

Experiences with Current Account Deficits Among Asian Economies: Lessons for Australia?

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1. Introduction

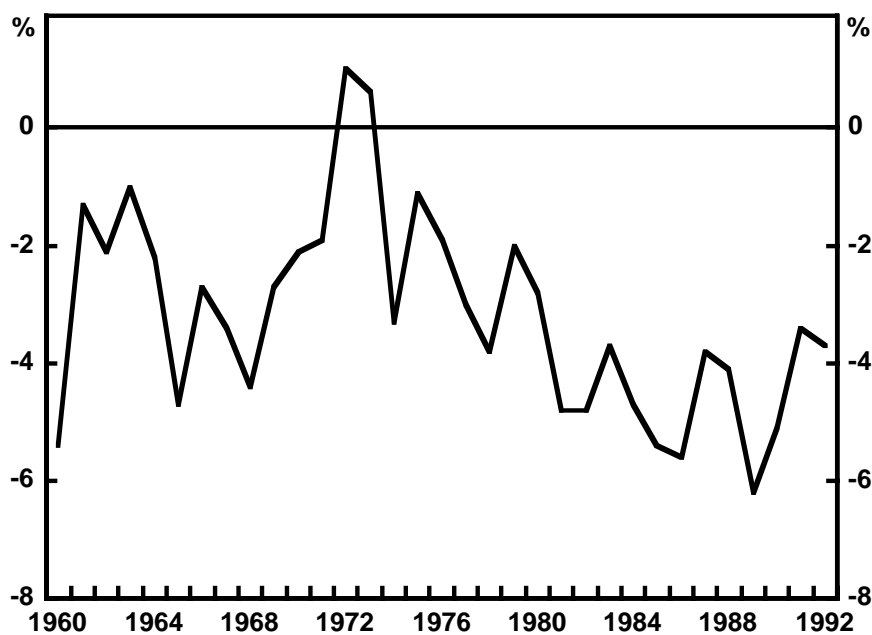
Australia has had current account deficits for most of the post-war period. The deficit averaged 2.4 per cent of GDP during 1960-80 (Figure 1). It exceeded 4 per cent of GDP in only three years in this period. Much of the deficit was financed through direct foreign investment. Since 1980, however, Australia's current account deficit has increased sharply. It averaged 4.6 per cent of GDP during 1981-92, stubbornly remaining above 4 per cent for eight of the years in this period. Furthermore, the financing has shifted from equity towards debt and rising external indebtedness has accompanied the persistent current account deficits. Australia's net foreign debt has jumped from less than \$A8 billion (roughly 6 per cent of GDP) at the beginning of the decade, to \$A168.8 billion (41.6 per cent of GDP) by 1993.

The large and persistent external deficits evident since the 1980s have fuelled a debate, which became especially active during the late 1980s. On one side are those, such as Moore (1989) and Arndt (1989), who perceive the external imbalances as a 'problem' and advocate some type of policy response – in particular, a tightening of monetary policy. On the opposing side, Pitchford (1989a, 1989b) has been perhaps the most vocal champion of the view that external deficits represent optimal saving and investment decisions of domestic residents, so that macroeconomic policy intervention is inappropriate. Tease (1990) stakes out a middle ground. Looking to the (near) future, analysts are forecasting continued recovery of Australian economic activity. A resurgence in private investment may raise the current account deficit again, reigniting concerns that abated somewhat during the 1991/92 moderation of the imbalance, associated with Australia's growth slowdown. In all likelihood, there will be a resurgence of the debate about whether the deficits are 'bad' and, if so, what if anything should be done about them.

The purpose of this paper is to try to shed some light on the Australian debate about external imbalances by examining the experiences of other countries in the Asia-Pacific region. In fact, a large number of these countries have had persistent and large deficits. However, these deficits have frequently not been perceived as problems. In cases where problems did emerge (notably, South Korea, but also Indonesia), the situation has since been resolved quite successfully. Finally, other Asian economies (such as Japan during the 1960s) appear to have actively managed macroeconomic policy so as to avoid persistent or large external deficits. What lessons can be drawn from these experiences?

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Figure 1: Australia – Current Account
(percentage of GDP)



Source: IMF, *International Financial Statistics*.

The paper is composed of four remaining sections. Section 2 provides an overview of recent experiences in a number of Asian and Pacific economies. From this group, the Korean experience stands out as particularly interesting for Australia because of its impressive reversal from persistent external deficits to large surpluses in the 1980s. Indonesia emerges as a second example of a country undergoing an impressive improvement in its external balance. Interestingly, however, external balance has not been a primary target of monetary policy in these experiences. This is in stark contrast to the policies undertaken in Japan during the 1950 and 1960s. Section 3 focuses on the Japanese experience and its relevance for Australia in the 1990s. Section 4 provides some background information about Australia's recent experience with external imbalances. It then turns to a discussion, in light of the Asian country experiences. Section 5 contains concluding remarks.

2. An Overview of Recent Country Experiences

Many countries in Asia and the Pacific have gone through periods of persistent, often large, current account imbalances. However, such a statement masks considerable diversity. This section provides a brief overview of some of the experiences. The countries considered can be divided into two groups. The first group contains four countries that have primarily experienced current account surpluses. These are China,

Hong Kong, Japan and Taiwan. The other countries all experienced a significant period of current account deficits.

The discussion will refer to key economic indicators, given in Tables 1 to 3. Table 1 provides information about country size, per capita income level, recent growth rates and saving and investment as shares of GDP.¹ Table 2 provides information about the average current account balance as a share of GDP for three periods: 1976-80, 1981-86 and 1986-92. Table 3 provides key indicators of the burden of external debt.

This is quite a mixed bag of countries, and some of the experiences may be of limited interest from the Australian perspective. Many are substantially poorer and less well developed. Arguably, such economies enjoy a greater scope for rapid growth, fuelled by capital accumulation and the adoption of state-of-the-art technologies developed abroad.

Table 1: Economic Indicators – 1991

(Asia and the Pacific: selected countries)

	Population (millions)	GDP per capita (US=100)	GDP growth (1980-91)	Gross domestic investment/ GDP	Gross national saving/ GDP
OECD					
Australia	17.3	75.4	3.1	18.9	16.0
Japan	123.9	87.6	4.2	32.2	34.7
New Zealand	3.4	63.1	1.5	17.6	16.0
4 Tigers					
Hong Kong	5.8	83.7	6.9	28.7	31.8
Korea, Rep.	43.3	37.6	9.6	39.1	35.8
Singapore	2.8	71.2	6.6	37.4	48.3
Taiwan	20.6	—	11.0	22.2	29.5
NIEs					
Indonesia	181.3	12.3	5.6	35.1	31.1
Malaysia	18.2	33.4	5.7	35.9	26.3
Thailand	57.2	23.8	7.9	38.9	30.4
Other Asia					
China	1149.5	7.6	9.4	35.8	39.3
India	866.5	5.2	5.4	24.1	22.6
Philippines	62.9	11.0	1.1	20.0	21.1

Note: Gross investment and saving figures for Taiwan are shares of GNP.

Sources: IRBD, *World Development Report*, 1993; World Bank, *World Tables*, 1993; *Taiwan Statistical Data Book*, 1993.

1. Recall that the current account balance includes net factor income and transfers from abroad. It is approximately equal to national saving (which also includes these terms) less domestic investment plus a statistical discrepancy. Thus, Table 1 shows gross domestic investment and gross national saving as percentages of GDP.

Table 2: Current Account Balance
(Asia and the Pacific: selected countries)

	Current account balance ^(a) (percentage of GDP)		
	1976-80	1981-86	1987-92
OECD			
Australia	-2.7	-4.8	-4.4
Japan	0.4	2.3	2.5
New Zealand	-4.3	-6.3	-2.7
4 Tigers			
Hong Kong	—	—	—
Korea, Rep.	-3.6	-1.7	2.1
Singapore	-8.2	-3.8	5.7
Taiwan ^(b)	2.1	10.2	9.1
NIEs			
Indonesia	0.2	-3.8	-2.5
Malaysia	2.5	-7.0	-0.4
Thailand	-5.4	-4.4	-4.1
Other Asia			
China ^(c)	—	-0.6	1.2
India	0.6	-1.5	-2.3
Philippines	-5.0	-4.0	-2.7

Notes: (a) Current account/GDP ratios are from the world tables in the IMF, *International Financial Statistics, Yearbook*, 1993. The following countries are updated through the country pages: New Zealand (1991/92), Singapore (1992), Indonesia (1992), and Malaysia (1992). Data for India and Thailand end in 1989 and 1990, respectively.

(b) Taiwan data begin in 1977.

(c) China data run from 1982 through 1991.

Sources: IMF, *International Financial Statistics Yearbook*, 1993 and April 1994; *Taiwan Statistical Data Book*, 1993.

These factors may suggest greater potential for attracting capital inflows to finance external imbalances. However, some of these countries as a group may be perceived as relatively risky investments.

