CGS Market Industry Working Group

Submission on the Review of the

Commonwealth Government Securities Market

CONTENTS

1 EXECUTIVE SUMMARY 3

2 ABOUT THIS RESPONSE TO THE REVIEW 5

3 OVERVIEW 7

3.1 THE NEED TO RETAIN AN EFFICIENT GOVERNMENT BOND MARKET 7
3.1.1 Introduction 7
3.1.2 The Relative Size of the Commonwealth Government Bond Market 8
3.1.3 The Importance of the Market 9
3.1.4 The "Perfect" Market 10
3.1.5 A Factor in our International Competitiveness 10
3.2 WHY THE ECONOMY NEEDS A GOVERNMENT BOND MARKET 11
3.2.1 Benchmark Pricing 11
3.2.2 A Secure Investment Outlet 12
3.2.3 Liquidity Management 13
3.2.4 Risk Management 14
3.2.5 Financial Innovation 14
3.2.6 Information Content of Yields 15
3.2.7 Low Transaction Costs 15
3.2.8 Monetary Policy and Exchange Rate Management 15
3.2.9 The International Drive to Develop Bond Markets 16
3.3 COSTS OF RE-OPENING THE GOVERNMENT BOND MARKET 17
3.3.1 Liquidity Premium Lost 18
3.3.2 Foreign Investors Disengage 18
3.3.3 Comparative Advantages Lost 19
3.4 A DECLINING MARKET AND NO SATISFACTORY SUBSTITUTE 19
3.4.1 Transition Costs 20
3.4.2 Evidence of a Declining Market 20
3.4.3 Corporate Bonds Not a Substitute 21
3.4.4 Swaps Market Not a Substitute 24
3.4.5 Bank Funding is not a Substitute 25
3.5 RECOMMENDED SOLUTIONS 26
3.5.1 Unfunded Superannuation 26
3.5.2 Saving to Meet Aging Population Liabilities 26
3.5.3 Issues in Asset Fund Management 28
3.6 CONCLUDING COMMENTS – GOVERNMENT MANAGING ITS RISKS 29

4 RESPONSES TO SPECIFIC KEY QUESTIONS 31

4.1 PRICING OTHER FINANCIAL PRODUCTS 31
4.2 REFERENCING OTHER FINANCIAL PRODUCTS 35
4.3 MANAGING FINANCIAL RISK 38
4.4 PROVIDING A LONG-TERM INVESTMENT VEHICLE 47
4.5 IMPLEMENTING MONETARY POLICY 56
4.6 PROVIDING A SAFE HAVEN IN TIMES OF FINANCIAL VOLATILITY 60
4.7 ATTRACTING FOREIGN CAPITAL FLOW 63
4.8 PROMOTING AUSTRALIA AS A GLOBAL FINANCIAL CENTRE 67
4.9 APPROPRIATE SIZE OF THE COMMONWEALTH GOVERNMENT SECURITIES MARKET 69

5 OPTIONS AVAILABLE TO THE COMMONWEALTH 71

OPTION 1: WIND DOWN THE COMMONWEALTH GOVERNMENT SECURITIES MARKET 71
OPTION 2: CONSOLIDATE COMMONWEALTH AND STATE GOVERNMENT DEBT MARKETS 72
OPTION 3: MAINTAIN THE COMMONWEALTH GOVERNMENT SECURITIES MARKET AND FUND THE COMMONWEALTH'S UNFUNDED SUPERANNUATION LIABILITIES 74

6 APPENDIX 1… MEMBERS OF THE INDUSTRY WORKING GROUP 77

6.1 INDUSTRY ASSOCIATIONS 77
6.2 INDUSTRY PARTICIPANTS 77

7 APPENDIX 2… THE ALLEN CONSULTING GROUP REPORT 79

1 Executive Summary

The Commonwealth Government has significantly reduced the amount of its debt on issue in the domestic bond market over recent years and may have the option of effectively closing the market in the near future.

After a careful review of the issues involved, we are convinced that closure of the Commonwealth Government securities (CGS) market would be a mistake, the cost of which would be a less efficient financial system, a lift in the cost base for some financial services, a rise in the cost of capital and a weakening of the capital markets structure that could see some business moving to overseas markets.

Our strong recommendation is that an active CGS market should be retained and this is based on consideration of the costs and benefits involved. In essence, this view revolves around three key questions:

First - Does the CGS market perform a unique and vital role in the financial system? The answer to this question is **YES.**

There is broad agreement across the financial community that a CGS market is a vital piece of infrastructure and a cornerstone of the financial system. In this Submission, we confirm the importance of the services identified in the Treasury Discussion Paper in the areas of benchmark pricing, managing financial risk, supporting superannuation savings and maintaining and developing Australia as place to conduct global financial business, amongst other things.

Second – Is there a fully effective substitute for the CGS market? The answer to this question is **NO.**

The corporate bond market is not a viable alternative and reliance on this as a substitute would significantly weaken our financial infrastructure. In particular, it does not have the issue size, market depth or standardised credit attributes to sustain a market with the liquidity attributes of the CGS market.

The States' bond markets are better placed than the corporate bond market as a substitute but, in substance, they would suffer the same problems arising from heterogeneous credits and issue size, even if issues by different States were better coordinated.

It is suggested that the swaps market could substitute for the CGS market in its financial infrastructure role. We agree that the swaps market plays an important role in the financial system but there are fundamental limitations in its structure that would militate against it successfully fulfilling this role. In particular, participant credit risk is an important feature of swaps, which detracts from the swaps market fulfilling a role as a benchmark for outright interest rate risk and as a base for supporting derivatives which would weaken the market during times of financial stress – when a government bond market might be most needed. Moreover, it would be necessary to overcome other problems, like insufficient liquidity at the long-end of the yield curve, while swaps could not meet the needs of entities, like insurance companies and fund managers, that require investments with minimal credit risk.

Foreign markets do offer an alternative and it seems likely that some business presently conducted in Australia would be undertaken in overseas markets, if the CGS market were closed. This would reduce the size of the local markets, increase the cost of financing and risk management services for business, while foreign market access issues for smaller businesses would be restricted.

Third - Is there a viable option to manage funds raised by retention of an active CGS market? The answer to this question is **YES.**

One of the options offered for consideration in the Treasury Discussion Paper is Government funding of its unfunded superannuation liabilities. This option has merit in its own right but it affords a particularly useful policy synergy at this point in time - the bond market problem could be resolved by creating a mechanism for the Government to improve internal budgetary discipline by accounting for a staff cost at the time that the cost is incurred (as distinct from when it is paid).

This would not create new government debt. Rather, it only would securitise an existing liability of the Government. The approach suggested here would build upon the Government's achievements in controlling public finances and inject even greater rigour to the ongoing accounting for current expenses and management of the budget.

This option would require creation of a government asset fund and the associated governance and investment management issues would need careful consideration. Fortunately, there is nothing radical or new in this, as State Governments and many overseas governments have dealt effectively with these issues, while the existing Commonwealth superannuation arrangements illustrate the potential for arms length management of funds.

We deal with these and other matters in detail in the main body of our submission.

In summary, we conclude by noting there is uniform agreement in the financial community that the financial system will be less efficient in the absence of a liquid CGS market. The only uncertainty is about the size of the efficiency loss and we believe that it is material and must be avoided. There is no fully effective domestic substitute, while it is not in anyone's interest for business to go offshore. We believe that the economic benefits from retention of an effective market easily outweigh the economic costs that might be incurred through the need to maintain an asset fund and that the policy synergies involved would provide a well-balanced outcome from a political economy perspective.

2 About this Response to the Review

This Submission is a response to the Review of the Commonwealth Government Securities (CGS) Market. It has been collectively prepared by an Industry Working Group, comprised of organisations and individuals covering financial intermediaries from across the financial sector. A list of participants in the Group is given in Appendix 2.

The fact that many who play different roles in the financial system – some competitors and/or customers of each other – have come to the same conclusion about the future of the CGS market is an indication of the broad reach of the market and the importance of the Review. The financial system is a collective itself and, although the different parties often responded to the questions asked in the Review with a different emphasis and from different directions, there was general agreement on the role of the CGS market. Indeed, the holistic and mutually supportive strengths in the system were confirmed by the Group's discussions.

The gravity of the Group's considerations reflects the challenges that would face any group from a sophisticated financial system that is forced to contemplate the removal of the key risk free asset from the financial system. However, this is a unique situation and there is no precedent elsewhere for comparison – indeed, many organisations overseas are watching this Australian " experiment " with great interest.

