corporate profit growth projections have been significantly scaled back, which may imply a continued low levels of investment this year. 1/

## 4. Conclusions

Japanese balance sheets positions have changed substantially in recent years. Following a period of rapid increases in asset prices, and rapid accumulation of net fixed assets, asset prices have been declining since 1990, and the growth in net fixed assets has slowed considerably. The nations overall nominal net wealth doubled between 1989 and 1990, and is estimated to have fallen by 15 percent since then. In addition, following sharp reductions in debt ratios associated with asset price inflation, nonfinancial enterprises, and to a lesser extent households, are facing higher debt ratios. There is evidence that changes in net wealth positions or some principal components have had direct effects on consumption and investment patterns in the last decade.

1/ Indicators are not all negative however, as the May Tankan survey points to growth of investment by principal enterprises by 3 1/4 percent.

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## The Use of Flow-of-Funds Data in Fiscal Monitoring

In the analysis of fiscal developments, the staff generally uses national income accounts (NIA) data, in view of its advantages in providing a clear picture of net fiscal operations that can be used to assess their impact on economic activity. 1/ A drawback in using NIA data is the large lag (between one and two years) in data availability. 2/ As the Bank of Japan (BOJ) publishes the flow-of-funds accounts (FFA) on a much more timely basis, the question arises whether FFA data is usable as a proxy for NIA data. 3/

The findings show that FFA data are only of limited use in fiscal monitoring. Although the financial balance in the FFA is conceptually identical with the savings-investment balance in the NIA, the FFA balance corresponds to the NIA balance only roughly because of differences in the sectoral classification of the public sector and in some statistical methods. The reclassified FFA balance that better corresponds to the NIA balance is also published by the authorities subsequently, but then the timeliness of FFA data would be lost. With these limitations in mind, the FFA balance can be used as a preliminary indicator of the broad direction of fiscal policy.

### 1. The Flow of Funds Accounts

The FFA show the flows of financial assets between economic sectors, as well as the level of financial assets and liabilities outstanding in each sector. 4/ The accounts are constructed on a double-entry bookkeeping basis, so that an increase in the assets in one sector is recorded as an

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1/ For detailed discussion of the advantages of using NIA data over the authorities' budgetary accounts data, see Annex I of "Japan--Recent Economic Developments," SM/93/142.

2/ The comprehensive NIA data are presented in the Annual Report on National Accounts, which is published by the Economic Planning Agency. The annual report is usually issued in March of the second following year--as of June 1995, the most current data available is for FY 1993.

3/ Recent initiatives by the OECD to calculate the public sector borrowing requirements (PSBR) for Japan, based on the FFA, is also an attempt to benefit from the timeliness of the data. While the PSBR is aimed at presenting a comprehensive picture of the public sector including the effects of the FILP, the construction method suggests that it only takes into account the outstanding balance of the postal saving deposits and bonds issued by the public sector held by the private sector. As it ignores forms of borrowing other than bonds and the public sector's assets vis-à-vis the private sector, the PSBR only provides a partial, gross picture of the public sector operations.

4/ For a sample presentation of the FFA, see Economic Statistics Monthly, Bank of Japan.

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increase in the liabilities of another sector. The BOJ presents annual data (both on a calendar- and fiscal-year basis) in June of each following year, giving a much shorter lag than the NIA. Although quarterly FFA figures are released in an even more timely manner (at the end of the first month of the following quarter), they are less useful for fiscal analysis because of large seasonal fluctuations.

2. Relationship of the FFA financial balance to NIA concepts

As a flow of real goods and services should be associated with financial surpluses and deficits, a change in the savings-investment balance for a sector is conceptually identical to a change in the balance between its assets and liability. This change in the financial balance appears in the row "financial surplus or deficit" in the FFA (flow) table. In other words, the financial surplus or deficit (i.e., the net lending in financial transactions) is another way of expressing the net lending in real (i.e., nonfinancial) transactions; therefore, the two balances should correspond.

Despite their conceptual identity, the public sector balances that appear in the two accounts show differences. The upper panel of Chart 1 shows both the FFA financial balance derived from the sum of the balances of the "central government" and "public corporations and local authorities"; while the NIA savings-investment balance is derived from the sum of the balances of the "general government" and "public enterprises." While both balances broadly move in the same direction, the FFA did not capture the surge in the NIA surplus during 1989-90, nor the sharp decline in 1991.