2.1 External Surplus Countries

Consider first the countries I have labelled Group 1 (China, Hong Kong, Taiwan and Japan). As shown in Table 1, these countries saved extremely large shares of GDP in 1991, enabling them to undertake very high rates of capital accumulation without relying on external resources. But they are not really set apart from the other countries in the table by these high saving rates. Many other Asian economies had comparably high saving in 1991. One distinguishing feature is that these countries have, in general, maintained the extremely high rates of national saving for longer than the other economies. As discussed

Table 3: External Debt Ratios
(Asia and the Pacific: selected countries)

	Debt/GNP 1991	Debt/GNP peak ^(a)	Debt service/exports 1991	Debt service/exports peak ^(a)
Australia ^(b)	39.4	39.4 (1991)	16.0	21.0 (1989)
4 Tigers ^(c)				
Korea, Rep. ^(d)	14.4	52.5 (1985)	7.1	27.3 (1985)
Singapore ^(e)	21.9	21.9 (1987)	2.4	3.5 (1985)
NIEs				
Indonesia	66.4	69.0 (1987)	33.0	40.4 (1988)
Malaysia	47.6	86.5 (1986)	8.4	30.6 (1985)
Thailand	39.0	47.8 (1985)	13.1	31.9 (1985)
Other Asia				
China	16.4	16.4 (1991)	12.0	12.0 (1991)
India	29.3	29.3 (1991)	30.6	30.9 (1986)
Philippines	70.2	94.6 (1986)	23.2	36.4 (1983)

Notes: (a) Peak taken from the period of 1983 through 1991.

(b) For Australia the numbers reflect net debt/GDP and net debt service/exports. In 1992, Australia's net debt-to-GNP ratio rose to 41.6 per cent and net debt service ratio declined to 12.4 per cent.

(c) Data unavailable for Hong Kong and Taiwan.

(d) Korea's debt service ratios rose in 1986-88, reflecting voluntary prepayment of foreign debt.

(e) Most recent debt ratios found for Singapore are from 1987 (used in place of 1991 figures).

Sources: IRBD, *World Debt Tables*, 1991-92 and 1992-93 (for all countries except Australia); Reserve Bank of Australia (for data on Australia).

below, many of the economies with histories of external imbalances had significantly lower saving rates during previous years. A second distinguishing feature is that, with the exception of China, these countries invest less than a third of their GDP. In contrast, a number of the external deficit countries invest substantially more than a third of GDP.

Even though concern about external deficits is far from the minds of policy makers in Group 1 countries today, this was not always the case. In particular, during the 1950s and 1960s, Japanese authorities focused considerable attention on ensuring that any current account deficits were small and short lived. Policy, especially monetary policy, appears to have been actively managed to this end. This post-war experience is discussed further in Section 3.

2.2 Experiences with External Imbalances

The remaining economies have all experienced current account deficits at some point since 1970. In some cases, notably that of Singapore, these deficits never emerged as a 'problem' for domestic policy makers. No stabilisation or structural reform was

undertaken as a result of concern about external imbalance, nor has there been difficulty in financing imbalances. In other cases, notably South Korea and Indonesia, large external deficits and/or heavy debt burdens were important reasons for major policy reforms. Experiences in other economies, such as Malaysia and Thailand, have fallen somewhere in the middle. Overall, these experiences illustrate the general point that deficits, even large, persistent ones, may be part of a 'virtuous cycle' of investment and growth.

The small, very open economy of Singapore ran current account deficits every year from 1970 to 1985. The external balance has since reversed, and the country has had large surpluses since 1989. This experience has reflected investment rates at consistently high levels (at least 34 per cent of GDP) and a national saving rate that has risen continuously from just 10 per cent in 1965 to 45 per cent by 1991. Even during the period of deficits, Singapore never had a debt problem. Rapid growth in exports has kept the debt-service ratio below 4 per cent. Furthermore, since 1980, the economy has attracted large inflows of foreign investment.

Malaysia's current account was in deficit every year from 1980 through 1986, averaging 11.6 per cent of GDP during 1981-83. After three years of surpluses (1987-89), deficits emerged again in 1990. Much of the imbalance has been financed by external borrowing, and Malaysia's debt-to-GDP ratio rose from 28 per cent in 1980 to 48 per cent by 1991. However, Malaysian exports have also grown very rapidly (reaching 78 per cent of GDP by 1990). As shown in Table 3, the ratio of debt service to exports peaked at 31 per cent in 1985, but has since declined to less than 10 per cent. A recent surge in direct foreign investment (\$US12.5 billion during 1989-92 compared with \$US2.3 billion during 1985-88) has enabled the country to finance recent deficits and to accumulate foreign exchange reserves.

Thailand has also had persistent and often large current account deficits. In fact, its external balance registered a (small) surplus in only one year during 1976-90, while its deficits exceeded 7 per cent of GDP in four years during this period. Like Malaysia, although the debt-to-GDP ratio has risen, the ratio of debt service to exports has been declining. Since 1988, Thailand has also enjoyed large inflows of direct foreign investment.

Among the countries that have had difficulties associated with external deficits, Indonesia and Korea are of particular interest. Both countries were able to implement comprehensive adjustment programs during the 1980s, and appear to have successfully allayed concerns about debt and deficits. These two experiences offer potentially useful lessons for other countries with large and persistent deficits. While I will argue that some of the lessons are general, other lessons are more appropriate for countries at similar stages of development.

2.3 South Korea

Recent performance makes it easy to forget that Korea experienced large and persistent external imbalances, financed by heavy foreign borrowing. Korea's current account was in deficit every year from 1978 to 1985, including an average deficit of 7.3 per cent of GDP during 1979-81 (see Table 4). In 1983, Korea had the fourth largest

external debt – behind Brazil, Mexico and Argentina. The debt-to-GDP ratio peaked at 52.6 per cent of GDP in 1985, while the ratio of debt service to exports rose to 21 per cent.² However, during 1986-88, the country ran current account surpluses, averaging 6.7 per cent of GDP. It had pre-paid much of the previously accumulated external debts, and by most accounts, had become a net creditor in the world financial market. Although the external balance has since turned negative, the sustainability of current account deficits is certainly not a major worry of Korean policy makers, or of the international community.

This transition raises a series of interesting questions. In particular, how was Korea able to reverse its external deficits, while maintaining rapid economic growth? What role did macroeconomic policy play? Before turning to these questions, it is useful to provide a little background on Korea's earlier transition from the early 1960s to the late 1970s.³ In the early 1960s, Korea was a small, developing economy, devastated by war and heavily dependent on foreign aid. In 1963, the country embarked on an export-oriented strategy and managed to record real rates of GDP growth averaging 10 per cent during 1963-78. Investment in export industries was a top priority in the government's plan. This was promoted through active government policies, often targeting specific firms

Table 4: South Korea – Economic Indicators

	1978	1979	1980	1981	1982	1983	1984	1985
Real GDP growth	9.7	7.4	-2.0	6.7	7.3	11.8	9.4	6.9
CPI inflation	14.2	18.2	28.5	21.3	7.3	3.6	2.2	2.5
Current account/GDP	-4.8	-8.5	-11.2	-9.5	-7.0	-3.9	-3.6	-2.2
Saving/GDP								
Total ^(a)	27.5	26.6	20.5	19.8	20.9	25.3	26.9	27.3
Government ^(b)	5.8	6.0	5.6	5.7	5.9	6.9	6.6	6.0
Private ^(c)	21.7	20.6	14.8	14.0	15.0	18.4	20.3	21.3
Investment/GDP ^(d)	33.1	36.0	31.7	29.5	28.6	28.8	29.8	29.3
Budget balance/GNP	-1.7	-1.6	-2.6	-4.0	-3.3	-0.9	-1.1	-1.4
Domestic credit growth	45.9	35.6	41.9	31.2	25.0	15.7	13.2	18.0
Real exchange rate ^(e)	108.9	118.1	115.4	119.5	120.8	115.2	113.8	105.0
Debt/GNP	33.7	37.3	48.9	49.8	53.9	50.8	48.4	52.6

Notes: (a) Total domestic saving is calculated as GDP less private and government consumption.

(b) Government saving is calculated as current revenues less current expenditures.

(c) Private saving is a residual.

(d) Investment includes gross fixed capital formation plus change in stocks.

(e) Real broad effective exchange rate from Morgan Guaranty Trust Co. with 1990=100.

Sources: IMF, *International Financial Statistics*; *Korean Statistical Yearbook*, various issues; Morgan Guaranty Trust Co.; IRBD, *World Debt Tables*, various issues.

2. Debt service to export ratios rose above 21 per cent during 1986-88, reflecting the voluntary pre-payment of external debt.
3. For further discussion of Korea's experience, see Collins and Park (1989) and Haggard *et al.* (1994).

and projects. Investment rose from less than 15 per cent of GNP, to over 25 per cent of GDP in the mid 1970s.