The Review has bought into the public realm an issue that is much more complex than it appears at first sight and needs careful consideration before conclusions can reliably be drawn. As such, the challenge in this Submission is to provide answers directly to the questions posed by the Review, while at the same time building the knowledge base on the topic so that the answers on these esoteric issues can be understood in their appropriate context.

The entire financial system would be adversely affected by a failure to maintain the viability of the CGS market. The most obvious effect would be in statistics of bonds traded and turnover in related products. In itself, that is not important but it would be indicative of a weakening in the efficacy of the publicly traded financial markets, and that would have real impacts. Other effects on the market for financial products and services that the financial system provides may not be so readily observable but would be more important – for example, the impact on the cost of capital for business, the return on various investment products and the interest rate margin on mortgages to name a few.

Removing the risk free yield curve from the financial system would adversely impact on the quality of financial services provided. The financial system is only of value for what it can do for the economy and all the people in it. The Group came to the view that it is not in the national interest for the CGS to be bought back or that the volume of bonds outstanding declines further. On the contrary, the CGS market should be maintained to a level such that it can contribute to maximum effect.

It is from this perspective that the Submission seeks to answer the questions posed by the Review. The Submission is divided into two parts and begins with an *Overview* that introduces the nature and role of the CGS market and presents a high level response to the issues and questions raised in the Review. The second part of the Submission, *Responses to Specific Key Questions*, provides direct answers to the questions asked by the Review. It is in this section that the minutia of financial and capital markets transmission mechanisms and links are explained in detail. A clear understanding of the central role of the CGS market in supporting these links and foundations is the basis of the case to retain and nurture the CGS market.

Finally, having considered the issues involved, the Group does not know how the financial system would continue to work at optimal efficiency in support of the wider

economy in the absence of a risk free yield curve. This is untested territory and the suggested alternatives to the CGS market are all problematical.

The Group acknowledges that maintenance of the CGS market would have an impact on the way that the Commonwealth manages its assets and liabilities and, in particular, that it may require an explicit government asset fund of some form. With this in mind, the Group engaged The Allen Consulting Group, an external consultant with expertise in public finance matters, to explore the issues and provide advice on the feasibility, structure, governance and management of a government asset fund. If active management of the Government's unfunded superannuation liabilities is a result of maintaining the CGS market, then the Allen report should provide some valuable guidance on the process and the practical issues involved.

The Allen report is also provided in answer to a direct question asked in the Review Paper in the section titled "*Options available to the Commonwealth - Option 3"* and the full report has been placed in Appendix 2 of the Submission.

3 Overview

3.1 The Need to Retain an Efficient Government Bond Market

3.1.1 Introduction

The Commonwealth Government has significantly reduced the amount of Commonwealth Government securities (CGS) on issue in the domestic market. Depending on the Government's Budget outcomes and the flow of privatisation receipts, it may soon have the option of effectively closing the CGS market. Should it proceed to do so?

The answer to this question hinges on a careful assessment of the costs and benefits of maintaining a viable CGS market or closing it. To a large degree, this involves analysis of the benefits from an effective market, consideration of the availability of an effective substitute and an assessment of issues involved in managing the receipts from CGS issues if they are not required for current expenditure.

There is a wide range of factors relevant to this analysis. To begin, it is necessary to understand the nature of the CGS market, its place in the financial system and the effect of this on the wider economy. Factors particularly relevant to this analysis include, amongst other things:

- The central role of the CGS market in the financial system and the implications of this for the effectiveness of the sector and the efficiency of investment;
- The effect of closure of the CGS market on the capital markets structure and the standing of our financial system as a place to conduct global financial business;
- The potential availability of another activity or process to act a substitute and replace the features of the CGS that are important to the economy;
- The Government's future need to access finance through the CGS market and the cost of re-opening the market;
- The options that are available to maintain the CGS market and their specific costs and benefits.

These issues are considered in some detail in this Submission from the perspective of practitioners that are providers and users of the CGS market and/or financial system.

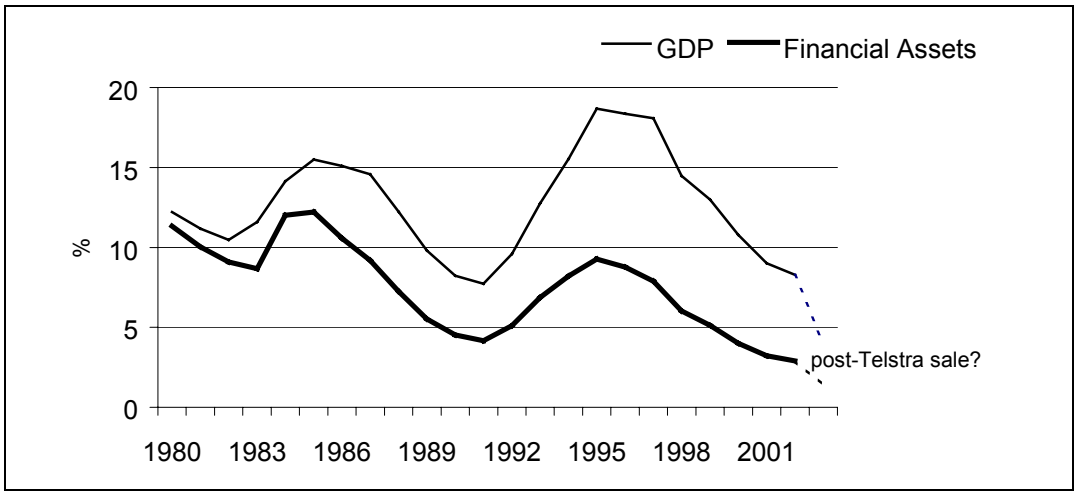
The Submission finds that an efficient CGS market, coupled with a responsible and appropriate fiscal position, has a pervasive and positive influence on the financial system and enhances the performance of the national economy. This benefits everyone: investors and borrowers, large and small.

As outlined in Section 3.2 below, the most efficient pricing and risk transfer framework is part of what an efficient CGS market provides. This framework allows intermediaries to provide effective products to end-users in the market in a competitive environment. The answers in Section 4 to the Review's questions show how a weakening of the CGS market's infrastructure would adversely affect that framework. The Australian marketplace would be less able to compete as a centre for global financial services, which would limit the growth and export potential of the industry.

With the decline in volumes outstanding in recent years, the CGS market is losing the ability to contribute fully. Sale of the Government's remaining Telstra investment would accentuate this problem (see *Figure 1*). Quite how serious this problem would be is difficult to assess as a full understanding of the implications will only be possible

with hindsight. However, assessing how it would impact on the way the financial and capital markets work and being able to draw conclusions from that understanding is a good place to start such an assessment.

Figure 1
Commonwealth Government Bonds Outstanding
(in terms of GDP and Financial Institutions' Assets)



There is no reason to extinguish the CGS market, notwithstanding that it may be possible to do so, because the Government can take the decision to fund other existing and future liabilities. Such liabilities include unfunded superannuation and the long-term budget effect of the aging population, identified in the Government's *Intergenerational Report*. As explained in Appendix 2, financing these liabilities would not be a pioneering approach, as the State Governments and overseas jurisdictions have taken similar initiatives. In contrast, abolition of the central government bond market would be a ground-breaking move in an international context.

Maintenance of an effective CGS market is consistent with the Government's broader policy to develop the domestic capital markets, as evidenced by its "Regional Financial Centre" and "Investing for Growth" initiatives. The ongoing availability of a "risk-free" asset and the information this imparts to the marketplace assists financial innovation and competition, and has been a significant factor in the success of the financial sector. In turn, this benefits the economy as a whole. This is important, given the increasing list of goods and services that were once provided by the public sector and are now provided for, and financed or delivered by, the private sector.

In short, the Submission concludes that there is a compelling case to maintain an effective CGS market, given its importance as a piece of financial system infrastructure and the significant economic benefits that it delivers.

3.1.2 The Relative Size of the Commonwealth Government Bond Market

The Commonwealth Government bond market is particularly active relative to the markets for other investment instruments, as outlined on *Table 1*. For example, turnover on the market exceeds the value of share trading on the Australian Stock Exchange (ASX), even though Commonwealth Government bonds outstanding account for less than 10% of the share market capitalisation. The market also has large associated sale-repurchase agreement (repo) and derivatives markets.