This discrepancy in large part reflects the different sectoral classification in the two accounts. The main differences include: "central government" in the FFA follows the authorities' budgetary concepts--i.e., the general and special accounts--and includes, for instance, the Employee's Pension and Insurance Special Account, a major part of the social security funds in the NIA; and, components of the general government (NIA) are scattered among four sectors in the FFA. Therefore, there is not a close correspondence between the public sector as defined under the FFA ("central government" and "public corporations and local authorities") and the public sector as defined under the NIA ("general government" and "public enterprises").

Numerous reclassifications would be necessary to make the FFA data comparable to the NIA, which requires detailed breakdowns beyond that contained in the FFA publications. After the FFA publication, the authorities conduct the necessary reclassification and present the reclassified financial balance in the NIA publications. An *ex post* comparison of the general government balance using the reclassified FFA 1/

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1/ The reclassified FFA is presented for the general government, rather than the public sector.

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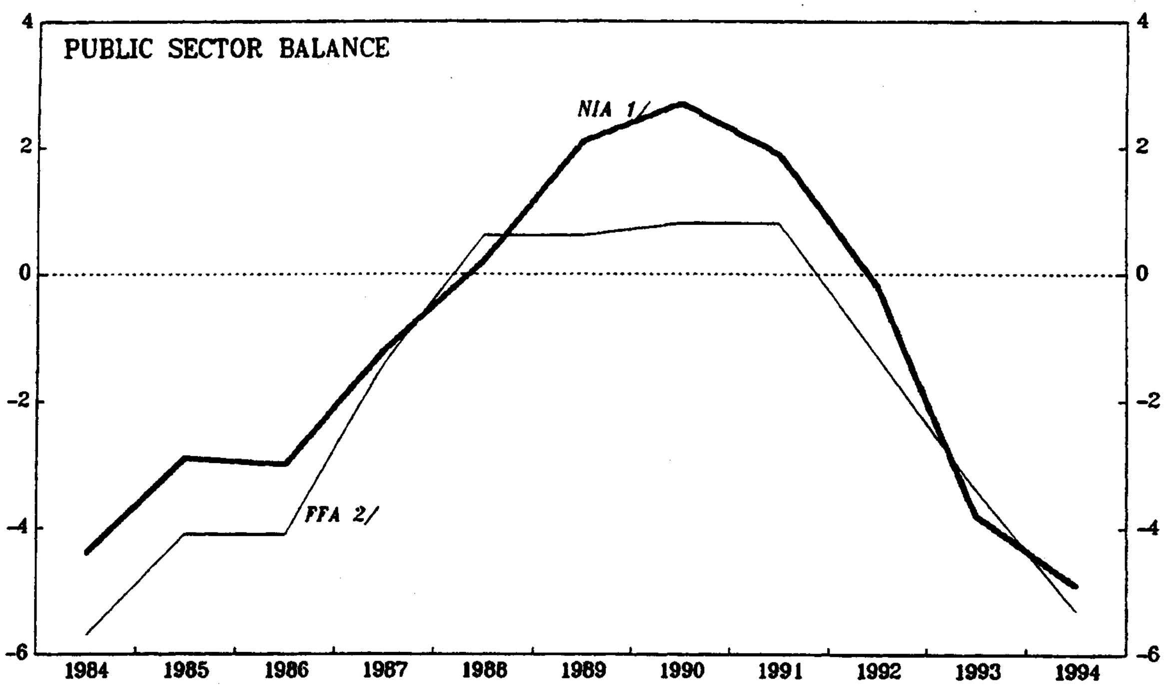
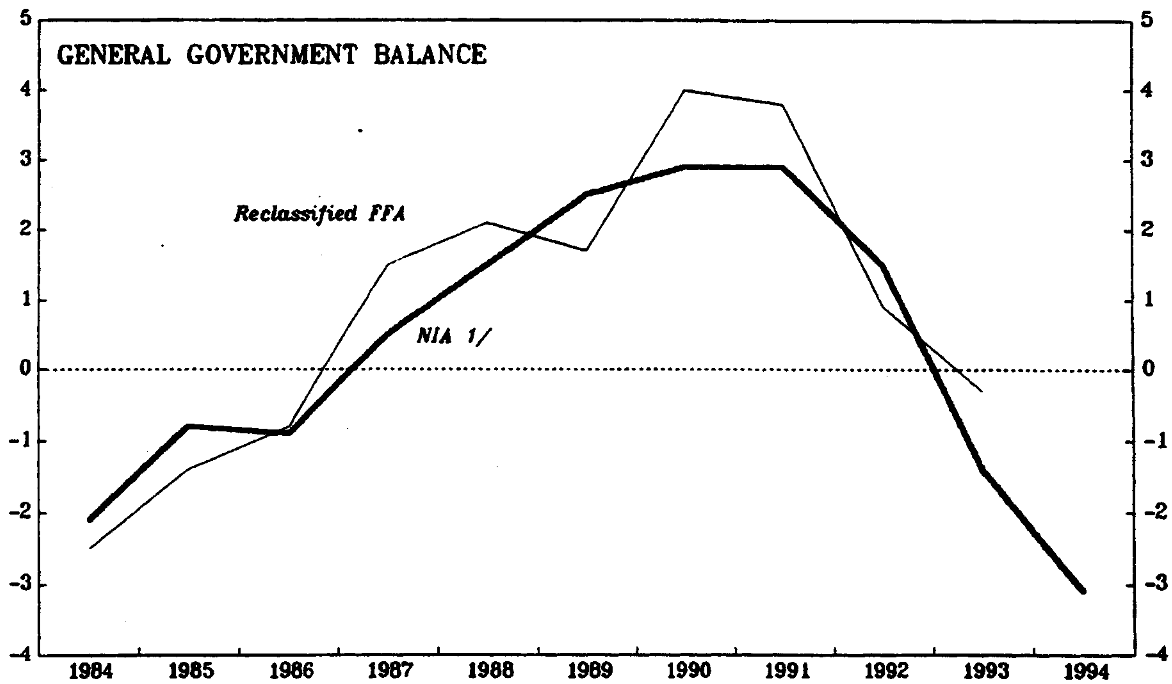
CHART 1