However, initial saving rates were also very low (less than 10 per cent of GDP in the early 1960s). The plan called for increasing national saving, and financing investment through foreign saving in the meantime. Government guarantees significantly reduced borrowing risks for approved loans. Private saving did rise dramatically (so that the current account rose to near balance by 1977), but private saving has also been subject to large swings (Collins 1994). The government chose to 'borrow through' periods in which private saving declined (for example during the 1974-75 aftermath of the first oil price shock) rather than implementing policies to reduce investment. Although relatively tight overall (Korean government saving has been consistently positive), fiscal policy was counter-cyclical, at least until the late 1970s. Monetary policy was simply accommodating during this period.

Overall, the strategy proved to be quite successful in promoting rapid growth and industrial transformation. However, by 1978, economic indicators were beginning to look less favourable; productivity growth was slowing, and inflation rates were rising. In large part, these developments were attributed to increasingly interventionist credit and other policies (associated with the 1973 'Big Push' to develop heavy and chemical industries) as well as to the overvalued (fixed) exchange rate.

In fact, 1980 was a year of crisis for Korea, with real output declining by 3 per cent. Saving plummeted. The country borrowed heavily to finance investment, much of it short-term. The crisis was generated by a combination of internal and external factors. Internal factors included the assassination of President Park, extremely poor agricultural harvests and the growing domestic distortions associated with the Big Push as discussed above. External factors included the oil price rise, and subsequent increases in world interest rates. However, the rapidity of Korea's economic recovery and improvement in external balances is striking. Economic policy certainly played a role. But in order to draw realistic lessons, the special circumstances must be recognised as well.

During the 1980s, Korea undertook an impressive array of economic reforms, including fiscal consolidation and trade and financial market liberalisation. Direct government intervention was markedly reduced. The 1980s is also a period in which Korea succeeded in reducing inflation, reversing persistent external deficits and recording strong real growth. However, before attempting to draw lessons about how to 'do it all', it is important to point out that Korea did not do everything at once.

The years from 1980-88 can be divided into three periods. From 1980-1982, Korea was weathering the economic crisis. In fact, monetary and fiscal policies were quite expansionary during this period, and there was little economic liberalisation (Table 4). Thus the improvements in the current account imbalance and inflation during these years must be attributed to factors other than macroeconomic policy. These include improvements in Korea's terms of trade, the decline in domestic real wages and improved agricultural harvests. It was not until 1983-85 that authorities resumed macroeconomic stabilisation efforts and re-initiated structural reforms. Arguably, such adjustments are less painful when initiated during a period of economic growth. A third stage comes after 1986, as lower oil prices and interest rates helped to improve the current account. The country also made the transition to democratic rule.

Thus, Korea maintained relatively high rates of fixed capital formation, even during the crisis years and the early adjustment period (Table 4). This is true despite the sharp drop in national saving from 21 per cent to 15 per cent of GDP. Borrowing abroad remained part of the strategy for maintaining investment and growth.

Korea did go through a period in which some expressed concern about the large volume of foreign borrowing (Cooper 1994).⁴ In 1984, Yung Chul Park claimed that the strategy of borrowing through the 1980/81 crisis had not been a 'viable option' due to the 'questionable availability of external finance'. Further, he argued that 'it is rather obvious that any further deterioration in the current account could seriously undermine Korea's credit standing in international financial markets' (Park 1984, p. 307). After the Mexican debt crisis in August 1982, which put foreign debt on the front pages of newspapers around the world, it not surprising that debt became a hot topic in Korea as well. It emerged as a major issue for the opposition party in the February 1985 parliamentary elections.

However, there is little evidence that Korea ever actually experienced difficulty in borrowing during 1979-85. One indicator is the premium over LIBOR that the Korean Development Bank paid for syndicated bank loans. After rising to 1.875 per cent following the first oil price shock, it remained below 1.0 per cent during 1978-85, falling to a low of 0.5 per cent in 1982, prior to the surfacing of the Mexican debt crisis. (It is true that by 1984, Korean officials had to travel to financial centres, whereas previously, international bankers had gone to Korea. This change may reflect the overall change in the climate of international borrowing after 1982). Talk of a borrowing constraint, voiced by some in the Korean Ministry of Finance, may simply reflect the Korean prudence which also caused policy makers to describe periods in which real growth slowed to 'only' 5 per cent of GDP as major economic crises.

2.4 Indonesia

Indonesia provides a second interesting example. Large and persistent external deficits emerged as a result of unfavourable terms of trade shocks in the 1980s. The country has implemented a major restructuring effort, reviving growth and reducing these imbalances.⁵ In 1965, Indonesia was one of the world's poorest countries. Furthermore, it was recovering from a severe economic crisis in which inflation had reached 1,000 per cent and service due on external debts exceeded foreign exchange earnings. Following a coup in 1965, the Soeharto government undertook major stabilisation and liberalisation measures. Especially noteworthy is the 1967 passage of a 'balanced budget' law prohibiting the domestic financing of budget imbalances through debt or money creation. More generally, a clear legacy of this crisis has been a commitment to

4. McFadden *et al.* (1984) estimate that Korea's probability of debt repayment difficulties rose to 50 per cent in 1981. This is above their estimated 1981 probability for Brazil, but below corresponding probabilities for Argentina, Chile, Mexico, Peru, the Philippines and Venezuela. By 1984, the Korean probability of repayment difficulties had fallen to 37 per cent, below the corresponding probability for all of the countries listed above except Venezuela. It should be noted that these authors define repayment difficulties as a rescheduling or restructuring of debt, arrears on principal or interest (above a small percentage of outstanding debt) or support under a higher-tranche IMF facility.

5. See Woo (1994) and Bhattacharya and Pangestu (1993) for further discussion and references.

prudent macroeconomic policy. The economy also received substantial foreign aid inflows, and a favourable rescheduling of existing debts. Since 1965, the country has registered an impressive performance overall, with GDP growth of 6.5 per cent during 1965-91.

Indonesia is rich in natural resources, including oil, and much of the subsequent story revolves around these sectors. The rise in oil (and other commodity) prices in the 1970s fuelled development efforts and rapid economic growth. Unlike many other oil exporters, however, Indonesia managed the resource inflow quite well, channelling resources into needed human and physical investments and maintaining relatively conservative monetary and fiscal policies. By 1979/80, the current account had moved into surplus and the debt burden was modest.⁶ However, trade, industrial and credit market policies became increasingly interventionist during this period. The real exchange rate was allowed to appreciate, reflecting in part the rise in oil prices, but creating a substantial bias against non-oil exports. World Bank estimates point to a slowdown in total-factor productivity from 2.1 per cent per annum during 1967-73 to 0.9 per cent during 1973-81 (Bhattacharya and Pangestu 1993).

Indonesia was hit by major external shocks during the 1980s. Oil and other commodity prices dropped in 1982, and then more sharply in 1986. Further, the depreciation of the \$US after 1985 increased the country's debt burden. Indonesia's current account deteriorated to a deficit of 7.5 per cent of GDP in 1982. It has been in deficit each year since then, averaging 3.5 per cent of GDP during 1982-92 (Table 5).

In response, Indonesia has implemented a comprehensive adjustment package. The first phase (1982-85) included a large devaluation and a reduction in public expenditure together with tax and financial sector reforms. However, trade and industrial policies became even more inward oriented. The macroeconomic measures helped to reduce the current account deficit and inflation, but real investment and output growth slowed as well. As oil prices dropped further after 1986, Indonesia saw its debt service rise from 25 per cent of exports in 1985 to 40 per cent in 1986. The government undertook a new set of stabilisation measures (including devaluation and a reduction in public investment), this time combined with a major program of trade and industrial policy liberalisation. Economic performance has been surprisingly strong, in light of the magnitude of the external shocks. In particular, non-oil exports have grown by 20 per cent per year during 1987-89. After 15 years of export disincentives, why did the non-oil sector respond so rapidly to the post 1986 liberalisation? Part of the explanation must lie in Indonesia's history of relatively stable macroeconomic policy (discussed above), the aggressive exchange rate policies undertaken after 1982 and the persistently high investment.

Since 1982, Indonesian authorities have sought to maintain the exchange rate at relatively competitive levels. It is interesting that, in addition to the desire to promote non-oil exports, one of the arguments given for their aggressive exchange rate management has focused on their open capital account. (Indonesia has had full capital account liberalisation since 1967. This policy stems, in part, from the difficulty of controlling international capital movements in an economy composed of more than 13,000 islands.)

6. Following excessive borrowing by the State oil company (Pertamina) during the mid 1970s, strict controls were imposed on borrowing by public enterprises.

