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ANU COLLEGE OF ASIA & THE PACIFIC
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**HOW SHOULD ONE EVALUATE FISCAL
CONDITIONS? A STUDY BASED ON THE
COMPARISON BETWEEN JAPAN AND
AUSTRALIA**

Jun Ikeda



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HOW SHOULD ONE EVALUATE FISCAL CONDITIONS? A STUDY BASED ON THE COMPARISON BETWEEN JAPAN AND AUSTRALIA

In comparing fiscal indicators of Japan and Australia, it is generally perceived that Japan's fiscal conditions are very serious and those of Australia are very sound. However, in Australia the rising ratio of foreign liabilities to GDP is the source of anxiety in the market, which in turn reduces the flexibility of fiscal policy. If such economic conditions are considered, the evaluation of Australia's fiscal conditions is worse than one based on fiscal indicator alone, while the opposite relationship is the case for Japan. The fiscal conditions of the two countries are a good example to demonstrate that fiscal conditions should be evaluated as part of economic conditions.

1 Introduction

In comparing fiscal indicators of Japan and Australia, Japan has been in huge fiscal deficit and the fiscal liabilities are increasing, so fiscal sustainability is said to be of concern. However, while Australia has been in fiscal surplus for almost 10 years, its net fiscal liabilities became negative recently. Based on these facts, the general view is that Japan's fiscal conditions are very serious and those of Australia are very sound. With these indicators in direct contrast in the two countries, would the evaluations of those fiscal conditions really be opposite?

In Australia, the current account deficit is large and foreign liabilities have increased noticeably. It does not seem to matter so much to the Australian authorities whether foreign liabilities increase or not. However, in a broad sense fiscal liabilities and foreign liabilities ought to be similar in character, as ultimately the entire nation bears the liabilities. Considering such similarity, the sustainability of the Australia's foreign liabilities must be of some concern. If so, that would influence fiscal conditions adversely.

In this connection, as Musgrave (1959) shows, given the three functions of public finance—'the allocation' of resources, 'the distribution' of income and wealth, and 'the stabilisation' of an economy—public finance functions in relation with the national economy. Accordingly, if economic conditions deteriorated, this would affect the requirement for public finance, and if public finance performed its function appropriately, fiscal indicators would change in response to this. Even if public finance did not, the deterioration of economic conditions would be a potential factor in a change of fiscal indicators. Of course, existing

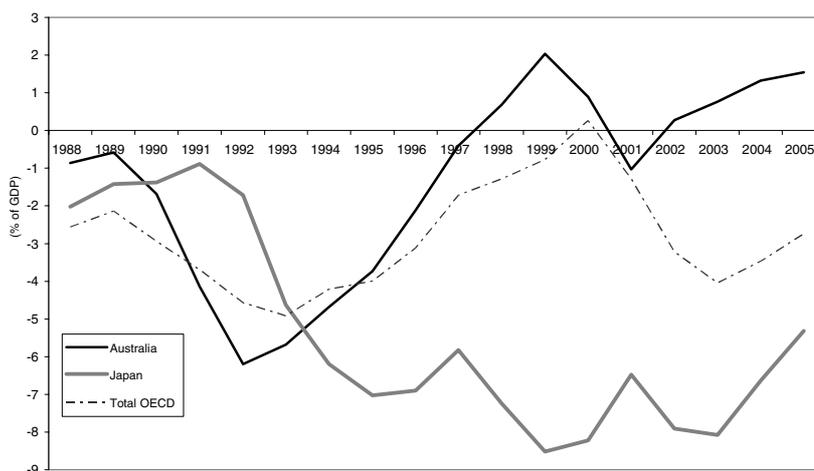
evaluations of fiscal conditions would generally reflect economic conditions. However, it is hard to say that these evaluations do this explicitly; these evaluations seem to depend largely on fiscal indicators.

From this point of view, in order to evaluate fiscal conditions more appropriately, one should examine under what circumstances fiscal conditions are assessed to be sound in the first place. In particular, it would be necessary to examine what explicit influence economic conditions (including the state of foreign liabilities) have on fiscal conditions.¹ If fiscal conditions were evaluated considering those points, the evaluations of the two countries would be a little different from the general view. This is the subject of concern.

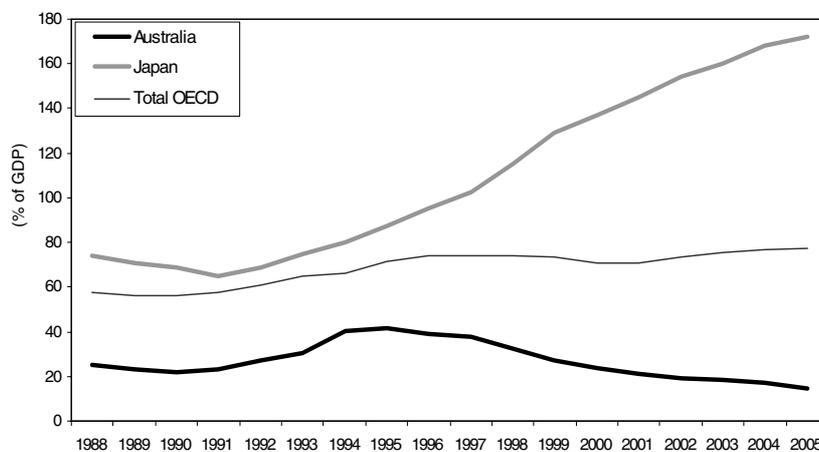
2 Fiscal developments, evaluating fiscal conditions in Japan and Australia

Let us look at recent fiscal developments *in Japan*.² Since the collapse of the ‘Bubble’ in Japan in the early 1990s, the government had implemented expenditure increases and tax cuts successively to ease the impact of an economic downturn. Although tax revenues had already stagnated due to the downturn, tax cuts exacerbated fiscal conditions. Thus, expenditure kept increasing while revenue showed little improvement. As a result, the fiscal deficit increased steeply (Figure 1) and fiscal liabilities accumulated rapidly (Figure 2). The ratio of fiscal liabilities to GDP (or the fiscal liabilities ratio) was extremely high in comparison to other developed countries (Table 1).

Figure 1 Fiscal balances in Japan and Australia



Note: The figures of Japan exclude the account balance on Social Security Fund as noted in footnote 7.
 Source: OECD, 'Economic Outlook No.79'.

Figure 2 Gross fiscal liabilities in Japan and Australia

Source: OECD, 'Economic Outlook No.79'.

Table 1 Gross fiscal liabilities in major countries, (% of GDP)

	1990	2005	Comparison with 1990
Australia	21.9	14.4	-7.5
Japan	68.6	172.1	+103.5
Canada	74.5	69.3	-5.2
France	38.6	76.5	+37.9
Germany	41.5	69.6	+28.1
Italy	-	121.4	-
Korea	7.8	24.8	+17.0
New Zealand	-	26.5	-
United Kingdom	33.0	47.2	+14.2
United States	66.6	64.1	-2.5
Euro area	48.4	77.5	+29.1
Total OECD	56.3	77.7	+21.4

Source: OECD, 'Economic Outlook No.79'.

Recently, the fiscal deficit has been decreasing as economic recovery increased revenue and every effort to curtail expenditures continued. Nevertheless, almost all the fiscal deficit is structural³, which shows that the structural reform of the fiscal system is necessary, as economic recovery will not reduce the fiscal deficit significantly. Furthermore, the fiscal

liabilities ratio still keeps increasing and the primary balance⁴ is in deficit. Thus, Japan's public finances are still in a serious condition.

In Australia in the early 1990s when an economic downturn occurred, the fiscal balance deteriorated with the introduction of economic stimuli at the same time as revenue decreased. However, the economy recovered rapidly from the mid-1990s. Therefore, tax revenues increased, while the authorities endeavoured to curtail expenditure. Accordingly, the fiscal deficit declined steeply, and the fiscal balance has been almost in surplus since 1998 (Figure 1). As a result, fiscal liabilities decreased rapidly; the ratio to GDP fell from 42 per cent in 1995, the worst figure for 20 years, to 14 per cent in 2005 (Figure 2). An international comparison also ranks Australia at a very low level (Table 1). In net terms, total fiscal liabilities became negative in 2005.⁵

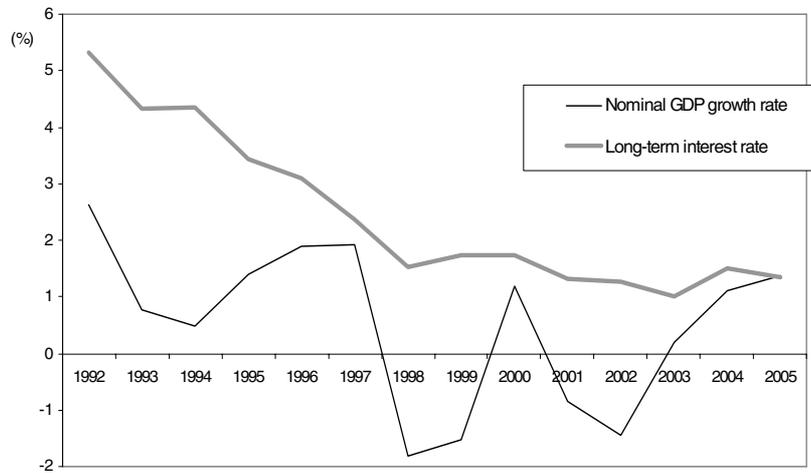
The key fiscal statistics of the two countries are as follows (as percentage of nominal GDP, as at 2005):

1) Financial balances	Japan	-5.3% ⁶	Australia	+1.5%
2) Cyclically-adjusted balances	Japan	-4.9%	Australia	+1.5%
3) Primary balances	Japan	-3.9%	Australia	+2.8%
4) Gross financial liabilities	Japan	172.1%	Australia	14.4%
5) Net financial liabilities ⁷	Japan	+86.3%	Australia	-0.5%
6) Net debt interest payments	Japan	1.3%	Australia	1.3%
7) Total outlays	Japan	36.9%	Australia	34.9%
8) Total tax and non-tax receipts	Japan	31.7% ⁸	Australia	36.4%

It is obvious that financial balances (including cyclically-adjusted and primary balances) and (gross and net) financial liabilities in the two countries differ widely. However, net debt interest payments are at the same level, reflecting very low interest rates in Japan, in spite of the difference of the size of liabilities.

