JAPAN’S EXPERIENCE WITH FISCAL POLICY IN THE 1990s
IN THE AFTERMATH OF THE BUBBLE ECONOMY

Takehiko Nakao

1. Introduction

The Japanese economy has been in a prolonged slump since the bubble burst at the beginning of the 1990s, although there was a short period of recovery in 1995-96 (Figure 1). Several years have passed since the new cliché “the lost decade of Japan” first appeared. More recently, many respected foreign magazines have reported Japan’s situation from rather pessimistic viewpoints.¹

The Japanese economy boasted higher growth rates than those of other major countries not only in the miraculous post-war period (average annual growth of 10% during 1956-73), but also after it transferred to a more stable growth stage triggered by the first oil crisis (average annual growth of 4% during 1974-89). It was not so long ago that Japan was much lauded, in the peak of the bubble economy, as the richest country in the world, the biggest donor country (it still is), and the world center of finance and industry.

Why has Japan continued to suffer from such a prolonged slump of over 10 years? What kind of policy measures has the Government taken? How effective were those measures? If the effects were less than expected, what were the reasons? In this paper, the author, from the standpoint of an administrator of the Ministry of Finance responsible for Japan’s fiscal policies, will examine i) how economic policy, particularly fiscal policy, reacted in the 1990s (Chapter 4); ii) how the effects of the fiscal policy are evaluated (Chapter 5); and, iii) where the Japanese economy and its policy are going (Chapter 6). While this paper is not an academic paper based on empirical studies with quantitative models, the author tries to introduce

¹ Budget Bureau, Ministry of Finance, Japan.

The opinions in this paper are those of the author and do not necessarily reflect the ideas of the Government of Japan or the Ministry of Finance.

The author owes a lot to Mr. Kaoru Saito and other staff of the Research Division of the Budget Bureau, who assisted with the preparation of the data, figures and tables in this paper.

¹ For example, a special report in the Economist, February 16-22, 2002 edition, titled “The Sadness of Japan”.
various issues taken up by domestic and overseas critics regarding the effects of fiscal policy and to make his own interpretation.

The conclusion of this paper is that the Japanese authorities have not been inactive. Rather, they have implemented a wide range of measures including consecutive and substantive fiscal packages. Those measures should have contributed to bolstering the economy and avoiding further decline. But they have not been successful in returning the economy to a robust growth path, and more recently, arguments have emerged concerning problems stemming from the build-up of outstanding Japanese Government bonds (JGBs), and the possibility of the decrease of multiplier effects. Japan has not lost its fundamental strengths, and structural reforms including deregulation are steadily taking place. If Japan continues to promote the necessary reforms with strong political commitment, and
implements appropriate fiscal consolidation without delay when the time comes, we should not be pessimistic about Japan’s future.

Before moving to the main chapters, the author will discuss in some detail i) what was the bubble phenomenon in Japan in the late 1980s (Chapter 2); and ii) what are underlying reasons for such a prolonged slump after the burst of the bubble (Chapter 3). Without an understanding of this huge bubble which could have been rare in its size in the world economic history, and the very serious effects of its collapse, readers cannot correctly assess Japan’s economic policy management in the 1990s.

2. What was the bubble?2

2.1 The bubble phenomenon

The Japanese economy in the late 1980s experienced a substantial increase in the asset values of stocks and land. The Nikkei 225 index doubled within 2 years from JY 13,113 at the end of 1985 to JY 26,000 in October 1987. Then, after Black Monday in this month, it rose further to the peak of JY 38,915 at the end of 1989. The TOPIX index, which reflects prices of all the listed stocks on the Tokyo Stock Exchange, tripled from the end of 1985 to the end of 1989 (Figure 2).

Land prices started to increase around 1983 in Tokyo; then the increase spilled over to the other two metropolitan areas (Osaka, Nagoya), and further to other cities and local areas. The land price index of the six largest cities more than tripled from the end of FY1985 3 to that of FY1990 (Figure 2).

Why did such a sharp rise of asset prices occur? There were three major reasons; expansionary policy stance, in particular that of monetary policy; very vigorous activities by banks as well as corporations and individuals; and strong expectations for the bright future of the Japanese economy.

2 This chapter (except Section 7) basically follows the analysis of the report issued in April 1993 by the Study Group on the Mechanism of Asset Price Variation and its Economic Impact chaired by Professor Ryuichiro Tachi and sponsored by the Research Institute of the Ministry of Finance.

3 Japan’s fiscal year starts on April 1 and ends on March 31 of the following year.
First, expansionary monetary policy was maintained to promote domestic demand-led growth against the background of the very sharp appreciation of the yen after the Plaza Accord of September 1985.

The Japanese yen precipitously appreciated from JY 244 to the US dollar in September 1985 to JY 153 in August 1986. The average yen/US dollar rate in FY1986 appreciated 40% over the previous year (Figure 3). In the face of the deterioration of business sentiment due to this sharp yen rise, the Bank of Japan lowered its discount rate five times between January 1986 and February 1987 from 5% to 2.5%, and then maintained the historically lowest rate for 2 years and a quarter until May 1989 when it raised back the rate to 3.25% (Figure 4). In terms of liquidity also, loose
Fig. 3

Trends of External Current Balance (as percent of GDP), Exchange Rate and the Import Ratio of Manufactured Products

External Current Balances (percent of GDP)

Exchange Rate (Yen/U.S. Dollar)

Import ratio of manufactured products (percentage)
monetary policy was sustained as exemplified by double-digit money supply growth from FY1987 to FY1990. In addition, two large fiscal packages were compiled in September 1985 and May 1987.

Why was this expansionary monetary policy sustained in spite of the very substantial increase in asset prices? The report referred to in this chapter mentioned five factors: i) it was almost an international commitment for Japan to maintain an expansionary policy since the Plaza Accord required Japan and Germany, with their current account surpluses, to aim at domestic demand-led growth, and the United States to reduce the fiscal deficit; ii) the Japanese authorities overestimated the negative impacts of the yen appreciation while the appreciation also should have had positive impacts including an increase in real-term income; iii) the CPI remained rather stable (Figure 1) despite asset price hikes, largely due to
the appreciation of the yen and its impact on import prices; iv) it is possible that monetary policy was required to remain expansionary while fiscal policy aimed to reduce the deficit; and v) Black Monday in October 1987 might have deprived the authorities of an opportunity to change their policy stance toward tightening.

2.3 Very vigorous financial activities

The second reason for the bubble was that financial institutions, non-financial corporations, and individuals became financially very active in the late 1980s. In these years, against the background of expansionary monetary policy and the progress of disintermediation, through which large corporations relied less on bank loans, financial deregulation proceeded without sufficient risk management and enforcement of the self-responsibility principle.

Manufacturing companies reduced borrowing from banks under the more streamlined management style prevalent after the slowdown of Japan’s growth in the mid-1970s; their new investments had been increasingly financed by retained earnings. Deregulation of security issuance also invited less dependence on bank loans. In this environment, banks had to find new areas for their activities, and increased lending, directly or through their affiliated non-bank loans, to real estate-related businesses including construction and land development. For banks facing higher financing costs due to the liberalization of interest rates, lending to real estate-related businesses was also opportune because it was larger in volume per contract and more efficient, with a higher rate of return and longer maturity, and real estate could be used as collateral.