Table 1

Market Size - Investment Instruments and Related Transactions – 2001/02

A$ billion	Outright/Physical	Repos	Derivatives
Commonwealth Govt. bonds	552	4,359	2,197
State Government bonds	308	1,897	0
Corporate bonds	96	205	0
Bank debentures	61	169	0
ASX Shares	519	na	535
Note:			
Swaps (fixed:floating interest rates)	821	-	32

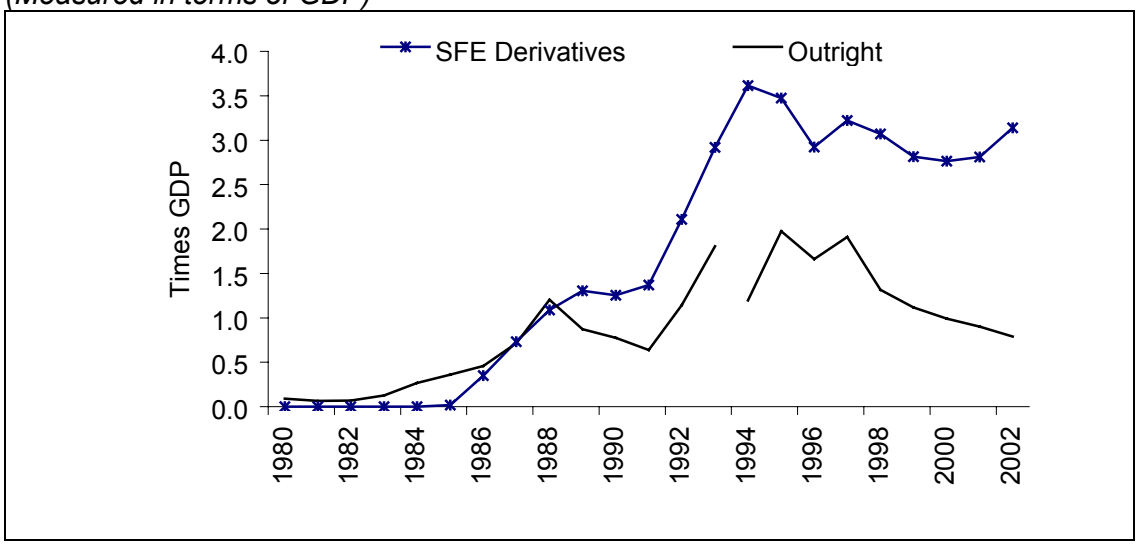
Source: 2002 Australian Financial Markets Report, AFMA. Data does not cover short-term paper. Derivatives turnover covers transactions based directly on the relevant underlying instrument.

However, though this market is clearly important to the financial system, it has been in decline in recent years as the Government reduced the amount of bonds on issue. This has adversely affected turnover in bonds and related derivatives trading on the derivatives market (see *Figure 2*).

Figure 2

CGS – Sydney Futures Exchange Derivatives and Outright Turnover

(Measured in terms of GDP)



Note: Outright turnover data series break in 1994 – switch from RBA data to AFMA survey data.

Why does the CGS market play such an important and influential role in the financial system? The answer to this question is complex but there are several important features of the government bond market that help to explain this.

3.1.3 The Importance of the Market

The key attributes of CGS that make them unique are that they:

- are highly ***liquid*** instruments;
- effectively embody ***no credit risk***.

These characteristics reflect the size, depth and maturity spectrum of the market, the taxing powers of the Federal Government and the central role it has in the national economy. These features are unique and strong enough to make the marketplace for them the largest marketplace for A$ outright or directional interest rate risk in the world.

The CGS market is a cornerstone of the financial system and has a vital impact in areas where Australia's markets are at the leading edge.

Risk management products and private sector debt instruments depend on it for outright interest rate price discovery. It is this feature of the CGS that gives it "benchmark" status. This confers on it the "honour" of being the best source of information about the general level of A$ interest rates. In all sophisticated markets, this honour is reserved for the central government's debt issuance. It is this aspect of CGS – their role a as benchmark – that the Australian market potentially loses at great cost and at great risk.

The CGS market is not an isolated part of the financial system but rather is tightly integrated with other markets – debt, equity, foreign exchange, commodities, and their derivatives. Thus, apart from its role in providing finance to the Government, the market serves as a vital piece of financial sector infrastructure.

3.1.4 The "Perfect" Market

A deep government bond market operates something like a "perfect market" in the economic sense as it is not burdened by the extent of the information asymmetry that exists in private sector debt markets and transaction costs are low. Its risk-free nature and the information content in the CGS yield curve make it particularly valuable as a guide to financial and economic conditions.

The "perfect market" analogy may seem curious, as the CGS market has many investors but only one issuer which is, at face value, in contrast to the "many buyers and sellers" assumption in the perfect market paradigm. However, the price for CGS depends upon macroeconomic factors such as economic growth, the fiscal balance and the international economy. These factors are highly transparent and no participant in the secondary market has an advantage over another, by virtue of size or market influence. The relative performance of an institution depends on the skill of its traders and the quality of its research and information.

In addition, the Government, although the sole issuer, has no significant market advantage, given the requirements of the Charter of Budget Honesty and the transparency of the macroeconomic factors which affect its revenue flows.

In the context of the current issue, it is important to realise that the potency of these positive attributes diminish as the size of the CGS market declines.

A qualification to this comment is that too much net debt is not conducive to a healthy economy. The discussion here is on the basis that underlying debt levels are sound and that crowding out is not an issue for debate. Australia's economic credentials are of such high order that crowding out issues relating to Government debt levels are not in play as part of this debate, or at any level of CGS defined as of overall benefit to the economy. Excessive government borrowing through the debt market would distort price signals, as the weight of a single large borrower in the financial system would be more in play.[1] Hence, there is a need to maintain balance in government credit demands.

3.1.5 A Factor in our International Competitiveness

The strength of the Australian fixed interest market, principally as a result of the CGS market, has traditionally been a competitive advantage to Australia in the context of

[1] This can occur notwithstanding the existence of a transparent and well-ordered debt management program.

developing our financial services businesses and as the capital formation process takes place. It has helped to put Australia on the global map as a sophisticated financial system with a strong financial skills base. This would be put at risk if the financial infrastructure is undermined and the ability to offer services is reduced.

Competition for international business between financial centres in the region and globally is intense. Each centre has of its own strengths and weaknesses. For example, Hong Kong is noted for a strong banking industry, Singapore for a strong currency and international futures market, while Australia has a strong CGS market and a highly innovative finance industry.

Both Hong Kong and Singapore are endeavouring to catch up with Australia by developing their domestic government bond and fixed interest markets. This is an attempt to enhance their financial infrastructure and place them in a better position to capture international capital markets and investment management business. With a further decline in the CGS market a possibility, Australia is potentially ceding an advantage.

Section 4.8 below considers the effect that closure of the CGS market would have on the Government's policy initiative to promote Australia as a global financial centre.

3.2 Why the Economy Needs a Government Bond Market

There are many public benefits to justify the maintenance of an effective CGS market which are significant and extend well beyond the financial sector to the wider economy and community.

3.2.1 Benchmark Pricing

The government bond market prices "risk-free" debt across a maturity spectrum out to 13 years. This results in a seamless (all from one issuer) and transparent yield curve that is credit risk free across the curve. Constancy in this across the maturity spectrum is scarce, particularly for longer maturities. A dependable yield curve is built on having sufficient depth in tranches across the maturity spectrum to provide reliable prices. It is with regard to longer maturities, however, that the contribution of the CGS market will be most acutely missed if the market was to be extinguished.

A Transparent Benchmark Price

The "risk-free" status of government bonds and the depth of the secondary market, together with the relative transparency of the key factors that determine CGS market prices, make it a particularly valuable pricing discovery tool (benchmark) for other instruments.[2]

The yield curve provides a set of benchmark prices (i.e. a uniform set of discount factors) that is used in quoting and pricing private sector securities, loans and derivatives, as well as projects and investments. Equity valuations are driven by them in that cash-flows are discounted at the risk free rate calculated off this curve.

For example, the outright interest rate risk of other A$ fixed interest rate products are priced referencing a margin to CGS. This margin over the CGS reflects the specific credit risk and lesser liquidity properties of corporate bonds, as well as private sector credit risk generally. Another important example is the range of derivative instruments, such as bond futures and swaps, that are based directly (futures) and indirectly (swaps) on CGS prices.

[2] For example, the price transparency advantages of high liquidity in the government bond market are noted in Comley *et al*, "Effectiveness of Fiscal Policy in Australia, Selected Issues, Commonwealth Treasury, *Economic Roundup*", Winter 2002.

Making Risk More Transparent

The price for risk-free debt that is established in the CGS market is unique to that market and enables financial risk embodied in other instruments to be broken out and decomposed into its constituent elements. For example, in analysing the price of a corporate bond, the CGS yield curve is integral to the process of isolating the price for the specific credit risk, the swap margin and outright interest rate risk.

