Australia's experience with capital flows under different exchange rate regimes:

Note for the CGFS Working Group on Capital Flows to Emerging Market Economies

Australia's experience with capital flows provides some useful insights into the implications of such flows for the macro economy, and some of the changing policy responses to them. Australia's experience is relevant to current conditions in a number of countries for several reasons. At various times Australia has faced large net capital flows in both directions. After experimenting with a number of fixed and managed exchange rate regimes, authorities eventually responded by floating the exchange rate and removing longstanding capital controls. Although Australia has continued to face high and sometimes volatile capital flows, they are no longer the focus of, nor a constraint on, monetary policy.

This paper provides a brief overview of Australia's various exchange rate regimes and experience with capital flows. It also discusses how the move to a floating exchange rate and dismantling of capital controls has changed the way that capital flows are viewed within the monetary policy framework. Finally, capital flows are discussed within the context of Australia's net external position.

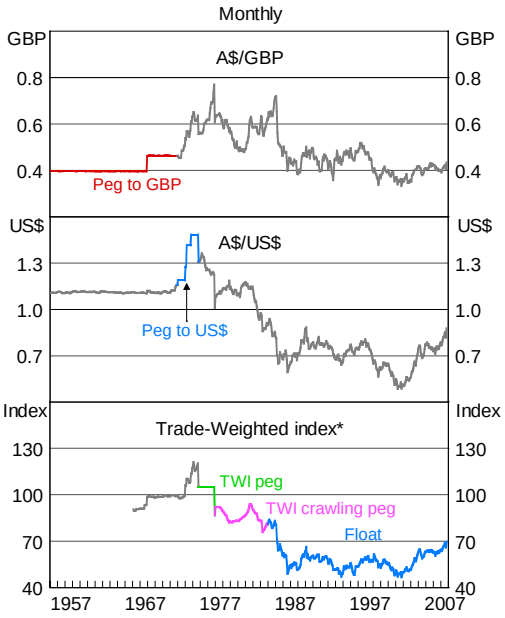
I. Evolution of exchange rate policy and capital flows[1]

Between 1931 and 1983, when the Australian dollar was floated, Australia had four different exchange rate regimes in place in which the exchange rate was fixed in different ways. During that period, there were several instances in which volatile capital flows threatened to destabilise domestic financial conditions so much that abrupt currency realignments were forced upon the authorities.

[1] For a detailed discussion of this issue, see Debelle and Plumb (2006).

Graph 1

Australian Dollar



1931 – 71: Peg to the British pound

The Australian dollar exchange rate was changed only once during this period, in November 1967, when Australia did not devalue with sterling.

1971 – 74: Peg to the US dollar

The exchange rate was changed three times during this period. The first was part of the more general Smithsonian agreement. However, revaluations in December 1972 and February 1973, together with the imposition of a variable deposit ratio, which substantially increased the cost of borrowing abroad, were explicitly aimed at stemming capital inflows which had been building up over the course of 1972. These moves were largely reversed when the exchange rate was devalued by 12 per cent in September 1974. In contrast to the revaluations of 1972 and early 1973, which were largely motivated by the need to regain control over monetary conditions in the face of capital inflows, the September 1974 devaluation was aimed at boosting a weak economy.

19 74- 76: Peg to an effective exchange rate

Immediately following the September 1974 devaluation, the peg was changed again. The Australian dollar was pegged to a basket of trade-related currencies, in order to reduce the Australian dollar's exposure to fluctuations in the US dollar. During 1976, controls on capital flows were eased as capital flows failed to match a large current account deficit, despite a sizeable positive interest rate differential. In November 1976 the Australian dollar was devalued by 17.5 per cent against the basket, in an attempt to regain control of monetary conditions.

1976 – 83: A crawling peg

Seeking to avoid the need for such large exchange rate adjustments in the future, the regime was changed so that the exchange rate could be adjusted each day. Initially, the adjustments under the crawling peg were small and not very frequent, but they became progressively larger and more frequent as it became obvious that they were insufficient to give the Reserve Bank control over monetary conditions in the face of sometimes volatile capital flows.