Comparing the fiscal strategies of Japan and Australia, in Japan, the urgent fiscal target is to achieve a surplus in the primary balance of the central and local governments by the early 2010s (Japanese Government, 2006). The essential aim of the target is not to raise the fiscal liabilities ratio. The idea of primary balance is based on the proposition of Domar. This states that if the primary balance is zero, the fiscal liabilities ratio will remain at the same level under the precondition that nominal interest rates and the nominal growth rate of GDP are equal. Accordingly, if nominal interest rates are higher than the nominal growth rate, as in deflation-affected Japan (Figure 3), restoring the primary balance will not cause the fiscal liabilities ratio to level off. Thus, the fiscal situation of Japan is far from the essential aim of the target.

Figure 3 Nominal GDP growth rate and long-term interest rate in Japan



Source: OECD, 'Economic Outlook No.79'.

Meanwhile in Australia, 'the primary objective of the medium-term fiscal strategy is to maintain budget balance, on average over the course of the economic cycle'. In addition, the authorities prudently assume that a fiscal surplus is necessary at present 'to meet future challenges flowing from demographic change and increasing demand for high quality health care' (2006–07 Budget Paper No.1, 2006). It may safely be said that this objective has almost been achieved.

General evaluations of fiscal conditions of the two countries are available from OECD, IMF and rating agencies. According to the OECD, in Japan, 'the government's financial position continues to deteriorate, raising concerns about fiscal sustainability at the same time that population ageing is increasing demands for public spending' (OECD, 2005b). Meanwhile in Australia, public finance is very healthy. However, 'ageing will exacerbate the underlying rise in public health costs and to a lesser extent in public pensions, putting pressure on public finances' (OECD, 2005a).

On the other hand, the IMF states that in Japan, 'the deficit remains large and the debt ratio on an unsustainable path. Prospective demands on the budget from an ageing society add urgency to the need for fiscal consolidation' (IMF, 2005b). Meanwhile in Australia, it sees 'the fiscal position is strong'. However, 'as in many countries, Australia faces the medium-term challenge of addressing the economic consequences of an ageing population and rising health care costs'. Concerning the recent rapid rise in the terms of trade, the Australian

authorities 'will reevaluate the extent to which the recent terms of trade gains were a cyclical or permanent factor, and fiscal policies would be adjusted if necessary'. The IMF supports this forward-looking approach (IMF, 2005a).⁹

In a comparison of ratings of long-term government bonds by three world-famous rating agencies, Standard & Poor's, Moody's and Fitch, those of Japan are ranked fourth (AA- by S&P and Fitch) or sixth (A2 by Moody's). These ratings have gradually been downgraded due to the deterioration of Japanese economic and fiscal conditions, despite having ranked highest (AAA or Aaa) until 1998. Meanwhile, those of Australia are now ranked at the highest level as the agencies regard a strong economy and sound fiscal conditions as most important. However, they had previously been downgraded to AA or Aa2 between 1986 and 1989 due to a concern for increasing foreign liabilities (as of December 2006).¹⁰

The fiscal conditions of Japan are very serious compared with other developed countries even according to the Japanese authorities' own evaluation. In addition, increases in various expenditures due to population ageing and in interest payments and debt redemptions due to continuing increases in government bonds outstanding make the structure of expenditures and revenues more and more inflexible (Japanese Government, 2005).

Evaluating their own economy the Australian authorities say: 'The fiscal outlook for Australia continues to remain sound'; 'Australia's very strong fiscal position compared to OECD countries is highlighted'; and 'Nevertheless, a steadily ageing population is likely to continue to place significant pressure on Commonwealth government finances' (2006-07 Budget Paper No.1, 2006, and Commonwealth of Australia, 2002a).

Analysing these evaluations, one could develop a general view that Japanese fiscal conditions were very serious, while those of Australia were very sound. However, the evaluations do not seem to consider economic conditions explicitly, although population ageing is often mentioned as a factor in a possible future deterioration of fiscal conditions. Of course, it is probable that for the OECD and the IMF the factors influencing fiscal conditions are buried in their reports, because they report the evaluations of fiscal conditions as a part of those of economic conditions. However, the relationship between fiscal conditions and other economic conditions are not clearly mentioned in the reports; there are few descriptions that relate clearly to the fiscal conditions described above.

Meanwhile, the evaluations by rating agencies and the two governments aim mainly at evaluating fiscal conditions. Therefore, they consider economic conditions to some degree¹¹. Nevertheless, factors that may influence fiscal conditions are described qualitatively and are treated as nothing but an annotation. It is not clear how significantly those factors influence fiscal conditions. Thus, it seems that existing evaluations of fiscal conditions are founded solely on fiscal indicators.

3 How should fiscal conditions be evaluated thoroughly?

Although there would be many views on how fiscal conditions should be evaluated, this paper focuses on the relationship between the size of fiscal liabilities and the potential ability to repay them. If the latter exceeded the former, public finance could perform its functions appropriately (as set out in Section 1) not worrying about the repayments of the liabilities. The larger the latter become or the smaller the former, the better the evaluation of fiscal conditions. In addition, both evaluations should be prospective, looking to the future, because if public finance performs its functions in response to a prospective change in economic conditions, the size of fiscal liabilities would reflect this.

However, the view that no liabilities are optimal would cause a problem by restricting the flexibility of fiscal policy, and public finance could not perform its functions appropriately. It is also important to have a balance between fiscal sustainability and the functioning of public finance. Although there is no consensus on how this should be balanced, some amount of fiscal liabilities should be tolerated; the evaluation of fiscal conditions should be constant even if the liabilities are less than that amount.¹² Conversely, if the size of liabilities exceed the potential ability, public finance could hardly perform its functions; in this situation, fiscal liabilities might become unsustainable permanently and therefore the repayments of liabilities would be required first of all. The paper reviews this sustainability in Section 4, because this matter is different in nature from any ordinary evaluation of fiscal conditions.

How, then, should the potential ability to repay liabilities be measured? What factors other than fiscal indicators are to be considered? If one devises a restructuring plan for a private corporation whose potential is of some concern, the important points will be: whether or not the circumstances surrounding that corporation, such as business conditions, enable the corporation to survive, and to what degree the corporation will make a commitment to reform its size, structure, nature and so on to adapt itself to the circumstances. How should these two criteria be applied to a government?

First, the circumstances surrounding a corporation correspond to the economic conditions of the country concerned. Of course, there is a little difference between them; in the case of a government, the extent to which the economy has the ability to repay liabilities is what is relevant because ultimately the entire nation owes the liabilities, rather than the government, while in the case of a corporation, the extent to which there is room to make a profit is what is relevant.

Second, the willingness to reform corresponds to the determination of the authorities to reduce liabilities. Whether the public accepts the government's determination or not is also important. To sum up, it does matter to what degree the entire nation intends to reduce liabilities.¹³

However, it is the creditors or the potential creditors to a government, or in a broad sense the market, that judge directly whether the authorities have the potential ability or not. It is hard to imagine that the market would estimate this ability objectively based on the economic conditions and the commitment of the authorities. This ability would depend on to what degree the market has confidence in the authorities and the economy. It should be noted that even if the conditions affecting the government's ability are unchanged, it would be very likely that confidence would be shaken.¹⁴

Nevertheless, because the concept of confidence is hard to grasp, it is worth reviewing economic conditions and the commitment of the authorities, which represent the evidence underpinning confidence. As mentioned above, fiscal liabilities are repaid indirectly by the economy in the end. Accordingly, if economic conditions were strong and this was expected to continue in the future, it would be judged that the economy has great potential to repay liabilities stably in the medium-long term. In addition, automatic increases in tax revenues would unintentionally decrease liabilities.

How, then, can we judge whether economic conditions are strong or not? First, GDP would be easy to understand as a means of judgment. Apart from the importance of the contents of GDP, if liabilities are increasing in harmony with GDP, the ability to repay must be unchanged. The fact that the fiscal liabilities ratio is generally used as one of fiscal indicators seems to provide some support for the proposition that there is a close relationship between fiscal and economic conditions.

In general, it would be best to take economic conditions quantitatively and evaluate fiscal conditions comprehensively based on this. However, there are many debates about how each economic indicator should be taken into consideration; accordingly, this may be very difficult. The second best method is to supplement a fiscal indicator-based evaluation with economic conditions qualitatively: to evaluate fiscal conditions from a multi-faceted viewpoint considering economic conditions. This would cause the debates mentioned above. Therefore, the paper mentions the remedy for this point in Section 6.

As for the commitment of the authorities to reduce liabilities, it may be possible to cut expenditure to some degree by making public services more efficient, but to cut expenditure on a large scale would require some reductions in public services themselves. If the authorities do not intend to review the contents of expenditure programs, it may be difficult to expect a sharp reduction in expenditure. Thus, the attitude of the authorities (and the people) towards the size of expenditure and the purpose of expenditures is an important point in evaluating the willingness of the authorities to reduce fiscal liabilities.