Institutional investors such as life insurance and investment trusts offered various new financial products reflecting deregulation, mobilized more funds, and invested actively in the stock market. Non-financial corporations also financed more funds in equity markets in the boom, including through issuing warrant and convertible bonds, and actively managed these funds in the stock market either directly or through institutional investors, which further raised stock prices. Some companies even became obsessed by financial management, paying less attention to their original business. In the bubble, individuals also became actively involved in investment in stocks, real estate, golf club membership, and fine art.
2.4 Strong expectations

The third reason was strong expectations for the future. The rise in asset prices seemed rationalized by the sustained expansion of the economy in the late 1980s, increase of real-term income reflecting the stronger yen, enhancement of the international status of Japan’s economy, and larger role played by Japanese financial institutions in the international market. The land myth also played an important role in the bubble. Land prices in Japan had continued to rise in the post-war period, and the boom reinforced the belief that land would remain the most profitable asset and its price would further rise, inviting renewed speculation in land investment. In the midst of the bubble period, some analysts even predicted a shortage of office space in the center of Tokyo in the foreseeable future.

2.5 Impacts of the asset price rise on the real economy

During the bubble, the rise in asset prices had a great impact on the real economy. Japan's economy grew 5.1% per annum from FY1987 through FY1990, of which investment in equipment and machinery and private consumption contributed 2.3% and 2.5%, respectively. The expansion of these expenditures was obviously influenced by the good performance of business earnings and household dispensable income, as well as the strong appetite toward investment for saving labor and utilizing information technology. In addition, however, the wealth effect from an increase of the total stock value by as much as 150% of GDP and of the total land value by as much as 200% of GDP between the end of 1985 and the end of 1990 should have substantially contributed to the growth of these expenditures (Figure 5). Incidentally, during this period, the external current account decreased sharply from 4.3% of GDP in FY1986 to 1.2% in FY1990 (Figure 3).

2.6 Bursting of the bubble

Like other bubbles in human history, the bubble in the late 1980s in Japan collapsed eventually, reflecting an alteration in the expectations of the people and the authorities’ policy stance. The Bank of Japan tightened monetary policy in the face of some signs of inflation by raising its discount rate three times in 1989 from 2.5% to 4.25%, and twice in 1990 to 6.0%. In addition, in April 1990, a regulation concerning the volume of
Fig. 5

Japan’s Stock Value and Land Value at Market Price

Year End Figures.
bank loans to real estate-related businesses was introduced, and in 1991 a comprehensive reform of taxation on land (including the introduction of a national-level land holding tax on the market value of land) was decided. Thus, stock price indexes started to drop from the beginning of 1990, and land prices started to decline during 1991, although the timing varied in different areas of Japan.

2.7 The bubble and monetary policy

Before concluding this chapter, the author would like to provide a few observations on the monetary policy in the lead-up to the bubble in the late 1980s. The World Economic Outlook of the IMF, April 2000 (referred to again in Section 3 of the next chapter) points out that monetary authorities should carefully monitor fluctuations in asset prices, and that they should take precautionary monetary policy in the face of sustained increase or rapid decrease in asset prices. On the other hand, it is often pointed out that Japan’s authorities were probably late in taking precautionary tightening measures in the late 1980s. Among the reasons for sustaining the expansionary monetary policy during that period, which were discussed in Section 2 of this chapter, the author would like to emphasize the stable CPI due to the appreciation of the yen.

This is related to economic policy management under the floating exchange rate regime and the fixed exchange rate regime. Under the Bretton Woods-type regime with limited international capital movements and fixed exchange rates between major countries, when active growth and inflationary pressures occur in one country, the country is obliged to tighten its monetary policy due to balance of payments constraints. The trading partner’s economy is influenced by the increase in exports and improvement in the current account balance as well as by automatic monetary expansion unless the authorities sterilize the increase in the base money caused by the increase in foreign reserves. Under this regime, therefore, economic situations between countries tend to converge.

On the other hand, under the floating exchange rate regime with huge capital movements between countries, when a country is in an economic boom, the real-term interest rates and asset prices rise, thereby inviting capital flows from abroad, and appreciation of its currency. This then leads to the reduction of import prices and the stability of the CPI. Although the external current account position may deteriorate, as long as
the deficit in the current account is financed by capital inflows, the ideal combination of high growth and low inflation can be maintained. In the condition of an external current account surplus like Japan in the late 1980s, it would be very difficult for the monetary authorities to alter the policy, solely based on the recognition of rapid and general rises in asset prices.

Incidentally, under such a regime, while the transmission channel through trade between countries works toward converging their economic conditions, the transmission channel through huge capital flows from the less active economy into the boom economy tends to diverge the economic conditions of countries because it further brings about expansionary effects in the boom economy and contractionary effects in the less active economy. It is possible that the divergence in economic performance between Japan and the USA in the late 1980s and in the late 1990s is related to this mechanism.

3. Why such a prolonged slump?

3.1 Prolonged slump

More than 10 years have passed since the collapse of the bubble. During this period, the annual growth of Japan’s economy has been generally subdued, and the economy still has not returned to a robust growth path (Figure 1). The TOPIX stock index is now about one third of its peak level. The land price index of the six largest cities has continued to drop, and is now around one third of its peak, too (Figure 2). Due to the sustained decline of asset prices and bad performance of business earnings, balance sheets of banks and non-financial corporations are still in bad shape. The unemployment rate rose from 2.1% in 1990 to the highest ever level of 5.5% in December 2001.

The author was involved in the preparations for the G7 Finance Ministers and Central Bank Governors’ Meetings in 1991 through 1993 as a staff member of the International Bureau of the Ministry of Finance. In those years, the Japanese authorities thought that although the Japan’s economy was in the process of adjustment in the wake of the bubble, it would recover before long as monetary policy was loosened again in 1992 and the expansionary fiscal policy exemplified by the August 1992
package took effect. The author himself shared this view. Why has the
slump continued for such a long time?

The author believes that the following three factors lie behind this
prolonged slump, putting aside policy responses that will be discussed in
the next chapter.

3.2 Negative wealth effect and stock adjustment

The first factor is simple. Within just a two-to-three year period
closing at the end of the 1992, total stock value amounting to 130% of
GDP and total land value amounting to 120% of GDP was lost (figure 5).
As some economists argue, the wealth effect can work asymmetrically; its
impact can be larger in the price decline phase. It is probable that
household consumption and business investments were affected by a
substantial negative wealth effect after the bursting of the bubble, together
with the negative impact of peoples’ altered expectations.

On top of the negative wealth effect, equipment and machinery
investment of non-financial corporations dropped sharply due to the credit
crunch (to be discussed later), decline of earnings, and stock adjustment
after the excessive investment of the boom period.

3.3 Balance sheet problems and malfunctioning of financial
intermediation

It is widely believed today that the balance sheet problems of
financial institutions as well as non-financial corporations, and
accompanying malfunctioning of financial intermediation have been the
most important factors behind this prolonged slump of the economy. In this
context, it seems quite useful to refer to the IMF World Economic Outlook
of April 2000.4 In this report, the IMF conducted an in-depth analysis of
experiences in developed countries including Japan regarding asset price
fluctuations and the business cycle.

The report emphasizes that large asset price swings could have
disruptive impacts on balance sheets of financial institutions in addition to

---

well-known disturbances from positive or negative wealth effects. According to the IMF, a sharp downward swing of asset prices would have a major impact on balance sheets through channels of i) downward revaluations of non-loan assets; ii) the decrease in earning accruing from brokerage fees on the value of asset transactions; iii) the increase in the share of non-performing loans to the extent that falling asset prices affect the solvency of household and corporate borrowers; iv) the falling value of loan collaterals, and thereby undermining banks’ capital position and lending capacity; v) the decline of asset prices due to sales of assets at fire sale prices; vi) the further decline of asset prices due to the credit crunch created by the deterioration of balance sheets; and vii) the combined, mutually reinforcing impacts of the above mentioned effects. The report says that this transmission channel has proven stronger in continental Europe and Japan where the financial system is bank-dominated, and especially in Japan where cross shareholding between the banking and corporate sectors is extensive.