JAPAN

INDICATORS OF PUBLIC SECTOR FINANCE, 1984-92

(In percent of GDP)




Sources: Bank of Japan; and Economic Planning Agency.
1/ 1994 is the staff estimate.
2/ 1994 is the average of the first three quarters.

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and NIA data indicates improved correspondence (Chart 1, second panel). 1/ As the reclassified FFA balance is only available when NIA data are published, in order to benefit from the timely publication of the FFA, the FFA balance before the sectoral reclassification should be used with the above discussed limitations in mind.

1/ The authorities attribute the remaining discrepancies to the technical differences in valuation and estimation methods of the two accounts, including: (a) the difference in recording principles (financial transactions are recorded on a cash basis, while real transactions are recorded on an accrual basis; and (b) statistical discrepancies.

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## Bond-Financing Ratio and the General Government Balance

This annex discusses the authorities' medium-term consolidation target, expressed in terms of the bond-financing ratio. It examines the relationship between the bond-financing ratio and the general government balance, and assesses the implications of the target on a national accounts basis. The results indicate that the target deviates substantially from the staff's projected path for the fiscal balance based on currently announced policies. This suggests that either the target is unrealistically ambitious, or that new measures must be taken to meet it.

The bond-financing ratio is defined as the ratio of bond financing to the total size of the general account budget. It is based on central government budgetary accounting concepts, and cannot be directly compared with indicators on a national accounts basis. 1/

To establish a link between the two concepts, the historical evidence is examined on their joint movements. Based on observations for 1971-94, the evidence indicates a strong correlation between the bond-financing ratio and the general government balance. The following result is obtained from a simple regression using bond financing ratio (B) as the independent variable and general government balance excluding social security (G) as the dependent variable, 2/ where t-statistics are indicated in parentheses (Table 1, regression I):

$$\log G = \underset{(5.40)}{2.51} * \log B - \underset{(4.68)}{6.51}$$

R Bar Squared = 0.55
Standard error of the regression = 0.97
Durbin-Watson = 1.74

Experimentation with specification including a lagged value for B indicates that past values of the bond-financing ratio are insignificant (Table 1, regression II).

Based on this equation, Chart 1 shows the predicted path for the general government balance if the authorities' target for the bond-financing ratio were realized. Similarly, it also shows a path of the staff

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1/ There are several differences, including coverage, the classification of fiscal activities, and recording concepts. See "Japan--Recent Economic Developments," SM/93/142, Annex I for a detailed description of the structure of the public sector in Japan and the differences between the two accounts.

2/ General government excluding social security is used for this purpose, because most fiscal activities of the social security fund are undertaken outside the general account.