4 The sustainability of fiscal and foreign liabilities

As noted in Section 3, the two criteria for judging the potential ability to repay fiscal liabilities are not concrete. Nevertheless, it may safely be said that if the ratio of fiscal liabilities to GDP keeps rising, the liabilities will eventually become unsustainable because GDP has a great influence on the potential of the economy. However, with the ratio being at a low level, liabilities will remain sustainable for some time. Accordingly, the sustainability of fiscal liabilities is of concern when the fiscal liabilities ratio keeps rising and the ratio substantially exceeds the average level by international standards.¹⁵

In general, the higher the fiscal liabilities ratio is, the more a rise in interest rates will increase interest payments and, as the result, liabilities. Accordingly, even if the liabilities ratio stayed at the same level, a higher ratio could generate uncertainty about the sustainability of the liabilities. Thus, the fact that the above condition is not satisfied is the minimum requirement for the sustainability of fiscal liabilities.

There is some similarity between fiscal and foreign liabilities in that both repay liabilities. But, there is a difference between them; fiscal liabilities are the responsibility of government's, while foreign liabilities are repaid by various economic entities (including the government) in the economy. However, the government itself does not have the ability to repay fiscal liabilities; therefore, the entire nation will ultimately be responsible for the liabilities. Meanwhile, various economic entities in the economy are nearly equal to the entire nation. Thus, the difference between these liabilities is not so large. Therefore, GDP has a great influence over foreign liabilities just as it does over fiscal ones.¹⁶ If the ratio of net foreign liabilities to GDP (or the net foreign liabilities ratio) kept rising and the ratio exceeded the average level by international standards substantially, sustainability would be of concern.

Concerning the current account deficit in Australia causing the accumulation of foreign liabilities, Pitchford (1989), Corden (1991) and others have developed an argument that has been increasingly widely supported. The argument is that current account deficits reflect the gap between investments and savings in the domestic sector, which is derived from the best choice by well-informed people. In such a world, it does not matter whether the level of the current account deficit is high or not. If current account deficits were derived from a structural distortion in the economy, it would be necessary to correct the distortion. However, one cannot assume that the current account balance would necessarily be improved by any correction.

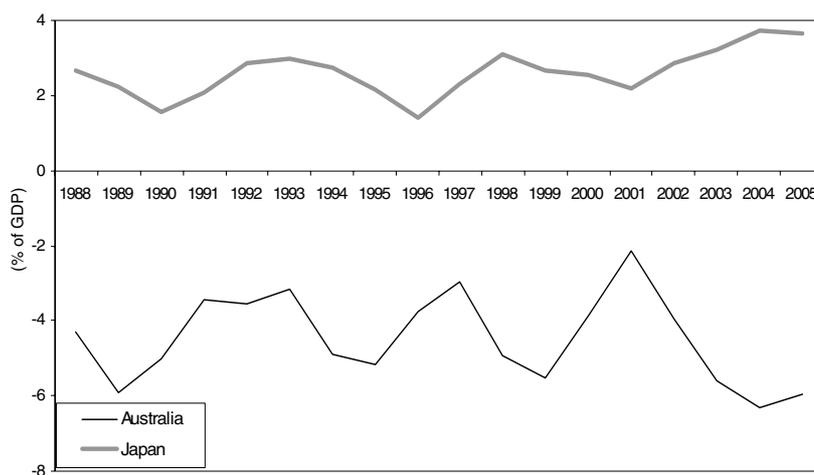
According to this view, it is hard to imagine the sustainability of foreign liabilities being a concern and the minimum requirement mentioned above does not make any sense even if

the foreign liabilities ratio keeps rising. Indeed, given that the market mechanism will not work for governments, it is hard to say that a government decides the size of fiscal liabilities rationally. Therefore, if a government does not deliberately control their size, liabilities might become unsustainable.

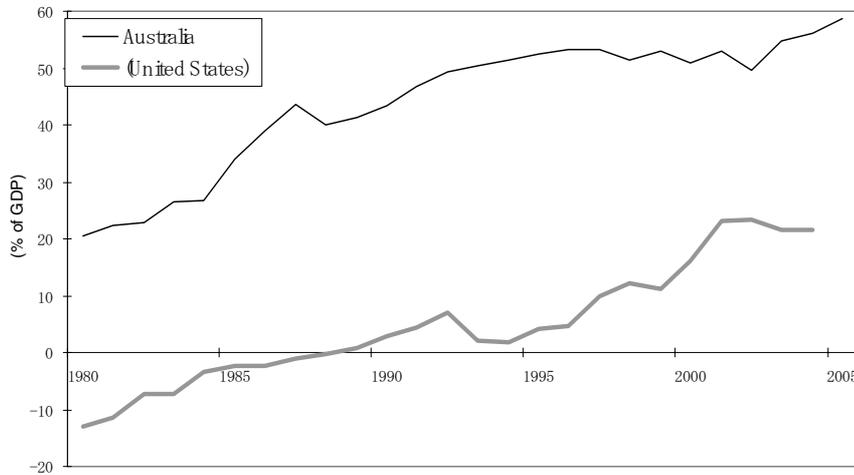
Meanwhile, if private entities acted completely rationally, they could decide the size of foreign liabilities so that they would not exceed the potential ability to repay the liabilities. However, there is what is called market failure caused by externalities and restricted information in the economy, although private entities generally act under the market mechanism. In such a world, it is probable that the potential ability to repay foreign liabilities falls short of the size of the liabilities due to, for example, the fluctuation of economic conditions, even though private entities may not intend this to occur. In general, the probability increases as the liabilities ratio rises. Under these circumstances, the minimum requirement for the sustainability of foreign liabilities would be of great significance.

We should now compare the fiscal liabilities in Japan and the foreign liabilities in Australia. First, in Japan the fiscal liabilities ratio keeps rising and this is extremely high among developed countries (Table 1). The authorities recognise fiscal conditions to be very serious and reduction of the fiscal deficit is an urgent task. Meanwhile in Australia, as a result of continuing current account deficits, the net foreign liabilities ratio has kept rising over the medium-long term (Figures 4 and 5). The ratio is classed as the highest level among

Figure 4 Current balances in Japan and Australia



Source: OECD, 'Economic Outlook No.79'.

Figure 5 Net foreign liabilities in Australia

Source: Australian Bureau of Statistics, 'Balance of Payments and International Investment Position, Australia, Mar. 2006', (Australia) and IMF, 'International Financial Statistics' website (United States).

developed countries (Table 2). Nevertheless, the authorities seem to think that the present situation is not so serious that sustainability of foreign liabilities becomes a concern.¹⁷

One reason why the authorities of the two countries deal with these liabilities differently may be the level of the liabilities ratio. The levels at which the sustainability matters would depend on liabilities. Perhaps, the fact that the Australian economy is strong may imply that the potential ability to repay foreign liabilities is high.¹⁸ It is also possible that the authorities gain confidence from the fact that economic entities in the world believe that, in a growing economy, the upward tendency in the net foreign liabilities ratio will come to a stop some day.¹⁹

However, the Australian authorities are unlikely to be reluctant to put the brakes on the upward trend in the foreign liabilities ratio in a steadily growing economy as long as they think that the present situation is not serious.²⁰ This suggests that the authorities are concerned about the matter of foreign liabilities, albeit tacitly.²¹ Such an official view would reflect the general concern among the public about the growth of foreign liabilities. Of course, it is hard to say that there are objective grounds for this view. Nevertheless, it should be noted that people do not think that the present situation is desirable and the authorities have to take account of public opinion.

Table 2 Net foreign liabilities in major countries (as of end of 2004)

	Amount (billions of \$)	(of GDP)
Australia (*1)	+411.0	60 %
Japan	-1,784.5	-37 %
Canada (*1)	+151.0	13 %
France	-151.0	-7 %
Germany	-269.2	-9 %
Italy	+123.7	7 %
Korea	-90.3	-12 %
New Zealand	+90.5	85 %
United Kingdom (*1)	+371.0	18 %
United States	+2,542.2	22 %
Argentina	-3.8	-2 %
Brazil	+297.7	45 %
Chile	+30.2	29 %
Mexico	+310.3	45 %
Venezuela	-15.7	-15 %
Philippine (*2)	+41.7	54 %
Poland	+127.3	41 %
Russia	+3.9	1 %

Notes (*1) As of end of 2005

(*2) As of end of 2003

Source: IMF, 'International Financial Statistics' 000 website (as of June 2006).

5 The influence of sustainability of foreign liabilities on fiscal conditions

In a situation where foreign liabilities kept rising, to reduce current account deficit in order to put the brakes on the upward trend, it is necessary to tighten fiscal policy in the short term according to general theories of the Keynesian economics. The following explanation of this policy change is based on the IS–LM theory²² and Mundell–Fleming theory, which extends the former theory to an open economy application. First, tight fiscal policy shifts the IS curve to the left. Although it is said that the effect of fiscal policy on GDP becomes smaller as the economy matures, GDP will still decrease to some extent. With this decrease, interest rates will fall; therefore, the capital inflow from overseas will decrease (or the capital outflow overseas will increase). Accordingly, the currency will depreciate; as the result, the current account balance will improve (that is, current account deficit will decline) as exports will increase and imports will decrease. Meanwhile, a decrease in GDP will cause a decrease in imports and this contributes to an improvement in current balance.²³

However, this means that the authorities could not loosen fiscal policy, even if the economic conditions deteriorated considerably, particularly over a long period, apart from the times when the economy is strong and the fiscal policy is tightened from the viewpoint of preventing the economy from overheating. If the authorities cut taxes or increased expenditures in order to mitigate against stagnation, fiscal liabilities would accumulate. As Gruen and Stevens (2000) note, the view that ‘one of the reasons Australia has maintained confidence of foreign investors over the two decades of high current account deficits has been the fiscal restraint and discipline’, the accumulation of fiscal liabilities could cause the market to lose confidence in the ability to repay foreign liabilities. To avoid this, loose fiscal policy would be difficult to implement.

Of course, the upward trend in the net foreign liabilities ratio does not mean that the liabilities are directly unsustainable. However, given that the public does not think that the present situation is desirable (as noted in Section 4), the authorities have no option but to tighten fiscal policy, which means there is less flexibility in fiscal policy.