This is exactly what has happened in Japan. According to the SNA statistics, the financial sector in Japan built up assets (excluding real assets) by 49% in four years, from JY1,091 trillion at the end of 1986 to JY1,623 trillion at the end of 1990. These assets in the balance sheets of financial institutions have deteriorated ever since due to non-performing loans and the revaluation of stocks. Behind this is the aggravation of balance sheets of borrowing corporations. The liabilities of the non-financial corporate sector increased by 46% in the same four years to JY855 trillion (195% of GDP in that year). Bad performance of earnings reflecting the economic slowdown and deflationary pressures have made it difficult for corporations to repay the debt and this debt overhang has kept many companies from making proactive investments.

On the other hand, the balance sheet of the household sector is in comparatively good shape. The household sector (including unincorporated enterprises) increased its gross financial assets by 49% during the bubble period to JY949 trillion at the end of 1990. The amount at the end of 1998 was JY1198 trillion. Out of this, JY722 trillion in deposits and JY289 trillion in life insurances (in sum, 85% of the total financial assets) were essentially covered by public insurances. The liabilities of the household sector at the time were limited to JY372 trillion and stock holding was as low as JY75 trillion at the market price. In a way, the burden of asset value reduction was concentrated in the balance sheets of the financial and non-financial corporate sectors.
3.4 Structural changes in the basis of the Japanese economy

The final factor behind the prolonged slump is represented by possible structural changes in the basis of the Japanese economy. Many preconditions of post-war growth should have been faced with major challenges from the late 1980s through the 1990s, but these were obscured by the bubble and only found belatedly.

The first of these underlying structural changes is the end of the catch-up process for Japan’s economy in the post-war period. Japanese per capita GDP in US dollars became the largest among the major economies at the end of the 1980s. Being a front-runner meant that the economy could not take advantage of growing faster by importing technology from others. It also meant that demand growth would be restrained by the mature consumption pattern.

The second important change is the aging of society. In 1965, the proportion of people 65 years old or more in the Japan’s total population was only 6.3%, which was much lower than that of other major countries. Fifteen years later, it remained at 9.1%, but by 1995 it had climbed to 14.5%. In the coming years, it is expected to rise very rapidly (Figure 6). The aging of the population would contribute to both lower potential growth and less exuberant demand. It also would have negative impacts on consumption due to anxiety over the increasing burden and/or the sustainability of the public pension and medical systems.

Third, Japan’s economy has been more closely integrated with Asian countries through trade and investment. Accordingly, the ratio of Japan’s imports of manufactured products to total imports increased from 31.5% in FY1985 to 61.6% in FY2000. In spite of the prolonged slump, total imports increased by 25% between FY1990 and FY2001 (against an increase of nominal GDP of 10%). Out of this, imports from China centered on clothes and electrical products increased fourfold and, vis-à-vis China, Japan now has the biggest trade deficit of JY3.2 trillion. It is probable that imports of Chinese products and the transfer of factories to China, which is becoming the manufacturing center of the world, have had substantial deflationary impacts on Japan’s economy.

Fourth, the alteration from excess demand for land to its over-supply might have occurred between the pre- and post-bubble periods. Slower population growth, the aging of society, shift of the industrial structure
Ratio of the Number of Aged People (65 years or more) to the Total Population (percent)

Japan | 6.3 | 9.1 | 14.5 | 17.3 | 28.7 | 8.2 | 14.2
Germany | 12.5 | 15.6 | 15.5 | 16.4 | 24.6 | 3.0 | 9.1
France | 12.1 | 14.0 | 15.1 | 16.0 | 22.2 | 3.0 | 7.1
U.K. | 12.0 | 15.1 | 15.7 | 15.8 | 21.9 | 3.7 | 6.2
U.S.A. | 9.5 | 11.2 | 12.5 | 12.3 | 18.5 | 3.0 | 6.0

Sources:
- Japan: "National Census" (Ministry of Public Management, Home Affairs, Posts and Telecommunications) and "Japanese Future Demographic Projections" (National Institute of Population and Social Security Research, 2002)
- Other nations: United Nations projections.
toward more knowledge intensive industries, transfer of factories to Asian countries by manufacturers (“hollowing out”), decrease of migration to big cities, improvements of housing conditions which had been pursued throughout the post-war period, and saturating demand for houses by baby boomers who entered their mid-Forties in the 1990s, all contributed to the decrease of demand in land.

Fifth, more importantly, the post-war socioeconomic system of Japan failed to respond to the above mentioned major changes. To take a few important examples, what is regarded as the post-war Japanese system comprises: i) labor market with limited mobility as represented by lifetime employment by most large corporations; ii) a financial market heavily dependent on intermediation by banks; iii) cross-corporation relationships paying more attention to long-term reciprocity; iv) corporate governance with a higher priority on expansion of business than an maximization of return on capital; v) an education system with a high average level but which does not produce many genius and entrepreneurs; and vi) government policies emphasizing security and stability rather than promoting competitive environment. Obviously, these all contributed to high growth and the fair distribution of its fruits in the post-war era, but, by the beginning of the 1990s, they had made the Japanese economy less able to respond well to new challenges and to act speedily in the new environment of globalization and the IT revolution.

4. Fiscal policy in the 1990s

4.1 Overview

How did economic policy, fiscal policy in particular, react during the prolonged slump of the 1990s? Did the authorities take measures in a timely manner and on a sufficient scale? These are questions that have been asked by domestic and overseas critics. In short, the authorities have not been inactive. As discussed in detail later, consecutive and substantial fiscal packages have been implemented and contributed to the bolstering the economy and the avoidance of further plunging.

Touching upon other policy areas, monetary policy has been expansionary; since July 1991 the BOJ discount rate was lowered several times, reaching an historically low of 0.5% in September 1995, and then 0.1% in September 2001. Ample base money has been provided by the
BOJ through various channels although money supply (M2) has not increased as expected, possibly due to deterioration of financial intermediation (Figure 4). In the area of financial sector policy, all thinkable measures have been taken.\(^5\) Banks, reflecting more rigid regulatory and inspection initiatives by the Financial Agency, have accelerated resolution of non-performing loans.

It is important that the Government, business, and the general public have been very keen on promoting wide-ranging structural policies, including i) deregulation in telecommunications, transportation, utilities, retail, medicine, and education; ii) reform of the labor market to improve mobility; iii) amendments of commercial and bankruptcy laws to encourage the restructuring of enterprises; and iv) reform of the public sector based on the concept of new public management. In essence, these policies are being pursued in view of the structural challenges that were discussed in Section 4 of Chapter 3.

### 4.2 Consecutive fiscal packages

Since the burst of the bubble, the Government has implemented 12 large fiscal packages, incorporating the Government’s additional expenditures, in particular public works, through supplementary budgets (Table 1). The first package was compiled in August 1992 and, then, a new package was announced every year, except in 1996-97 reflecting a short recovery and a fiscal consolidation policy that was pursued but aborted shortly (footnote 16). The headline scales of 8 of the packages were over 2% of GDP, and the biggest one was over JY20 trillion or over 4.7% of GDP.