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Table 1. Japan: Regression Results

(I) Dependent variable G: General government balance excluding social security
Independent variable B: Bond-financing ratio

$$\log G = 2.51 * \log B - 6.51$$
$$\quad\quad (5.40) \quad\quad\quad (4.68)$$

Sum of Square = 20.6864
Standard error of regression = 0.9697
LHS Mean = 0.9211
R squared = 0.5703
R bar squared = 0.5508
F(1, 22) = 29.1970
D.W. = 1.7418

(II) Dependent variable G: General government balance excluding social security
Independent variable B: Bond-financing ratio (contemporaneous and with lag)

$$\log G = 2.84 * \log B - 0.28 * \log B_{-1} - 6.71$$
$$\quad\quad (3.28) \quad\quad\quad (0.33) \quad\quad\quad\quad (4.41)$$

Sum of Square = 19.9524
Standard error of regression = 0.9988
LHS Mean = 0.9380
R squared = 0.5875
R bar squared = 0.5462
F(2, 22) = 14.2400
D.W. = 1.8539

(III) Dependent variable B: Bond-financing ratio
Independent variable G: General government balance excluding social security

$$\log B = 0.23 * \log G + 2.75$$
$$\quad\quad (5.40) \quad\quad\quad (38.70)$$

Sum of Square = 1.8793
Standard error of regression = 0.2923
LHS Mean = 2.9640
R squared = 0.5703
R bar squared = 0.5508
F(1, 22) = 29.1970
D.W. = 1.3204

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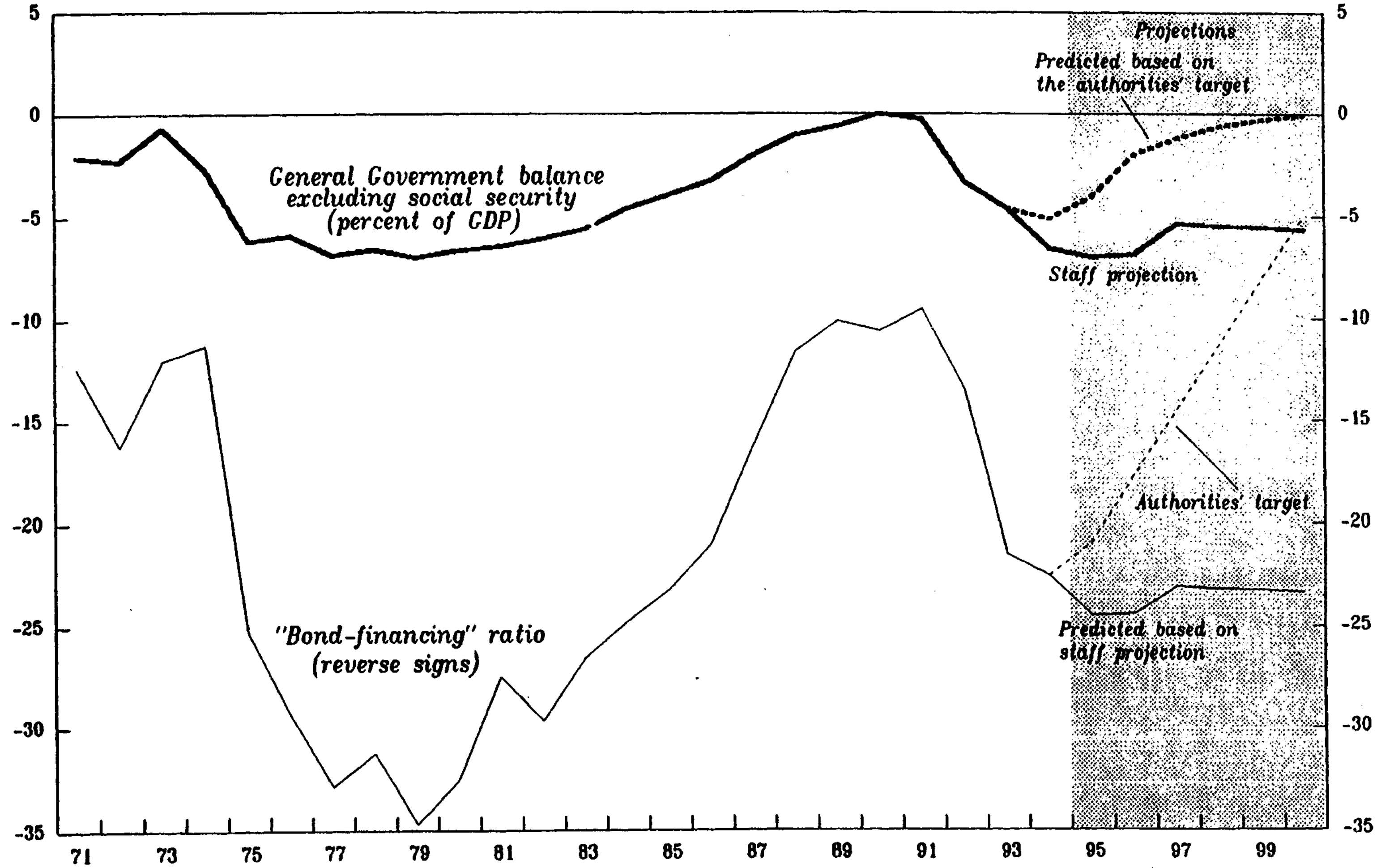
CHART 1

JAPAN

FISCAL BALANCE AND "BOND FINANCING RATIO," 1971-2000

(In percent)




Sources: Ministry of Finance; Economic Planning Agency; and staff estimates and projections.





