WHICH FIGURES TO LOOK: CONFUSION OVER VARIOUS FISCAL INDICATORS

Masato Miyazaki[*]

Introduction

There can be many ways through which one tries to judge an economy's fiscal sustainability. Some may prefer focusing on the size of each year's fiscal deficit, e.g. in comparison with the economy's tax revenue, GDP, current and/or trade surplus, and the like. Others may emphasise the size of national debts, again in comparison with various parameters. Still others may think it more apt to look at the government's balance sheet (B/S) as a whole.

One caveat, however, is that the definitions of fiscal deficit, debt, and B/S can vary. One needs to take such differences into account when judging an economy's fiscal conditions, because different definitions could lead to different interpretations and to different conclusions.

This short note aims at discussing these differences and their consequences, relying on Japanese examples.

1. Fiscal deficit

The simplest definition of fiscal deficit is a balance between the given fiscal year's revenues and expenditures.[1] If the economy in question has access to capital markets, this balance usually corresponds with the new issuance of government bonds. In some cases, however, the gap may be closed by aid, borrowings from international organizations such as the IMF and the World Bank, credit from the central bank and so on.

1.1 General account

In Japan's case, the headline fiscal deficit for FY 2006 (April 2006 to March 2007) is JPY 30 trillion, which is the balance between the tax and other revenues (JPY 50 trillion) and the expenditures (JPY 80 trillion) in the so-called general account.[2] Of course, the gap is financed from the market solely by government bonds (JGBs) (Table 1).

---

[*] Budget Examiner at the Budget Bureau, Ministry of Finance of Japan. The views expressed in this note are, however, personal.

[1] Although there often are multi-year spending authorizations in a budget, future spending should be counted against the revenue of the year in which such spending is made for the purpose of fiscal analysis.

[2] General account is the main body of the Japanese government budget.

Table 1

General Account Budget Deficit
(in JPY billions)

	FY2006
Tax and Other Revenues (a)	49,713
Expenditures (b)	79,686
Balance (a)–(b)	–29,973
Balance to GDP *(percent)*	5.8

1.2 General and special accounts

In the budget systems around the world, there are often expenditures that are made outside the main body of the budget. Off-budget expenditures in the United States are but one example. In Japan, there are 31 special accounts outside the general account. Each of these special accounts is assigned with specific task, ranging from providing health insurance, and running motor vehicle inspection and registration services, to managing foreign currency reserves. Each account has its own revenues, such as insurance premia, charges, taxes, and transfers from the general and other accounts. Each account also has its own expenditures, which include insurance payments and transfers to other accounts.

If expenditures of the general account and all 31 special accounts are to be added up, the total is JPY 540 trillion, and revenues amount to JPY 572 trillion. However, the balance between these two figures does not have any relevance to judging Japan's fiscal health, since they include transfers among accounts. It is therefore more appropriate to "net out" these revenues and expenditures, which brings about the net expenditure of JPY 367 trillion and the net revenue of JPY 398 trillion (Table 2).

These figures may be meaningful in looking at the size of the funds that go through the national coffer. Still, information that implies the Japanese government has a fiscal surplus as large as JPY 31 trillion (!) will be grossly misleading.

The confusion stems from the fact that these figures are the result of adding up items that are quite different in nature. First, revenues include not just taxes and premium, but also funds raised by the issuance of bonds and bills. Likewise, expenditures include the repayment of principal and interests of bonds and bills, which makes both revenue and expenditure figures widely inflated. Second, unlike, e.g., building an airport or paying salaries for patent officers, insurance and re-insurance schemes operated through special accounts do not necessarily intend to

Table 2

General and Special Accounts Budget Balance
(in JPY billions)

	FY2006
Revenues	
General Account	79,686
31 Special Accounts	492,796
Gross Total	572,482
Overlaps + Transfers	174,769
Net Total (a)	397,713
Expenditures	
General Account	79,686
31 Special Accounts	460,386
Gross Total	540,072
Overlaps + Transfers	173,114
Net Total (b)	366,957
Balance (a)–(b)	30,756
Balance to GDP *(percent)*	6.0

balance the revenue and expenditure in each fiscal year in the first place.[3] Still, they are simply aggregated.

1.3 Central and local governments

Because the size of the local governments naturally differs across economies,[4] just comparing the size of the central governments' budgets may not be a good way for looking at an economy's fiscal conditions. There is no doubt, therefore, that

---

[3] It is usual the case for long-term insurance schemes that reserves are created to provide investment proceeds and thereby set the premium lower than actuarially required, and to save extra resources for the future when insurance payments may prove to exceed expectation.

[4] Local governments in federal economies such as the United States and Germany probably weigh much more than in centripetal economies such as France.

examining the "consolidated" budget balance of central and local governments is meaningful.

Japan, though no federation, has "big" local governments, because the central government entrusts local governments for implementing many of the government programmes and measures. Funds for those are paid out in the form of subsidies[5] and/or transfers from the central government to local governments, which expand the size of the latter.

There is a serious drawback, however. A "consolidated" budget balance of central and local governments cannot be produced timely, because this has to be done by collecting budget data from approximately 2,000 local governments of every level. In fact, the tally is published retrospectively two years after the end of the fiscal year in question, when accounts are settled.[6] Moreover, since the published figures are based on the general account (central government) and ordinary accounts (local governments), which leave out special accounts (central) and public corporations (local), it cannot be denied that these figures fail to show the whole fiscal picture (Table 3).