- Decomposition of risk allows better identification, quantification, price transparency and management of risk components.

The framework provides the environment which maximises the influences on providers to produce good outcomes for the end user.

In short, risk decomposition provides a better information set for assessing risk, making investment decisions, designing financial products and managing risk. This enhances the returns from financial services and lifts economic output.

A Substitute?

Only the Government is large enough to issue sufficient bonds to provide for a consistent, deep and liquid market across a long maturity spectrum. In addition, the risk-free character of government bonds underpins trading liquidity, that in turn reduces transaction costs. Turnover in the market depends not just on investment related trading but also that which relates to it as a clearing house for all trades in outright interest rate risks. Futures contracts based on the CGS add to this liquidity pool.

Sections 4.1 and 4.2 below present a more rigorous analysis of these issues and of the absence of a fully effective substitute to CGS.

3.2.2 A Secure Investment Outlet

Government bonds enhance the range of investment choices and increase the potential to reduce risk through diversification or simply better matching of assets with liabilities. The risk-free and long-duration attributes directly expand the range of feasible investment portfolios.

CGS are especially helpful for superannuation funds seeking secure long-term investments to match their liabilities or to comply with investment portfolio mandates. This benefits investors with long-term horizons and those individuals at a stage of their life cycle where they look to invest their retirement capital in a stable, safe and secure investment income.

Government securities, due to their highly liquid nature and their safe haven status, provide stability to the financial system in periods of stress. They allow risk to be transacted in the most pressured situations and bring degrees of order into the marketplace. Such order and stability would not exist if private sector instruments or less liquid instruments were the only risk outlets the market could use in such times. Liquidity-enhancing and risk-free assets reduce financial stress. Illiquid and credit intensive assets are made more illiquid and perceived to be more credit intensive in periods of financial stress and do not provide a path to reduced stress.

A Substitute?

There is no private sector instrument that can substitute for risk-free government debt and be used to the same effect in the construct of investment portfolios. Hence, the range of feasible portfolios would contract in the absence of an effective CGS market. This would have an adverse effect on relative returns to investors, as outlined in detail in section 4.5 below.

Selected foreign government securities satisfy an investment manager's requirement for "risk free" assets but introduce currency risk and would not dissipate stress in the local economy and financial market if they were to be impacted by it.

3.2.3 Liquidity Management

A liquid market is one where participants can price and execute transactions regularly in a stable framework. The CGS market has traditionally satisfied this criterion.

Banks, funds managers, life and insurance companies hold government securities because they are a low risk instrument that backs capital and provide a short-term liquidity buffer, being able to be liquidated at a fair price without delay cash flows change.

In addition, CGS are widely accepted as collateral in lending and repurchase arrangements (see *Table 1* for the repo market's size). Their risk-free nature means capital usage from a position in CGS is nil. CGS are important for a variety of regular financial transactions. For example, they provide collateral for intra-day funding under the Real Time Gross Settlements system. Repos enhance the price making and risk clearing function of the market and add to liquidity as result.

A Substitute?

Repos on private sector paper involve credit risk as the transaction involves lower quality collateral and, as such, do not provide as much liquidity. This effect is most acutely felt in periods of financial stress. Transactions in corporate bonds generally reduce in such periods. Such a reduction in the ability to trade makes no contribution toward reducing tensions in the market place to rectify stress in the system, or enhance liquidity generally.

Recently, the Reserve Bank announced a new intra-day repo facility based on eligible bank paper to enable banks to meet expected higher liquidity needs under the new Continuous Lnked Settlement (CLS) for foreign exchange transactions.[3] This complements the existing intra-day repo facility based on CGS and supranational securities.

The Reserve Bank's credit exposure in these transactions is substantially reduced by the high credit rating of the bank issuers and their short-term nature. Credit exposure issues with private sector paper set a limit on how well corporate bonds would substitute for CGS in this regard if the latter were to be extinguished. Certainly, it is unlikely they would be used for long-term financing arrangements that would inhibit the corporate bond market's ability to provide liquidity to the financial system.

[3] The new facility for intra-day repos is designed to help banks meet liquidity needs under CLS and is based on eligible bank bills and CDs.

3.2.4 Risk Management

The highly liquid nature of CGS markets, price benchmarking qualities and broad acceptance allows them to underpin derivative products like swaps, futures and options, which are essential tools for the efficient management of financial risk. They are the basis of futures and options contracts traded on the Sydney Futures Exchange and OTC derivatives, which are widely used by financial institutions and companies to manage their interest rate exposures.

The ability to efficiently manage risk at a reasonable cost is vitally important to corporations, as well as financial institutions. Australian markets are well advanced in this area and the range of effective, low cost, risk management options provides Australian companies with a competitive advantage over companies from jurisdictions with less developed markets.

The close link between the CGS market and its associated derivatives is simply another dimension in its role as a central mechanism to integrate financial markets. For instance, the outright risk component of the total risk in an interest rate swap is priced by reference to the CGS yield curve and/or bond futures contracts and is managed by hedging predominantly in bonds and/or bond futures. Consequently, care must be taken to not underestimate the interdependency of financial markets and the central role of the CGS market in them when assessing the likely impact of its closure.

A Substitute?

As the size and liquidity of the CGS market declines, the bid-offer spread in the market will widen to reflect increased trading risk. For example, the price impact of a given size trade would rise, making it more expensive to liquidate or accumulate a position. In short, the absence of an effective CGS market would increase the cost of risk management. Risk management activities would also drift to offshore markets – in effect, increasing financial service imports. For example, prices from US financial markets could serve as a [lower quality] benchmark and hedging of outright A$ interest rate risk could take place there. The cost of risk management would be greater, (because hedging an A$ risk in a different market reduces some risks, but opens up cross market risk) but it may be the only effective choice open to the risk manager at the time, if A$ markets have withered as a result of a CGS extinguishment.

The answer to the Review question in Section 4.5 below provides a detailed outline of the concerns that would need to be addressed to implement monetary policy in the absence of an effective CGS market.

3.2.5 Financial Innovation

The absence of credit risk in CGS provides an important tool for financial engineers to dissect financial risk into its component parts and manage it in a form that best meets the needs of investors, borrowers and risk managers. Each component of risk can be traded in the particular, specialized, market for it. Financial product innovation of this form would be significantly hampered if the CGS market were to close, as:

- The range of exchange-traded derivatives products would narrow sharply;
- The ability to decompose financial products into component risks would decline.

Obviously, the key government bond futures contract would disappear in the absence of Government bond issues to provide a market with sufficient depth to provide benchmark prices.

A Substitute?

There is no effective substitute in the domestic market (i.e. no alternative risk-free debt instrument that is highly liquid), so financial innovation would be impaired if they did not exist in requisite volume.

3.2.6 Information Content of Yields

Government bond yields accurately reflect economic and financial conditions free of credit risk. In particular, the implied term structure of interest rates is proven through econometric studies to be a useful predictor of economic growth and inflation. This is helpful in macroeconomic forecasting and business planning. The value of the government yield curve in this regard reflects the absence of credit and entity specific distortions.

A Substitute?

There is no alternative in the Australian financial system, as the range or depth of other instruments is inadequate to reliably capture information on expectations.

3.2.7 Low Transaction Costs

The relative depth of the CGS market supports a strong clearing and settlement infrastructure and low bid-offer spreads. This makes for low transaction costs for both buyers and sellers of bonds - for example, reducing portfolio adjustment costs for superannuation fund managers. There are additional cost benefits through the availability of domestic derivatives markets and repo markets based on government bonds that are strong and efficient.

Cost effective trading facilities mean that financial services in general are cheaper than would otherwise be. This feeds through to the cost of financial services offered to the wider community.

A Substitute?

There is no substitute in the domestic financial system with the relevance to as many risk managers and risk management processes that has the transactional cost structure of CGS and their associated futures. This is a contributing factor to their benchmark status.

3.2.8 Monetary Policy and Exchange Rate Management

The depth and liquidity of the CGS market are features that the Reserve Bank can draw upon to implement its open market operations without undue disruption to the market. This facilitates the communication of policy adjustments to the market. Apart from regular day-to-day management of liquidity on the money market, CGS provide the Reserve Bank with a secure means to boost market liquidity at times of stress on the financial system.

A Substitute?

Private sector instruments are an alternative to CGS for monetary policy open market operations but this necessarily involves the Reserve Bank taking on some level of credit risk. Fewer alternatives with which to conduct open market operations increases reliance on the remaining products. This may unduly limit activities if one of these markets ceases to be accessible. It would seem prudent to be able to access as many sources of liquidity as possible for such operations.