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projection expressed in terms of bond-financing ratio, based on an alternative regression using G as the independent variable and B as the dependent variable, which corroborates the strong correlation between these two (Table 1, regression III).

The results point to a large discrepancy between the target and the staff's projected path based on announced policy measures. It indicates that the authorities' target, which aims at a balance in the general account, corresponds to a balance in the general government (excluding social security) by FY 2000. In contrast, currently announced policies would lead to a general government deficit (excluding social security) of 5 3/4 percent in FY 2000. The magnitude of the gap indicates the ambitiousness of the authorities' target: achieving it would require further, rather drastic, policy initiatives for consolidation. 1/

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1/ If, instead of the constant nominal stock of debt that is implied by the authorities' target, a constant debt-to-GDP ratio is taken as a sustainable path, the size of required initiatives would be somewhat smaller. In that case, the target level of the deficit in relation to GDP in each year depends upon the assumption of growth rate of nominal potential GDP and the policy choice of the ultimate dept-to-GDP ratio. In the event, given the slow growth in nominal potential GDP, the discrepancy between the target and the projected path would remain large.

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## The Impact of Falling Equity Prices on the Banks

A striking feature of Japanese banks is their exposure to the stock market. Indeed, the major banks have equity investments in excess of the book value of their own equity capital. This highly leveraged exposure to the stock market constitutes a potentially unstable factor in the banks' income and capital structure. This annex examines the relationship between equity price movements and Japanese banks' earnings and capitalization, focusing on the impact of the sharp decline in stock prices in the first half of 1995.

### 1. Impact on income and "hidden" reserves

The accounting rules in Japan stipulate that banks must value listed securities at the lower of cost or market value, while unlisted securities are generally valued at cost. Thus, banks suffer valuation losses on writing down the value of individual securities when stock prices fall below their book values, but do not immediately record capital gains associated with increases in market value. Instead, capital gains are recorded (and taxed) only when the securities are sold.

For most equities held by banks, cost is well below market value, giving rise to "hidden" reserves--unrealized profits on investment securities. Japanese banks enjoyed increasingly vast "hidden" reserves in the post-war period as the market value of equity investments rose above their low book value, particularly in the 1980s, as the market soared. Subsequently, these unrealized profits have shrunk as equity prices fell in the 1990s. In recent years, banks have realized part of the profits from selling securities to boost earnings. These capital gains have also been used as a means of increasing loan-loss provisions and write-offs above the level of "core" earnings. However, as banks frequently repurchase stocks after realizing capital gains, the book value of their assets has increased and, concomitantly, the dependence of their reported income on equity price movements.

Chart 1 illustrates the relationship between equity prices (as measured by the Nikkei 225), the net capital gains of the major 21 banks, and their "hidden" reserves in the 1990s. 1/ As indicated in the top panel of Chart 1, equity prices plummeted by close to 20 percent through FY 1994--from a Nikkei 225 index of around 20,000 at end-March 1994 to around 16,000 at end-March 1995--directly affecting the value of "hidden" reserves. At the same time, banks realized considerable capital gains (around ¥3 trillion) through selling securities and repurchasing stocks, to offset

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1/ Data for the period prior to March 1991 are not available.