6 The evaluation of fiscal conditions from a multi-faceted viewpoint

This section evaluates the fiscal conditions of Japan and Australia from a multi-faceted viewpoint considering the potential ability to repay fiscal liabilities, after defining the major differences in the economic conditions of the two countries.

As mentioned in Section 2, existing evaluations of the fiscal conditions of Japan and Australia do not explicitly take account of economic conditions. To improve this even a little, this paper compares the different influences economic conditions of the two countries have on fiscal conditions, which would make the evaluation of fiscal conditions more objective. However, taking all economic indicators into consideration would make the evaluation complicated and opaque. Accordingly, after defining major differences of economic conditions of the two countries, Section 6 considers how these differences qualitatively influence the fiscal conditions of the two countries. From this point of view, Table 3 compares some economic indicators in the two countries. In this table, indicators that show major differences between those countries are GDP, price trends, interest rates, the structure of exports and imports, the balance of payments and foreign assets/liabilities.

GDP in Australia has grown strongly in recent years, while in Japan GDP has stagnated. Price trends in Japan are outstanding, as their level has been falling. Interest rates in Japan are at the lowest level in the world. As to the structure of Australian exports and imports, the percentage of primary products in exports and that of manufactures in imports is relatively high. Current account and foreign assets/liabilities are the most characteristic among various

Table 3 Comparison of main economic indicators in Japan and Australia

		(Point in time)	Japan	Australia	(Source)
GDP	Real GDP growth rate until 2005 (*1)	5 year average	1.4 %	3.1 %	(*5)
	Nominal GDP (in billions of US\$)	2005	4,559	730	
	GDP per capita (in US\$, based on PPPs)	2004	29,567	32,409	
Price	Consumer price index (change from previous year)	5 year average until 2005	-0.4 %	3.0 %	(*7)
Productivity	Labour productivity (change from previous year)		1.7 %	0.9 %	(*8)
Employment	Unemployment rate	2005	4.4 %	5.1 %	(*7)
Interest rate	Long-term interest rate	2005	1.4 %	5.3 %	(*7)
Saving	Net household saving rate	2005	2.4 %	-2.6 %	(*8)
Industry structure	Breakdown of GDP by industry (% of GDP)	2004 (*1)			(*5)
	Agriculture, forestry & fishing		2 %	3 %	
	Mining		0 %	5 %	
	Manufacturing & construction		26 %	19 %	
	Others		72 %	72 %	
Exports and imports	Ratio of exports to GDP	2005 (*1)	14 %	18 %	(*5)
	Ratio of imports to GDP		13 %	21 %	
	Breakdown of exports by section (% of GDP)	2005	(*4)		(*9)
	Food, live animal, etc.		0 %	16 %	
	Crude materials, mineral fuels, etc.		2 %	47 %	
	Manufactured goods, etc.		98 %	37 %	
	Breakdown of imports by section (% of GDP)			(*4)	
	Food, live animal, etc.		10 %	4 %	
Balance of payments	Trade balance (of GDP)	2005 (*1)	2.1 %	-2.7 %	(*10)
	Current balance (of GDP)		3.6 %	-6.4 %	
	Net foreign assets (of GDP)	end of 2005(*2)	36 %-	59 %	
Exchange rate	Real effective exchange rate (2000=100)	2005	81.1	127.7	(*7)
Population	Total population (million)	1st Oct 2005 (*2)	128	20	(*11)
	Ratio of people aged 65 and over		20 %	13 %	
	Ratio of people aged under 15		14 %	20 %	
	Total fertility rate	2005 (*1)	1.25	1.80	
	Life expectancy (male)	2004 (*3)	78.6	78.1	
	Life expectancy (female)		85.6	83.0	

Note: (*1) Figures of Australia are until (or in) 2004-05. (*2) Figures of Australia are as of end of June 2005. (*3) Figures of Australia are in 2002-04. (*4) Breakdown of world exports is as follows: food, live animal, etc. 9%, Crude materials, mineral fuels, etc. 14%, manufactured goods, etc. 74% (WTO, 'International Trade Statistics 2005').

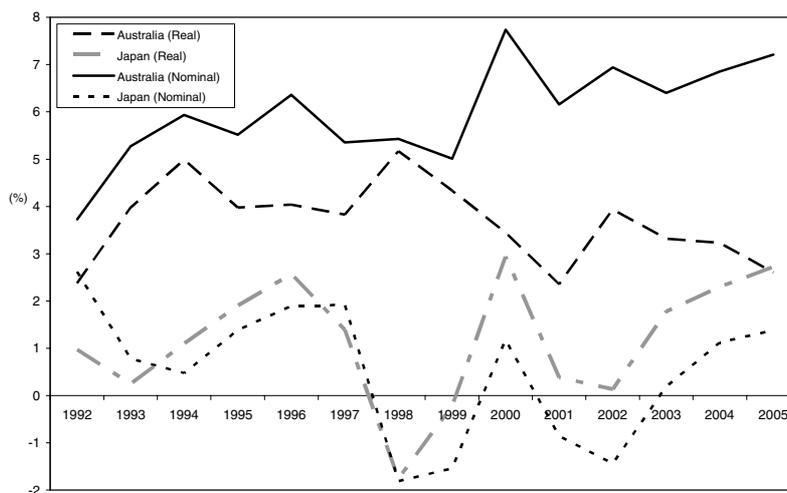
Source: (*5) SNA statistics in each country. (*6) OECD, National Accounts website (as of June 2006). (*7) OECD, 'Main Economic Indicators' (as of June 2006). (*8) OECD, 'Economic Outlook No.79' (2006). (*9) OECD, Monthly Statistics of International Trade – Data website (as of June 2006). Food, live animals, etc. is Section 0+1, crude materials, mineral fuels, etc. is Section 2-4 and manufactured goods, etc. is Section 5-9 of SITC classification. (*10) Statistics on balance of payments and international investment position in each country. (*11) Population statistics in each country.

economic indicators in the two countries as mentioned in Section 1. Table 3 shows the present trends in economic conditions only, but the estimate of the future developments would make the evaluation of fiscal conditions more appropriate. Although it is hard to estimate economic indicators in the future, the following considers some future developments such as those of population ageing which can be estimated in rough terms.

Evaluating fiscal conditions of Japan based on fiscal indicators alone is not significant. To review such an evaluation, let us examine the economic conditions and the will of the authorities to reduce liabilities as these are supposed to influence the evaluation of fiscal conditions.

Considering general economic conditions, the Japanese economy is recovering after emerging from the long depression after the collapse of the 'Bubble' (Figure 6). In addition, if the structural reform of the economy now under way results in success, the economy will become structurally stronger and grow more stably, although it is still too early to evaluate the results objectively. Furthermore, it is significant that the nominal growth rate of GDP is higher than the real growth rate coinciding with the disappearance of deflation. As nominal interest rates cannot become negative, it is more probable that the nominal growth rate is below nominal interest rates with deflating price levels. As mentioned in Section 2, in such a situation a problem could develop if restoring the primary balance does not cause the fiscal liabilities ratio to level off. However, as deflation disappears and the nominal growth rate

Figure 6 Nominal and real GDP growth rates in Japan and Australia



Source: OECD, 'Economic Outlook No.79'.

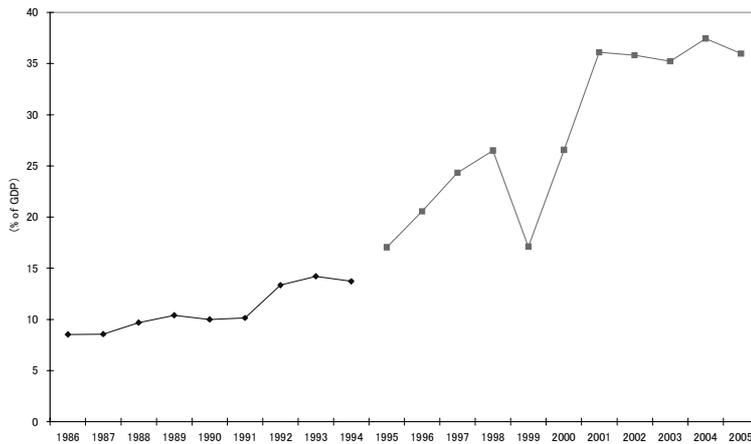
Table 4 Breakdown of central government securities holders in Japan (end of 2005, trillion yen)

	Amount (*)	(percentage)
General government	60	9 %
Central bank	94	14 %
Other financial institutions	451	67 %
Overseas	32	5 %
Households	26	4 %
Other	10	1 %
Total	672	100 %

Note: (*) The figures include FILP (Fiscal Investment and Loan Program) bonds.

Source: Bank of Japan, 'Flow of Funds'.

Figure 7 Net foreign assets in Japan

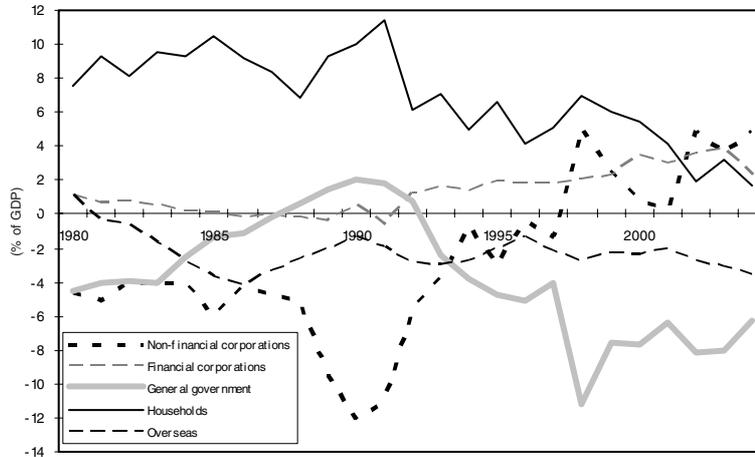


Note: There is a break in the series between 1994 and 1995 because of the different definition of the figures.