1.4 General government (System of National Accounts (SNA) basis)

When one wants to judge fiscal conditions of an economy as a whole, therefore, a good place to start is to look at the General Government figure that captures central government, local governments and social security funds. Even better, because it is a common method, figures based on it are suitable for international comparison. In fact, the OECD semi-annually publishes its members' fiscal conditions on this basis (Table 7),[7] and the IMF encourages governments to produce SNA figures as part of the drive towards fiscal transparency.

On its part, the Japanese government publishes its General Government fiscal balance on the SNA basis when a budget is submitted to Diet (Parliament) in

---

5 The central government usually funds one-third to one-half of the programme.

6 It is true that an estimated aggregate local government budget (Local Public Finance Programme, or LPFP) is formulated at the same time as the central government budget, in order to calculate the financing gap of the aggregate local governments that are to be filled up by the central government's expenditure through Local Allocation Tax Grants (LATG) and other transfers. So, on the LPFP basis, a prospective consolidated balance is available before a fiscal year starts.

The LPFP has fatal flaws, however. First, some important social security programmes, e.g. health and long-term care, carried out by local governments with the financial assistance from the central government are not included. Second, and even more seriously, the LPFP, which is assembled by the interior ministry of the central government, is merely a forecast and does not regulate in any way the actual budgets of the local governments that are adopted by local parliaments. In fact, the aggregate expenditures of the local governments frequently turn out to be much larger than that foreseen by the LPFP. The contents of the expenditures also differ greatly from that predicted in the LPFP.

It is therefore not very meaningful to discuss local government's fiscal situation in the coming fiscal year, based on the LPFP figures.

7 While the OECD figure is created by the OECD to show the balance on a calendar year basis, the Japanese government figure is on a fiscal year basis.

Table 3

Fiscal Balance of Central and Local Governments
(in JPY billions)

	FY 2003
Revenue	
Local Govt. Total Revenue (a)	94,887
o/w Transfers from Central Govt. (b)	31,130
Local Govt. Own Revenue (c)=(a)–(b)	63,757
Central Government Revenue (d)	50,278
Total Revenue (e)=(c)+(d)	114,035
Expenditures	
Local Govt. Total Expenditure (f)	92,582
Central Govt. Total Expenditure (g)	88,792
Overlaps and Transfers (h)	34,222
Total Expenditure (i)=(f)+(g)–(h)	147,152
Balance (e)–(i)	–33,117
Balance to GDP *(percent)*	6.6

January. Because of the above-mentioned limitation, however, local governments' fiscal balance has to be an estimate at the time of the publication, which is calculated using an econometric model. In other words, it is not a fact, and not even a manifestation of local governments' intentions (Table 4).

1.5 Central and local governments (SNA basis)

Because the General Government figure includes social security funds, which may not necessarily be designed to achieve annual balance, it may be sometimes misleading if annual fiscal analyses are made based on the General Government figures. For this reason, the proclaimed goal of the Japanese government, *i.e.* achieving a primary surplus by early 2010s, is targeted to the fiscal balance of General Government less social security funds (Table 5).

Table 4

Financial Balance of General Government on the SNA Basis
(in JPY billions)

	FY 2004	FY 2005 (E)	FY 2006 (E)
Central Government	–26,946	–25,195	–23,126
Local Governments	–2,719	–2,016	–1,028
Social Security Funds	2,035	0	–1,028
Total	–27,631	–27,211	–25,695
Balance to GDP *(percent)*	5.6	5.4	5.0

Table 5

Financial Balance of Central and Local Governments on the SNA Basis
(in JPY billions)

	FY 2004	FY 2005 (E)	FY 2006 (E)
Central Government	–26,946	–25,195	–23,126
Local Governments	–2,719	–2,016	–1,028
Total	–29,665	–27,211	–24,154
Balance to GDP *(percent)*	5.8	5.4	4.7

Table 6

Primary Balance of Japan on the SNA Basis
(in JPY billions)

	FY 2004	FY 2005 (E)	FY 2006 (E)
Central Government	–20,810	–18,644	–16,445
Local Governments	1,226	1,512	2,056
Total	–19,584	–16,629	–14,389
Balance to GDP *(percent)*	3.9	3.3	2.8

Source for the tables in this page: Cabinet Office.
Note: The published estimates for FY 2005 and 2006 contain only the proportion to GDP. The balance figures shown here are calculated with the proportion number and the GDP estimates.

1.6 Primary balance

As a global trend, more attention has been paid recently to the primary balance when considering an economy's fiscal soundness. Primary balance is a measure that looks at how far revenues other than borrowing can, or cannot, cover expenditures other than debt services. If the primary balance is neither in deficit nor in surplus, the economy in question is in a position to finance all policy expenses by funds that need not be repaid, such as tax. In other words, the economy's debt outstanding increases by the exact amount of its interest payments. If the interest rate is the same as the nominal GDP growth rate, the economy's debt-to-GDP ratio will stay the same. In this sense, looking at the primary balance of the economy is a simple but useful method to judge whether its fiscal path is heading for an increasing debt-to-GDP ratio and ultimately unsustainable fiscal conditions[8] (Table 6).

2. Debt

Debt level is as important a yardstick, if not more, as deficit level, in analysing an economy's fiscal sustainability. It is usually discussed in comparison with GDP or export earnings (when overseas borrowing is high), but there is no established threshold beyond which an economy's fiscal sustainability comes into question. To cite one example, although Japan's debt outstanding, measured on the JGB (Japanese Government Bonds) basis, is more than 100 per cent of GDP, the market so far remains calm about it and demands little premium, while Argentine defaulted when her public debt was a "mere" 60 per cent of GDP in 2001. This is not to say that economies can sit back and be relaxed about their debt-to-GDP ratio: on the contrary, they need to be vigilant even when the ratio is relatively low, since the market may pull the carpet from under their feet at any moment if investors get scared by developments in other conditions and indicators.