Table 5: Indonesia – Economic Indicators

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
GDP growth	7.4	-0.3	8.9	6.7	2.6	5.8	4.9	5.8	7.4	7.0	6.7
CPI inflation	12.2	9.5	11.8	10.5	4.7	5.9	9.2	8.0	6.4	7.5	9.2
Current account/ GDP	-0.9	-5.8	-7.5	-2.2	-2.2	-5.1	-3.0	-1.8	-1.4	-3.1	-3.6
Saving/GDP ^(a)	30.4	23.1	24.9	25.1	25.8	23.3	28.2	29.2	32.9	31.9	30.8
Investment/GDP ^(b)	29.6	27.5	28.7	26.2	28.0	28.3	31.4	31.5	35.2	36.1	35.0
Real exchange rate ^(c)	—	111.7	96.2	96.0	94.7	53.6	56.1	54.0	55.7	54.8	54.8
Non-oil export growth ^(d)	—	-0.5	—	10.4	10.4	4.1	25.3	14.2	21.5	6.7	12.2
Budget balance/GDP	-2.0	-1.9	-2.4	1.4	-1.0	-3.5	-0.8	-3.1	-2.0	0.4	0.4
Money growth	29.1	10.0	6.5	13.2	18.0	14.9	9.2	13.3	42.9	15.9	12.0
Debt/GNP	25.4	29.4	36.7	38.1	41.0	52.2	69.0	64.3	59.7	66.1	66.4
Debt service ratio ^(d)	—	16.8	—	24.6	24.6	39.7	34.8	34.4	31.6	27.3	31.2

Notes: (a) Gross national savings/gross domestic product.

(b) Gross domestic investment/ gross domestic product.

(c) Real broad effective exchange rate from Morgan Guaranty Trust Co., 1980-82 average = 100.

(d) Data from Bhattacharya and Pangestu (1993). 1984 and 1985 are an average of the two years. Debt service ratio excludes prepayments.

Sources: World Bank, *World Tables*, 1994; IMF, *International Financial Statistics*; IRBD, *World Debt Tables*, various issues; Morgan Guaranty Trust Co.; Bhattacharya and Pangestu (1993).

The view is that a somewhat undervalued exchange rate will lessen the risk of a disruptive speculative capital outflow (Woo 1994).

In Indonesia, as in other high-growth Asian economies, the behaviour of national saving and investment is striking.⁷ In 1965, both investment and saving were less than 10 per cent of GDP. Following the oil boom of the 1970s, gross domestic investment rose to an average of 27 per cent of GDP during 1979-81. National saving increased even more sharply, to 31 per cent of GDP during the same period. This impressive rise in saving, particularly private saving, is one of the key features that distinguishes high growth Asian economies from most other (developed and developing) economies. I return to this issue below.

Although investment rates did decline during Indonesia's adjustment years, it is important to note that they remained at relatively high levels throughout. Gross domestic investment did not fall below 26 per cent of GDP after 1982, and averaged 28 per cent of GDP during 1982-87. Arguably, the fact that Indonesia did not undergo a major depletion of its capital stock helps to explain the quick revival of growth rates following the external shocks and adjustment measures.

While the current account deficit improved to 1.6 per cent of GDP during 1988-89, it has risen above 3 per cent of GDP since 1990 as private investment has surged. This investment boom appears to have been triggered by relaxation of monetary policy during late 1989-early 1990. Indonesian authorities have since 'put the breaks' on monetary policy, helping to reign in private investment.

3. Post-War Japan: Monetary Policy and External Imbalances

Since the late 1960s, Japan has consistently registered (often large) current account surpluses. Even during the early post-war adjustment years 1953-1964, the average current account was a deficit of just 0.2 per cent of GNP. The deficit exceeded 1 per cent of GNP in only three years (1954, 1957 and 1961). Nonetheless, post-war Japan was an economy in which policy makers were extremely focused on the external balance. Elimination of deficits, when they emerged, was perhaps the primary objective of short-run macroeconomic policy, particularly monetary policy. This section describes the linkage between external balance and monetary policy, and overall economic performance from the mid 1950s to the mid 1960s, the period in which this link appears to be the most pronounced. The discussion draws from the excellent study of post-war Japanese macroeconomic policy in Ackley and Ishi (1976) as well as from Kosai (1987). These sources provide more detailed analyses of the period.

As laid out in the first multi-year plan (in 1955) the goals of the post-war government were growth, investment and exports. Investment was seen as essential for sustained growth, while exports were critical to generate foreign exchange to pay for the capital goods and other import needs of a war-devastated economy with few natural resources and relatively little arable land. At the same time, few resources other than those generated by exports, were effectively available to pay for imports. Foreign exchange

7. For further discussion of saving behaviour in Asian economies, see Collins (1991) and Nelson (1993).

reserves were initially absent. The decision had been made to severely limit foreign direct investment. The government was also unwilling to borrow abroad. The fact that the plan had been named a 'Plan for Economic Independence' was no accident. (It is not clear how available foreign capital would have been, had Japanese policy been different.) Furthermore, exchange rate devaluations were precluded by the government commitment to keep the yen at the value established in 1949.

Policy initiatives were consistent with the overall objectives. Private saving (already quite high) was encouraged by tax and other policy measures. Tight fiscal policy generated positive government saving throughout. Overall, however, monetary policy was relatively expansionary, so as to keep interest rates low and help to encourage private investment.

In fact, Japanese aggregate demand was surprisingly and persistently strong during the period. Demand growth appears to have been led by private investment, and to some extent by exports.⁸ Private saving did indeed rise, pulling gross domestic saving from 24 per cent of GNP during 1952-54, to 36 per cent of GNP during 1960-64. However, imports proved to be strongly pro-cyclical, increasing significantly faster than income and exports during economic booms. Thus, periods of rapid economic expansion tended to generate trade deficits.

In the early post-war years, the major means for financing external deficits had been precluded, as discussed above. A remaining option was to eliminate the deficit domestically, by reducing domestic investment relative to saving. This was achieved through tightening monetary policy which effectively reduced first inventory accumulation, and then fixed investment and output growth. Moderation of investment and other components of demand reigned in import growth, pushing the trade balance back into surplus.

As convincingly argued in Ackley and Ishi (1976), external imbalance appears to have been the primary motivation for short-term macroeconomic policy, at least until the late 1960s, and monetary policy was the short-term policy tool. Every recession was preceded by monetary restraint, and every expansion began with, or soon after, a relaxation of monetary policy. (Table 6 provides information about the timing of monetary policy and business cycles during 1954-64. It also shows the behaviour of exports and imports.) Net exports fell from positive to negative levels during each expansion. Following the monetary contraction, net exports improved significantly, apparently prompting a relaxation of policy and a resurgence of rapid economic activity. In contrast, indicators of whether the domestic economy was overheating prior to monetary contractions (a competing explanation) tell no consistent story.

This early Japanese period provides an interesting contrast with the role of policy in Korea during its high growth period (Collins 1988). As we have seen, in Korea, policy was geared to maintaining investment. External debt was accumulated as needed in the face of low or volatile national saving. Japanese policy appears to have been geared to managing private investment so as to ensure that it did not outstrip saving. But it is important to stress that private investment was very strong during this period. The recurrent external deficits can be attributed to surges in aggregate demand (especially

8. See Ackley and Ishi (1976) for an analysis of the likely reasons for the very strong private investment in plant, equipment and inventories.

Table 6: Business Cycles, Monetary Policy and External Imbalance in Japan (1954-1965)

Dates of expansion or contraction	Change in monetary policy	Annual growth rates ^(a)				Net exports of goods and services ^(b) (Yb)
		GNP (%)	Business fixed investment (%)	Exports (%)	Imports (%)	
Expansion of 1954:4-1957:2	Restraint – March 1957	10.3	19.2	13.4	35.6	-430
Contraction of 1957:2-1958:2	Ease – June 1958	4.4	-10.2	7.5	-26.4	475
Expansion of 1958:2-1961:4	Moderate restraint – September 1959	12.9	29.0	11.9	25.7	-646
	Ease – August 1960 Restraint – July 1961					
Contraction of 1961:4-1962:4	Ease – October 1962	2.4	-2.5	15.2	-7.2	474
Expansion of 1962:4-1964:4	Restraint – December 1963	12.9	13.6	19.0	17.9	106

Notes: (a) Percentage change at annual rates during the expansion and contraction periods.

(b) Change in net exports over the expansion and contraction periods.

Source: Ackley and Ishi (1976, pp. 182, 185 and 187).

investment), so that demand management was arguably the appropriate policy response, given the objective of ‘independence’.