Source: Ministry of Finance Japan, 'International Investment Position of Japan'.

increases, that problem will disappear. Furthermore, with the nominal growth rate becoming higher, revenues including tax revenues will increase while expenditure will effectively decrease leaving expenditure unchanged in spite of a price rise. These developments should contribute to an improvement in the primary balance and therefore improve the potential ability to repay fiscal liabilities. Thus, general economic conditions in Japan are a positive factor in the evaluation of fiscal conditions.

Figure 8 Account balances by economic sector in Japan



Source: Economic and social research institute, Cabinet office, 'Annual report on national accounts of 2006'.

Positive net foreign assets mean that the total assets held by all domestic sectors in an economy exceed the total liabilities. As fiscal liabilities are a part of the total liabilities, from a macroeconomic view the greater the total assets in an economy, the greater the ability to repay fiscal liabilities.²⁴ However, even if the total assets were large, the authorities could not directly allocate a part of the total assets to the repayments of the liabilities. Consequently, positive net foreign assets in Japan are neutral aspects (or positive ones, if anything) for the evaluation of fiscal conditions.²⁵ In relation to current account surpluses in Japan, this shows that Japan has maintained high levels of competitiveness in exports, which contributes to strengthening general economic conditions.

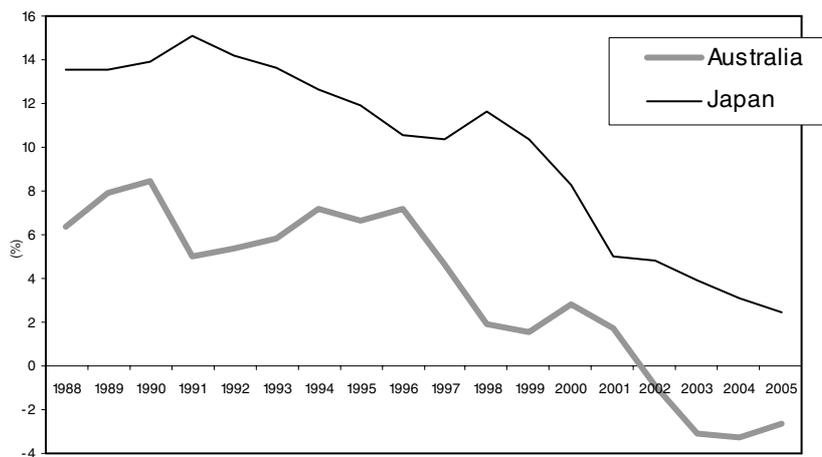
Turning to the supply and demand of funds, in putting the brakes on the upward trend in the fiscal liabilities ratio, it is important to watch not only trends in the nominal growth rate of GDP but also those of interest rates, particularly, long-term real interest rates which are determined by the supply and demand of funds in the medium-long term. A rising fiscal deficit means a government increases the demand for money. Other things being equal, this would narrow the gap between the supply and demand of funds in the economy, and as a result would cause interest rates to rise. However, interest rates in Japan have tended to fall (Figure 3) in spite of rapid increases in the fiscal deficit, because the economy is experiencing surplus liquidity.²⁶ At present, interest rates are still very low by international standards and this contributes to improving potential ability to repay liabilities.

To estimate interest rates in the future, the prospects for the supply and demand of funds is important. In this respect, the household savings rate is falling gradually mainly because of population ageing (Figure 9), while the non-financial corporations are expected to increase the demand for money as the economic recovery progresses. In addition, financial institutions are reducing their net lending with the approach of the end of writing off bad loans. The fact that the household sector is contributing to reducing the supply of money while the business sector will generate an increase the demand for money could narrow the gap between the supply and demand of funds. This might raise interest rates in the future.

Thus, the trends in interest rates in the future may be a risk factor in the evaluation of Japan's fiscal conditions. For any government that is reducing its fiscal deficit, it is essential to adjust the pace of the reduction so as not to narrow the gap between the supply and demand of funds.

Turning to the balance on social security account, expenditure on social security occupies the largest percentage in the budget; the ratio to General Account expenditure for the 2006 fiscal year is 26 per cent. Furthermore, the expenditure is expected to rise rapidly in the future due to population ageing. The authorities estimate that the ratio of the total burdens on social security to the national income will rise by 4.5 percentage points resulting in 26.5 per cent in the 2025 fiscal year, even if the estimate takes account of the prospective reform of the medical insurance system (Ministry of Health, Labour and Welfare, 2006).

Figure 9 Net household saving rates in Japan and Australia



Source: OECD, 'Economic Outlook No.79'.

In relation to Japan's various social security systems, the public pension system, which was the source of most concern, is said to have become sustainable through reforms undertaken in 2004.²⁷ These reforms are welcome because they will improve fiscal conditions in the future. However, the reforms assume certain tax increases in the future, as well as various economic conditions including the population trends for the next 100 years. There is no plan to introduce tax increases at the present time. As for population trends in the future, the birth rate might fall short of the estimation, unless the downward trend in the birth rate is reversed. If those assumptions are not satisfied, the public pension system could fall into deficit or the public would be required to increase their contributions or decrease benefits further. Therefore, there still exists deep-rooted concern among the population over the sustainability of the public pension system. Other systems such as the medical insurance system are also in the same situation. Reform of the social security system is still Japan's biggest problem.

In the meantime, all of the reforms could have an adverse influence on fiscal conditions indirectly, through an adverse effect on economic conditions, because the reform aims to increase contributions and decrease benefits. Of course, further progress of the reforms in the future is necessary. Nevertheless, given such indirect influences it is hard to evaluate how the balance in the social security account might influence fiscal conditions. It would be appropriate to suspend any full evaluation and consider them as a risk factor in the current evaluation of fiscal conditions.

How strong is the commitment of the authorities to reduce fiscal liabilities? At present (as of December 2006), the authorities are struggling seriously to make the fiscal conditions sound, partly supported by economic recovery. In the General Account budget, the authorities decided to reduce expenditure (excluding interest payments and debt redemptions) by 6.3 per cent over 3 years starting in the 2003 fiscal year, while estimating increases in revenue (excluding borrowings) by 9.6 per cent for the same period. As a result, the ratio of fiscal liabilities in the central government to GDP in the 2006 fiscal year will fall for the first time in 15 years.

To ensure fiscal conditions sound, the authorities believe that 'the necessary increase in the tax burdens should be minimised as much as possible by thoroughly implementing expenditure cuts and administrative reforms' following the principle of 'small and efficient government' (Japanese Government, 2006). At the same time, a rise in the consumption tax rate is seriously being considered. Furthermore, in the medium term, 'Integrated reform of expenditures and revenues' is to be undertaken, in which 'the government will examine the targets of government expenditures, medium-term goals for the size of government and in the major areas of expenditure both for the central and local governments, and issues related to revenues in an integrated manner' (Japanese Government, 2006).

As for fiscal strategies, the urgent target is to achieve a surplus in the primary balance of the central and local governments by the early 2010s for the purpose of the control of the fiscal liabilities ratio. In addition, the authorities are now considering the next target to reduce that ratio steadily after achieving the urgent target. Thus, various measures to reform the structure of expenditure are progressing so that expenditure can be reduced continuously. From the viewpoint of the ability to manage public finances, there is no denying that the measures are still developing compared with those of Australia. However, full-scale consideration of these measures is worth evaluating positively. It is hard to imagine that the public would support rebalancing the fiscal balance positively, particularly the rise in the rate of the consumption tax. However, it is also hard to prove that the rebalancing will have a serious effect on people and the economy as long as the economy keeps recovering. Yet the public will understand the rise, even if not positively. So the commitment of the authorities to reduce liabilities has never been questioned and should be considered as a positive factor although some problems still exist.

As mentioned in Section 2, based on fiscal indicators alone, the fiscal conditions of Australia would be perceived to be very sound, contrary to Japan. However, this paper also examines the economic conditions and the size of fiscal liabilities as they are supposed to influence the evaluation of the fiscal conditions. Recently, the Australian economy has been strong and resilient under favourable circumstances such as moderate inflation and low unemployment (Table 3 and Figure 6); real GDP has grown nearly 4 per cent per year on average. This good performance of the economy is held to be the result of 'wide-ranging reform, to both the microeconomic structure of the economy as well as the macroeconomic policy frameworks' (Gruen and Sayegh, 2005). Under those circumstances, it is hard to envisage the fiscal balance going into a large deficit because of an automatic decrease in tax revenues caused by worsening economic conditions, or because of large tax cuts or expenditure increases to ease an economic downturn. Thus, it is obvious that general economic conditions of Australia are a positive factor in the evaluation of fiscal conditions.²⁸

In Australia, the rising ratio of foreign liabilities to GDP may generate some concerns in the market. As a result, the authorities have no option but to tighten fiscal policy, which means less flexibility in fiscal policy, as mentioned in Section 5. The fact that the fiscal balance of Australia has been in surplus even on a structural basis²⁹ would reflect fiscal policy keeping generally tight.³⁰

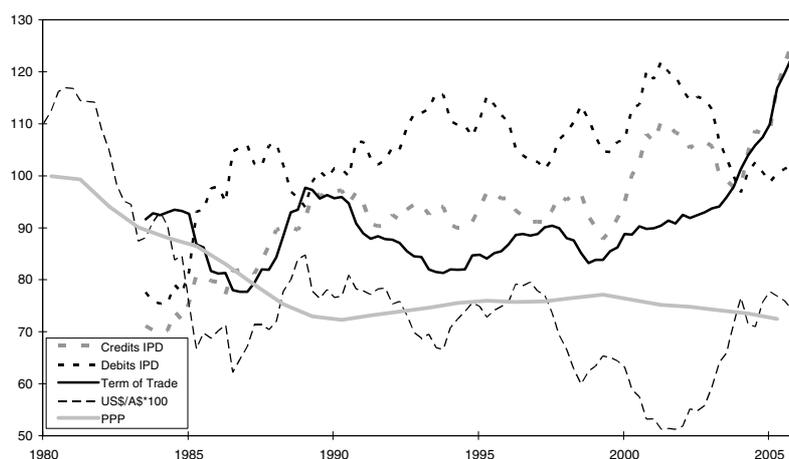
Heavy dependence on primary products in exports and manufactures in imports is characteristic of the structure of foreign trade in Australia (Table 3).³¹ Therefore, Australia's exports are affected by global investment demand that fluctuates widely and are hard for Australia to control.³² This would suggest that the structure of exports in Australia was unstable. Based on such a structure, let us suppose that exports decrease substantially due to

a deterioration in the global economy. In this case, the growth rate of GDP will generally fall and therefore, it is probable that the net foreign liabilities ratio rise rapidly.³³ Particularly, if the global economy continued to flounder for a long time, it is possible that a loss of confidence in the Australian economy could occur and make Australia's foreign liabilities become unsustainable.