Discussion becomes more complicated, however, because definition of debt can vary across economies. Moreover, even within one economy, debt may mean many things.

2.1 What is debt: in Japan's case

2.1.1 JGB outstanding

Most narrowly, "debt" means JGB outstanding. This includes not only bonds that have been issued to finance each year's revenue shortfall, but also those that

---

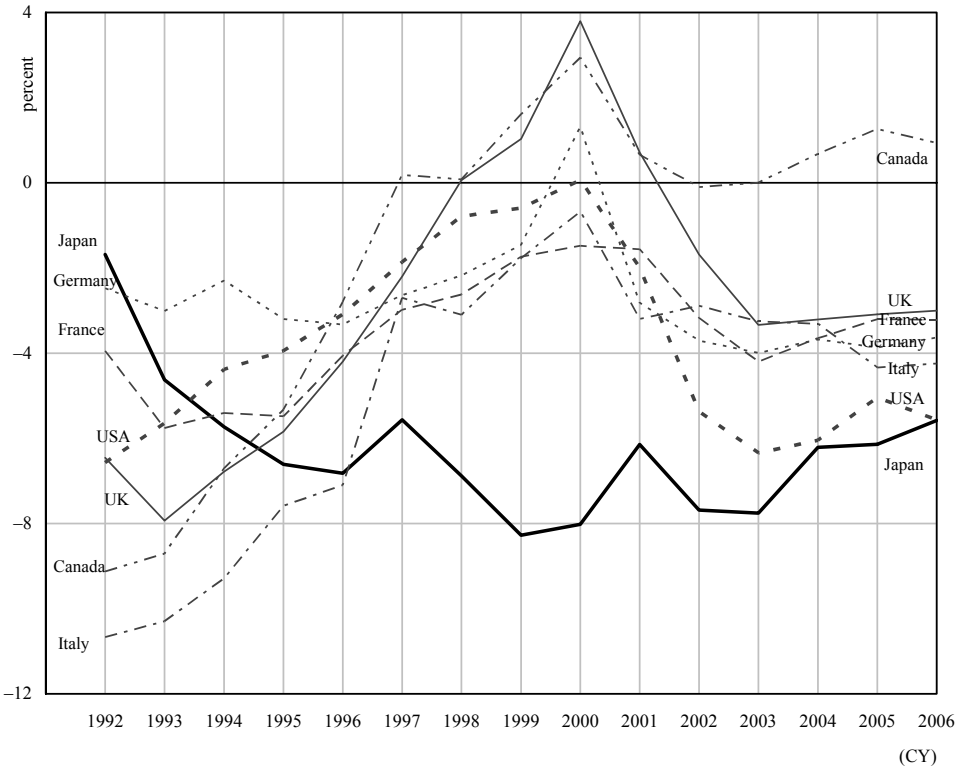
[8] Needless to say, even when the debt-to-GDP ratio is stable, if the ratio itself is regarded by the market as too high, it will still leave an economy in a vulnerable position. In this sense, it is important to note that a primary balance is but an interim target: the ultimate goal is to achieve a primary surplus, so that the actual debt level can be reduced.

Table 7

General Government Financial Balances – International Comparison
(percent of GDP)

(CY)	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Japan	–1.7	–4.6	–5.7	–6.6	–6.8	–5.6	–6.9	–8.3	–8.0	–6.1	–7.7	–7.8	–6.2	–6.1	–5.6
United States	–6.6	–5.6	–4.4	–3.9	–3.1	–1.9	–0.8	–0.6	0.1	–2.0	–5.4	–6.3	–6.0	–5.0	–5.6
United Kingdom	–6.5	–7.9	–6.8	–5.8	–4.2	–2.2	0.1	1.0	3.8	0.7	–1.7	–3.3	–3.2	–3.1	–3.0
Germany	–2.5	–3.0	–2.3	–3.2	–3.3	–2.6	–2.2	–1.5	1.3	–2.8	–3.7	–4.0	–3.7	–3.9	–3.6
France	–3.9	–5.8	–5.4	–5.5	–4.1	–3.0	–2.6	–1.7	–1.5	–1.6	–3.2	–4.2	–3.6	–3.2	–3.2
Italy	–10.7	–10.3	–9.3	–7.6	–7.1	–2.7	–3.1	–1.8	–0.7	–3.2	–2.9	–3.3	–3.3	–4.3	–4.2
Canada	–9.1	–8.7	–6.7	–5.3	–2.8	0.2	0.1	1.6	2.9	0.7	–0.1	0.0	0.7	1.3	0.9

Source: OECD Economic Outlook 78 (December 2005). Figures are calculated on an SNA basis.
Japan and United States: General government financial balance excluding social security.



have been issued to finance repayments of old debts.[9] As at end-FY 2006, debt according to this definition is forecast to reach JPY 542 trillion, or 105 per cent of GDP.

2.1.2 Central government borrowing

Apart from issuing JGBs, Japan's central government borrows directly from private banks and the FILP.[10] Such borrowing is expected to be around JPY 60 trillion, or 12 per cent of GDP, at end-FY 2006, most of which (about JPY 53 trillion) is for funding transfers from the central government to local governments.