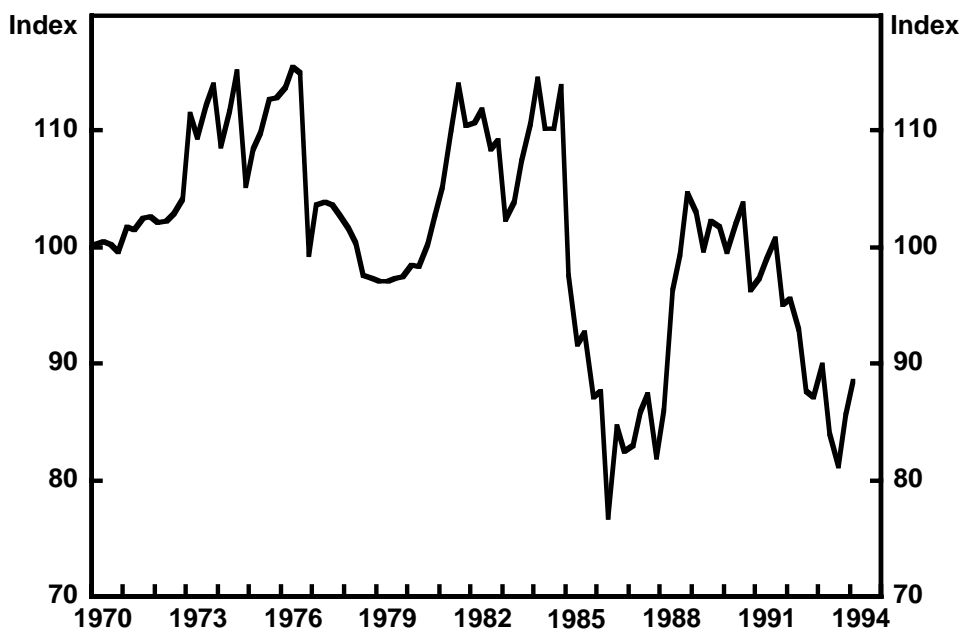
The Japanese experience illustrates that a country may have legitimate reasons for deciding to limit external imbalances, even ones that appear relatively small. However, such a policy is likely to be costly in terms of foregone growth. How costly depends in part on its ability to finance, through national saving, enough investment to sustain growth. Japan apparently did reduce real growth through its activist monetary policy. However, saving was high enough to support high levels of investment, and growth rates were very rapid despite the periodic restraint. Arguably, the cost was low.

However, monetary policy in post-war Japan is likely to have had a much simpler relationship with the external imbalance than is true for Australia in the 1990s. As discussed, Japan had a fixed exchange rate and basically a closed capital market. In this setting, a monetary contraction that raises domestic interest rates should stifle demand and improve the external balance. In contrast, rising interest rates in Australia relative to interest rates abroad will cause a net capital inflow, and a tendency for the exchange rate to appreciate. The effect of monetary policy on external imbalance is ambiguous. A tight monetary policy may well cause a deterioration of the current account, if the capital flow channel is relatively strong. As Australia’s linkage with the rest of the world expands (in terms of capital and goods markets) the current account implications of monetary policy adjustment may evolve. This is an interesting and important issue for future study.

4. Australian External Imbalances

With the experiences in Asian economies as a backdrop, I turn now to developments in Australia. Some economic indicators are given in Table 7. As mentioned above, Australia has a long history of external deficits. However, after averaging 3 per cent of GDP in the 1960s and 1.8 per cent in the 1970s, the deficit has risen to average 4.6 per cent of GDP during 1981-92 (Figure 1). The deficit has been described as 'persistent' because it did not come down in the mid 1980s despite a significant real exchange rate depreciation (Figure 2), or in the late 1980s despite a significant fiscal consolidation that raised public saving. Furthermore, financing shifted towards debt, substantially increasing debt service obligations. During the recession of 1990/91, the deficit declined somewhat. But it is likely to increase again, if private investment picks up as anticipated. So far, however, investment has remained surprisingly low during the current recovery, low enough to suggest some depletion of the Australian capital stock. This section looks more closely at aspects of these developments, drawing contrasts with the other countries discussed above.⁹

Figure 2: Australia – Real Broad Effective Exchange Rate
(quarterly data)



Note: Trade weighted index, 1990=100.

Source: Morgan Guaranty Trust Co.

9. Tease (1990) provides an excellent study of the Australian balance of payments during the 1980s.

Table 7: Australia – Economic Indicators

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Real GDP growth	2.5	3.4	-0.1	0.7	7.5	4.8	1.9	4.4	4.4	4.6	1.4	-0.8	2.0
CPI inflation	10.1	9.7	11.1	10.1	4.0	6.7	9.1	8.5	7.2	7.6	7.3	3.2	1.0
Current account/GDP	-2.8	-4.8	-4.8	-3.7	-4.7	-5.4	-5.6	-3.8	-4.1	-6.2	-5.1	-3.4	-3.7
Saving/GDP	21.4	20.3	17.2	19.4	19.2	18.6	19.1	20.7	22.6	21.0	18.4	16.1	16.0
Investment/GDP	25.4	27.2	22.5	23.4	24.1	25.2	23.8	23.8	26.3	25.4	21.2	19.0	19.5
Budget balance/GDP	-0.6	0.4	0.5	-2.8	-1.4	-0.8	-0.6	2.2	3.1	3.3	2.5	-1.4	-3.1
Money growth	14.6	9.7	1.7	6.6	10.8	10.8	4.7	17.1	24.0	19.8	3.5	8.5	18.1
Real exchange rate	99.3	109.3	110.1	106.7	112.0	94.5	83.2	83.9	94.5	102.1	100.0	98.6	91.0

Sources: IMF, *International Financial Statistics, Yearbook*, 1993; OECD, *National Accounts*, Vol. 2; OECD, *Economic Outlook*, December, 1993; Morgan Guaranty Trust Co.

Table 8: Australia – Financing of Current Account

(figures as shares of total)

	Direct investment	Portfolio investment	Other capital ^(a)	Reserves	Net errors and omissions	Memo: Current account/ GDP
Period averages						
1973-77	32.6	24.4	19.1	29.2	-5.3	-2.0
1978-82	30.1	17.6	50.9	-9.2	10.5	-3.6
1983-87	3.4	24.6	70.0	-4.4	6.3	-4.6
1988-92	33.7	22.0	59.6	-3.6	-11.8	-4.5

Note: (a) Other capital includes resident official sector plus deposit money banks plus other sectors.

Source: IMF, *International Financial Statistics*.

4.1 Overview of Developments

4.1.1 Debt, deficits and financing

Table 8 shows how the current account deficits have been financed. For each 5-year time period since 1973, it shows the share of financing accounted for by a variety of sources. In particular, the table shows that foreign direct investment (FDI) has accounted for roughly a third of total financing, with the notable exception of the mid 1980s, when FDI accounted for just 3 per cent of total financing. Between 1973-77 and 1978-82, the average current account deficit rose from 2 per cent to 3.6 per cent of GDP. There was a shift in financing from reserve outflows to other capital flows. The deficit rose by an additional 1 per cent of GDP during 1983-87. During this period, the sharp decline in FDI was offset by an increase in other capital flows to over 3 per cent of GDP. As FDI has recovered since 1988, the role of foreign borrowing has receded.

We have already seen the rapid increase in Australia's outstanding foreign debt during the 1980s. The net debt soared from 6 per cent of GDP in 1981 to 31 per cent in 1986. It has since risen above 42 per cent of GDP. Although interest payments on (net) debt rose to a high of 21 per cent of exports in 1989, this ratio had fallen to 12.4 per cent by 1992, reflecting the decline in world interest rates as well as strong growth in Australian exports.

4.1.2 Longer-term factors

Recent current account developments reflect longer-term or structural changes in the Australian economy as well as cyclical factors. It is useful to provide a summary of key elements on the structural side. I highlight three: productivity enhancing measures; fiscal consolidation; and a renewed commitment to price stability.

Australia has seen a long-term decline in its relative standard of living, which is reflected in slower growth in productivity. Table 9 shows average growth in two productivity measures for Australia and comparator countries since 1961. One measure

Table 9: Trend Productivity Growth^(a)

	Labour productivity ^(b)						TFP ^(c)			
	1961-73 ^(d)	1974-79	1980-86	1987-92	1980-92	1961-73 ^(d)	1974-79	1980-86	1987-92	1980-92
Australia	3.0	2.1	1.6	0.9	1.3	2.5	1.2	1.0	0.7	0.8
United States	1.9	0.3	0.6	0.8	0.7	1.3	-0.2	0.2	0.5	0.3
Japan	8.2	3.7	2.8	2.9	2.9	5.5	2.0	1.8	1.9	1.9
EC ^(e)	4.9	3.0	2.2	2.0	2.1	3.2	1.7	1.4	1.5	1.4
Total OECD ^(f)	4.0	1.9	1.6	1.6	1.6	2.6	0.9	0.9	1.1	1.0

Notes: (a) Business Sector. Trend productivity has been calculated by running actual productivity data through a Hodrick-Prescott filter.

(b) Output per employed person.

(c) TFP growth is equal to a weighted average of the growth in labour and capital productivity. The sample-period averages for capital and labour shares are used as weights.

(d) Or earliest available year; 1963 for Japan.