Pressures increased in the run-up to the election in the first half of 1983. There were heavy outflows in the week preceding the election, and not withstanding the fact that the crawling peg arrangements with small daily adjustments had been in place since 1976, there was extensive speculation of a sizeable devaluation. The new government devalued by 10 per cent within days of taking office. This left a perception in the market that speculators could precipitate a large exchange rate adjustment, despite a regime designed to discourage exactly this outcome.

During the second half of 1983, the situation was reversed as exports grew strongly, the current account recovered, and Australia's high interest rates encouraged capital inflow, which again threatened to destabilise domestic monetary conditions. Some technical changes were made to the crawling peg system, but these had little effect.

It was against this background that the Australian dollar was finally floated in December 1983. Foreign exchange controls were removed at that time. The Reserve Bank was no longer obliged to clear the foreign exchange market at a predetermined rate. Rather, participants took positions against one another rather than the Bank. For

the first time, the Reserve Bank was able to determine monetary conditions without the distraction of having to sterilise volatile capital flows (see below).

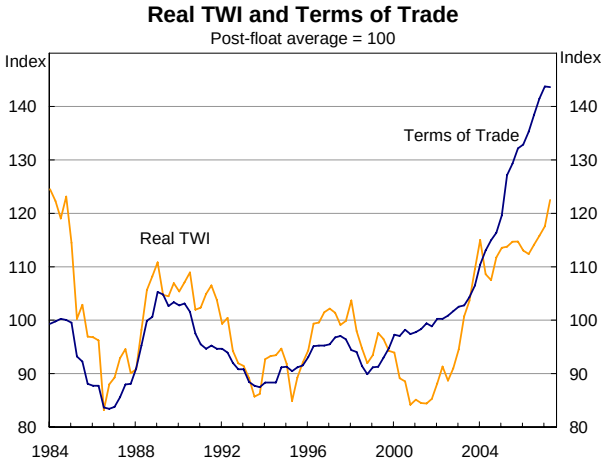
The path to these new arrangements was quite a long one, as can be seen from the variety of exchange rate regimes in force over the preceding years. Importantly, by the time the decision was made to float, there was widespread support for the change. Important in this had been the recommendations of the Campbell Inquiry into many aspects of the Australian financial system, initiated by the previous government. Also important was the fact that Australian banks had gained market experience by participation in the non-deliverable foreign-currency hedge market, which effectively circumvented exchange controls, but which the authorities had not sought to suppress, and in trading in third currencies.

1983 – current: A floating exchange rate

Since 1983, Australia's exchange rate has floated freely. There have been occasional periods of intervention by the Reserve Bank, but at no time has the Bank sought to effectively fix the exchange rate through its intervention. This has left the Bank free to set domestic monetary conditions without having to deal simultaneously with the effects of capital flows on domestic monetary conditions.

Pressures in the foreign exchange market that previously bore on domestic liquidity now bear on the exchange rate, and at times there have been quite large movements in the exchange rate. Many factors have influenced the exchange rate since that time. From a longer-term perspective, the terms of trade has been particularly important, given Australia's export base.

Graph 2



In the first decade or so after the float, movements in the real exchange rate closely tracked the terms of trade. More recently, the terms of trade have recovered very strongly, and a strengthening exchange rate is widely recognised as a major part of the adjustment process to this change in external conditions.

Relative interest rates, expectations and confidence have also played a major role. Two occasions on which these bore on capital flows are particularly interesting. Following the Asian crisis in 1997, demand for Australia's exports, a third of which went to Asia, was expected to fall sharply. The terms of trade fell with weak commodity prices. Australian assets looked less attractive, and the exodus of funds pushed the exchange rate down sharply. At the time, there was concern about the effects of the depreciation on inflation. However, these turned out to be less than expected (see below).

Swings in the exchange rate, whatever their source, have been less destabilising than the volatility in domestic financial conditions Australia experienced under earlier fixed-rate regimes. The economy has coped relatively well with large movements in the exchange rate; indeed they have been an important part of adjustment to substantial changes in the terms of trade, both upwards and downwards. As noted above, when the exchange rate has fallen sharply, the pass through into domestic prices has not been as great as was initially anticipated. There have been a number of factors behind this result, including more competitive product markets both in

Australia and abroad, and an increasingly more flexible industrial relations system in Australia.