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CHART 1

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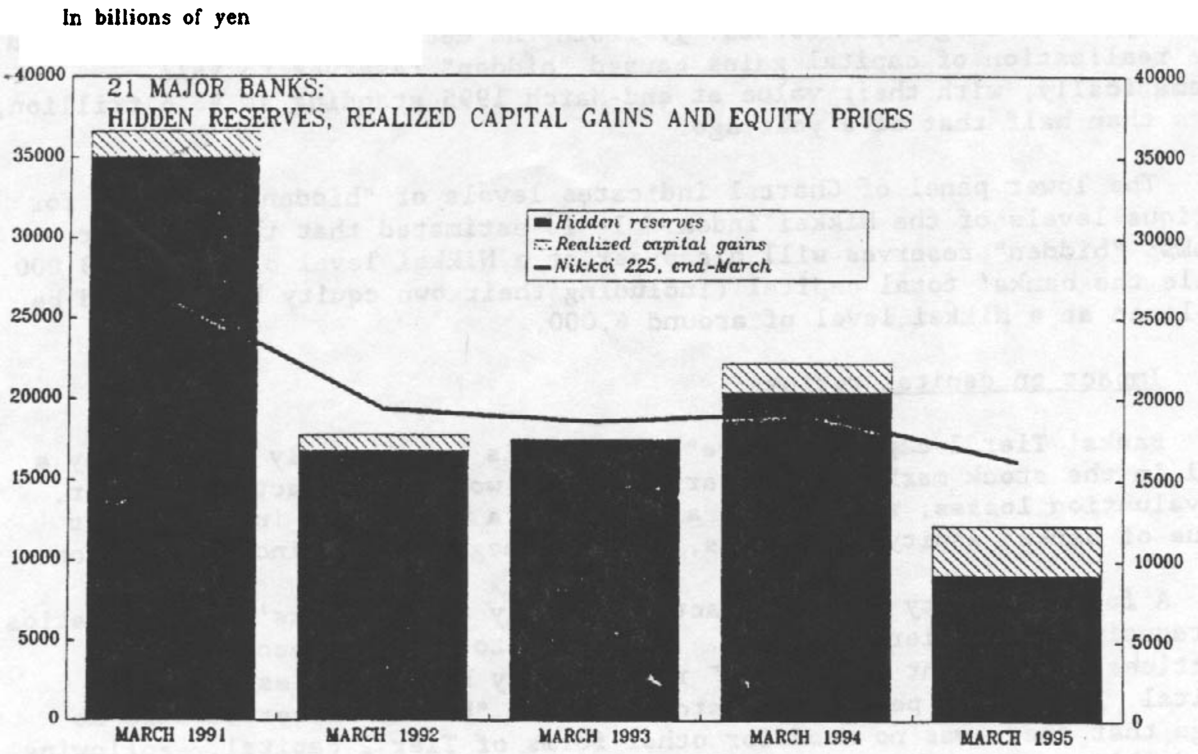
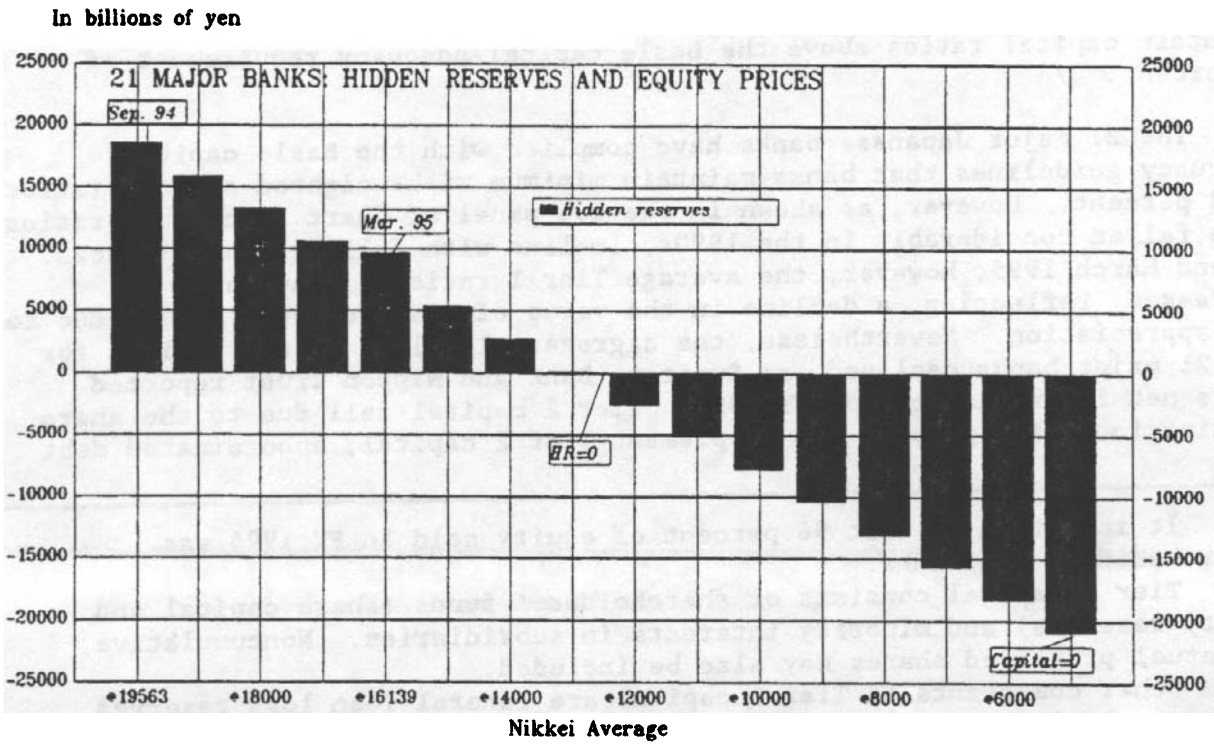
BANKING SECTOR INDICATORS, 1991-95




Sources: IBCA and staff estimates.