(e) Excluding Eastern Germany and Portugal in all periods. Excluding Belgium, Luxembourg and the Netherlands before 1971, Spain before 1965, France before 1964 and the United Kingdom, Greece and Ireland in 1961. Aggregates were calculated using country-weights based on 1990 GDP for the business sector expressed in 1990 purchasing power parities.

(f) Excluding Iceland and Turkey in all periods. Also excluding Canada and Norway before 1967, Sweden before 1964, Japan and New Zealand before 1963 and Finland in 1961.

Source: OECD, *Economic Surveys, Australia 1994*, p. 56.

is labour productivity (output per employed person). The second is a measure of total-factor productivity (TFP) constructed by the OECD. (Note that labour productivity is equal to the sum of total-factor productivity and the contribution to growth of capital deepening. See OECD (1994).) Australian labour-productivity growth was just 3 per cent per annum during 1961-73, compared with the OECD average of 4 per cent. Little of this initial gap appears to come from lower TFP growth in Australia. Instead, it reflects a significantly smaller contribution from capital accumulation (0.6 per cent per year in Australia versus 1.3 per cent in the OECD). After the first oil shock, there was a general decline in labor-productivity growth.¹⁰ During 1973-79, the decline was less severe in Australia than other OECD countries on average. But unlike other industrial countries, Australian labour-productivity growth has continued to decline, dropping in 1987-92 to less than 60 per cent of the (slow) 1.6 per cent productivity growth for the OECD overall. For the OECD, most of the post-1973 decline reflects a slowdown in TFP growth. For Australia, it is all explained by slower TFP growth until 1987-92 when there is a sharp drop in the contribution from capital to just 0.2 per cent per year.

Appropriately, Australia has undertaken a series of initiatives to address the long-term productivity problem. Since the diagnosis has focused on the deleterious implications of a legacy of protection, inadequate intra-national competition and labor market institutions which restricted wage flexibility, initiatives have addressed these three areas over the past decade.¹¹ First, high tariff and other border barriers have been reduced. The average effective rate of protection in manufacturing has fallen from 25 per cent in 1980 to 15 per cent in 1990 (bringing it in line with average rates in most other OECD countries) and is slated to be reduced to 5 per cent by the year 2000. There has also been extensive liberalisation of foreign investment. A second area of reform has focused on increasing competition among Australian states, for example through moving towards unification of regulations and product standards, and extending the coverage of domestic competition policies.

Third, Australia has embarked on a program of labour-market reform. In particular, since 1987, the country has begun to shift from a system of centralised to enterprise-level wage bargaining. (However, this shift is proceeding slowly, especially among small and medium enterprises. Only about one out of eight wage and salary earners were covered by enterprise-level bargains as of the end of 1993.) The reform also seeks to simplify the system of 'wage awards' by identifying job categories by skill level instead of specific job descriptions. While these and other reforms promise to increase competition and labour market flexibility, it may take some time for them to bear fruit. Further there is some disagreement about how much additional flexibility has actually been achieved.¹² In this sense, it may be overly optimistic to expect the very rapid response of productivity growth to reform observed in Korea and some other Asian countries.

Two other longer-term developments in Australia involve macroeconomic policy. The monetary authorities have demonstrated a sustained commitment to price stability,

10. As noted in OECD (1994), TFP growth among OECD countries of roughly 1 per cent per year is in line with long term historical trends.

11. See OECD (1994) from which this discussion is drawn, for additional details.

12. See the critical assessment by Sloan (1994).

even during the recent business cycle. As a result, inflationary expectations appear to have declined significantly. In addition, the government has made a renewed commitment to fiscal consolidation. After increasing sharply from the 1970s to 1983, the fiscal deficit was reduced during the remainder of the decade, pulling up national saving as further discussed below. Expansionary fiscal policy, primarily at the Commonwealth government level, led to a deterioration in the budget during 1990-92. However, a four-year plan has been announced to reduce the Commonwealth government deficit from 3.8 per cent of GDP in 1993-94 to just 1.2 per cent in 1996-97. Future tax increases, critical to achieving this improvement, have already been legislated. (Here again, there appears to be some disagreement about whether the deficit reduction has gone far enough.) Of course, the relationship between fiscal deficits and external deficits is not one-to-one. As noted by Tease (1990), various studies for Australia conclude that the elasticity of the current account to changes in the fiscal deficit is between one-half and one, and that much of the response occurs over a period of between two and five years. Thus, in response to the planned fiscal retrenchment, one might expect an improvement in the current account deficit in the range of 2 per cent of GDP by the end of the decade. These aspects of macroeconomic policy, as well as the structural changes now underway, should be taken into consideration in evaluating the recent external imbalances.

4.1.3 Saving and investment decomposition

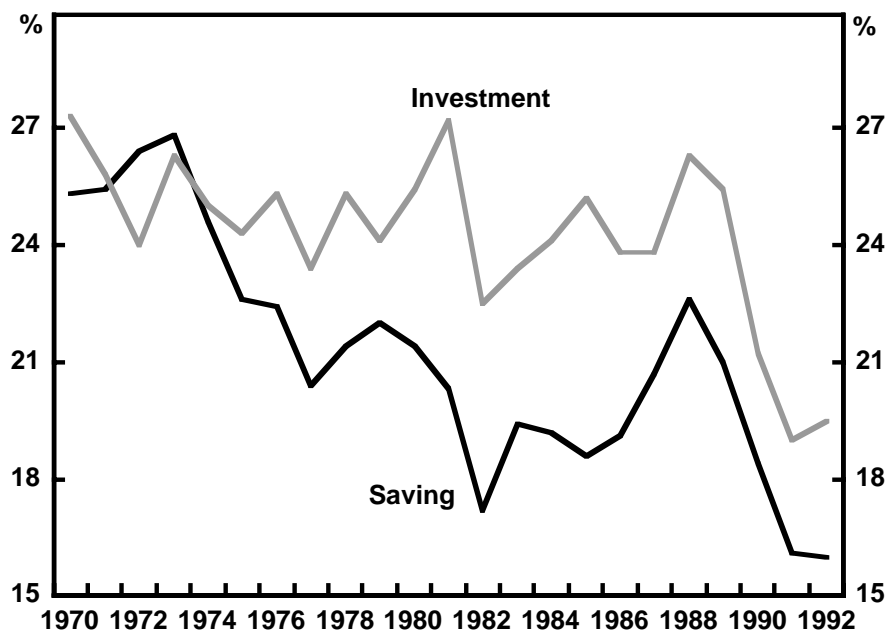
Figure 3 illustrates the behaviour of saving and investment (as per cent of GDP) since 1970. Gross domestic investment fluctuated around 25 per cent of GDP until the 1990s when it plummeted to just 19 per cent of GDP. Gross domestic saving fell from roughly 25 per cent of GDP in the mid 1970s to a low of 19 per cent in 1982, hence the saving-investment gap that is the domestic counterpart of the increased current account deficits. Saving recovered during 1983-88, before plummeting to just 16 per cent of GDP in 1991-92. Thus, although the external deficit has narrowed during the 1990s, it reflects extremely low levels of both saving and investment.

It is interesting to look at the sectoral decomposition of saving and investment. Table 10 shows that there has been a trend decline in public sector investment from 3.8 per cent of GDP in 1976 to 2.1 per cent by 1990. This fall was offset by gradually rising private investment. However, the sharp drop in investment since 1989 is all due to a drop in private investment. The table also shows that the (5 per cent of GDP) decline in government saving accounts for most of the roughly 7 per cent of GDP decline in aggregate saving during 1973-83. As discussed above, public saving was increased during 1983-89, however, there was little improvement on the private sector side. Since 1990, first private saving, then public saving have fallen off. The government's fiscal consolidation plan implies a significant increase in public saving over the next few years.

It is largely on the basis of such a saving-investment decomposition of Australia's external balance that Tease (1990) concludes that:

'A case can be made that the deficits experienced between the mid-1970s and the mid-1980s were generally bad ... the increase in foreign borrowing during this period did not finance a large increase in the capital stock: rather it financed increased public consumption. On the other hand, it can be argued that the most recent deficits can be classified as good. The public sector accounts have moved into surplus and ... the deficits have financed a substantial rise in private investment expenditure' (pp. 55-56).

Figure 3: Australia – Gross Saving and Investment
(percentage of GDP)



Sources: OECD, *National Accounts*, Vol. 2 and Computer Tape Version; World Bank, *World Tables*, 1994.

4.2 External Deficits: Reasons for Concern?

One set of concerns about large current account deficits relates to their linkage to real exchange rates. There are a number of interrelated issues. I tackle three in the remainder of this section. First, do persistent external deficits cause a country's real exchange rate to depreciate?¹³ Second, if such a channel is in operation, should we be concerned? Third, is a country with large external deficits vulnerable to capital account shocks, and if so, what are the policy implications?

