Australian Government Foreign Debt Management

This paper was presented by Mr Andrew Johnson, Director, Portfolio Research Section, International and Investment Division, Treasury to the World Bank Sovereign Foreign Debt Management Forum in Washington on Wednesday, 15 October 1997. The presentation included a history of the Commonwealth's foreign debt management, a description of the Commonwealth's debt management framework and the role played by the Commonwealth's portfolio benchmark in guiding foreign currency debt management.

INTRODUCTION

In Australia, the Treasury Department has responsibility for managing Australian government liabilities in the form of securities and loans. This includes domestic debt instruments such as fixed rate bonds, floating rate notes, inflation indexed bonds and discount notes, as well as foreign currency debt in the form of loans and securities issued in offshore markets.

- It is worth noting that by foreign debt, I mean foreign currency debt raised in offshore markets. Purchases of domestic Australian dollar debt by non-residents, while classified as foreign debt, are not part of the foreign currency debt management strategy.
- I would also note that foreign currency assets, in the form of official reserve assets, are managed independently by the Reserve Bank of Australia.

A BRIEF HISTORY OF AUSTRALIAN FOREIGN CURRENCY DEBT MANAGEMENT

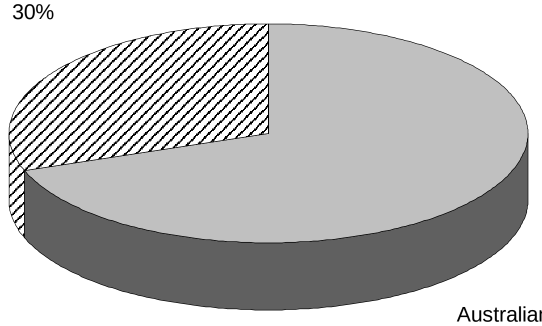
I will start with a brief history of Australia's involvement with foreign currency debt before proceeding to our current strategy.

During the 1950s, 60s, 70s and 80s, the Treasury raised foreign currency debt in a range of currencies and in a range of foreign markets. During this period, foreign currency debt was issued in Sterling (GBP), United States Dollars (USD), Swiss Francs (CHF), Canadian Dollars (CAD), Deutschmarks (DEM), Netherlands Guilders (NLG) and Japanese Yen (JPY). Loans were raised, and securities issued, in various markets including the Bulldog, Yankee and Samurai markets as well as the Euro markets.

During most of this period, Australia was running government budget deficits that required funding. Australia's debt management strategy during this time was largely focussed on what could be called funding risk. Funding risk is the risk associated with ensuring markets have an appetite for the sovereign's debt and that funding needs are achieved. As a result, Australia's debt management strategy was directed to raising funds across a range of markets, in a range of currencies, to spread or diversify funding risk.

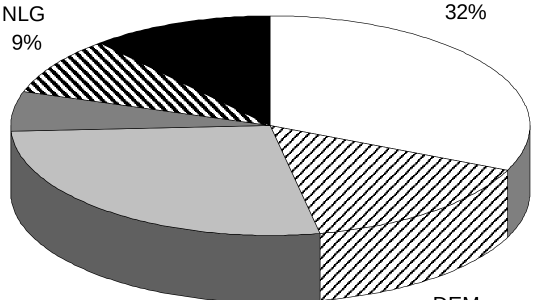
By 30 June 1987, foreign currency debt had grown to constitute around 30 per cent of all debt. The remaining 70 per cent was, of course, Australian dollar (AUD) denominated debt (see Chart 1 below).

Chart 1: Australian Government Debt — June 1987



The composition of this foreign currency debt was 32 per cent in USD, 27 per cent in JPY, 15 per cent in DEM, 11 per cent in CHF, 9 per cent in NLG and 6 per cent in GBP (see Chart 2 below).