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the impact of large loan losses. 1/ Both the decline in equity prices and the realization of capital gains caused "hidden" reserves to fall dramatically, with their value at end-March 1995 standing at ¥8.6 trillion, less than half that of a year ago.

The lower panel of Chart 1 indicates levels of "hidden" reserves for various levels of the Nikkei index. It is estimated that the 21 major banks' "hidden" reserves will disappear at a Nikkei level of around 13,000, while the banks' total capital (including their own equity base) would be depleted at a Nikkei level of around 4,000.

2. Impact on capital ratios

Banks' Tier 1 capital--"core" capital--is not directly affected by a fall in the stock market. 2/ Tier 1 capital would be affected, however, if valuation losses, recorded as a result of a sharp fall in the market value of banks' equity securities, led to a negative net income position.

A fall in equity prices impacts primarily on the banks' capital ratios by reducing their Tier 2 capital. According to Japanese accounting practices, 45 percent of "hidden" reserves may be counted as Tier 2 capital. 3/ At the peak of the stock market, "hidden" reserves were so large that there was no need for other forms of Tier 2 capital. Following its decline since 1990, banks have raised additional Tier 2 capital through preferred stock issues through subsidiaries and issues of perpetual debt to maintain capital ratios above the Basle capital-adequacy requirement of 8 percent. 4/

The 21 major Japanese banks have complied with the Basle capital adequacy guidelines that banks maintain minimum risk-weighted capital ratios of 8 percent. However, as shown in the top panel of Chart 2, capital ratios have fallen considerably in the 1990s, in line with falling equity prices. At end-March 1995, however, the average Tier 1 ratio of many banks increased, reflecting a decline in the value of risk-weighted assets due to yen appreciation. Nevertheless, the aggregate level of Tier 1 capital for the 21 major banks declined, as Sumitomo Bank and Nippon Trust reported large net income losses for FY 1994. Tier 2 capital fell due to the sharp decline in equity prices. To supplement Tier 2 capital, subordinated debt

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1/ It is estimated that 96 percent of equity sold in FY 1994 was repurchased by the banks.

2/ Tier 1 capital consists of shareholders' funds (share capital and equity reserves) and minority interests in subsidiaries. Noncumulative, perpetual preferred shares may also be included.

3/ Other components of Tier 2 capital are general loan loss reserves, which are limited to 0.3 percent of lending, and subordinated debt.

4/ Banks' ability to issue subordinated debt is limited by the requirement that it not exceed 50 percent of the amount of a bank's Tier 1 capital.