Indeed, if currency adjustment were sufficient, this would generally reduce the current account deficit and therefore could not increase the net foreign liabilities ratio. However, in the current situation where the terms of trade are at a high level accompanied by the appreciation of the dollar, it is likely that the dollar will depreciate sharply (Figure 10). This could have an adverse effect on the economy with a sharp decrease in imports while the depreciation would reduce current account deficit. Thus, regardless of whether the dollar depreciation is sufficient or not, the problems mentioned above could occur. If expansionary fiscal policy were adopted to make such a situation better, fiscal indicators would worsen.

As mentioned in Section 2, the Australian authorities seem to be concerned about the trend in the terms of trade, and the IMF supports the authorities' view. This provides a strong reason why the authorities should disclose the medium-long term prospects for the structure of foreign trade and the trends in foreign liabilities, that is, the prospects of how the authorities would construct a stable structure for foreign trade and the resulting manner in which foreign liabilities would grow. It is essential to prepare appropriate measures to deal with this problem

Figure 10 Implicit price deflators (IPD) for goods and services credits and debits terms of trade and exchange rates in Australia



Note: IPD and Terms of Trade are indexes of 2003-04=100.

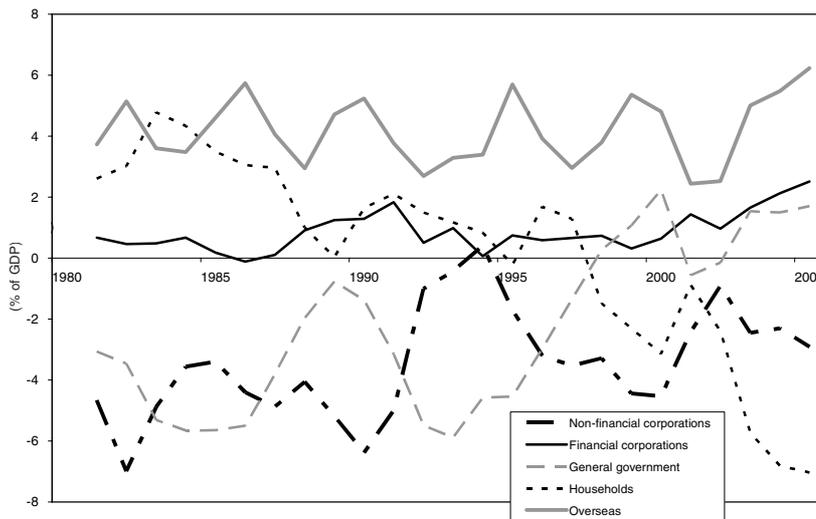
Source: Australian Bureau of Statistics, 'Balance of Payments and International Investment Position, Mar. 2006' (except PPP) and OECD, 'Purchasing Power Parities for OECD Countries'.

before the situation worsens, given that the flexibility of fiscal policy is restricted, as mentioned in Section 5. This analysis suggests that the structure of foreign trade in Australia, particularly that of exports, is a risk factor in the evaluation of fiscal conditions unless the medium-long term prospects mentioned above are revealed.

In Australia, unlike Japan, it does not matter whether or not the authorities raise funds to make up for fiscal deficit, as the fiscal balance has been in surplus. However, it is possible that the economy could become unstable because of the fluctuations in the supply and demand of funds in the private sector, which could have an adverse effect on fiscal conditions. Reviewing developments in the account balance by economic sector for the past 20 years is set out in Figure 11. The balance in the external sector has been positive (that is, in current account deficit) and that in the government sector became positive several years ago, while the balance in the business sector has been negative and that in the household sector became negative recently affected by the long-lasting downward tendency in household savings rates (Figure 9).³⁴

Since private corporations usually raise money for their activities because they do not have enough available funds, the balance in the business sector is normally negative. In Australia, the business sector had been financed by the household sector and the external sector. Nevertheless, the business sector has come to depend largely on overseas funds as net household savings rates became negative in macroeconomic terms. In addition, the savings

Figure 11 Account balances by economic sector in Australia



Source: Australian Bureau of Statistics, 'Australian System of National Accounts, 2004-05', etc.

rate may fall further in the future due to population ageing, although that does not seem to influence the savings rate for the present (see footnote 34). Thus, the structure of the supply and demand for funds is becoming unstable because the business sector has become very dependent on overseas funds. This is a risk factor in the evaluation of fiscal conditions.

Expenditure on social security in Australia represents the largest share in the budget, as it does in Japan (the percentage in 2004–05 is 29 per cent for all levels of government including state and local governments). In addition, the authorities estimate that if policies are not adjusted, the fiscal balance of the federal government will deteriorate rapidly from a surplus to a deficit amounting to 5 per cent of GDP by 2041–42 mainly because population ageing will increase expenditure on social security, directly or indirectly (Commonwealth of Australia, 2002a).³⁵ The ageing population will cause the balances in social security to deteriorate, unless a self-funding method is adopted throughout the social security system.³⁶ In Australia, the social security system is based on a ‘pay-as-you-go’ system in broad terms: general revenues such as tax revenues to balance the account for the social security system.³⁷ Accordingly, although ageing in Japan is believed to be more rapid than that of Australia (Table 5), we should pay attention to the fact that population ageing affects Australia more directly than Japan.³⁸

In view of the estimates that the balance in the social security account will deteriorate rapidly, the Australian government established the ‘Future Fund’ in 2005–06 fiscal year,

Table 5 Forecast for future population structures in Japan and Australia

	Japan		Australia	
	2050 (Forecast)	Changes from 2000	2051 (Forecast)	Changes from 2000
Total population [billion]	101	–21 %	28	+47 %
Ratio of people aged 65 and over	36 %	+18 % point	26 %	+13 % point
Ratio of people aged under 15	11 %	–4 % point	15 %	–6 % point
(Assumptions)				
Total fertility rate	1.39	+0.03	1.7	–0.1
Life expectancy (male)	81.0	+3.3	84.9	+8.4
(female)	89.2	+4.6	88.0	+6.
Net overseas migration [thousand]	77	+47	110	–1

Source: [Japan] National institute of population and Social Security Research, ‘Population Projections for Japan: 2001–2050’ (2002). (The assumptions use the medium variant projection.)
[Australia] Australian Bureau of Statistics, ‘Population Projections, Australia, 2004 to 2101’ (2006). (The assumptions use Series B.)

which aims to accumulate sufficient financial assets to offset the federal government's unfunded superannuation liabilities by around 2020 (\$18 billion were accumulated as seed capital). Nevertheless, in comparison with Japan, the reform of the social security system in Australia seems to be making less progress. Nevertheless, considering the adverse influence this reform could have indirectly on fiscal conditions (as noted on pp.19–20), it would be appropriate to suspend final evaluation of how the trends in the balance in the social security account will influence fiscal conditions and consider this as a risk factor in the evaluation of fiscal conditions, as it is in Japan.

Looking at the size of fiscal liabilities, the Australian authorities have explained that fiscal surpluses are necessary because the government must accumulate funds from now on to prepare for the future when the fiscal balance will be in huge deficit under the current fiscal structure. Indeed, having enough funds to prepare for the future would indicate that fiscal conditions were sound. However, it is certain that funds will be exhausted in the future.

Meanwhile, even if one did not take the future developments of fiscal liabilities into consideration, net fiscal liabilities being negative at the present time would not be evaluated positively in inverse proportion to their size, as noted in Section 3. Thus, the size of fiscal liabilities, regardless of the future developments, could not be a positive factor in the evaluation of fiscal conditions.

Let us compare the evaluations of Australia and Japan, examining every item that influences the fiscal conditions of the two countries.

- General economic conditions of Australia are much better than that of Japan. Nevertheless, in Japan it should be noted that the disappearance of deflation would put the brakes on the upward trend of the fiscal liabilities ratio.
- For Australia, the rising ratio of net foreign liabilities to GDP is a negative factor because it makes fiscal policy less flexible. Meanwhile, the development of net foreign assets in Japan is a neutral factor.
- The structure of exports in Australia is unstable as exports are largely composed of primary products. Therefore, there is a risk that overseas factors such as the deterioration of the global economy could worsen the fiscal conditions through increasing concern for the sustainability of foreign liabilities or having an unfavourable effect on the economy.
- For Japan, the supply and demand of funds may tighten with the present economic recovery and this may raise interest rates in the future. Meanwhile, for Australia the structure of the supply and demand of funds is becoming unstable because the business sector comes to depend largely on overseas funds. Thus, the supply and demand of funds is a risk factor for both countries.
- The balance in the social security account is a factor that worsens the fiscal conditions for both countries, although it seems that the reform of the social security system in Japan is making

more progress than it is in Australia. Regardless, at present it is not clear what reforms will be undertaken and what influences the reforms will have on the economies; therefore, it would be appropriate for both countries to consider the account balance on social security as a risk factor.