II. Capital flows and the monetary policy framework[2]

These changed arrangements do not mean that capital flows have become unimportant to Australia – a country where the current account deficit still averages around 4½ per cent of GDP. However, the experiences with capital flows in the pre- and post-float eras highlight that, while capital flows are still considered important, they do not pose the same problems for monetary policy as when capital controls were in place and financial prices regulated. This can be demonstrated in terms of the two episodes alluded to above: mounting capital inflow in the second half of 1983, and the Asian crisis in 1997.

In the early 1980s, the intermediate target for monetary policy in Australia was an M3 growth rate. When Australia was experiencing large capital inflow in the second half of 1983, the Reserve Bank had difficulty withdrawing the resulting increase in cash in the banking system. The plan that was devised to counter these problems was one of a gradual appreciation of the exchange rate (achieved through adjustment of the daily fix), lower short-term interest rates but increased sales of government securities to fund the fiscal deficit, which was likely to see longer-term yields increase. That is, it was thought that currency speculators would be deterred by the very low short-term rates, notwithstanding the higher yields on offer at the longer end. This would help achieve the M3 target by reducing the liquidity resulting from capital inflow. The exchange rate management committee also sought to add a random element to the daily movements in the exchange rate, around the general trend appreciation, to reduce the predictability in the movements in the exchange rate and thwart the speculation. As capital inflow continued to mount during November, the Reserve Bank actually *de*valued the Australian dollar against the trade-weighted exchange rate.

[2] This section draws on Stevens (2006).

Attempts to frustrate the speculators were unsuccessful. Inflows continued. Finally, the exchange rate was floated on 12 December 1983 and most of the remaining capital controls were removed simultaneously.

Australia was one of the few countries to have taken a decision to float when the currency was under *up*ward pressure, because the capital inflow just could not be adequately absorbed. The decision has been regarded as one of the most important ever taken by an Australian Government in the field of economic policy, for a number of reasons.

Most important from the perspective of monetary policy, the system for control over the amount of settlement funds in the system became fully effective for the first time. If the Reserve Bank wanted to tighten financial conditions, by taking funds out of the system, the private sector could no longer immediately offset that by getting those funds back by selling foreign exchange to the Reserve Bank: there was no longer an obligation for the Bank to buy or sell foreign exchange at a given price.

In summary, the operation of monetary policy in the pre-float period was significantly constrained by external considerations, and was hampered by capital flows. While the Reserve Bank had a quantitative target for monetary growth, it had no way of exerting the required control in order to achieve that outcome.

At the time of the onset of the Asian crisis in mid 1997, the target for monetary policy was an inflation target. The Australian economy was growing at around trend rates, with domestic demand beginning to accelerate, and underlying inflation below 2 per cent. Given the inflation performance, monetary policy had been eased over the previous year as required by the 2–3 per cent inflation target. Thus, the shock hit the Australian economy at a time when it was in reasonable shape with the stance of monetary policy already relatively expansionary. The brunt of the negative shock was mostly borne by the floating exchange rate, with the Australian dollar depreciating by around 20 per cent.

On some previous occasions, such a large depreciation of the exchange rate had led to a rise in inflation expectations and a pick-up in inflation due to higher import prices, thus requiring an increase in interest rates to contain and eventually reverse the

inflation impulse. In contemplating whether that policy response was appropriate on this occasion, the Reserve Bank came to the view that, even though in the short term inflation was forecast to rise above 3 per cent for a time, as the depreciation was passed through to consumer prices, performance would most likely be consistent with the target thereafter. The forecast rise in inflation was not expected to be persistent, partly because the contractionary impulse from the decline in export demand would dampen growth. But, in addition, the credibility of the inflation target was by then quite well established, and this could be expected to help keep inflation expectations in check. The flexibility of the monetary policy framework allowed the validity of this assessment to be reassessed as time passed.