2.1.3 Local government borrowing

Local governments also issue bonds and/or borrow from the private sector as well as from the FILP. Local government bonds are not guaranteed by the central government, though some of the borrowing from the market through a government-affiliated institution is indirectly guaranteed. Debt outstanding for local governments is estimated to be around JPY 204 trillion, or 40 per cent of GDP at end-FY 2006. Of this amount, approximately JPY 34 trillion, or 7 per cent of GDP, is in fact borrowed by the central government (to fund transfers to the local governments) but required to be repaid by the local governments.

2.1.4 FLF bonds

The central government issues the so-called Fiscal Loan Fund bonds (FLF bonds), which amounts to approximately JPY 141 trillion, or 27 per cent of GDP, at end-FY 2006. These bonds aim at financing the FILP, and not the budget expenditure. They are serviced and repaid by repayment from borrowing institutions, though it is not separately managed from JGBs. FLF bonds, therefore, are treated exactly the same as JGBs by the market. In other words, FLF bonds are outside the budget and their repayment do not rely on tax revenues, but still they are often seen as part of the government's debt.

2.1.5 FBs

The central government issues financing bills (FBs) for the purpose of efficient cash management. FBs are issued to fill the time gap of tax receipt and expenditure payment. Some FBs are also for financing the purchases of rice crops

---

[9] To be very precise, there are special kinds of bonds other than JGBs, the purposes of which are not necessarily gap-financing. For instance, there are bonds given to families of the war dead, and promissory notes to international organisations. The outstanding amount of these bonds is about JPY 3 trillion.

[10] The Fiscal Investment and Loan Programme (FILP) is a government-run scheme that raises funds cheaply from the market and recycle the money to worthwhile infrastructure and other programmes.

(that are sold in the markets at a later date), oil (that forms strategic reserves for a rainy day and will be sold in the market when it rains) and foreign currencies (that forms foreign reserves which may be sold in the market when currency interventions are made). The maturity of FBs is 13 weeks and usually repaid within the fiscal year, though FBs to finance purchases of above items may be rolled over across the fiscal years. For instance, at the end of FY 2006, maximum of JPY 142 trillion, or 28 per cent of GDP, worth of FBs may remain outstanding.

2.1.6 Contingency liability

The government guarantees debts of some government-affiliated institutions, including the Deposit Insurance Corporation that borrowed cheaply from the market to enhance the capital base of private banks following the banking crisis of 1997-98. These guarantees amount to approximately JPY 60 trillion, or 12 per cent of GDP, at end-FY 2006. Since they are contingent liability, it is unlikely that the government will have to assume the burden of repaying all JPY 60 trillion.

2.2 How much is Japan's debt?

The question arises, then, as to how large is Japan's debt after all. The answer may depend on who asks the question as well as the definition of "Japan" (Table 8).

JGB holders may primarily be interested in the debt servicing capacity of the central government, so that they may focus on the size of JGBs outstanding (JPY 542 trillion).

Because there is no practical distinction between them, investors may want to monitor the outstanding of all bonds that are issued by the central government by adding FLF bonds and other bonds to JGBs, reaching JPY 686 trillion (542+141+3), or 133 per cent of GDP.

If they want to focus on the capacity to repay debts through tax revenues, they may want to look at JGBs, other bonds and government borrowings, but take out FLF bonds, because there have hardly the cases when borrowing institutions were not able to repay their debts to the FILP. Such calculation makes the debt level of the Japanese government around JPY 605 trillion (542+3+60), or 118 per cent of GDP.

Furthermore, the capacity of the economy as a whole to raise taxes may be examined, because, for instance, if local governments impose a very heavy tax burden, room for raising more tax to repay the debts of the central government may be seen to be limited. If the market takes such a view, fewer people will remain willing to hold JGBs and lend to the government. In other words, outstanding bonds and borrowings of the public sector as a whole may be seen as more important than simply looking at the central government's. As such, aggregate debts of the central government and the local governments, JPY 775 trillion (605+170), or 151 per cent

Table 8

Selected Definitions of Debts
(in JPY trillions)

	Amount	Central government borrowings	Central government long-term bonds	Central government total bonds and bills	Public sector total bonds and bills (net)	Central government's actual and	Public sector's total actual and contingency debts
JGBs and other bonds	545	○	○	○	○	○	○
Central government borrowings	60	○	-	-	-	○	○
FLF bonds	141	-	○	○	○	○	○
FBs	142	-	-	○	○	○	○
Central government guarantees	60	-	-	-	-	○	○
Local governments bonds and borrowings	204	-	-	-	○	-	○
Total		605	686	828	998	948	1,118

Source: Ministry of Finance.
Note: When debts of the central and local governments are added up, a double-counted borrowing (JPY 34 trillion) needs to be deducted.

of GDP, may be seen as representing the yardstick for repayment capacity of Japan as a nation.

Alternatively, again looking at the central government, FBs outstanding may be added, because, in a very formal sense, FBs are a (temporary) transfer of funds from the private- to the public-sector, which the government promises to repay.[11] By including this amount, the indebtedness of the Japanese government will reach JPY 747 trillion (605+142), or 145 per cent of GDP.

Then, one may want to aggregate all bonds, bills and borrowings by the central government, including FLF bonds, which amounts to JPY 888 trillion (747+141), or 173 per cent of GDP.

Likewise, one may also want to aggregate all bonds, bills and borrowings by the public sector as a whole, which reaches JPY 1,058 trillion, or 206 per cent of GDP.

---

[11] By selling the rice, oil or foreign currencies in the markets, the government may finance much of the funds necessary to repay FBs.

Finally, pessimists may also want to take into account the government's contingency liabilities by adding up the government guarantees, though it will exaggerate the government's indebtedness. Such exercise will produce JPY 1,118 trillion, or 218 per cent of GDP.