3.2.9 The International Drive to Develop Bond Markets

In closing this section, we note that there is now greater international recognition of the benefits from an efficient government bond market, which is associated with a broad drive to encourage development of domestic bond markets. Initiatives through the World Bank, the Asian Development Bank, APEC and others form part of a widespread effort to promote market development.

For example, the BIS Committee of the Global Financial System (BIS) of the G10 central banks presented a list of general principles and specific policy recommendations for the creation of a deep and liquid government securities market.[4] The focus of the BIS work is on market design and it provides information that might assist jurisdictions to develop a government bond market. The BIS recommendations are drawn from the experience of mature markets and the main focus of the work is on market design, so it is not relevant to Australia.

Table 2
Selected Asia-Pacific Bond Markets - 1998

	Amount outstanding		Secondary market
	US$ bn	%GDP	Turnover ratio
Australia	218	61	11.6
China*	110	12	na
Hong Kong	50	30	5.8
Indonesia	2	0	0
Japan	4,488	104	5.0
Korea	277	74	3.1
Malaysia	67	89	0.7
New Zealand*	34	60	5.1
Singapore	20	24	6.4
Taiwan	70	25	3.1
Thailand*	11	10	0.2

Note: Data for China, New Zealand and Thailand are for 1997.
Source: APEC Bond Survey, Bank of Indonesia, KSDA 2000 Securities Market in Korea.

The Australian government bond market is relatively advanced and the emerging problem is in contrast to developments in the region. In the aftermath of the Asian financial crisis, a number of countries adopted initiatives to expand and develop their government bond market. For example, Thailand had to start from a relatively low base (see *Table 2*), while Korea had a larger market but it was not fully effective as a piece of financial infrastructure. One objective of these countries is to leave them better placed to avoid financial disruption and manage any disturbances more effectively.

4 The CGFS is a central bank forum, established by the Governors of the G10 central banks, for the monitoring and examination of broad issues relating to financial markets and systems with a view to elaborating appropriate policy recommendations to support the central banks in the fulfilment of their responsibilities with regard to monetary and financial stability.

Views from Standard & Poor's and Moody's Investors Services

Both the major credit rating agencies, Standard & Poors (S&P) and Moody's Investors Service's (Moody's), have made it clear that they see the abolition of the CGS market has a structural negative for Australia. These views should be seen as being reflective of global views on the government's proposed debt repayment strategy.

On 14 October 2002, the head of S&P Australia stated that reducing Australia's government debt to zero would not see a credit rating upgrade for Australia (from the current AA+ rating), as S&P was also focused on Australia's current account deficit and private external debt.

S&P also came out strongly in favour of retaining the CGS market, stating that "it's important for all countries, not just Australia, to have a government bond market and you only have to look at the most active markets globally to see what an integral sector it is."

S&P also stated that "we are at an important juncture right now and it would be disappointing to see the domestic capital markets stall. Government bonds provide a benchmark, are risk-free and provide a framework which the whole financial market relies upon."

In terms of the impact on other markets, S&P noted that the non-bank mortgage sector "had been applauded by all, but the growth (of this market) may not have happened if we didn't have a government bond curve to price the assets. Of course, companies can go offshore, but right now they have a choice, as the local market offers a source of funding".

On 6 November 2002, Moody's head sovereign analyst stated that "the Australian Government's proposal to exit the bond market raises questions about the country's status as a regional financial centre." Moody's also strongly implied that Australia would not receive a credit rating upgrade from paying off all government debt, as the net financial position of the nation was unlikely to improve.

Moody's also stated that "it is possible, however, that the cost of borrowing for corporations would rise, due to the lack of a benchmark in the bond market, but it is also possible that new instruments will be developed. Furthermore, another possible effect is increased difficulty in maintaining the derivatives market. This is important, because the Australian private sector is a fairly large net debtor in international financial markets." Local financial markets may develop an alternative hedging instrument, "but it also could be at some increased cost on the margin. As to the efficiency of the financial markets, it would seem to us that there would be some gain in having a government benchmark".

3.3 Costs of Re-opening the Government Bond Market

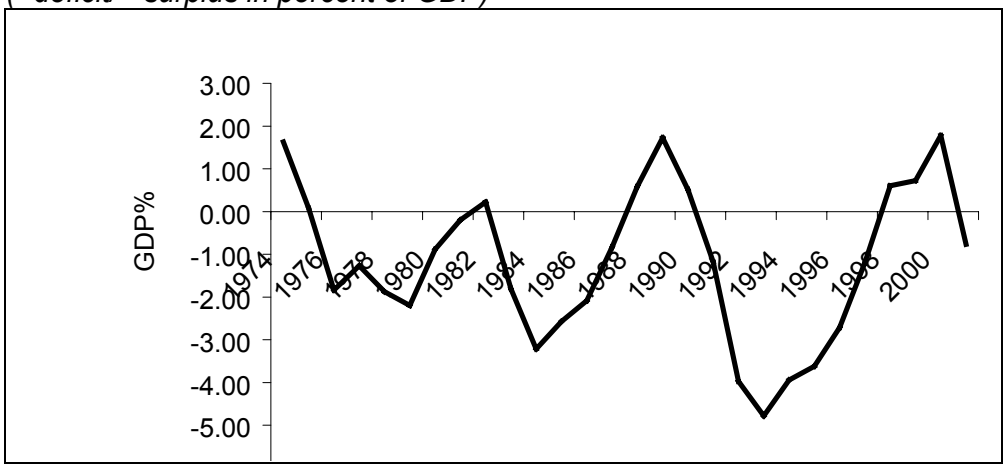
An efficient government bond market allows a government to raise large amounts of finance at low cost, when it is needed, without resorting to captive financing or other market distortions.

Having an ever present ability to satisfy financing needs would seem a prudent financial strategy for a sovereign power. This is especially valid in relation to potential financing needs in times of financial stress. In such times, seeking finance from banks may be less successful if that system's capital base and funding ability is also under stress. Similarly, trying to meet and negotiate with new lenders generally (like offshore funds) will be more intractable if done in stressful conditions.

The present problem in the CGS market arises through the combination of sustained economic growth, good fiscal management and privatisation, which has greatly reduced the Government's need for finance and may eventually eliminate it.

However, it is likely that governments will need to tap the market for finance at some stage in the future to manage a cyclical economic downturn or long-term, structural pressure on the budget due to the ageing population (see *Figures 3 and 8* below).

Figure 3
Commonwealth Government General Budget Balance
(- deficit/+ surplus in percent of GDP)



Source: Derived from Reserve Bank Bulletin data.

One option for a future government would be to raise finance in foreign capital markets. This may not be desirable for a variety of reasons - for example, the net cost of debt and hedging, or the macroeconomic risk implications. A more likely option would be to borrow on the domestic market. Being able to borrow domestically and having a domestic bond market reduces currency and macroeconomic risks associated with foreign currency borrowing on the international capital markets. Australia's market has functioned well in this regard since reform in the 1980s.

There would be significant risks to closing and costs in reopening the government bond market if it is extinguished or effectively extinguished.

3.3.1 Liquidity Premium Lost

As a rule, the more liquid a market is, the lower is the cost to trade on that market in terms of bid-offer spread and price impact.[5] High liquidity in a market reduces transactional costs and pricing. Government bonds have traditionally traded lower yields because they are highly liquid and of better credit quality, relative to private sector and other non-CGS fixed rate securities.

Trades of a given size have a greater "price impact" in less liquid, lower credit quality lines of bonds. This discourages trading and makes for complexity in hedging. Reflecting this to some degree, bid-offer spreads widen as the volume of outstanding bonds falls beyond a certain point. Volume and the price for it tradeable in Australian markets has already been impacted by the declining level of outstanding bonds.

The liquidity premium would be lost if the market was closed or declines further. This would result in an increased cost of debt to the Government and the price to issue and trade debt and interest rates generally. It is possibly counter-intuitive for a scarce bond to be more expensive but it illustrates the point that liquidity is highly valued.