Public works were the biggest element in most of the packages. The amounts for the public works projects assumed funding contributions from local governments for joint projects with the central government as well as for independent local projects. It should also be noted that the amounts in

---

\(^5\) Measures have been implemented since 1990 in order to i) regain and ensure the stability of the financial market (among others, public money injection to reinforce banks’ capital, reform of the deposit insurance system); ii) promote efficiency and competition (various deregulations, cross-entry between banks, security firms, and insurance companies through affiliated companies and holding companies); iii) ensure fair and safe transactions (strengthening of accounting and disclosure practices, a new law to protect consumers in financial transactions); and iv) reform regulatory agencies (separation of the Financial Agency from the Ministry of Finance, the new BOJ law to enhance its autonomy from the Government).
Table 1

Economic Stimulus Packages after the Collapse of the Bubble Economy
*(trillions of Yen)*

<table>
<thead>
<tr>
<th></th>
<th>Aug. 92</th>
<th>Apr. 93</th>
<th>Sep. 93</th>
<th>Feb. 94</th>
<th>Apr. 95</th>
<th>Sep. 95</th>
<th>Apr. 98</th>
<th>Nov. 98</th>
<th>Nov. 99</th>
<th>Oct. 00</th>
<th>Dec. 01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Investment</td>
<td>8.6</td>
<td>10.6</td>
<td>5.2</td>
<td>7.2</td>
<td>11.4</td>
<td>5.2</td>
<td>8.0</td>
<td>7.2</td>
<td>4.2</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>of Which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lending by Housing Loan Corporation</td>
<td>0.8</td>
<td>1.8</td>
<td>2.9</td>
<td>1.2</td>
<td>0.5</td>
<td>1.2</td>
<td>2.0</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures for Small and Medium-Sized Enterprises and Credit Crunch</td>
<td>1.2</td>
<td>1.9</td>
<td>0.8</td>
<td>1.4</td>
<td>1.4</td>
<td>1.3</td>
<td>2.0</td>
<td>5.9</td>
<td>7.4</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Measures for Employment</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>1.0</td>
<td>1.0</td>
<td>0.1</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures for Disaster Relief</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.1</td>
<td>1.4</td>
<td>1.0</td>
<td>1.3</td>
<td>1.6</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>0.9</td>
<td>0.5</td>
<td>0.8</td>
<td>0.4</td>
<td>0.1</td>
<td>3.8</td>
<td>1.7</td>
<td>0.9</td>
<td>0.2</td>
<td>0.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Tax Reductions</td>
<td>0.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.6</td>
<td>6.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>approx.</th>
<th>approx.</th>
<th>over</th>
<th>over</th>
<th>approx.</th>
<th>approx.</th>
<th>approx.</th>
<th>approx.</th>
<th>approx.</th>
<th>approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package Volume</td>
<td>10.7</td>
<td>13.2</td>
<td>6.0</td>
<td>15.3</td>
<td>7.0</td>
<td>14.2</td>
<td>16.0</td>
<td>20.0</td>
<td>18.0</td>
<td>11.0</td>
</tr>
<tr>
<td>Package Volume (percent of GDP)</td>
<td>2.2%</td>
<td>2.7%</td>
<td>1.2%</td>
<td>3.1%</td>
<td>1.4%</td>
<td>2.8%</td>
<td>3.2%</td>
<td>4.7%</td>
<td>3.5%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance.
the packages included the expansion of lending from government financial institutions for housing and small- and medium-sized enterprises. Furthermore, the amounts included the effects of special and permanent tax reductions.\footnote{According to a Ministry of Finance estimate, the full effects on each year’s revenues of the permanent tax reduction starting FY1999 [including a maximum individual income tax rate 65%—50% (sum of national and local), and an effective rate of corporate income tax 50%—41%] were JY 4.9 trillion (national) and over JY6.0 trillion (including local).}

Some critics have argued that these stimulus packages were not as effective as their scales implied. One of these arguments is that “real water” parts (those that involve an increase in real expenditures from the government or reduction of revenues, and that directly contribute to an increase in effective demand) were limited. While expansion of loans from government financial institutions typically involves increased capital contribution and subsidies from the government budget, the target of the loan was not always attained. Moreover, the expanded lending might only alter borrowing from private banks or be used to reinforce liquidity for daily business operations. Land purchases included in the amounts of the packages are recorded as transfers and do not appear as expanded expenditures in GDP statistics. According to an estimate in an IMF publication,\footnote{Chapter 6 of Post-Bubble Blues (IMF, 2000).} “real water” measures contributed 55% to 78% of the headline amounts of the packages except the one in September 1993, which involved a large expansion of loans from the Housing Loan Corporation. Thus, it is obvious that the amounts of “real water” parts alone were quite substantive.

Second, some have argued that although the packages with supplementary budgets were surely expansionary, every year’s initial budget of the General Account Budget of the central government has been rather contractionary. Yes, the Ministry of Finance has tried to avoid loosening expenditures in every year’s initial budget using the method of ceiling based on the previous year’s initial budget for each ministry’s budget request. However, the fact is that the total expenditures in the initial budget increased by 25% from JY66.2 trillion in FY1990 to JY82.7 trillion in FY2001 projection (Figure 7), partly due to the inevitable increase in social security-related expenditures. Excluding spending for interest and amortization of JGBs and for the Local Allocation Tax (statutory transfer to local governments based on a certain ratio of the national taxes on individuals, corporations, and consumption), the total expenditures of the
Fig. 7

Trends of General Account Tax Revenues, Total Expenditures, and Government Bond Issues

    FY2002 tax revenues: initial budget
2. ( ) shows initial budget figures for total expenditures.

Nominal GDP (Trillions of Yen) (FY2002 figures are estimates)

The permanent tax reductions (national and local), which substantially exceed 6 trillion Yen (full effect basis), are continuing since FY 1999.
Trends in the Ratio of Government Investment to GDP
on a General Government Basis

(Percent)

Japan: Annual Report on National Accounts, etc. (FY basis).
Other countries: OECD National Accounts (CY basis). 68SNA basis.
Germany up to 1990: West Germany.

Japan: Annual Report on National Accounts, etc. (FY basis).
Other countries: OECD National Accounts (CY basis). 68SNA basis.
Germany up to 1990: West Germany.
initial budget rose by 38% in the same period from JY35.4 trillion to JY48.7 trillion. Thus, it can hardly be said that the initial budget has been contractionary.

The third point regards the volume of government investment (Ig) on a general government basis (net sum of central and local governments as well as certain other public entities). The Ig rose by 47% from JY21.6 trillion in FY1990 to JY31.8 trillion in FY1995. During that period, the ratio of Ig to GDP increased from 4.8% to 6.3% (Figure 8), and contributed to supporting the economy. As some argue, however, after FY1995 the Ig leveled off, and its ratio to GDP declined as the deterioration of local governments’ fiscal position restrained them from implementing the public works as vigorously as expected.\footnote{Local governments’ spending constitutes about 80% of the total Ig.}

4.3 Growing fiscal deficit

Japan’s fiscal deficit grew throughout the 1990s after the burst of the bubble. The deterioration of the fiscal position in the General Account Budget of the central government is obvious (Figure 7). Due to the decline in tax revenues stemming from the economic slump as well as tax reductions, and the expansion of expenditures, the gap between tax revenues and expenditures is expected to widen to JY36.8 trillion yen in FY2001 (projection) and is being financed by the new issuance of JGBs worth JY30 trillion (supplemented by non-tax revenues for the remaining). It is quite abnormal that only 57% of the total expenditures is covered by tax revenues

Expansion of the fiscal deficit and reliance on JGB issuance naturally has brought about accumulation of outstanding JGBs (Figure 9). At the end of FY2001, outstanding JGBs totaled JY395 trillion or 79% of GDP.