No doubt there can be other combinations that will shed light on Japan's fiscal conditions from specific viewpoints. Cynics may say that various definitions do not make much difference, because they all are bad.

2.3 International comparison

Japan's debt levels, as shown above, cannot be compared directly with other economies', because budget systems vary widely across economies. For this reason, the OECD publishes international comparison of debt levels of the general government according to the SNA (Table 9 and Table 10).

Amongst the G7 economies, only Canada shows a constant decline in indebtedness since the mid-1990s: all others show modest increases in indebtedness since around 2000, after declining for a previous few years. Japan is the only economy that shows a constant, and steep, rise in indebtedness. It started the 1990s with relatively sound fiscal conditions, but by 2000 she had overtaken all others to win the gold medal of fiscal indebtedness, the speed not even seen on the piste of Turin.

According to the OECD Economic Outlook, Japan's gross General Government debts are forecast to reach 161 per cent of GDP in 2006 (Calendar Year).[12] On the other hand, in the net General Government debt league table, which the OECD also publishes, Japan's situation still appears bad, but not as bad as in the previous table. In fact, on this basis, Italy is the worst case among the G7.

It is not entirely clear what constitutes the difference between the gross figures and the net figures, but it is easy to imagine that assets of social security funds are among the largest assets that are subtracted from the gross debts to make the net figures.

This poses two issues.

Firstly, the net debt figure becomes much smaller than the gross figure, if an economy has a public pension system that has large reserves/provisions for future pension liabilities. Japan is an example of such economies.[13] On the contrary, if an

---

[12] This figure includes debts of local governments and some government-affiliated corporations, but not FLF bonds.

[13] Japan's system is domestically called "derivative pay-as-you-go system". Because the dependency ratio was low when the system was initially set up, it was felt fiscally sound to create a system, where the premium was set higher than necessary to finance a year's total pay-outs, and thus build up reserves which would be withdrawn when the dependency ratio gets higher so that the premium level can stay as low as possible. Needless to say, when the "raid" on the reserves starts, the economy's net General Government indebtedness will have to deteriorate.

Table 9

General Government Gross Debt – International Comparison
(percent of GDP)

(CY)	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Japan	68.6	74.7	79.7	87.0	93.8	100.3	112.1	125.7	134.0	142.3	149.4	154.0	156.3	158.9	160.5
United States	73.7	75.4	74.6	74.2	73.4	70.9	67.7	64.1	58.1	58.0	60.3	63.4	64.0	63.8	64.6
United Kingdom	39.8	49.6	47.8	52.7	52.5	53.2	53.7	48.7	45.7	41.1	41.3	41.9	44.2	46.8	49.1
Germany	41.0	46.3	46.7	55.8	58.9	60.4	62.2	60.8	59.9	59.3	61.6	64.6	67.9	69.9	71.4
France	43.9	51.0	60.2	62.6	66.3	68.4	69.9	66.5	65.2	63.8	66.6	71.7	74.7	76.7	77.5
Italy	-	-	-	125.5	131.3	133.3	135.0	129.5	124.9	124.5	123.5	121.4	123.0	125.4	126.8
Canada	89.9	96.9	98.2	100.8	100.3	96.2	93.9	91.2	82.7	82.9	80.5	75.7	72.2	69.3	64.6

Source: OECD Economic Outlook 78 (December 2005). Figures are calculated on an SNA basis.