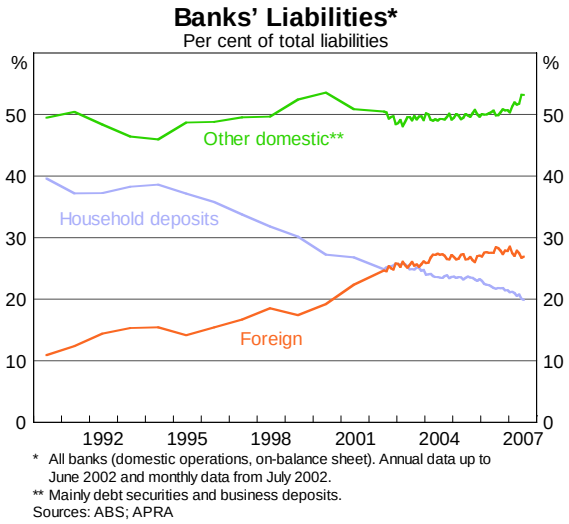
In the event, inflation rose by less than was forecast, in part because of a decline in the pass-through of the exchange rate depreciation, as well as a greater-than-expected disinflationary impulse from the Asian region, which put downward pressure on foreign-currency import prices. As a result, by the end of 1998, not only had the Reserve Bank not lifted interest rates, it actually reduced them slightly.

So the flexible inflation target served as a useful framework within which to manage the effects of the Asian crisis and the policy response to the capital flow. The Reserve Bank also used, on occasion, intervention in the foreign exchange market to counter the downward pressure on the exchange rate, but only after allowing it to move a considerable distance. The important aspect of this whole episode for the issue at hand is that allowing the exchange rate to move provided a part of the mechanism that helped the economy adapt to the Asian crisis and the changes in capital flows that it brought about. This reduced any disruption to the domestic economy and, most importantly, did not compromise the setting of monetary policy. It has often been remarked that the decline in the exchange rate was expansionary for the traded sector and that this helped the economy through that period. That is true, but also very important is that capital flows and exchange rate changes did not compromise the conduct of monetary policy, which remained relatively expansionary, consistent with the needs of the economy at the time. In the world of fixed exchange rates, the Reserve Bank would not have been able to set policy in that way.

III. Capital flows and Australia's external balance

The high levels of capital flows that have been accommodated under the floating exchange rate regime have been important to the long term development of the Australian economy. They have facilitated the growth of Australian firms and allowed them to diversify by expanding their businesses overseas. For instance, around 27 per cent of the equity issued by Australian companies is in foreign hands. Not surprisingly, Australian banks account for the bulk of Australia's foreign debt. They use foreign markets to raise debt because it helps to diversify their funding base and because their reputations allow them to borrow on favourable terms; in 2007, foreign liabilities accounted for almost 30 per cent of Australian banks' total liabilities, compared to around 10 per cent in 1990. Where the borrowing is in foreign currency, the bulk is hedged back into Australian dollars (see below).

Graph 3



While changes in asset prices (mainly equities) and exchange rates have had an effect on Australia's net international position over the past decade and a half, capital flows have been the dominant factor (Table 1).

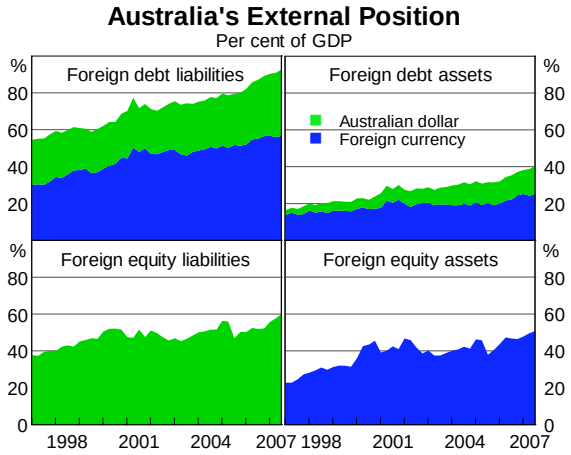
Table 1
Australia's International Investment Position
Annual average (1990-2006), per cent of GDP

	Gross Foreign Assets	Gross Foreign Liabilities	Net Foreign Liabilities
Change due to:			
Capital flows	3.6	7.8	4.3
Asset prices	2.2	1.8	-0.4
Exchange rates	0.4	0.6	0.1
Total change[(a)]	**6.4**	**10.3**	**3.9**
Memo item:			
Current account deficit			4.4