Japan’s serious fiscal position is also obvious in an international comparison using data on a general government basis (Table 2 and 3). In CY1990, Japan’s position was in good shape and better than other major countries, but today, it is by far in the most serious condition.
FY1965-2000: actual. FY2001, FY2002 are estimates. Figures for FY2001 include the scheduled issuance of FY2002 refunding bonds in FY2001 (approximately 7 trillion Yen). The special deficit-financing bond amount includes refunding bonds for long term debts transferred from JNP Corp. settlement and National Forest Service, etc.

Fig. 9

Trends of Accumulated Government Bonds Outstanding (FY2002 Budget)
4.4 Structural or cyclical?

The increase in the fiscal deficit in the 1990s comprised both i) “structural deficit” stemming from discretionary stimulative expenditure policy and tax reductions, and from the inevitable increase in social security-related expenditures with the aging of the population, on the one hand; and ii) “cyclical deficit” caused by the gap between potential and actual GDP, stemming from the drop in revenues and the increase in unemployment benefits, etc., on the other.

According to an OECD estimate,\(^9\) the fiscal deficit was 6.6% of GDP on a general government basis in CY2000, with structural deficit constituting 6.3% and cyclical deficit, 0.3%. This means that even if actual GDP increases to its potential, improvement of the fiscal position would be only 0.3%. However, it should be noted that, in general, estimates of potential GDP and, thus, the cyclical element in the fiscal deficit are based on various assumptions. The OECD estimate regarded the output gap to be 0.6% of actual GDP. It is possible that the gap and the cyclical deficit are much larger. If this is the case, when Japan recovers to its potential, the improvement in fiscal position could be more substantial than indicated in the OECD estimate.

In fact, according to an IMF estimate,\(^10\) cyclical deficit in 2000 was 2.5% of GDP out of a total of 8.0% and, thus, the cyclical element is assumed to be much larger than that of the OECD estimate. Incidentally, the IMF publication\(^11\) regards as structural the sharp drop in the tax revenue elasticity to GDP before and after the bubble (from 1.6 in 1986-90 to minus 0.5 in 1991-94), while regarding as cyclical the bad performance of revenues which reflect lower GDP growth by assuming the potential normal elasticity of 1.2 (observed in 1976-85). It is arguable whether such substantial alteration of the elasticity should be regarded as structural, as in the IMF paper, or as cyclical.


\(^10\) The staff report of the IMF Article IV consultation with Japan that was published in August 2000. The gap between the IMF and OECD estimates of total fiscal deficit in 2000 may be due to the difference in the timing of the estimation.

\(^11\) Same publication as in footnote 10.
5. Views on the effects of the fiscal policy

5.1 Effects of supporting the economy

Since the beginning of the 1990s, the Government has adopted an expansionary fiscal policy which brought about an increase in the fiscal deficit. Yet, the economy has not returned to a robust growth path. It seems that the impact from the collapse of the bubble has been much larger and prolonged than initially thought and that Japan’s economy has undergone many structural challenges as discussed in Chapter 3. Against this background, various arguments have emerged concerning the effects of the fiscal policy.

First of all, the author would like to reiterate the generally accepted view that the fiscal policy contributed to supporting the economy and preventing further decline. From FY1990 to FY2000, real GDP increased by 14.0%, out of which, contribution from public demand was 6.6% vis-à-vis 6.1% from domestic private demand.13 Public sector expenditures have played a very important role in the economic slump, financing increasingly larger parts by the expansion of its liabilities, in spite of its small percentage of total GDP (23% in FY2000).

This role of fiscal policy is also clear from the investment-saving balance in the SNA statistics (Figure 10). Between FY1990 and FY2000, non-financial enterprises shifted from excess investment of 9% of GDP to excess saving of 3%. This huge swing resulted in major excess saving or shortage of investment in the whole domestic private sector. The public sector on a general government basis absorbed this excess saving by the private sector by shifting from excess saving (net lending) to excess investment (net borrowing). If the public sector had not made up for the excess saving by the private sector by increasing its expenditures and borrowing more, a macroeconomic balance would have been achieved through heavier reliance on net exports, and/or decrease in the private sector excess saving that, then, would have been achieved through the

---

12 The author’s discussion in this chapter were inspired by the views of Professor Toshihiro Ihori (University of Tokyo) and Dr. Toshiki Tomita (Nomura Research Institute), both of whom are more concerned about the increasing fiscal deficit, and Professor Tatsuo Hatta (University of Tokyo), who is more supportive of the role of fiscal policy from the neo-classical standpoint. These views were expressed at conferences held within the Ministry of Finance and in their recently published books.

13 Of 6.6%, public investment and public consumption contributed 1.6% and 5.0%, respectively. External net exports contributed 1.2%.
contraction of domestic production and, thereby, contraction of income and saving of the household and corporate sectors.

5.2 Why a Keynesian policy for Japan alone?

In the 1990s, other major countries pursued and achieved fiscal consolidation (Table 2). These countries did this despite occasional recessions and unemployment rates generally higher than the Japanese one. On the other hand, in Japan, except for the final stage of the bubble economy and the short period around 199714 15 an expansionary Keynesian-type fiscal policy has been followed. In fact, the G7 Finance Ministers and Central Bank Governors’ Meeting and the IMF continuously required Japan to take stimulative fiscal measures both before and after the bubble, while requiring the United States and European countries to adhere to fiscal consolidation. Why was there this contrast between Japan and other major economies?

The author supposes the reasons are the following: i) for Japan, reducing the external current account deficit has been always an objective; ii) the inflation rate has been generally low, and in recent years, signs of deflationary pressures have emerged; and iii) crowding-out of private investment was not an issue throughout the 1990s as evidenced by low long- and short-term interest rates, i.e., merits of lower interest rates and promotion of private investment have been lacking. In short, problems usually associated to the fiscal deficit have not been evident in Japan. In addition, in recent years, the scope of the monetary policy has been quite limited due to short-term interest rates of virtually zero, and a larger role has been expected of fiscal policy. Some economists argue that Japan’s economy today is in a typical “liquidity trap” condition.

14 Following the economic recovery in 1995-96, Prime Minister Hashimoto’s administration steered toward fiscal consolidation, raised the consumption tax (VAT) rate from 3% to 5% as scheduled in April 1997 to compensate for earlier income tax reductions, and enacted the Fiscal Structural Reform Act in November 1997. The Act incorporated the target of reducing the fiscal deficit (sum of the central and local governments) to 3% of GDP by FY2003, and supporting targets for major items of expenditures. Reflecting serious economic and financial conditions after the Asian currency crisis in 1997 and the bankruptcies of large financial institutions in Japan, the Act was suspended in 1998.