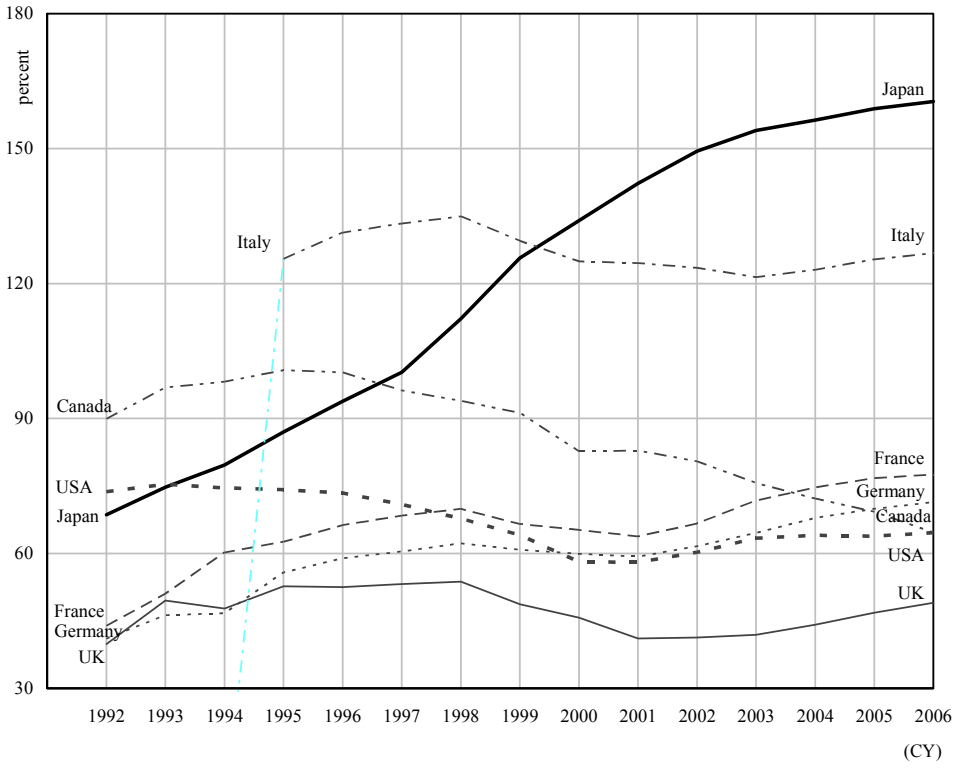
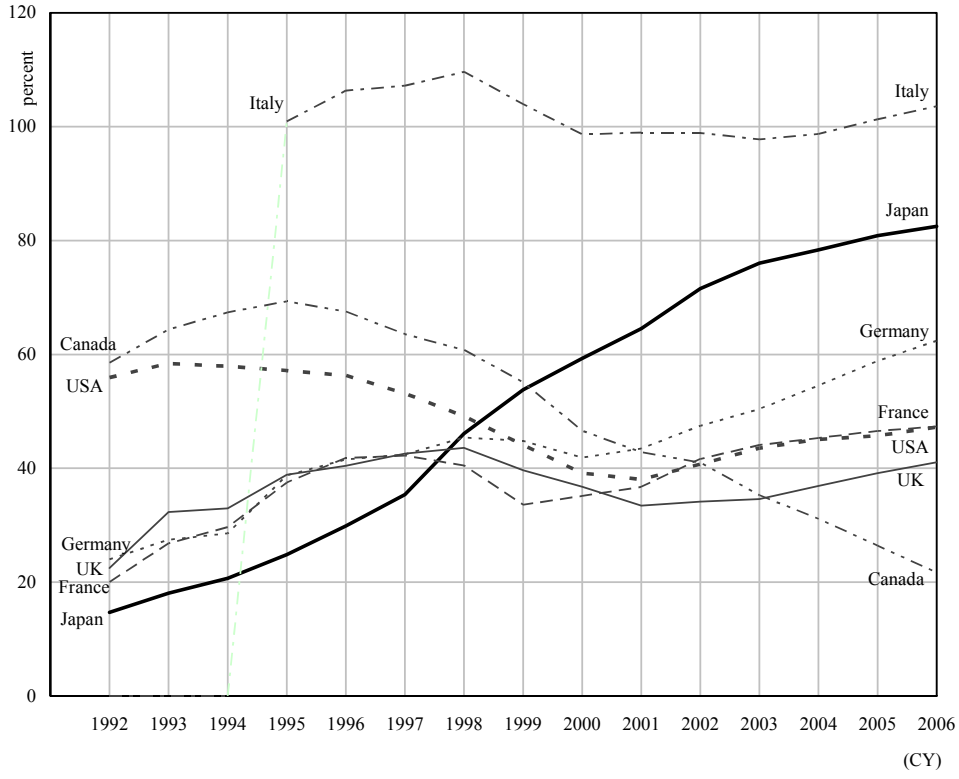


Table 10

General Government Net Debt – International Comparison
(percent of GDP)

(CY)	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Japan	14.7	18.1	20.7	24.8	29.9	35.4	46.1	53.8	59.3	64.5	71.5	76.0	78.3	80.9	82.5
United States	55.9	58.4	57.9	57.2	56.3	53.1	49.1	44.1	39.2	38.0	40.7	43.5	45.1	45.7	47.2
United Kingdom	22.5	32.3	33.0	38.9	40.4	42.6	43.6	39.7	36.8	33.4	34.1	34.6	36.9	39.1	41.1
Germany	24.0	27.4	28.6	38.7	41.6	42.4	45.4	44.8	41.9	43.4	47.5	50.4	54.5	58.8	62.4
France	20.0	26.8	29.7	37.5	41.8	42.2	40.5	33.6	35.1	36.7	41.7	44.1	45.3	46.5	47.4
Italy	-	-	-	100.9	106.3	107.2	109.6	104.0	98.6	99.0	98.9	97.8	98.7	101.3	103.6
Canada	58.5	64.4	67.4	69.3	67.5	63.5	60.8	55.1	46.6	42.8	41.0	35.3	31.1	26.4	21.7

Source: OECD Economic Outlook 78 (December 2005). Figures are calculated on an SNA basis.



economy's pension system is closer to a pure pay-as-you-go system, in which there is little need for keeping large reserves, the General Government assets will be smaller than otherwise, and thereby the difference between net and gross debts will not be so large.

As long as actuarially sustainable, adopting any pension systems should not affect the government's fiscal sustainability. But, in practice, two economies with exactly the same gross debt positions will show quite different net debt pictures, simply because of a difference in the mechanics of their pension systems. This can be rather misleading.

Secondly, the purpose of showing net figures should be, in the first place, to disclose the final amount that the economy needs to repay by taxes. It implies that the assets will have been sold up by that time. In other words, it is a kind of (negative) liquidation value of an economy.

But, this is only theoretical. It is fanciful to assume that an economy can wind up its public pension system and sell all the assets that belong to it. Even if it were possible, not all assets can be sold to agents outside the public sector, particularly at the book value. Non-financial assets will be even harder to sell.

For these reasons, Japan, for one, has argued at the OECD to minimise influence of social security funds, when discussing member economies' fiscal conditions, and to emphasise the gross, rather than net, indebtedness.

3. Balance sheet

Like some economies,[14] the Government of Japan has been publishing a national B/S, which explains assets and liabilities on a stock basis, following closely, where appropriate, the private sector's accounting rules. As at end-FY 2003, liabilities are shown to exceed assets by approximately JPY 245 trillion. Simply put, this difference will need to be filled up by the future generation. In this sense, the national B/S is a powerful tool with which one judges an economy's fiscal conditions.