- The commitment of the authorities to reduce liabilities does not apply for Australia as there are no net fiscal liabilities, while for Japan this is a positive factor because the commitment of the authorities has never been questioned as they are struggling seriously to make the fiscal conditions sound.
- It is obvious that the sustainability of fiscal liabilities in Japan is questionable, while net fiscal liabilities in Australia, which recently became negative, could not be a positive factor regardless of future developments of the liabilities.

Summarising the above points, general economic conditions of Australia are much better than those of Japan, while Japan has an advantage because of the development of foreign assets/liabilities, and the structure of foreign trade. In addition, the commitment of the authorities to reduce liabilities and the size of fiscal liabilities will positively affect the evaluation of Japan relative to Australia.

Of course, the evaluation from the multi-faceted viewpoint as argued above should not be decided by the country that has the largest number of favourable characteristics. Strong economic conditions would offset negative factors and prevent risk factors from surfacing. However, the strong economic conditions of Australia owe much to the overseas economic developments that are hard for the authorities to control; therefore, if these conditions deteriorated, the risk factors mentioned above could become more significant. Given these circumstances, the difference between the evaluations of both countries is not so large, in comparison with the difference between evaluations based on fiscal indicators alone.

7 Conclusion

This paper evaluates the fiscal conditions of Japan and Australia from the multi-faceted viewpoint taking account of all factors that seem relevant. The evaluations are based on the understanding that they should include under what circumstances fiscal conditions are estimated to be sound in the first place and what explicit influence economic conditions (such as the state of foreign liabilities) have on fiscal conditions.

Of course, existing evaluations of fiscal conditions would generally reflect economic conditions; however, that is not an explicit factor. To rectify this even a little, this paper evaluates the fiscal conditions of both countries comparing the difference between the influences economic conditions of those countries have on fiscal conditions, which would make the evaluations more objective.

The following characteristic points seem to have a great influence on the evaluation of the fiscal conditions of the two countries.

First, foreign liabilities: Australia has large net foreign liabilities. It is said that if the ratio of the Japanese fiscal liabilities to GDP continues to rise, those liabilities will eventually become unsustainable; similarly, in Australia the fact that the ratio of the foreign liabilities to GDP keeps rising will arouse concerns in the market. As a result, the authorities have no option but to tighten fiscal policy, which means there is less flexibility in fiscal policy.

Second, the structure of foreign trade: the structure of exports in Australia seems to be unstable and this could have some kind of adverse influence on fiscal conditions by creating risks for the sustainability of foreign liabilities. It is hard to imagine that the Australian authorities are not concerned about the foreign liabilities. Nevertheless, the authorities should disclose the medium-long term prospects for the structure of foreign trade and the trends of foreign liabilities, that is, the prospects of how the authorities would construct a stable structure of foreign trade and the resulting manner in which the foreign liabilities would grow.

Third, the size of fiscal liabilities: net fiscal liabilities in Australia, which recently became negative, could not be a positive factor in the evaluation of fiscal conditions regardless of future developments of the liabilities.

Given the assessment in Section 6 covering these three points, the difference between the evaluations of the two countries is smaller than the difference based on fiscal indicators alone. Of course, there would be a refutation that the evaluation for Australia was too pessimistic. However, as the Australia's fiscal indicators illustrate best performance, it will be very natural that one cannot find many positive factors in the evaluation of fiscal conditions. Furthermore, policy management, which the multi-faceted evaluations above do not take into consideration, would offset negative factors and prevent risk factors from coming to the surface, provided it is carried out appropriately.

As public finance and the economy are closely related, the fact that the multi-faceted evaluation shows a worse result than fiscal indicator-based evaluation as is the case for Australia, would imply that current fiscal problems have already appeared in the economy to some extent. Meanwhile, the opposite relationship, as is the case for Japan, would similarly imply that public finance has shouldered the economic problems caused by the collapse of the 'Bubble'.

If either economic or fiscal conditions are in imbalance, some problems will occur from the viewpoint of both economic stability and fiscal soundness. Accordingly, the evaluation of fiscal conditions based on fiscal indicators alone would not give a comprehensive picture of public finance. Indeed, it is a very hard task to examine how economic conditions influence fiscal ones; nevertheless, fiscal conditions should be evaluated as part of economic conditions. The fiscal conditions of Japan and Australia are a good example to illustrate this.

Notes

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- 1 Given the functions that public finance should perform in the national economy, the size of government expenditure, the purpose of expenditures and those who finance expenditures should be considered in such an evaluation. However, consideration of these matters in themselves is a big subject, so this paper focuses on the matters of fiscal balance and liabilities.
- 2 The fiscal indicators shown below are those of the OECD, *'Economic Outlook No.79'* (2006) unless otherwise stated.
- 3 Fiscal balance can be divided into cyclical balance, which is the fiscal balance that fluctuates with the economic cycle, and structural balance (or cyclically-adjusted balance), which is the fiscal balance that excludes the cyclical balance. In *'Economic Outlook No.79'*, the structural balance in 2005 is –4.9 per cent of GDP relative to –5.2 per cent that is the ratio of the fiscal balance (on a basis of the Social Security Fund included) to GDP.
- 4 Primary balance is the fiscal balance reached after subtracting expenditures (excluding interest payments and debt redemptions) from tax and other revenues (excluding borrowings). The primary balance in 2005 is –3.9 per cent of GDP. For the meaning of primary balance, see p.5.
- 5 One of the reasons why the fiscal balance has improved rapidly is a concerted effort to curtail expenditures, which can be praised as a success in the reform of budget management. However, 'Total outlays' (which is defined by OECD) nearly doubled in 13 years ending in 2005 because GDP more than doubled although the ratio of the outlays to GDP decreased by 4.1 percentage point in the same period. Meanwhile, 'Total tax and non-tax receipts' (also defined by OECD) increased by 3.6 per cent of GDP although more than half of the automatic increase financed tax cuts. Receipts increased steeply, to 2.4 times the 1992 figure. Thus, it should be noted that expenditure has been cut in terms of GDP ratio, but not in terms of the amount; therefore, expenditure has not been reduced. The major factor in the success of the reduction of fiscal deficit is a continuing strong economy, which has never needed an additional increase in expenditure to stimulate the economy while automatically bringing a large increase in revenue.
- 6 This figure excludes the account in the Social Security Fund because the pension systems of Japan are partly based on a self-funding method; the assets of that account correspond to future liabilities practically. If included, the figure is –5.2 per cent. For reference, see footnote 36 to 38.
- 7 In comparing gross and net liabilities, theoretically, net liabilities must be more comprehensive; however, if considered in net terms, there is a good deal of discussion about how the future liabilities of public pension system should be estimated.
- 8 In Japan, this figure corresponds to the national burden rate, which is calculated as the ratio of tax burden and social security contribution to national income, not to GDP that is used in the OECD.
- 9 The IMF mention of the relationship with the terms of trade is noteworthy because it is rare for the IMF to describe the relationship between fiscal and economic conditions explicitly. The relationship with the terms of trade is argued in Section 6.
- 10 Among G7 countries, although Italy is ranked at about the same level as Japan, the other countries are at the highest level.
- 11 In the Budget Paper of Australia both Fiscal Outlook and Economic Outlook are described in detail given that 'the government's medium-term fiscal strategy is an integral part of the

economic management framework designed to deliver suitable economic growth'. In addition, there is one chapter concerning risk factors (Statement of Risks).

- 12 Some amount of fiscal liabilities will also be required from a viewpoint that government bonds are necessary to establish and maintain an appropriate financial market. In Australia, as an improvement in fiscal balance brought a reduction in government bond issues, stakeholders began to worry about the future viability of the bond market. Therefore, the authorities published a discussion paper to canvas opinions (Commonwealth of Australia, 2002b). Following this, the authorities announced in the 2003–04 Budget Paper that government bond issues would be maintained, considering various circumstances including the possibility that financial markets might become less diverse and more vulnerable in the absence of the bonds.
- 13 In 2002 when some rating agencies downgraded Japanese government bonds, the Ministry of Finance sent letters outlining their views to the agencies (Kawakami, 2002). The following is the main points; 1) ratings should be decided comprehensively taking into consideration not only fiscal conditions but also the fundamentals of an economy. In this context, the Japanese fundamentals are sound as Japan has the world's largest current account surpluses and foreign assets. 2) Japan is struggling positively to reform the economic and fiscal structure. Considering these points, the Japanese government suggested the ratings were too low. These two points would correspond to the two criteria for judgment in the text, respectively.
- 14 After starting in Thailand, the Asian financial crisis in late 1990s spread to other Asian countries. However, in those countries not all the economic conditions had been deteriorating. The direct cause of the crisis is the market (or major members of the market) losing confidence in the economies and this infected the other countries one after another.
- 15 There is no consensus on what level that ratio enters into 'danger zones'. Nevertheless, it is very helpful that the EU requires that fiscal liabilities (in gross terms) is less than 60 per cent of GDP as one of the condition for a country to be admitted into the EU and to adopt the Euro.
- 16 Although fiscal liabilities are in gross terms that do not include assets, foreign liabilities are in net terms, because there is no difference in nature between foreign assets and liabilities as foreign assets for one country corresponding to foreign liabilities for other countries.
- 17 Gruen and Sayegh (2005) of the Australian Treasury regard the view of Pitchford and others as persuasive. They also support the argument of DeBelle and Galati (2005) that in developed countries the adjustment of current balances is brought about by endogenous factors – 'responding to the resolution of domestic imbalances', not by exogenous factors 'where the size of the current account deficit itself precipitates the adjustment' accompanied by a change in the nature of capital flows. Although Gruen and Sayegh state that their view is not necessarily that of the Australian Treasury, it is hard to imagine the official view being far from their view.
- 18 If there were any signs that the sustainability of foreign liabilities was of concern, first of all interest rates would rise because of the growing risk premium. In this respect, Gruen and Sayegh (2005) note that 'if there is currently a risk premium on Australian long bonds, it is a fairly small one' based on the developments of long bond yields in major countries.
- 19 Based on the formula found in footnote 33, even if the net foreign liabilities ratio kept rising, the ratio would level off some day provided the ratio of current account deficit to GDP and the nominal growth rate of GDP were constant. For example, suppose that the current account deficit ratio is 5 per cent and the growth rate is 6 per cent. In this case, the net foreign liabilities ratio will level off at about 83 per cent after continuing to rise, other things being equal. Actually, the result may differ depending on the fluctuation of the currency and market prices and so on.