4.2.1 Cumulative deficits and real exchange rates

The effect of external deficits on the real exchange rate is ambiguous. On the one hand, the counterpart to external deficits is an increase in net foreign liabilities, often foreign debts. Servicing these obligations requires a surplus in the balance in trade and non-factor services, which may necessitate a real depreciation. From this perspective, one might expect growing (net) foreign liabilities to be associated with real depreciation. Of course, such a depreciation will tend to reduce the real living standards of domestic residents.

13. Of course the link between exchange rates and external imbalance could run in both directions. The discussion above focuses on the likely implications of outstanding net asset stocks on the level of the real exchange rate. The level of the real exchange rate is also likely to feed back to the external imbalance. There is a large literature that examines this relationship. (For example, see Tease (1990) for a discussion of this link in Australia.)

Table 10: Australia – Decomposition of Saving and Investment
(percentage of GDP)

	Gross domestic saving ^(a)		Gross domestic investment ^(b)		Overall imbalances				
	Total	General government	Private	Total	General government	Private	Saving – investment	Current account	Statistical discrepancy
1976/77	22.4	1.8	20.7	25.3	3.8	21.5	-2.9	-2.2	0.8
1977/78	20.4	0.9	19.5	23.4	3.7	19.7	-2.9	-2.6	0.4
1978/79	21.4	0.4	21.0	25.3	3.3	22.0	-3.8	-2.7	1.1
1979/80	22.0	1.6	20.3	24.1	3.0	21.2	-2.2	-1.0	1.2
1980/81	21.4	1.8	19.6	25.4	2.7	22.7	-4.0	-3.5	0.5
1981/82	20.3	2.3	17.9	27.2	2.6	24.6	-6.9	-5.4	1.5
1982/83	17.2	0.6	16.6	22.5	2.7	19.8	-5.3	-4.3	1.0
1983/84	19.4	-0.5	19.8	23.4	2.7	20.7	-4.1	-3.7	0.4
1984/85	19.2	0.3	18.9	24.1	2.9	21.2	-4.9	-4.9	-0.0
1985/86	18.6	0.7	17.9	25.2	3.0	22.2	-6.6	-6.1	0.5
1986/87	19.1	1.8	17.4	23.8	2.9	20.8	-4.6	-4.5	0.1
1987/88	20.7	3.1	17.6	23.8	2.5	21.4	-3.2	-3.5	-0.3
1988/89	22.6	4.2	18.4	26.3	2.2	24.1	-3.7	-5.3	-1.6
1989/90	21.0	3.9	17.1	25.4	2.3	23.2	-4.4	-6.0	-1.6
1990/91	18.4	2.3	16.1	21.2	2.3	19.0	-2.9	-4.1	-1.2
1991/92	16.1	-1.1	17.2	19.0	2.3	16.7	-2.9	-3.2	-0.3
1992/93 ^(c)	16.0	—	—	19.5	—	—	-3.5	-3.9	-0.4

Notes: (a) Gross saving includes net saving plus consumption of fixed capital.

(b) Gross investment includes gross fixed capital formation plus change in stocks.

(c) The 1992/93 saving and investment figures are from the World Bank, *World Tables*, 1994. General government and private sector figures were unavailable. The 1992/93 current account figure is from the Reserve Bank of Australia. The 1992/93 statistical discrepancy is a residual.

Sources: OECD, *National Accounts*, Vol. 2 (1979-1991 & 1976-1988); Reserve Bank of Australia; and World Bank, *World Tables*, 1994.

On the other hand, external deficits reflecting high domestic investment should be expected to increase future output. South Korea provides one example in which investment concentrated in export industries paid off handsomely, with rapid export growth, enabling the country to meet initially heavy debt service obligations quite easily. In this scenario, one would not expect the foreign liabilities to have been associated with real depreciations, and may even imply real appreciations.

The remainder of this section empirically examines the real exchange rate-external liability linkage for Australia as well as for Korea. The analysis is based on a version of the familiar portfolio-balance framework, which provides a theoretical rationale for such a linkage.

I begin with the following definitions:

- s (the log of) the nominal exchange rate
(defined as units of foreign currency per Australian dollar)
- p, p^* (the logs of) domestic and foreign price indices
- π, π^* domestic and foreign inflation rates
- q (the log of) the real effective exchange rate
where: $q = s + p - p^*$
- i, i^* nominal interest rates on (T period) assets denominated in domestic
and foreign currencies
- r, r^* corresponding domestic and foreign real interest rates
where: $i = r + E(\pi), i^* = r^* + E(\pi^*)$
- $E(x)$ is the current expectation of x
- B, B^* supplies of assets denominated in the domestic and foreign currencies

Assume that domestic (Australian) and foreign bonds are imperfect substitutes, and that investors are not risk neutral. Then a relationship can be derived between the expected yield differential between domestic and foreign assets, and relative asset supplies:¹⁴

$$\gamma \left(\frac{B}{sB^*} \right) = i - i^* + [E(s) - s] \quad (1)$$

As shown in equation (1), an increase in the relative supply of Australian bonds, B , should be associated with an increase in their expected relative yield. (Recall that the exchange rate is defined here so that a rise is an appreciation.)

Assume further that the expected change in the nominal exchange rate is a linear function of the difference between the current spot rate and s^e , the 'equilibrium' exchange rate, as shown in equation (2):

$$E(s) - s = \alpha (s^e - s) \quad (2)$$

14. See Bosworth (1993) for a recent discussion of this literature, and additional references.

Combining equations (1) and (2), the nominal exchange rate can be expressed as a function of the equilibrium exchange rate, nominal interest differentials and relative asset supplies. This is shown in equation (3). Similarly, substituting in for real exchange rates and interest rates, equation (4) expresses the real exchange rate as a function of the real interest differential and relative asset supplies. I will focus on the relationship between real variables.

$$s = s^e + (1/\alpha)(i - i^*) + (\gamma/\alpha)\left(\frac{B}{sB^*}\right) \quad (3)$$

$$q = q^e + (1/\alpha)(r - r^*) + (\gamma/\alpha)\left(\frac{B}{sB^*}\right) \quad (4)$$

Suppose there is an increase in the net supply of domestic bonds that must be held by the rest of the world. To induce investors to hold a larger share of their portfolio in these bonds requires some combination of a real exchange rate depreciation (decline in q), an increase in the expected real return on Australian relative to foreign bonds, or an appreciation of the equilibrium real exchange rate, q^e .

One traditional way to proxy the relative asset supplies is by cumulating a country's current account. (The rationale is that the current account balance is equivalent to the change in a country's net foreign asset position.) The equilibrium real exchange rate is often modelled as a constant plus a linear time trend, to capture trend changes in productivity. But notice that current account imbalances (which reflect strong investment) could also be correlated with changes in domestic productivity and thus with movements in the underlying equilibrium exchange rate. Thus, cumulated external imbalances may affect the real exchange rate through two channels:

- a portfolio-balance channel which suggests a *positive* relationship (cumulated deficits result in real depreciations); and
- a productivity channel which suggests an offsetting relationship.

The next step is to explore this relationship empirically.¹⁵ The real exchange rate (RER) chosen is (the log of) the Morgan Guaranty trade-weighted index of exchange rates, adjusted for differences in producer prices, excluding food and fuel.¹⁶ The augmented Dickey-Fuller procedure was used to test the real exchange rate series for the presence of unit roots. The hypothesis of a unit root can be strongly rejected for the annual Australian RER, and weakly rejected for annual Korean data.¹⁷ Interestingly, there is

15. Previous studies have used similar 'portfolio-balance' frameworks to study real exchange rate behaviour. In particular, Bosworth (1993) finds a significant positive relationship between cumulated current account surpluses and real exchange rates in 13 of 16 OECD countries, including Australia. Blundell-Wignall *et al.* (1993) have also found a positive relationship for Australia, using cointegration techniques on quarterly data.

16. Real exchange rate measures based on non-food, non-fuel producer prices appear to out-perform series based on broader price measures (CPI, GDP deflator) in terms of explaining trade flows (Bosworth 1993). The Morgan Guaranty real exchange rate index weights the value of the domestic currency against 18 industrial country currencies and 22 emerging-market currencies.

17. The Dickey-Fuller test statistic (p-value) are -3.96 (0.028) for Australia and -3.20 (0.10) for Korea. For both countries, the annual real exchange rate exhibits a statistically significant deterministic time trend.

evidence of unit roots in higher frequency series (quarterly and monthly). I focus on the annual data here because I am most interested in capturing longer-term, not cyclical, relationships between series.¹⁸

Other data used are as follows. The current account series were cumulated beginning in 1960. (Note that the 1960 asset position was treated as zero, which may induce a trend in the regression.) The cumulated series are then scaled by GDP.¹⁹ Additional variables were found not to enter the regressions significantly. These were measures of the real interest rate differential,²⁰ an OECD index of productivity relative to the OECD average, and surprisingly in the case of Australia, the log of the terms of trade.