15 Japan’s strategies for controlling and reducing the fiscal deficit in the post-war era, as well as the budget system, are explained and analyzed in detail in Making Fiscal Policy in Japan by Professor Hiromitsu Ishi (Oxford University Press, 2000).
### Table 2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Government Excluding Social Security</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>-3.1</td>
<td>-3.5</td>
<td>-2.5</td>
<td>-2.0</td>
<td>-1.4</td>
<td>-1.5</td>
<td>-0.7</td>
<td>-1.6</td>
<td>-1.6</td>
<td>-1.6</td>
<td>-1.6</td>
<td>-2.0</td>
<td>-2.7</td>
<td>-2.8</td>
<td>-3.1</td>
<td>-3.3</td>
<td>-6.7</td>
<td>-7.3</td>
</tr>
<tr>
<td>United States</td>
<td>-5.3</td>
<td>-5.4</td>
<td>-4.8</td>
<td>-4.4</td>
<td>-4.2</td>
<td>-5.4</td>
<td>-5.9</td>
<td>-6.7</td>
<td>-5.7</td>
<td>-4.5</td>
<td>-3.9</td>
<td>-3.1</td>
<td>-2.0</td>
<td>-0.9</td>
<td>-0.6</td>
<td>0.2</td>
<td>-1.0</td>
<td>-2.9</td>
</tr>
<tr>
<td><strong>General Government</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>-0.6</td>
<td>-0.7</td>
<td>0.3</td>
<td>1.1</td>
<td>1.8</td>
<td>1.9</td>
<td>1.8</td>
<td>0.8</td>
<td>-2.4</td>
<td>-2.8</td>
<td>-4.2</td>
<td>-4.9</td>
<td>-3.7</td>
<td>-5.5</td>
<td>-7.0</td>
<td>-6.6</td>
<td>-6.4</td>
<td>-6.7</td>
</tr>
<tr>
<td>United States</td>
<td>-5.0</td>
<td>-5.3</td>
<td>-4.3</td>
<td>-3.6</td>
<td>-3.2</td>
<td>-4.3</td>
<td>-5.0</td>
<td>-5.9</td>
<td>-5.0</td>
<td>-3.6</td>
<td>-3.1</td>
<td>-2.2</td>
<td>-0.9</td>
<td>0.5</td>
<td>0.8</td>
<td>1.7</td>
<td>0.6</td>
<td>-1.1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-2.9</td>
<td>-2.6</td>
<td>-1.8</td>
<td>-0.5</td>
<td>-0.8</td>
<td>-1.6</td>
<td>-3.1</td>
<td>-6.4</td>
<td>-7.9</td>
<td>-6.7</td>
<td>-5.8</td>
<td>-4.4</td>
<td>-2.2</td>
<td>0.4</td>
<td>1.1</td>
<td>1.9</td>
<td>1.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Germany</td>
<td>-1.1</td>
<td>-1.8</td>
<td>-2.1</td>
<td>-0.1</td>
<td>-2.0</td>
<td>-3.0</td>
<td>-2.5</td>
<td>-3.1</td>
<td>-2.4</td>
<td>-3.5</td>
<td>-3.4</td>
<td>-2.7</td>
<td>-2.2</td>
<td>-1.6</td>
<td>1.2</td>
<td>1.2</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>France</td>
<td>-5.0</td>
<td>-5.2</td>
<td>-2.0</td>
<td>-2.5</td>
<td>-1.8</td>
<td>-2.1</td>
<td>-2.4</td>
<td>-4.2</td>
<td>-6.0</td>
<td>-5.5</td>
<td>-5.5</td>
<td>-4.1</td>
<td>-3.0</td>
<td>-2.7</td>
<td>-1.6</td>
<td>-1.4</td>
<td>-1.5</td>
<td>-1.8</td>
</tr>
<tr>
<td>Italy</td>
<td>-2.2</td>
<td>-1.4</td>
<td>-1.0</td>
<td>-0.7</td>
<td>-0.8</td>
<td>-1.1</td>
<td>-1.8</td>
<td>-1.1</td>
<td>-1.7</td>
<td>-1.0</td>
<td>-1.3</td>
<td>-0.7</td>
<td>-7.1</td>
<td>-2.7</td>
<td>-2.8</td>
<td>-1.8</td>
<td>-0.3</td>
<td>-1.4</td>
</tr>
<tr>
<td>Canada</td>
<td>-5.6</td>
<td>-7.1</td>
<td>-5.4</td>
<td>-4.3</td>
<td>-4.6</td>
<td>-5.8</td>
<td>-8.3</td>
<td>-9.1</td>
<td>-8.7</td>
<td>-6.7</td>
<td>-5.3</td>
<td>-2.4</td>
<td>0.2</td>
<td>0.5</td>
<td>1.6</td>
<td>3.2</td>
<td>2.4</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Source: OECD Economic Outlook 70 (December 2001).
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>67.7</td>
<td>71.2</td>
<td>71.6</td>
<td>69.6</td>
<td>66.7</td>
<td>64.6</td>
<td>61.1</td>
<td>63.5</td>
<td>69.0</td>
<td>73.9</td>
<td>80.4</td>
<td>86.5</td>
<td>92.0</td>
<td>103.0</td>
<td>115.3</td>
<td>123.2</td>
<td>132.0</td>
<td>141.5</td>
</tr>
<tr>
<td>United States</td>
<td>59.0</td>
<td>62.6</td>
<td>64.1</td>
<td>64.7</td>
<td>65.0</td>
<td>66.6</td>
<td>71.4</td>
<td>74.1</td>
<td>75.8</td>
<td>75.0</td>
<td>74.5</td>
<td>73.9</td>
<td>71.4</td>
<td>68.3</td>
<td>65.3</td>
<td>59.4</td>
<td>57.6</td>
<td>58.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>59.2</td>
<td>58.4</td>
<td>56.1</td>
<td>49.7</td>
<td>43.0</td>
<td>44.4</td>
<td>44.3</td>
<td>49.2</td>
<td>58.1</td>
<td>55.8</td>
<td>60.6</td>
<td>60.1</td>
<td>60.5</td>
<td>61.4</td>
<td>56.4</td>
<td>53.8</td>
<td>52.2</td>
<td>50.9</td>
</tr>
<tr>
<td>Germany</td>
<td>41.6</td>
<td>41.5</td>
<td>42.2</td>
<td>42.2</td>
<td>39.9</td>
<td>42.0</td>
<td>38.8</td>
<td>41.8</td>
<td>47.4</td>
<td>47.9</td>
<td>57.1</td>
<td>60.3</td>
<td>61.8</td>
<td>63.2</td>
<td>60.9</td>
<td>60.8</td>
<td>60.9</td>
<td>62.5</td>
</tr>
<tr>
<td>France</td>
<td>38.0</td>
<td>38.8</td>
<td>40.1</td>
<td>40.0</td>
<td>39.9</td>
<td>39.5</td>
<td>40.3</td>
<td>44.7</td>
<td>51.6</td>
<td>55.3</td>
<td>59.3</td>
<td>62.3</td>
<td>64.7</td>
<td>65.0</td>
<td>64.6</td>
<td>64.1</td>
<td>64.9</td>
<td>65.4</td>
</tr>
<tr>
<td>Italy</td>
<td>81.9</td>
<td>86.2</td>
<td>90.4</td>
<td>92.5</td>
<td>95.3</td>
<td>103.7</td>
<td>107.4</td>
<td>116.1</td>
<td>117.9</td>
<td>124.0</td>
<td>123.1</td>
<td>121.8</td>
<td>119.6</td>
<td>117.2</td>
<td>115.7</td>
<td>110.8</td>
<td>107.7</td>
<td>105.2</td>
</tr>
<tr>
<td>Canada</td>
<td>84.0</td>
<td>88.7</td>
<td>89.1</td>
<td>88.6</td>
<td>89.8</td>
<td>92.8</td>
<td>101.8</td>
<td>109.7</td>
<td>116.2</td>
<td>116.6</td>
<td>119.8</td>
<td>120.0</td>
<td>116.4</td>
<td>114.4</td>
<td>109.6</td>
<td>103.2</td>
<td>98.3</td>
<td>95.1</td>
</tr>
</tbody>
</table>

Source: OECD Economic Outlook 70 (December 2001).
5.3 Fiscal sustainability

More recently, however, concerns related to the build-up of outstanding JGBs and the possible limited effects of the stimulative fiscal policy have attracted increasingly greater attention in Japan.

The first concern is related to fiscal sustainability. If the ratio of outstanding JGBs to GDP were expected to remain under a certain level in the future, fiscal sustainability could be regarded as being fulfilled. On the other hand, if this ratio were expected to continue to rise, people would start fearing eventual default or hyper-inflation, and that fear itself would immediately cause an increase in the risk premium of the JGB interest rates or the collapse of its prices. It would bring about the increase of interest payments by the Government, thereby making fiscal conditions even more serious.