- 20 Gruen and Sayegh (2005) estimate that if the goods and services trade balance turned to a surplus of about $\frac{1}{2}$ to $\frac{3}{4}$ per cent of GDP, the net liabilities ratio would remain at the same level. Based on this estimate, they maintain that 'the requirement to run average surpluses of $\frac{1}{2}$ to $\frac{3}{4}$ per cent of GDP in future does not appear too onerous an adjustment task for the economy', given that exports and imports are both about 20 per cent of GDP. However, it is hard to imagine that surpluses will occur quickly given the trend in the trade balance (-2.7 per cent of GDP in 2004–05).
- 21 This view is reinforced by the fact that the authorities would not openly express concern about the sustainability of foreign liabilities so as to avoid anxiety in the public.
- 22 The *Investment Savings* equilibrium/*Liquidity* preference/*Money* supply equilibrium.
- 23 Meanwhile, a change in monetary policy generally has a smaller influence on current balance than on fiscal policy, according to the broad thrust of these theories.
- 24 Reviewing a general pattern of fiscal collapses in the past, not only fiscal balances but also current balances of the collapsed economies had been in deficit, as their economies were financed from overseas because of a shortage of domestic savings. Consequently, in those countries not only fiscal liabilities but also foreign liabilities continued to increase. Under those circumstances, with a loss of confidence in the economy, financing funds move back overseas; therefore, both fiscal and foreign liabilities collapse. However, such a general pattern of fiscal collapses does not apply to Japan as it does not have net foreign liabilities and most of its fiscal liabilities are not financed from overseas. The ratio of the holdings by overseas investors to fiscal liabilities is 5 per cent in Japan (as of end of 2005, see Table 4), while the ratios in the other G5 countries range from 20 per cent to 45 per cent.
- 25 The accumulation of foreign assets in a country, particularly in a large country, result in foreign liabilities in other countries. Based on the minimum requirement for the sustainability of liabilities, a continuous rise in the ratio of the net foreign assets to GDP may make the international composition of foreign trade risky. This can indirectly have an adverse influence on fiscal conditions through its influence over economic conditions. However, actual developments in Japan show that the net foreign assets ratio has recently remained at the same level (Figure 7).
- 26 The following is the developments of the account balances (net lending (+) /net borrowing (-) by economic sector since the collapse of the 'Bubble' (Figure 8).
- 1) The balance in the external sector has been constantly negative (that is, in current account surplus) and the net borrowing (in percentage of GDP) has not fluctuated so much, which means that both receipts from overseas and payments overseas have shown similar trends.
 - 2) The balance in the business sector went from negative to positive due to the economic downturn after the collapse. In the business sector, the balance in the financial institutions became positive because they needed funds to write off bad loans arising from the collapse. Meanwhile, the balance in the non-financial corporations also became positive recently because of a slump in their business activities and the repayments of their excess liabilities.
 - 3) The household sector reduced net lending gradually as household savings rates fell (Figure 9) mainly because of population ageing.
 - 4) The balance in the government sector became negative (that is, in fiscal deficit) while having been marginally positive before, and led to increased borrowings. Recently, however, net borrowing has levelled off.
- To put these developments in order roughly, the business sector came to have net lending and therefore, the government sector absorbed surplus money in the economy in the form of borrowings. Using the money, the government increased expenditures and cut taxes to prevent GDP from cooling down. Lower interest rates would indicate that the surplus by the business sector exceeded the absorption by the government.

- 27 For example, the Employees' Pension reform aim is that the income substitution ratio of benefits should fall gradually from 59.3 per cent to 50.2 per cent, while the insurance premiums should rise from 13.6 per cent to 18.3 per cent. By doing this, the accounts for the public pension system can maintain a balance between benefits and contributions for the next 100 years.
- 28 A strong economy also makes foreign liabilities more sustainable through increasing and stabilising the denominator of the foreign liabilities ratio. This will also be a positive factor in the evaluation of fiscal conditions.
- 29 According to the economic theory noted in Section 5, tight fiscal policy ought to cause the depreciation of the currency. Nevertheless, the actual development shows that after having tended to fall until about 2000, the Australian dollar turned upward and recently levels off (Figure 10). The reason is supposed to be the influence of a rise in resource prices and therefore, tight fiscal policy will not take effect. However, if the authorities put the fiscal policy back to a natural one, this could have an adverse effect; the dollar would appreciate and therefore, the current account deficit in Australia could expand further.
- 30 In Australia, there has been vigorous controversy about the relationship between current account deficit and fiscal balance for a long time. In the 1990s, the Fitzgerald report (commissioned by the Treasury) played a theoretical role in the reduction of fiscal deficit in connection with foreign liabilities. In the report, he insists the necessity of raising public sector savings (in other words, the necessity of reducing fiscal deficit), noting that 'we cannot, on a sustainable basis, continue to finance the investment we need to grow by going progressively further into foreign debt'. 'It is national saving that matters in meeting the challenge we face' (FitzGerald, 1993). Makin (2002) also argues the necessity of reducing fiscal deficit from a viewpoint similar to FitzGerald. He adds that GDP will increase with the boosting of domestic investments, as a decrease in foreign liabilities will cause a fall in any risk premium of interest rates related to the liabilities.
- 31 Although the percentage of primary products in imports of Japan is also high relative to the average in the world, that percentage is still smaller than the percentage of primary products in exports of Australia (see Table 3).
- 32 As primary products are generally susceptible to investment demands while manufactures are susceptible to consumption demands, Australia's exports are vulnerable to investment demands and the imports are vulnerable to consumption demands. The fluctuation of investment demands is generally larger than that of consumption demands; therefore, in Australia it is likely that the fluctuation of exports is larger than that of imports. Incidentally, it is obvious that exports are mainly affected by global demands that are hard for the country concerned to control.
- 33 The condition that the net foreign liabilities ratio does not rise is:

$$\Delta (\text{NFL}/\text{GDP}) / (\text{NFL}/\text{GDP}) \leq 0$$
 NFL: Net foreign liabilities
 If excluding the influences by the fluctuations of the currency, market prices and so on, the basic relationship between current balance and net foreign liabilities is:

$$\Delta \text{NFL} = -\text{BP}$$
 BP: Current balance
 Accordingly, the condition is:

$$\Delta (\text{NFL}/\text{GDP}) / (\text{NFL}/\text{GDP}) = \Delta \text{NFL} / \text{NFL} - \Delta \text{GDP} / \text{GDP} = -\text{BP} / \text{NFL} - g < 0$$
 g: The nominal growth rate of GDP
 To put this in order, the following formula is derived.

$$\text{IM} - \text{EX} \leq g * \text{NFL}$$
 EX: Receipts from overseas
 IM: Payments overseas

If exports decrease and the growth rate fall, the left side of the formula will increase and the right side will decrease. Therefore, it is probable that the formula will not hold; the fact noted in the text is obtained. Of course, a fall in the growth rate will bring about a decrease in imports and therefore, this will decrease the left side. Nevertheless, it is likely that this decrease is generally smaller than the increase in the right side due to the decrease in exports mentioned above. Incidentally, the proposition of Domar mentioned in Section 2 is a different version of the formula mentioned above.

- 34 Australian Treasury (2005) insists that financial deregulation has contributed to an increase in the level of household borrowing through significantly improving the efficiency and performance of the Australian financial system. Edey and Gower (2000) note that ‘With most of the baby-boom generation in Australia now at, or close to, the age of maximum saving, simple life-cycle theories would therefore predict that demographic trends will soon begin to reduce household saving. Yet formal evidence to link age profiles to saving in an Australian context is scarce and inconclusive’.
- 35 For all levels of government, the fiscal balance is estimated to deteriorate by around –6.4 percentage points by 2044–45 relative to 2003–04 in the absence of policy responses (Australian Productivity Commission, 2005). Incidentally, Gruen and Sayegh (2005) note that ‘rising public health costs account for most of the projected deterioration in the primary budget balance. Of this, more than half is attributable to non-demographic health pressures, including (presumed) invention of improved, but more expensive, medical technologies and drugs’. However, the non-demographic health pressures are closely related with population ageing, which, therefore, could almost explain the deterioration in the fiscal balance directly or indirectly.
- 36 Using a self-funding method, which can be used in pension systems, each working generation sets aside funds necessary for retirement life and uses the accumulated funds and management gains on the funds as pension benefits after reaching the age of pension payment eligibility.
- 37 Under a ‘pay-as-you-go’ system, necessary benefits are financed by premiums contributed by the living generation. Australia had adopted that system before, but recently has begun to set aside funds for the future as mentioned below, which is not consistent with the philosophy of a ‘pay-as-you-go’ system; such funds dilute the character of that system.
- 38 In Japan, the Social Security Fund, which is a class of the General Government in the SNA (the System of National Accounts), has net financial assets of 212 trillion yen (43 per cent of GDP, as of end of the 2004 fiscal year) as the public pension system of Japan is a mixture of the system based on self-funding method and ‘pay-as-you-go’ system.

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