The results for both Australia and Korea are reported in Table 11. The first column shows that, in Australia, there is a significant positive relationship between the RER and cumulated current account surpluses during 1979-92, consistent with the portfolio-balance channel. The figures imply that a 10 per cent rise in Australia's net foreign liabilities, as a share of GDP, tends to result in an 11 per cent real depreciation. In stark contrast, there is no evidence of a similar relationship for Korea. In fact, the estimated coefficient on the cumulated current account is tiny. One interpretation is that for Korea, a negative productivity effect offsets any positive portfolio-balance effect.²¹

Table 11: Real Exchange Rates and External Imbalance
(dependent variable: log real exchange rate)

	Australia	Korea
Constant	476.46 (88.55)	492.28 (49.36)
Current account accumulation	1.1272 (3.85)	0.0125 (0.05)
Trend	1.3375 (2.24)	-1.7405 (-3.68)
Rho	0.6369 (3.95)	0.4641 (2.34)
\bar{R}^2	0.6708	0.6956
Sample	1970-92	1970-92

Note: AR(1) regression results. See text for explanation of variables. All coefficients (except rho) are rescaled by 100. t-statistics are in parentheses. These regressions use a maximum likelihood iterative technique to correct for first order serial correlation. Reported statistics are based on the original data.

18. It would be interesting to study the higher frequency data for temporary versus permanent relationships between real exchange rates and cumulated current account imbalances.

19. Both series were obtained from the IMF, *International Financial Statistics*.

20. Many other studies have also been unable to find a clear relationship between various measures of real interest rates and real exchange rates.

21. The estimated trend real depreciation for the Korean won is surprising. This could reflect government intervention during some of the sample period that helped to keep the won competitive.

4.2.2 *Real exchange rates and adjustment*

If, indeed, real depreciation is associated with growing foreign liabilities, a second issue is whether that real depreciation is ‘a good thing’? Should we care? One response is that we should be reassured, because the real depreciation is an integral part of the adjustment process to growing (net) external liabilities that are not reflected in growing domestic productivity. If the adjustment process is to work, relative price adjustments should play an important role.²² This perspective is related to the concern about external deficits increasing a country’s ‘vulnerability’ to capital market shocks, as discussed further below.

Another also appropriate response to whether we should care about such real depreciations is that the answer depends on whether the real depreciation reflects ‘optimal’ external imbalances – that is, optimal saving and investment decisions by domestic residents. If these decisions were not socially optimal, then we should certainly be concerned about domestic levels of saving and investment, and perhaps trend real exchange rate movements are one useful indicator to look at.²³ Notice that the appropriate policy response is one that targets particular distortions, and that is desirable regardless of the existence of an external imbalance or of a trend depreciation.

4.2.3 *External imbalance and ‘vulnerability’*

A sudden decline in net capital inflows can cause a sudden drop in the (nominal) exchange rate and, hence, in at least the short run, a real depreciation. (The potential for such sudden exchange rate movements is certainly present, as recent developments in the US dollar market demonstrate.) Even if a relative price change is called for, a sharp, sudden change may cause a more difficult economic adjustment than a gradual change, particularly one that is anticipated. For example, if a sharp price change causes many now unprofitable enterprises to go under, but it takes time for new activities to come on stream, there may be more unemployment along the adjustment path than would occur with a gradual price adjustment. These issues would clearly benefit from additional analysis. My own view, however, is that such crises can be very costly, relative to alternative adjustment paths.

However, increasing internationalisation implies both large downside risks and large upside potential. The potential for a crisis associated with a sudden decline in net capital inflows is one of the key risks. An important potential benefit is the growth that may result from the ability to finance investments in excess of national saving. It seems to me that both sides of this coin should be discussed together. Recognition of the risks raises the stakes for taking advantage of the potential capital inflows prudently, with an emphasis on getting one’s own economic house in order.

In this regard, I find the following recent developments striking. There appears to be a growing convergence of views about the components of a sensible policy program for

22. Krugman (1991) makes this point very nicely in the US context.

23. There are a variety of reasons why saving and investment outcomes may not be socially optimal. For example, these decisions may be influenced by distortionary policies or may not reflect cross-sectoral externalities.

economic adjustment and promoting growth. Williamson (1990) refers to a 'Washington consensus' that calls for macroeconomic prudence, outward orientation and domestic liberalisation. There is perhaps most consensus on the macroeconomic pieces of the program.²⁴ A related point is that there has been a widespread move towards outward oriented economic reform, particularly among developing economies,²⁵ and notably in Australia. The convergence of views about *what* are sensible policies to undertake has contributed to the recent attention to the political economy issues of *how* to implement and to sustain these policies.

5. Concluding Remarks

The objectives of this paper have been to review experiences with external deficits among Asian and Pacific economies, focusing on the high-performing economies, and to use these experiences to take another look at Australia's recent performance. I conclude by highlighting the key points that have emerged.

The review of country experiences highlighted the fact that external deficits can be part of a virtuous cycle of investment and growth, and are not a reason for concern *per se*. Both Korea and Indonesia have managed to achieve a significant improvement in external balances, together with major structural reforms during the 1980s. Lessons emerge in four areas. First, both countries maintained relatively high levels of investment, even during crisis periods, and the subsequent adjustment. Clearly, some of the strong investment is a result of activist government policy. But much of it, especially since the early 1980s, reflects on-going structural-reform efforts and a stable macroeconomic environment for economic activity.

Second, both countries borrowed heavily during their adjustment periods, enabling them to maintain relatively high levels of investment in the face of relatively low domestic saving. (Korea in particular had followed a similar strategy for financing investment during the 1960s and 1970s as national saving rates rose from initially low levels.) The ability to borrow appears to have smoothed the adjustment phase, helping to maintain real growth rates.

Third, authorities in the high-performing Asian economies have maintained relatively prudent macroeconomic policies. In particular, this has meant relatively low budget deficits, and significantly positive levels of public saving. It has also meant being willing to adjust policies quite early in response to a downturn in economic indicators. This has helped them to avoid recent balance of payments crises. At the same time, as discussed above, they have been willing to use capital inflows to provide 'breathing space' for undertaking domestic policy reforms. Monetary policy has at times been used to help reduce current account imbalances. But the examples of this occur during periods of clearly booming private investment (Japan in the 1950s and 1960s, Indonesia in the late 1980s). Overall, monetary policy has been used to help create a favourable environment for strong private investment.

24. Note that there remains a debate about the efficacy of the types of intervention pursued in many high-performing Asian economies. This topic motivated a recent World Bank (1993) study, but many aspects of this study have received considerable criticism. See for example Fishlow *et al.* (1994).

25. See Haggard (1994).

Finally, the Asian country experiences highlight the role of national saving. While Japan began its high growth with initially high saving rates, Korea, Indonesia, Malaysia and other high performing Asian economies did not. A striking achievement of the initially low savers has been the dramatic increase in private saving rates since the 1960s. These saving rates appear to have lagged the rapid rise in real growth, and not to have 'come first'. The experiences suggest the initial rise in investment (financed largely by foreign saving) raised economic growth, which pulled up saving and triggered a virtuous cycle in which the dependence on foreign borrowing was reduced.

With this back-drop, the Australian experience with external imbalance was examined. Over the past two decades, Australia's external deficits do not appear to have been associated with market perceptions that the underlying equilibrium exchange rate was appreciating. Thus, unlike for Korea, these deficits have in fact been associated with a trend real exchange rate depreciation. But most of the period studied was characterised by high trade barriers, stifled intra-national competition and low flexibility in Australian labour markets.

During the 1980s, Australia has embarked on an ambitious program of structural reform that is still underway. In the mid 1980s, the country also undertook fiscal reform, boosting the level of public saving, but there was little immediate impact on the aggregate saving rate. Thus, the current account deteriorated in the late 1980s. Concern about this development contributed to a decision to tighten monetary policy, so as to reign in investment. There was some deterioration in the current account, although it should be noted that other developments, such as terms of trade changes, make it difficult to identify how sensitive the external balance was to monetary contraction. Australia went into recession during 1990/91, characterised by extremely low levels of both private investment and saving. During this period, the government budget deteriorated significantly, offsetting the earlier consolidation. The early part of the economic recovery (1992/93) saw uncharacteristically low investment levels, and persistently low saving.

In light of the Asian country experiences, suggestions of tightening monetary policy to reign in private investment once it begins to recover (and the current account deteriorates) are surprising. These experiences would point to the efficacy of a very different policy package, made up of four pieces:

- renewed efforts at fiscal consolidation to raise public saving (some progress has been made in this regard);
- continued efforts on structural reform;
- willingness to borrow to finance private investment during the adjustment phases, and to maintain strong levels of private investment; and
- a sustained effort to promote private saving. While existing research does not point to a magic pill for increasing private saving rates, it is often possible to identify factors (for example, through the tax system) that impose disincentives to private saving.

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