That said, there are a number of issues surrounding the B/S, which are still under discussion, so that the B/S approach must take into account various limitations.

For example, first, although the national B/S shows consolidated figures between the general and special accounts, local governments are not consolidated. This is because only about 60 per cent of the total local governments currently

[14] The United States began publishing a B/S of the Federal Government in 1995, Britain started in FY 2001 and plans to issue a consolidated B/S (with local governments) from FY 2006, France initiated a trial in 1988, Australia started in FY 1996 and New Zealand began in 1991.

produce their B/S. Thus, at the moment, the national B/S shows only the B/S of the central government.[15]

Second, some assets of the central government may be valued in one way or another, but cannot be sold. For instance, it is difficult, if not impossible, to pin the market value to assets such as national parks, river banks, highways, and military bases.[16] Even if that were done, they are often not intended for sale. In this sense, recognising them as assets on the B/S may only be academic, since they will not help "repay" liabilities. In other words, the difference between assets and liabilities (JPY 245 trillion) is in truth much larger.

Third, there are debates about unrealised shortfall in the pension assets. There is a school that argues Japan's employee's pension insurance, the main pillar of the public pension system, lacks JPY 450 trillion in reserve that is needed to honour the pension liabilities corresponding to the past period. In fact, the first trial at the national B/S in 2000 listed various possibilities as to how to treat the pension liability, which includes an option to recognize JPY 450 trillion as if it were a realised liability. Subsequently, this approach was abandoned, though the decision has been criticized in some circle.

It is unfortunate that the debates on this matter are somewhat confused. In the first place, the idea of unrealised shortfall implicitly presupposes a fully-funded personal account pension system. Under this system, the aggregate funds in all personal accounts must be sufficient to finance all (discounted) future pension requirements that are expected from those who have held accounts, and have paid in premia, to date. If Japan's employee's pension system is run as such, clearly the total reserves fall short. That shortage is about JPY 450 trillion. In other words, JPY 450 trillion is needed, if the employee's pension system is "privatised" today and going to be operated without government supports for ever.[17]

However, like many public pension systems around the world, it is a pay-as-you-go system: requirements for pension payments in one future year will be funded by tax and insurance premium collected in that same year, plus investment proceeds and withdrawal from reserves when appropriate. Thus, as long as the current system is maintained, there will be no need to retrospectively fully-fund the pension reserves. In this sense, the government panel has reached the conclusion that

---

[15] A second B/S that consolidates the central government and government-affiliated organisations including the postal saving is also published.

[16] In the Japanese government's B/S, tangible assets for which there are no meaningful markets are valued by aggregating investment amounts hitherto, and then subtracting depreciation.

[17] In some countries, including the United States, a shift from a pay-as-you-go system towards a fully-funded system is being proposed. The common problem in such a shift is how to resolve the so-called double burden of the current workforce: they have to finance the pension payments for the retired generation while at the same time spare funds for their own accounts. The idea of unrealised shortfall is to put the first burden on the shoulder of the government. In Japan, this corresponds to approximately JPY 450 trillion.

Table 11

Japanese Government Balance Sheet
(in JPY trillions)

Line items	end-FY2002	end-FY2003	Change	Line items	end-FY2002	end-FY2003	Change
Assets				**Liabilities**			
Cash and deposit	24,938	42,489	17,550	Accounts payable	9,958	9,546	–412
Securities	55,169	70,563	15,394	Reserve for bonus payment	233	332	98
Accounts receivable	18,295	17,224	–1,071	Short-term government securities held by the public	46,850	70,639	23,789
Loans	307,939	289,912	–18,027	Government bonds held by the public	450,281	508,218	57,936
Money in trust	35,278	54,203	18,925	Borrowings	17,567	20,173	2,606
Allowance for doubtful accounts	–2,359	–2,408	–48	Deposits received for the FLIP	185,352	162,620	–22,732
Tangible assets	178,016	182,164	4,148	Insurance reserves	9,086	9,277	190
Intangible assets	222	222	0	Deposits received of public pensions	161,649	143,131	–18,518
Investments	35,169	36,051	881	Reserves for retirment benefits	16,803	15,677	–1,125
Others	4,792	5,499	707	Others	1,601	1,464	–137
Total assets	657,462	695,923	38,460	Total liabilities	899,385	941,081	41,696
				Difference between assets and liabilities			
				Difference	–241,922	–245,158	–3,236

Source: Ministry of Finance.
Note: General and special accounts of the central government.

the unrealised shortfall should not be recorded as the liability on the B/S: instead, only the current reserves (deposits) are listed amongst the liability items.[18]

4. Net or gross: that is the question

4.1 There is no definitive definition

Information about an economy's fiscal soundness is very important not only for investors and academics but also for ordinary taxpayers. Without it, informed expectation, a cornerstone of market-based democracy, cannot be formed.

Needless to say, such information should be accurate, timely, and easy to understand, while at the same time in-depth analyses must be made possible if so desired. The fiscal transparency manual prepared by the IMF set a parameter, but not a definitive definition of what constitutes deficit and debt.

In fact, there does not seem to be a perfect definition that fits all economies of different government systems. Even in one economy, it is hard to think of one definition that can answer every question from everyone.

In the case of Japan, all necessary information is included in the budget documents that are submitted to Diet for discussion, but the media and market participants almost solely focus on the headline deficit figure, *i.e.* revenue shortfall (new issuance of JGBs), of the general account. This is a rather narrow definition, as discussed above, but there are certainly merits in emphasising this figure. Most of all, this is easiest for ordinary people to understand, by analogy to a household account: they can instantly grasp how much money needs to be saved, either by cutting spending or increasing revenues (taxes, etc.).