(a) Incorporates other changes including debt write-offs and methodological changes.
Source: ABS

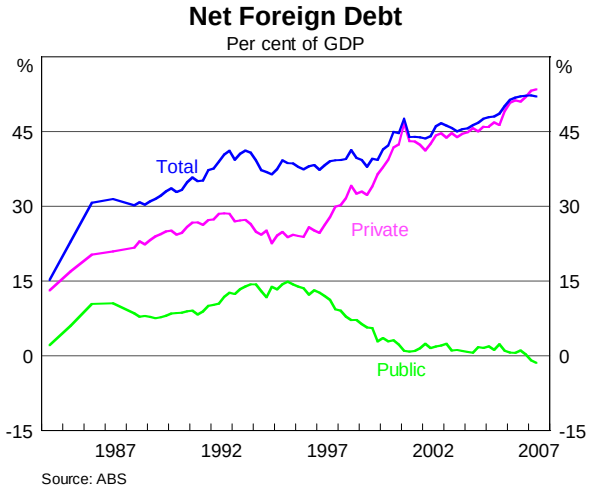
Capital flows freely to and from Australia and both inflows and outflows have been large, reflecting Australia's close integration into the world economy. By mid-2007, Australia's gross debt totalled 93 per cent of GDP, but was offset by lending abroad equal to 41 per cent of GDP. Similarly, foreign ownership of Australian equity was equal to 60 per cent of GDP, but offset by Australian ownership of equity overseas of 51 per cent of GDP (Graph 4)

Graph 4



In the years following the float, there were considerable concerns about Australia's net external debt, which jumped sharply from around 15 per cent of GDP to over 30 per cent of GDP over the first half of the 1980s (Graph 5). There were two major issues. First, a large part of the increase reflected government borrowing, and a large part of the stock was denominated in foreign currencies, meaning that when the exchange rate fell sharply in 1985, debt and debt servicing obligations measured in $A rose.

Graph 5



Overseas borrowings by governments were quickly stabilised. Following the improvement in the Australian government's fiscal position over the second half of the 1990s, by the turn of the century there was virtually no net public external debt.

The risks of private sector borrowing in foreign currencies were exposed soon after the float when a number of borrowers, including a number of well-publicised cases involving farmers who had borrowed in Swiss francs, were caught out when the value of the Australian dollar halved in terms of the CHF. The lesson about unhedged borrowing was severe only for those directly involved and had no systemic consequences, but it was it was widely publicised and has been widely heeded. The evidence that this is so comes from two surveys conducted by the Australian Bureau of Statistics for the Reserve Bank (Table 2).

Table 2

Foreign Currency Hedging Policies by Instrument
A$ billion

	30 June 2001	31 March 2005
Net FX position on debt	-165	-252
Derivative positions to hedge debt	126	199
net FX position on debt (after derivatives)	**-39**	**-53**
Foreign equity assets	229	344
Derivative positions to hedge equity	-28	-72
net FX position on equity (after derivatives)	**201**	**272**
Net expected foreign currency trade[(a)]	–	4
Residual derivative positions	-13	-5
Foreign currency position (after derivatives)	**149**	**218**
(per cent of GDP)	**22**	**26**

Note: Negative values indicate a short foreign currency position.
(a) Data not available in 2001.
Source: ABS cat. no. 5308.0

In the early 1980s a high proportion of Australia's foreign debt was denominated in foreign currency. Graph 4 shows that a good deal of Australia's foreign debt assets and liabilities are still denominated in foreign currencies. But the survey data reported in Table 2 show that 80 per cent of the net debt is hedged back into Australian dollars. The residual foreign currency exposure on debt is more than offset by the net position on equity, so that a depreciation of the Australian dollar would actually reduce Australia's net foreign liabilities, the opposite position to 20 years ago.

Capital flows and external debt are no longer major policy issues in Australia. They are seen as outcomes of private sector decisions. The policy question has become one of identifying any outcomes of these decisions that might make the Australian economy particularly vulnerable to exogenous shocks.

Further detail on all the developments described above can be found in the references.

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