In general, change (calculus) in the ratio of the public debt (B) to GDP (Y) is formulated as follows, assuming a constant nominal GDP growth rate (n), a nominal interest rate (r), the ratio (g) of expenditures (excluding interest payments on the debt) to GDP, and the ratio (t) of revenues (excluding proceeds from new debt issuance) to GDP.

\[
d(B/Y) = (g - t) + (r - n) B/Y
\]

This formula shows that change in the debt-to-GDP ratio (B/Y) depend on the primary balance deficit (g - t) and the difference between the interest rate and the growth rate (r - n). If the growth rate is higher than the interest rate, fiscal sustainability can be more easily fulfilled. If, however, the interest rate is higher than the growth rate, as is the case in Japan now, unless the primary balance is in surplus, the debt-to-GDP ratio will increase and blow up eventually.

In the case of Japan today, assuming the primary fiscal balance deficit on a general government basis is 5% of GDP,\(^{16}\) the difference between the long-term interest rate and the growth rate is 2%, and the debt-to-GDP ratio is 130%, the ratio will increase by 7.6%. Thus, as far as the present situation of Japan is concerned, the debt-to-GDP ratio is rising and is expected to rise at a very high rate. Therefore, at this moment, the condition of fiscal sustainability, based on the simple application of the formula, is not fulfilled.

---

\(^{16}\) According to the OECD publication cited in footnote 12, the ratio in 2001 is expected to be 5.1%.
However, the fact is that the JGB market has been stable and interest rates have remained very low. This means that market participants expect that Japan’s growth rate will increase in the future, but that interest rates will not rise as much, and the primary fiscal balance will move to a surplus in the coming years.

True, we cannot be overconfident. Some rating agencies have downgraded the JGB. When Japan’s economy is restored to a stable, robust growth path and deflationary pressures disappear, the increase in the nominal growth rate itself and the expected improvement in the primary balance will have positive effects on the above-explained formula for fiscal sustainability. However, the expected rise in the nominal interest rate due to competition with expanded private needs in the financial market and due to the higher expectation of inflation will, in itself, contribute to an increase in the debt-to-GDP ratio. Another important point indicated by the formula is that, assuming the nominal interest rate is higher than the GDP growth rate, to the extent fiscal consolidation is delayed and, thereby, the debt-to-GDP ratio at that moment is larger, the primary balance surplus necessitated to reduce the debt-to-GDP ratio will be greater.

5.4 Decrease in the multiplier effect and expectation of future tax burden

Another concern is the weaker-than-expected impact of the series of large fiscal packages on the expansion of demand, or in more technical terms, the possible decrease in the multiplier effect of public works. The multiplier effect of public works, financed by government bonds, is influenced by i) the degree of people’s expectation of a future tax increase to repay the bonds, and the degree to which people modify their consumption and saving patterns to prepare for the expected future tax increase, on the one hand; and ii) the effects expected from the increased public works on the productivity of the economy or on the welfare of people’s life, i.e., efficiency of the public works, on the other.

Regarding the first point, under the assumption of a “super-rational expectation,” people perfectly predict a tax increase over future generations (therefore “super rational”) needed to repay the debt and consider the burden as their own at the present value. In this case, the Ricardian neutrality holds; people spend less and save more to prepare for the future tax increase. Thus, even if a government reduces tax by issuing bonds,
people act as if the same amount of tax, for repaying the debt in the future, is levied on them now, and no impact on effective demand can be expected. However, even in this Ricardian case, the increase in public works financed by bond issuance has an expansionary effect on demand. Such policy is equivalent to increasing public works by financing them through a tax increase, and this has the multiplier of one as indicated by the “balanced budget theorem,” as the government absorbs, through taxation, people’s income including the portion for saving, and spends that entire amount.\(^17\)\(^18\)

On the other hand, under the assumption of a simple Keynesian model, people do not expect a future tax increase to repay government debts and do not reduce their present consumption. Under this assumption, the increase in public works has a multiplier effect equivalent to the reverse of the marginal saving propensity; the increase in public works expands national demand by itself, and by the consumption by people who gain income from the public works, and then, in turn, by people who gain income from the increased consumption, and so forth.

The reality should be somewhere between the Ricardian model and the simple Keynesian model. As far as present-day Japan is concerned, however, it is probable that, increasingly in the recent years, people have become more aware of the future tax burden, which is needed to repay the cost of today’s stimulus fiscal policy. Therefore, to the extent that Japanese people react to the expectation of a future tax burden by saving more today, the multiplier effect is decreased.

5.5 Decrease in the multiplier effect and the efficiency of public works

The discussion of the multiplier effect in the previous section disregarded the impact of public works on the supply side of the economy.

\(^17\) For the sake of simplification, the discussion in this section disregards the effects of an increase in GDP on the increase of imports and tax revenues. The multiplier of the public works decreases as imports and tax revenues absorb effective demand for domestic production.

\(^18\) The balanced budget theorem is formulated as the following, in which \(dG\) (increase in public works) is financed by the equal amount of \(dT\) (tax increase), \(I\) (private investment) is constant, and \(c\) is marginal consumption propensity:

\[
Y(GDP) = C(\text{consumption}) + I(\text{private investment}) + G(\text{government spending})
\]

\[
dY = dC + dG \rightarrow dY = c(dY - dT) + dG \rightarrow dY(1 - c) = dG - c dT = dG(1 - c)
\]

Thus, \(dY = dG\)
Public works are essentially investment for the future, and their efficiency should be taken into consideration. If public work projects contribute to an increase in the country’s productivity (for example, highways to facilitate transportation by trucks) or to the welfare gain in the standard of living of people (construction of elevators to make subways barrier-free), returns or benefits from such investment should be offset against the burden of any future tax increase needed to repay the government bonds which are issued to finance today’s public works. On the other hand, if today’s public works, financed by additional government bonds, crowd out private investment, and if the productivity gain from the private investment exceeds that of the public investment, extra burden in the form a decrease in the production level should be added to the burden of the future generation. In short, the multiplier effect of public works should take into account the degree of people’s expectation of the future benefits or extra costs from the investment in public works, along with the future tax burden.

Regarding Japan, the increase in public works under the large fiscal packages since the burst of the bubble should have incurred little cost, if any, from crowding out private investment. However, many Japanese are becoming more skeptical about the efficiency of these additional public works themselves. Many believe that the efficiency or the productivity of additional public works has substantially decreased because the Government had focused on the construction of public infrastructure throughout the post-war era, and, despite this, additional projects were hastily initiated in order to provide fiscal stimulus in the prolonged economic slump. Critics often cite port renovation projects that are only used by local people as fishing sites, and highway projects in scarcely populated rural areas.

If this is the case, it is possible that the multiplier of public works has considerably dropped in Japan in recent years. Assuming that Japanese people more or less expect a future tax increase to repay the JGB debt, they

---

19 The Fiscal Law of Japan only allows the issuance of “construction bonds” to be used to finance certain public works, etc., which have benefits for the future generation. Alternatively, the law does not allow the issuance of “deficit-financing bonds” to finance current spending. Thus, when needed, a special law that allows deficit-financing bonds has been enacted each year. Although Japan maintained super-healthy fiscal policy until FY1965 (the year of recession after the Tokyo Olympics of 1964), construction bonds have been issued each year since then to promote construction of much-needed public infrastructure. Deficit financing bonds have been issued every year since FY1975 (the year of negative growth following the first oil crisis of 1973) except in FY1990-93 (Figure 9).
feel as if inefficient projects are being financed by today’s tax increase. Thus, they save more\textsuperscript{20} for the future tax increase and spend less today, and the multiplier effect of public works declines. Furthermore, if Japanese people expect that the Government will continue to implement inefficient public works which result in the building up of debt, they begin to feel their future real-term income is being substantially reduced. In extreme cases, the eventual multiplier effect of public works could even become negative if the decrease in consumption due to this negative income effect exceeds the increase in demand induced by the simple Keynesian multiplier of public works.