As a logical extension, attention is usually paid to JGBs outstanding and/or the central government long-term debts (bonds and borrowings) when discussing the magnitude of Japan's indebtedness. The perpetual quest for fiscal consolidation, therefore, aims at reducing the size of annual JGB issuance and that of JGBs outstanding.

4.2 What is happy news?

Because there is no definitive definition, it is always possible to produce a plausible fiscal figure by picking and choosing suitable components.

In their paper[19] in September 2004, Broda and Weinstein made a radical claim: they argued that Japan's debt position is not too bad and in fact comparable to

---

[18] In the United States, because pension assets are invested in unmarketable Treasury bonds, they are not listed in the assets of the national B/S.

[19] Christian Broda and David E. Weinstein, "Happy News from the Dismal Science: Reassessing Japanese Fiscal Policy and Sustainability", September 2004.

some European economies, if Japanese debts are netted out by social security funds, postal savings, BOJ's JGB holdings and the like. Starting from this notion, they estimated that, even with the rapid ageing, current "generous" levels of pay-outs to the elderly can be maintained for a foreseeable future and fiscal conditions would remain sustainable, if the tax rates are raised to the current European levels.

Their paper was received enthusiastically in some circles in Japan, while others thought it inappropriate and irrelevant. The debate was somewhat surreal, because it was stuck in the definition of debt: neither of the two camps could convince the other what should be regarded as debt.

It is true that part of the outstanding JGBs is held by various arms of the government sector and the BOJ as assets. In this sense, as they say, thinking of the outstanding JGB figure only as cost may be misleading: some of the debt service expenditure forms revenue of the government sector.[20]

While agreeing to the observation, the majority does not think that it enables the government to count out the government-held portion of the JGBs from the total government indebtedness, because such JGBs will also have to be repaid. If the government nullifies such JGBs, the government bodies will not be able to honour their responsibility to pay out pensions, savings etc. In such a case, the government will have to pay out in their place, which makes little difference from repaying JGBs held by them in the first place.

In particular, nullifying JGBs held by the BOJ will affect its financial strength, raise doubt about its independence from the government, and in any case lead to a reduction of signorage that the government receives from the BOJ every year as part of non-tax revenues.

If the argument of Broda and Weinstein were to be taken to the extreme, the Japanese government would have few debts. Because almost all JGBs are held domestically, it could be argued that they are both asset and liability of the Japanese population, which cancels each other out. But, such thinking is unorthodox, to say the least.

If the outstanding JGBs cannot be netted out, estimates for their second claim should appear differently. But, even if the first claim were accepted, still it would be difficult to agree to their optimism.

Tax and social welfare (health, pension, long-term care etc.) burdens in Japan are calculated as about 36 per cent of national income (FY 2005).[21] On the other hand, it is widely believed that the benefit levels in Japan are less generous than in northern European economies. Japan's fiscal sustainability may indeed be assured,

---

[20] Indeed one of the reasons why the Japanese government began producing a B/S is to clarify this point. Of course, difference between assets and liabilities is not affected by the fact that some government arms hold JGBs as assets.

[21] The same ratio is 33 per cent in the United States (2002), 48 per cent in Britain (2002), 54 per cent in Germany (2002), 64 per cent in France (2002) and 71 per cent in Sweden (2002).

even if she maintains the current levels of social benefits, provided that tax rates reach the European levels, with less-than-the European level benefits. But, this is something the Japanese government and taxpayers alike want to avoid. Of course tax rates must be raised, but the government's goal is to contain the tax increase as far as possible by rationalising social security and other programmes, so that the balance between costs (tax etc.) and benefits (services) will be restored.

5. Conclusion

In the era of absolute monarchy, banks and merchants who lent to kings and governments thought they knew how much repayments they could expect. Repeatedly they were proven wrong. Only kings and governments knew how much they owed, because it was they who decided how much they would repay, regardless of the numbers on the I.O.U.

In the modern era, banks and pension funds who lent to governments are convinced that they will be repaid in full, and usually their expectation is fulfilled. Still, taxpayers do not necessarily know how much their government owes them after all, not because it is an arbitrary decision of the government, but because deficit and debt has become a rather complicated concept, as the government's activity has expanded.

Needless to say, the government must eschew from intentionally misleading taxpayers by selectively using the kind of definitions that suits the government's purposes in specific circumstances. It should use, as far as possible, the simplest concept and keeps producing the number according to that definition.

Perhaps the most difficult question is how far the government should use fiscal figures that are based on econometric projections, for ordinary taxpayers tend to confuse these with hard facts.[22] Moreover, figures may differ, if the model used is tweaked. Therefore, it may be more "democratic" to use such figures with clear caveat.

In this light, if an economy wants to set a "democratic" kind of fiscal target, that of the euro economies appears a good model.[23] Needless to say, however, whether such a target will be achieved and kept has nothing to do with the beauty of the target itself.

---

[22] SNA figures are not the only example of econometric projection. Structural and cyclical deficits are also based on mathematical calculation, and hence the product differs somewhat according to who (the IMF, OECD or others) creates the model.

[23] The Maastricht Treaty states that, in order to join the EMU, an economy's budget deficit may not exceed 3 per cent of GDP and the public cumulative debt may not exceed 60 per cent of GDP. The Stability and Growth Pact inherits the basic idea. However, as is well known, this simple formula did not stop a number of arguments about what is allowed and what not under this accounting framework.