Chart 2: Composition of Foreign Currency Debt — June 1987



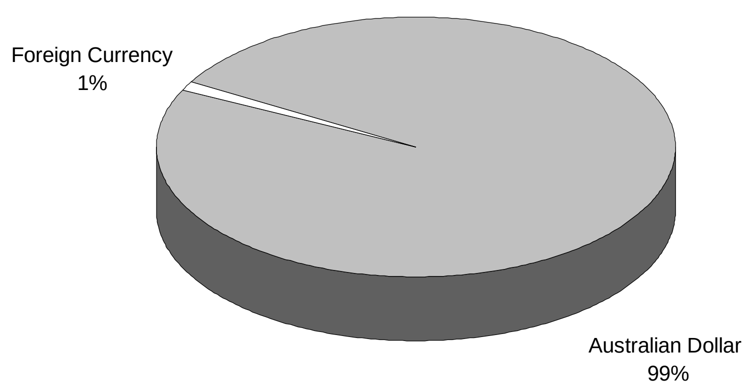
Australian dollar bilateral exchange rates for most of this period were largely fixed under the Bretton Woods system. After its demise, however, the exchange rate became more flexible, initially through a crawling peg exchange rate regime and finally with the floating of the Australian dollar in December 1983. This raised the importance of managing what could be called market risk, and in particular exchange rate risk associated with foreign currency debt. Market risk is the risk that once debt has been issued, movements in financial market prices may lead directly to increased debt service costs, or forgone opportunities to reduce debt service costs.

In the late 1980s and early 1990s, the Australian Government achieved a series of budget surpluses, which were directed to buying back foreign currency debt. In the context of having the capacity to restructure foreign currency debt significantly, and becoming increasingly aware of the importance of managing the market risk associated with the debt portfolio, Australia adopted a portfolio benchmark approach to managing the debt portfolio (including foreign currency debt).

Since the adoption of a portfolio benchmark approach in 1988, there have been some pronounced changes in the composition of foreign currency debt and foreign currency exposure in the Australian government debt portfolio.

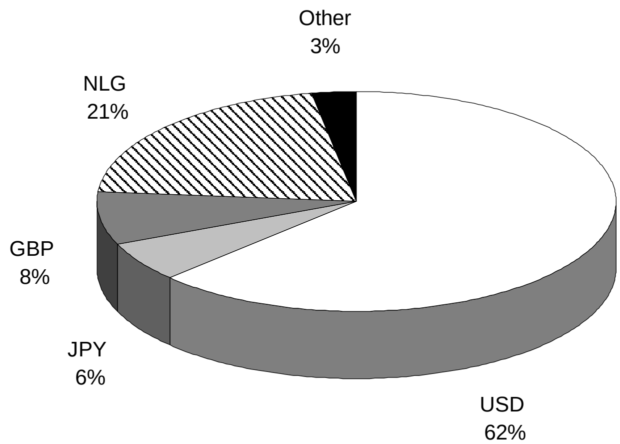
By 30 June 1997, foreign currency debt had been reduced to be only 1 per cent of all debt with the remaining 99 per cent being domestic currency debt (see Chart 3 below).

Chart 3: Australian Government Debt — June 1997



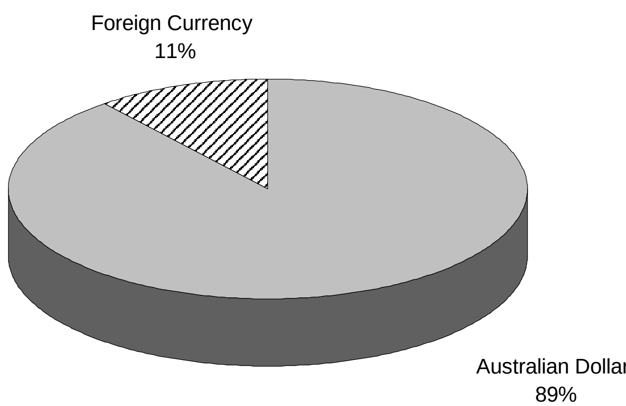
The composition of this minor foreign currency debt component was 62 per cent in USD, 21 per cent in NLG, 8 per cent in GBP, 6 per cent in JPY and 3 per cent in other currencies (see Chart 4 below).

Chart 4: Composition of Foreign Currency Debt — June 1997



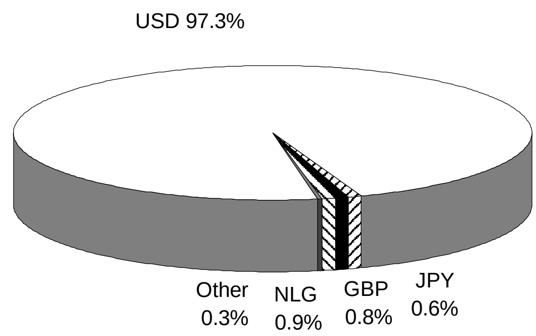
In contrast, by 30 June 1997, although foreign currency exposure in the portfolio had fallen, at 11 per cent it was significantly higher than the 1 per cent attributable to foreign currency debt (see Chart 5 below).