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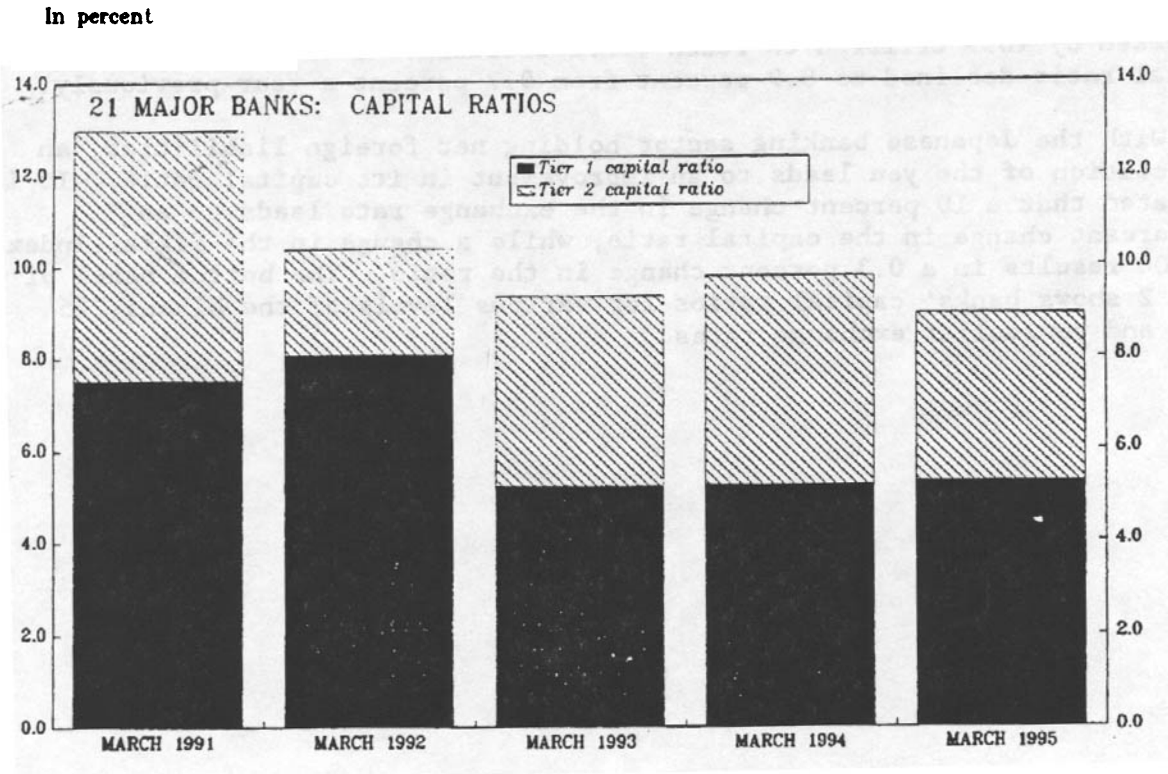
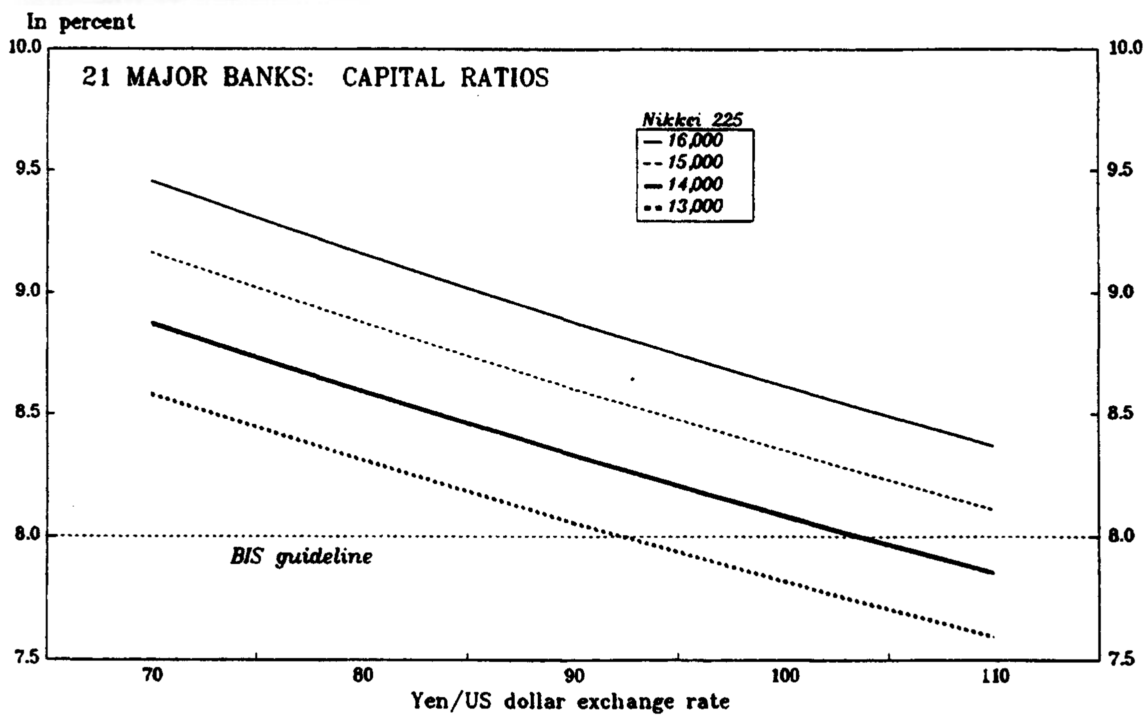
CHART 2

JAPAN

CAPITAL RATIOS, 1991-95




Sources: IBCA and staff estimates.

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increased by ¥0.9 trillion to reach ¥12.1 trillion. Overall, the aggregate capital ratio declined to 8.9 percent from 9.7 percent a year previously.

With the Japanese banking sector holding net foreign liabilities, an appreciation of the yen leads to an improvement in its capital ratio. It is estimated that a 10 percent change in the exchange rate leads to an 0.3 percent change in the capital ratio, while a change in the Nikkei index by 1000 results in a 0.3 percent change in the ratio. The bottom panel of Chart 2 shows banks' capital ratios for various levels of the Nikkei 225 index and yen/dollar exchange rates.

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