3.3.2 Foreign Investors Disengage

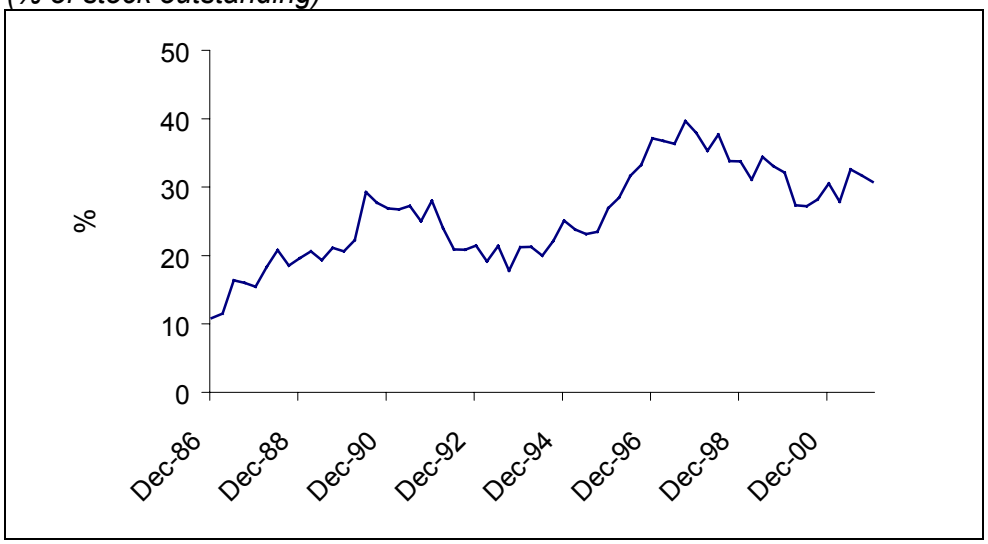
Foreign investors increased their presence in the market from the mid-1980s and held 40% of the government bonds on issue in 1997. The data in *Figure 4* are ABS

[5] For example, spreads on 'off-the run' issues US Treasuries are 3-5^{+} basis points higher than spreads for liquid stocks – OECD ECO/WPK(2000)12.

estimates reported in the Reserve Bank's *Bulletin* – though they are not precise, the trend direction should be more reliable.

Foreign investors may not re-enter the market if it were closed and later re-opened, as the market would be not be included in the international bond indices that they track or benchmark against. More fundamental than that is the disengagement that would occur from Australia by the international investor base. Recapturing that would not be automatic, would involve cost and be problematic in periods of funding need, which may coincide with times of financial stress.

Figure 4
Non-resident holdings of Commonwealth Government Securities
(% of stock outstanding)



Other things equal, the wider the investor base, the lower the level of interest rates attainable at any given time.

Section 4.7 below presents a more detailed analysis of the likely reaction by foreign investors to closure of the CGS market.

3.3.3 Comparative Advantages Lost

The CGS market and the benefits it bestows would, once let go, take time and be costly to recapture. The financial system would have to adapt to the absence of a CGS market and this process would necessarily lead to a dismantling of existing infrastructure. Whatever new techniques and systems are established would become the new infrastructure. Moving in and out of "CGS, no-CGS" environments would not be of benefit to the economy, nor should it be relied upon as part of a sound strategy for the financial sector.

Apart from this, there may be a need to address other practical issues - for example, to revive expertise in management of debt (timing of issue, terms etc) and promote the CGS market to non-resident investors.

3.4 A Declining Market and No Satisfactory Substitute

The CGS market is tightly integrated with the rest of the financial system and its decline would impact on the effectiveness of the financial system. Quite how serious this would be in practice is uncertain, as the machinations of a financial system without CGS have not been experienced. No international comparisons can be made as Australia is in the unique position of having the policy option to do so. However, there

is significant concern amongst the leading market participants that the long-term efficiency of the financial system would be compromised. Many already consider the decline to date in the size of the government bond market a problem.

It can be reasonably argued that this is a temporary issue, as official economic projections point to significant long-term pressure on the Government's budget that would be most likely met by deficit financing. We cite the Government's own "*Intergenerational Report*" in this context. However, an interruption to the conduct of an effective government bond market would involve significant cost and risk that a full recovery would not occur in time if patterns of investment and risk management behaviour changed both here and offshore. It may be that our financial system exists in an environment that would make any attempt at rebuilding it fail.

3.4.1 Transition Costs

If the Commonwealth Government bond market is closed or is further diminished in its effectiveness, then superannuation funds, general investors, governments, corporations and financial institutions would have to look to other means to service their investment and risk management needs. Whatever outlets were chosen, whether in domestic or overseas markets, there would be a significant adjustment cost and some risk during the transition period.

This would involve a process of identifying alternative instruments for investment, hedging, liquidity management, collateral etc and establishing infrastructure to use them in a new or expanded manner. It would also involve a learning process to understand pricing and behavioural relationships similar to those currently based on the operation of the CGS market that are well-understood, having been developed over the years. Given the fundamental characteristics of alternatives though, it is more likely that the market that then exists will not be able to deliver the results that are delivered currently by a market underpinned by a CGS curve. The Reviewer's attention is drawn to the answers to specific questions on this topic.

For example, the price discovery role without government bonds or bond futures contracts will initially be less effective as the correlation and relationships between the underlying exposure and the hedging instrument will be less discernable. End-users of financial products will bear the cost the cost of this less effective interest rate environment

Of course, this transitional concern is different to our significant doubts about the availability of an acceptable alternative to an efficient government bond market in the long run. These involve more permanent costs that reflect the inability of private sector instruments to perfectly substitute for CGS, given their unique features.

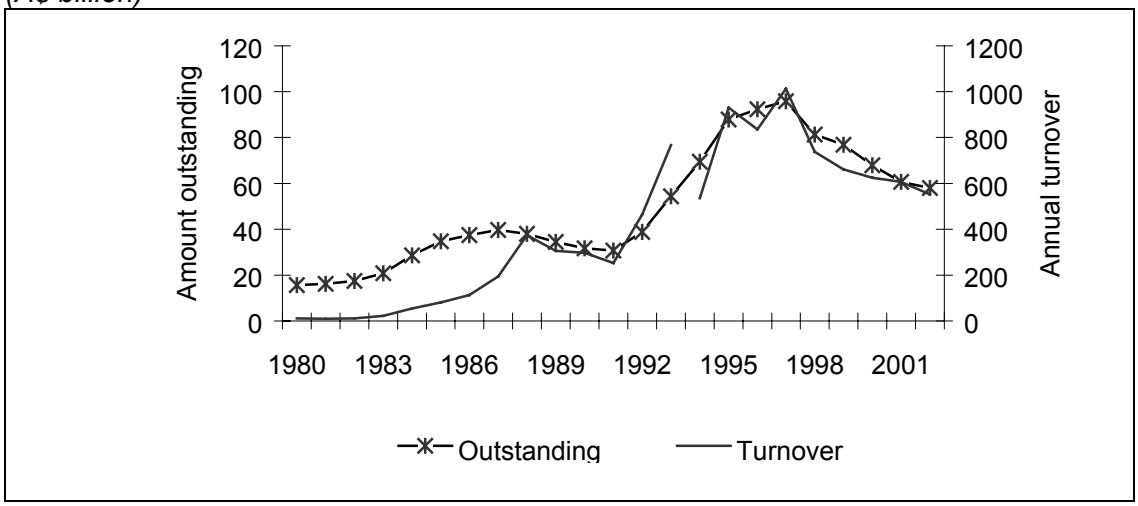
3.4.2 Evidence of a Declining Market

A decline in the "trade-able" stock of government bonds outstanding increases risks for market makers that are central to maintenance of the ongoing liquidity of the market. Fewer participants reduce the likelihood of finding a counterpart with coincident needs, less stock is available to manage risk and the price impact of large transactions rises. Liquidity is adversely affected and it becomes more difficult to price parcels of bonds, so the effect is cumulative.

As shown on *Figure 5*, there has been a significant drop in market turnover, as the stock of government bonds has declined. Turnover on the market expanded rapidly during the 1980s after the market was deregulated, but this peaked shortly after the

mid-1990s. The Reserve Bank has also reported a decline in the number of active market markers in government bonds in recent years.