Chart 5: Australian Government Debt after Swaps Currency Exposure June 1997



This foreign currency exposure was primarily in USD (around 97 per cent) with the residual amount in other foreign currencies (see Chart 6 below).

Chart 6: Composition of After Swaps Foreign Currency Exposure
June 1997



The difference between foreign currency debt and foreign currency exposure, reflected the use of currency swaps out of non-USD foreign currency debt and AUD debt into USD exposure.

- This difference is an important one: it highlights the difference between having to borrow foreign currency debt (say because of difficulties in raising domestic debt), and deliberately seeking foreign currency exposure (ie, creating foreign currency exposure through either currency swaps or direct foreign currency borrowing).

DEBT MANAGEMENT FRAMEWORK

Before proceeding to a description of Australia's portfolio benchmark approach, I will make some broad comments on Australia's debt management framework. While we have found this framework appropriate for Australia, we recognise that this may not be appropriate to the circumstances of other countries.

All Australian government debt, including foreign currency debt, is managed within a debt management framework that has the goal:

- to raise, manage and retire debt at the lowest possible long-term cost, consistent with an acceptable degree of risk exposure.

It is important to understand the role that foreign currency debt, or more accurately foreign currency exposure, plays in meeting this objective.

Australia is fortunate enough to have a deep, liquid and efficient domestic market for government debt. The Australian Government can fully meet its borrowing requirements through this domestic market. The Australian

Government does not need to issue foreign currency debt to meet any funding need, and indeed has not issued offshore since 1987.

- In fact, the budget balance has recently returned to a substantial headline surplus, and the Government now has a negative net funding requirement (ie, the Government is now reducing debt).

As a consequence, Australia's sole interest in foreign currency debt in recent years has been in the foreign currency exposure it creates. This interest arises primarily from managing market risk rather than managing funding risk. This foreign currency exposure can be obtained either through the direct issuance of foreign currency debt or the issuance of domestic debt coupled with a currency swap.

- This latter approach has been Australia's most cost-effective option for acquiring foreign currency exposure for most of the period since 1987.

For these reasons, Australia is probably better described as managing foreign currency exposure rather than managing foreign currency debt *per se*. A small, long-term, strategic foreign currency exposure has been retained for its impact on the cost and risk of the debt portfolio as a whole — in other words, for its role in managing market risk.

SELECTING A STRATEGIC BENCHMARK

The decision to maintain a small foreign currency exposure in the debt portfolio, well after the majority of foreign currency debt had either matured or been repurchased, was based upon our work on assessing an appropriate structure for the debt portfolio — ie, a portfolio benchmark.

The nature of a portfolio benchmark is coloured by the role it plays in debt management. There are two broad possibilities. The first role is as a target consistent with specified debt management objectives, towards which debt managers attempt to move the debt portfolio. The other is as a yardstick against which the relative performance of the debt portfolio and debt managers can be assessed.

In Australia's case, the benchmark's role is as a target portfolio structure, towards which the debt portfolio is moved, and then held. Used in this role, it becomes critical that the benchmark is consistent with the debt management objectives.

Our benchmark analysis essentially determines what portfolio structure will best meet the debt management objective mentioned earlier:

- to manage debt at the lowest possible long-term cost, consistent with an acceptable degree of risk exposure.

Before one can run this analysis, one needs to define expressions such as cost and risk precisely. For example, cost could refer to the economic or market cost of debt. It could also refer to an accounting or cash outlay debt service cost measure. Risk generally refers to the volatility of cost, but again, the volatility of which cost measure and how is that volatility calculated? The precise definition of cost and risk is important, as it has a strong influence on the nature of the trade-off between that cost and risk and therefore the benchmark adopted.

In constructing our benchmark, it was decided that the long-term economic or market cost of debt was the most appropriate cost concept for Australia's debt management. The advantage of this measure is that the long-term consequences of particular debt management decisions are brought to account immediately. Also, both the realised and opportunity costs of debt management decisions are fully recognised. The risk measure adopted was that of the volatility of accrued debt service costs. This approach makes allowance for the importance of debt service costs in the budget process, where debt management decisions that lead to highly volatile debt servicing costs are undesirable from a medium-term fiscal framework perspective.

Once cost and risk have been defined, an appropriate benchmark for the debt portfolio was determined by simulating future portfolio cost and risk. This involved a series of steps.