The decrease, rather than increase, in private demand induced by public works is called “non-Keynesian effects”. To sum up the previous and present sections, it is likely that, in Japan now, “non-Keynesian effects” have become real, and, thereby, the multiplier effect has dropped considerably, partly due to people’s increasing awareness of the future tax burden in the face of the building up of outstanding JGBs, and partly due to people’s disappointment in the efficiency of public works.\textsuperscript{21}

5.6 Rigidities in the budget and the economic structure

In addition to the above-mentioned concerns, the building up of outstanding JGBs has brought about rigidity in the budget. In the initial FY2002 General Account Budget of the central government, expenditures for interest and for reserves for future amortization (assuming maturity of 60 years) amount to 11.8% and 8.7% of total expenditures, respectively, and in sum 20.5%. This limits the scope of spending for other more constructive purposes.

Another issue is rigidity in Japan’s economic structure. Critics argue that as the Government has sustained a high level of public works by issuing JGBs every year, resources (labor and capital), which should have

\textsuperscript{20} In Section 1 of this chapter, the economy-supporting effects were discussed from the viewpoint of the IS balances of the private and public sectors. However, excess saving is not independently determined from the fiscal position, and it is possible that the recent fiscal policy has induced the increase in the private saving.

\textsuperscript{21} The presence of non-Keynesian effects (negative effects on private demand) does not necessarily mean that the multiplier is negative because the increase in public spending, by itself, constitutes an addition to demand or to GDP. However, if the public spending itself is not meaningful, as was the case for most of products in the Soviet Union days, such public spending should be regarded more like a transfer than spending.
been used by other leading private sectors, have been artificially fixed in the construction and civil engineering industries, thus inviting loss in the allocation of resources.

5.7 Neo-classical-type arguments for expansionary fiscal policy

Finally, in contrast to the critical arguments against Keynesian-type expansionary fiscal policy, more recently, some Japanese economists have argued for the same policy from a neo-classical viewpoint. They say that fiscal policy should be appropriately managed with a view to compensating loss from business cycles, no matter whether the fiscal policy has a multiplier effect or not.

According to such an idea, the unemployment produced in recessions is the loss of the efficient use of resources, and therefore, it is very meaningful for a government to utilize the surplus labor in public works, which are needed whether they are constructed today or in the future. Current criticism of the public works in Japan is because of the poor selection of projects. If properly chosen, there are still many infrastructure projects that would bring substantial gains in productivity or welfare. Another corollary of this school argues that public works should be rationalized as they mitigate the hardship of the unemployed. In any case, neo-classical economists support counter-cyclical fiscal policy based on the idea that, as a household is better off when it adjusts the ups and downs of its income by borrowing and repaying, the government should compensate for downturns in business cycles by issuing bonds.

In general, this argument is valid to rationalize a counter-cyclical fiscal policy. As far as Japan today is concerned, however, there are the following questions in addition to the problems that were discussed in the previous sections: i) Is there a legitimacy to forestall public works which should have been decided by the future generation, or, is it possible to reach a consensus to find really meaningful projects in this saturation of infrastructure projects? ii) Allocation of public goods is a political process based on democracy. Is it politically feasible to radically change their allocation even if we can theoretically find most productive projects? iii) If current unemployment is not caused by the cyclical downturn, but by the deep-rooted economic slump due to structural factors, is the government expected to keep absorbing surplus labor by implementing public works? Concerning the last question, the author believes that it is far beyond the
expected role of the government in a market economy to perform such a function. It would cause a huge loss of efficiency, which is the factor behind the collapse of the Soviet Union.

6. Where are the Japanese economy and its policy going?

Still, Japan’s economy is in a difficult state, and the authorities are struggling to make every possible effort to restore the economy to a stable and robust growth path. Some critics argue that what is missing in Japan’s economy is effective demand, that structural reforms will cause more difficulty, which will further dampen demand, and that the Government should even enlarge expansionary fiscal measures as long as deflationary pressures remain. However, the author strongly objects to this idea; we have done this too much for too long. The present view of the Government and the general consensus of the people is that, unless radical structural policies are taken, including those for the financial sector, people will not have positive expectations for the future, demand will not pick up vigorously, and the economy will not return to a growth path.

As far as fiscal policy is concerned, the present Government policy is to maintain, for the time being, a certain level of fiscal support, paying more attention to a wise spending and the rationalization of public expenditures. Then, as deflationary pressures disappear and as the basis for future growth is created by mobilizing the vitality of the private sector through structural reforms, decisive and substantial fiscal consolidation should be started. According to the “Medium-term Outlook for Structural Reforms, the Economy, and Fiscal Policy” published by the Government in January this year, important areas for the rationalization of public expenditures are i) public works, which should return to the level before the substantial increase; ii) social welfare, including ensuring efficiency in medical services and sustainability in public pension systems; and iii) transfer to local governments, including reforms of the division of labor and of allocation of revenues between the central and local governments with a view to reinforcing incentives for saving on the part of local governments.

Transfer of Local Allocation Tax by the central government adjusts imbalances in the spending needs and revenues between different local governments. However, there is a criticism that this mechanism, which takes care of local expenditures for certain projects by transfers from the central government, induces moral hazard in spending by local governments.
The “Medium-term Outlook” assumes that the nominal growth rate will pick up from FY2004 to 2.5% or higher, and that the primary fiscal deficit of the central and local governments combined should become positive in the beginning of the 2010s. To achieve this goal, as the “Medium-term Outlook” emphasizes, efforts to improve the fiscal position is indispensable. When comparing Japan’s fiscal structure of expenditures and revenues on a general government basis with other major countries (Figure 11), it is obvious that, while its ratio of total expenditures to GDP is comparable to that of the United Kingdom, the ratio of total revenues to GDP is even lower than that of the USA, and the gap is being financed by JGB issuance. Thus, there is some room for improving the fiscal position. But before utilizing that room by raising tax revenues, efforts should be made on the expenditure side. In particular, the reform of social welfare systems is inevitable. Due to the rapid aging of the population, total expenditures for social welfare – including benefits financed by contributions to pensions and public medical insurances – are expected to increase from JY78 trillion in FY2000 to JY127 trillion in FY2010, assuming continuation of the present system.

As discussed in the beginning of this paper, some critics have begun to present very pessimistic views on the future of Japan’s economy. However, it should be noted that the authorities and the people are well aware of the problems and that they are preparing themselves to accept the burden of the needed reforms. Furthermore, the fundamental strengths of Japan such as wide-ranging and deep-rooted technologies, a well-educated and motivated workforce, and a high saving ratio have not been changed. Important challenges from fast-growing China can be overcome by making the relationship complementary rather than competitive, considering the wide gap in economic development between these two countries.

Japan is able to reform itself. When Japan embarked on its modernization in 1868 in the face of pressures from Western powers that were colonizing most non-Western countries, and when it recovered from the devastation of World War II, it mobilized the wisdom of its people and achieved the fundamental reform of outdated systems. If Japan promotes needed reforms today amassing the wisdom of the people and strong political resolution, the author believes that Japan has great potential for a bright future.