Figure 5
CGS – Turnover and Stock
(A$ billion)



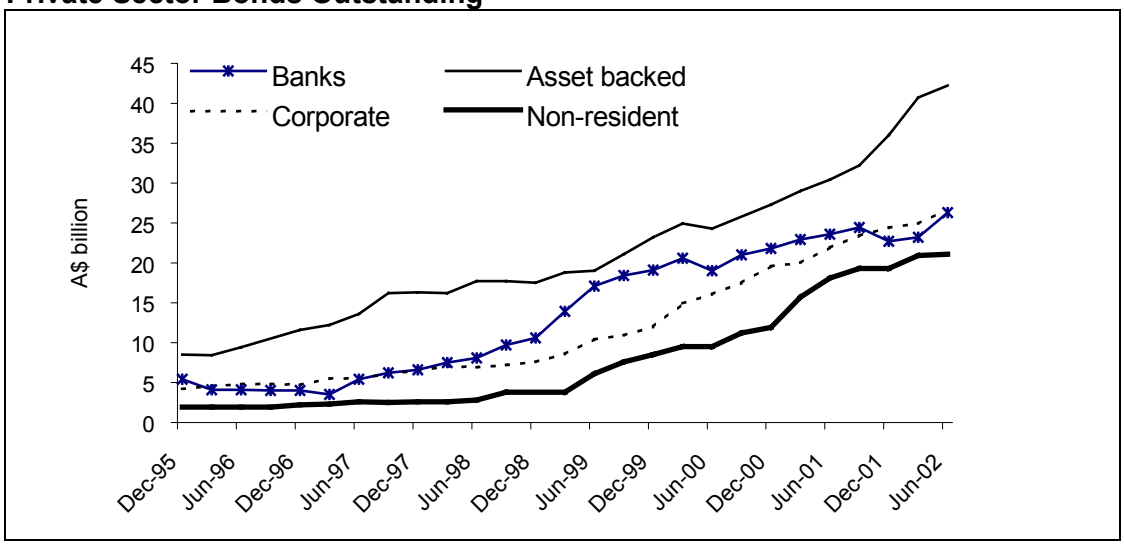
Note: Turnover data series break in 1994 – switch from RBA data to AFMA survey data.

3.4.3 Corporate Bonds Not a Substitute

The growth of private sector bonds outstanding since the mid-1990s has been impressive (see *Figure 6* below). This reflects a range of factors including, amongst other things, financial innovation, deregulation, capital management principles, investor demand and low interest rates. However, corporate bonds cannot substitute for CGS as a means to provide benchmark prices and support ancillary and derivatives markets. Rather than "crowd out" corporate bonds, the CGS market has underpinned the ability of the markets generally to broaden product choice.

The corporate bond market relies on the CGS market for benchmark prices for outright interest rate risk. Corporate bond issuers and investors, directly or indirectly, use risk management instruments based on CGS to help manage associated risks. The closure of the CGS market would undermine prospects for the corporate bond market at precisely the time that it would need to lift its performance to meet the financial system's infrastructure needs. No where in the world does a healthy private sector market exist without a healthy government sector market.

Figure 6
Private Sector Bonds Outstanding



Many experienced market participants believe that the end result would be greater reliance by Australian companies on banks and overseas bond markets. This raises other issues. For example, not all businesses would have the capacity or size to tap the international markets and those that did would have a hedging costs significantly more expensive, as the efficiency of the A$ market had declined. Not having an effective capital market locally reduces the choice of products and suppliers available to end-users. It also reduces the competitive forces that exist between different products and suppliers, and between capital markets and banks.

While this may be conjecture to some degree, it is clear that that the corporate bond market is too fragmented to serve as benchmark instrument in its own right:

- There are many issuers that all act independently of each other – in contrast, the government bond market has a single issuer with a coordinated and managed approach to debt issuance.
- Individual corporates cannot issue in sufficient size to support a highly liquid market – not an issue in the government market. In 2000, AXISS Australia reported an average issue size of A$270 million in the Australian corporate bond market, with a bid-offer spread of 58 basis points (compared to 2 basis points the Commonwealth Government bond market).
- The risk rating of individual corporates changes over time – government is constant (within the local economy). Diversification can help to reduce this risk; the Australian market lacks sufficient depth to satisfactorily achieve this.

An Assistant Governor of the Reserve Bank of Australia has stated that:

> "The corporate market is, however, unlikely to be a satisfactory substitute for the Commonwealth Government securities market... Efficient pricing in fixed interest markets depends, to a large extent, on the existence of a well-defined yield curve for an asset of undoubted credit worthiness. No corporate issuer, or class of issuers, is ever likely to be able to provide a yield curve as well-defined and liquid as that of the Commonwealth".[6]

[6] Ric Battellino, "Australian Financial Markets", RBA *Bulletin*, September 1999.

This fragmentation, or lack of homogeneity, across issuers in the market may be manageable for instruments of short maturity but it is a serious problem for longer dated paper.

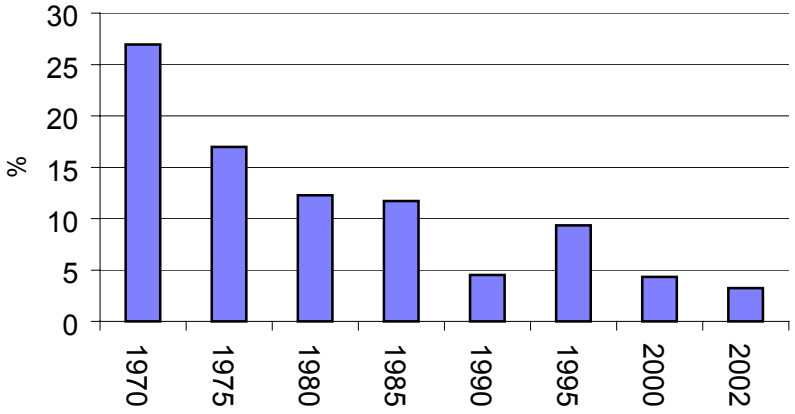
To illustrate the nature of this problem, consider an example based on State government bonds that are quite homogeneous relative to corporate bonds. Each State government has its own credit rating, so bonds that they individually issue are close alternates for those issued by other states but they are not perfect substitutes for each other. Though the credit rating differentials are modest, a Sydney Futures Exchange futures contract based on State government bonds failed to gain acceptance in the 1990s because of this lack of standardisation.

Since there is much greater heterogeneity amongst corporate bonds on issue, this suggests that it would be a major, if not impossible, task to develop a range of liquid hedging instruments that benchmark off corporate bonds.

Apart from these issues, there is significant concern that liquidity on the corporate bond market could be impaired in the event of a financial disturbance. Indeed, this is what happened in Korea, when the corporate bond market dried up as credit risk increased sharply at the onset of its financial crisis in late 1997. In short, the corporate bond market proved to be inadequate as financial infrastructure under pressure. Agents were unable to transfer risk in this environment.

Korea's corporate bond market is one of the largest in the region and traditionally was more important than the government bond market. However, the Korean Government was compelled to introduce a broad range of initiatives to upgrade the government bond market as a result of the crisis. The Korean Government bond market now provides the benchmark yield for debt issues and futures for government bonds were successfully introduced in 1999 to enhance interest rate risk management.

Figure 7
Government Bonds as a % of Financial Institutions' Assets



Source: RBA

Crowding Out Not a Concern

The notion of government debt '"crowding out" private sector borrowing is not a relevant concern at present. The amount of financial resources absorbed by the Government through domestic bond issues has declined fairly steadily since the 1970s, as illustrated on *Figure 7* above.

The “crowding out” fear seems of little concern at this level of gross and net debt issuance, particularly with the high rate of growth of the national investment pool from the SGC. Crowding out implies that the private sector’s cost of funds is increased as scarce investor dollars find a home in an oversupply of government paper. At the current, and projected, levels of CGS on issue, it appears more likely that the smaller volumes on issue will decrease liquidity to the point where the liquidity premium for CGS disappears. This will impair the market for all A$ fixed interest rate products.

US Corporate Bond Market

There has been some focus in the IMF and elsewhere on the US markets in this context, as it is possible that the volume of marketable US Treasury bonds on issue may decline sharply over coming years and affect the viability of that market. We would caution against extrapolating US analysis to Australia without a full appreciation of the structural difference between the two systems. This relates not only to size, though that is a relevant factor in its own right. Also, the problems in the US market are not near as imminent as those that we face (for example, see relative debt ratios in *Figure 9* below).

The US corporate bond market is notable because it is the largest and most successful market of its type in the world in global. Corporate issuers in the US account for 60% of corporate debt securities issued by Corporates globally, according to data reported by the Bank for International Settlements. In general, corporate bond markets elsewhere are relatively small and have a modest place in the architecture of the financial system.

The reason for the US success has been a matter of conjecture in many places but that issue need not entertain us here. Rather, the key point is that the Australian corporate bond market is not comparable to the US market, even in a relative sense, and doubts about the ability of the US corporate bond market to substitute for US Treasuries are magnified in the Australian context.

Crowding out also has little relevance in today’s global capital market. Increasingly Corporates are able to access global markets including the expanding private placement market. There is no case to argue that the central government competes with corporate borrowers in global capital markets.