- First, it involved modelling the fiscal, economic and structural factors that influence debt management decisions, as well the volatile, uncertain nature of financial markets;
  - this involved modelling the level, volatility and correlation between the different interest rates and exchange rates that affect portfolio cost and risk; and
  - importantly, the analysis did not examine foreign currency exposure in isolation, but fully allowed for its interaction with other components of the debt portfolio.
- Second, the expected cost and risk consequences of a range of possible portfolio structures were analysed. Portfolio structure here is defined in terms of currency and interest rate exposure.
- Third, those portfolio structures which were efficient, in the sense that they have the lowest expected cost for a given level of risk were identified.
- Fourth, one (or a range) of these efficient portfolio structures, that was consistent with an acceptable degree of risk for the sovereign was selected as the portfolio benchmark.

- Finally, extensive testing was performed of the robustness of the selected benchmark to variations in important assumptions underpinning the analysis.

Our benchmark analysis indicates that a small, strategic USD exposure in the debt portfolio has long-term benefit. In the case of Australia, this benefit only comes with USD exposure and no other foreign currency exposure. In particular, it helps to lower the expected long-term cost of the portfolio, without leading to an unacceptable degree of risk. At first glance it may seem counter intuitive that taking on some exchange rate risk through foreign currency exposure does not lead to unacceptable risk levels. The answer lies in the Australian dollar lying within the dollar bloc, and USD exposure offering some currency diversification benefits.

- Our benchmark is a portfolio with 10 to 15 per cent USD exposure, with the remainder being domestic currency exposure. There are also specific targets set for duration in both the domestic currency and USD sectors of the debt portfolio.

Undertaking this benchmark analysis requires some specialist skills and places a number of demands on sovereign debt managers; namely for:

- expertise in portfolio management and, in particular, in financial modelling and portfolio optimisation analysis;
  - in Australia’s case, this involved contracting out for the consultancy services of professionals in this field;
- investment in information technology, in the form of computer database systems to accurately capture the sovereign’s liabilities;
- ready access to on-line information on market prices and yields for various financial markets; and
- sophisticated computer software for portfolio analysis and risk management.

INFLUENCE OF THE BENCHMARK ON DEBT MANAGEMENT OPERATIONS

It is worth outlining how the portfolio benchmark influences debt management decisions and to touch on performance monitoring and assessment issues. As mentioned earlier, the benchmark acts as a target towards which Australia moves its debt portfolio over time. As such, it influences:

- decisions on the composition of the annual government borrowing programme amongst differing debt instruments, formulated as part of the budget process; and
- determines the nature of the currency swap and domestic interest rate swap programmes through the course of the year.

Over the year, there are a variety of factors that affect the structure, duration and currency share of the debt portfolio. These include movement in market interest rates and exchange rates, time decay, and the form, maturity and timing of new debt issuance and swap transactions. The Treasury regularly monitors the debt portfolio's market value and characteristics such as currency share and duration through the course of the year.

Having a benchmark that is a target for debt management policy also influences performance assessment. In particular, Australia does not attempt to out-perform the benchmark through taking currency views. The benchmark represents a foreign currency exposure strategy that is expected to result in the lowest cost over the long term for a tolerable degree of risk. Performance monitoring and assessment is therefore linked to how well the debt portfolio is maintained at the benchmark through time.

BROAD LESSONS FROM AUSTRALIA'S EXPERIENCE WITH FOREIGN DEBT MANAGEMENT

There are perhaps four broad observations that can be drawn from Australia's experience with foreign currency debt management.

- First, having good public sector debt circumstances, that flow from sound fiscal policies over the long term, increases the flexibility to pursue debt management as an objective:
  - in particular, portfolio management objectives can be constrained if the sovereign borrower has to borrow outside its own domestic markets.
- Second, much of our approach is based on the fact that Australia has deep, liquid and efficient capital markets for government debt. This enables Australia to approach foreign debt management without funding risk being a constraint.

- Third, the existence of deep, liquid and efficient derivatives markets, particularly for swaps, has enabled Australia to effectively separate the funding risk and market risk associated with foreign currency debt:
  - indeed, without these derivative markets, Australia would have considerably less flexibility to meet any formulated benchmark; and perhaps
  - there is little point in having a benchmark target without the necessary transactional flexibility to meet its requirements.
- Fourth, adopting a benchmark provides a useful framework to analyse the market risk associated with foreign currency debt, and ensure that this risk is consistent with meeting the management objectives for the debt portfolio as a whole.