3.4.4 Swaps Market Not a Substitute

The swaps market in Australia is both active and competitive and plays a vital role as a mechanism for corporate and financial institutions to manage interest rate risk. However, the swaps market does not have the necessary attributes to take over the CGS market’s role in the financial system, should a substitute become necessary. This is discussed in detail in Section 4.1 but, in summary, it reflects a number of factors including:

- Swaps are not free of credit risk. The credit standing of the counterparties adds a layer of risk not carried in a CGS. This risk exists for the life of the swap;
- Swaps are administratively intense and relatively expensive to process and transact;
- Counterparty exposure risk perception is heightened in stressful period. Liquidity will be impaired in the event of a financial disturbance, a time when stability may be most needed;

- Cumbersome and bilateral counterparty management is required in swap dealings – this slows down and restricts the number of available counterparties;
- Swaps are not a tradeable instrument *per se* but rather each transaction is taken onto an institution's books and unwound by an offsetting transaction that is also recorded on the institution's books;
- The swaps market is not sufficiently liquid beyond the 5-year mark to benchmark longer term investment instruments;
- The swaps market is not as close to the "perfect market" paradigm as the CGS market due to access to it being bilateral and restricted to those who have the necessary arrangements in place. The AFMR 2002 survey reports that the 4 biggest respondents to the survey counted for 60% of the swap market;
- The financial sector would become more concentrated and institutionalised – swap positions are most commonly taken directly on banks' books and cannot be traded away on a secondary market (but can be hedged);
- Swaps are not an investment instrument and there is no underlying market through which synergies (eg through liquidity management, cross hedging, use as collateral) are formed to sustain liquidity;
- Swaps are not a "safe haven" investment;
- Trading in swaps uses capital – trading in CGS does not.

3.4.5 Bank Funding is not a Substitute

While it is true that the sovereign power of Australia grants it a credit standing that makes it a preferred counterparty, the banking sector, globally or locally, is unlikely to lend to the Commonwealth through a bilateral loan agreement. The yield on Australia's traded debt is below the cost of funds for a bank. Banks would not lend at rates below their own funding cost.

Securities are the most efficient way for borrowers of high credit standing, and commensurately low funding costs, to fund themselves. They allow debt to be held by that segment of the financial market that requires a higher credit standing, even though it is at the expense of a lower yield.

Pension funds, insurance companies and others who need risk-free assets to manage portfolios well are the largest investor base for such securities. Their risk-free nature and benchmark status give them the characteristics necessary for such asset management activities.

Banks hold risk-free securities but not because they seek a lending relationship. Banks invest in the debt of sovereign entities because they are the most liquid and safe asset class available. It is with respect to their liquidity management and regulatory needs that banks hold risk-free assets. As mentioned above and discussed in detail in Section 4.5, the Reserve Bank is able to conduct open market operations efficiently with the banking sector with repos by virtue of this fact.

Capital markets provide the most stable source of ongoing access to finance for a sovereign entity like Australia. The loan market is not a substitute for the CGS market in this regard. Access to an ongoing source of finance should be considered a strategic asset of the Government's financial framework.

3.5 Recommended Solutions

There is a range of options available to the Government if it accepts the need to maintain an efficient market for government bonds. The options we discuss here are viable and realistic, as the initiatives have significant merit and are worthwhile in their own right, independent of the CGS market issue. Thus, they could form part of an integrated government policy package.[7]

Of particular importance in this regard is option to fund the Commonwealth's unfunded superannuation liabilities, which is briefly discussed in the next section. A thorough analysis of the issues involved with this option is offered in Section 5, as a direct response to a Review question. The origin of the response is a report by The Allen Consulting Group that was commissioned by the Industry Working Group (a full copy of which is available in Appendix 2).

3.5.1 Unfunded Superannuation

The Commonwealth Budget papers identify an unfunded superannuation liability of A$84 billion for public servants. This represents an existing liability of the Government that is payable in the future out of its annual revenue receipts. Ratings agencies already factor in the effect of unfunded liabilities in their sovereign ratings, so a reorganisation of the public sector balance sheet would not impact Australia's credit standing or financial credentials. Indeed, it can be argued that a more integrated approach to balance sheet management may enhance opinions of the Government sector.

It is possible to manage the liability on the present basis (i.e. out of future tax receipts as payments fall due) but this is not necessarily the best approach for a variety of reasons. Governments have traditionally adopted a cash flow approach to budget management. However, there is now a strong focus on accruals accounting, as this represents a more transparent and better-informed approach to government accounting. This would complement the push by the corporate regulators and the Government to improve corporate governance and transparency, through effective identification and management of liabilities amongst other things.

In addition, the Government's Intergenerational Report identified growing pressure on its fiscal balance over coming decades. Therefore, it may be a shrewd policy shift to begin to meet the current unfunded liability now rather than place a demand on government current revenue at a point where it would already be under significant pressure.

The State governments have generally adopted a strategy to eventually match existing superannuation liabilities with asset funds that will generate income to meet the future liabilities when they fall due without recourse to the budget at that time.[8]

3.5.2 Saving to Meet Aging Population Liabilities

Governments in a number of countries have established asset funds to balance temporal differences in anticipated revenue receipts and expenditures, or to recognise a structural shift in the fiscal balance due to an aging population. Norway's

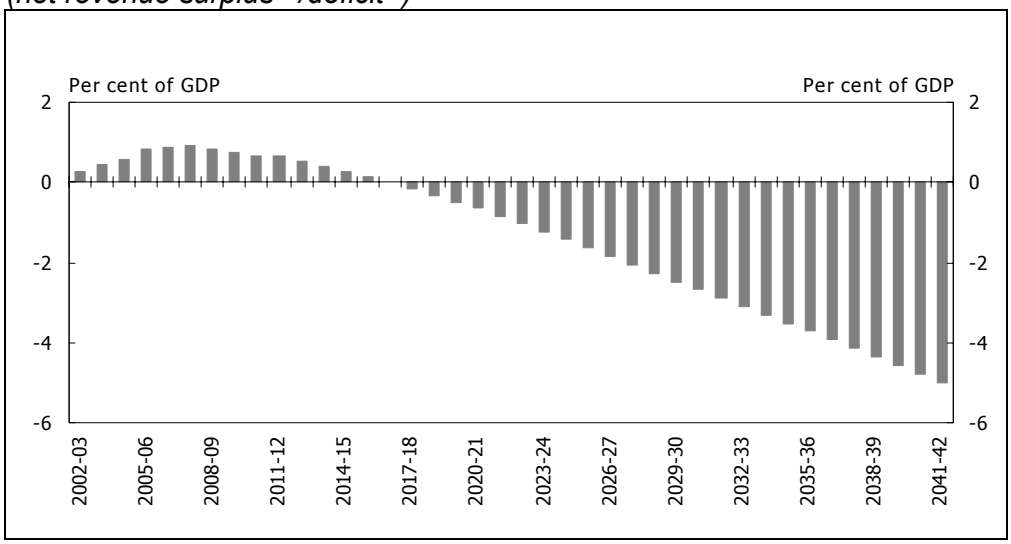
[7] This is quite different from the situation in some other jurisdictions where a bond market is retained purely as a means to secure development of the financial sector – though that of itself may be a worthwhile objective.

[8] See KPMG/Bankers Trust report – Unfunded Superannuation, Accrual Accounting and Public Sector Liabilities, November 1998.

management of its petroleum receipts is an example of the first strategy. An example of the second is Ireland, which established a fund in 2001 with seed capital from the sale of its national telecom service company to provide for future public servant pension and social welfare liabilities.

These strategies are based on sound economic management principles rather than a need or desire to maintain a government bond market. The Intergenerational Report identifies a similar need in Australia to begin to provide for future higher demands on government expenditure arising from the aging population (see figure 8). A sound case can be made to put in place a prudent budgetary strategy that begins to provide now for these foreseeable future demands – in particular by dedicating the future proceeds from privatisation to an investment fund.[9]

Figure 8
Projections of Fiscal Pressure
(net revenue surplus +/deficit -)



Source: Intergenerational Report 2002/03, Budget Paper no. 5.

The strategy adopted to facilitate the development of the investment fund would have to be consistent with the ongoing cyclical management of fiscal policy. This might be achieved, for example, by making payments to the fund from revenue when tax revenue is relatively high and borrowing to fund payments in years when tax revenue is relatively low. The size and variation in regular payments would need to be established as part of a medium to long-term policy, based on a rolling plan to reflect structural changes in the environment.

There is a helpful policy synergy between management of the Government's long-term net liabilities and maintenance of an effective government bond market and the system-wide benefits that flow from it. This is separate to the matter of costs (outlined above) that would arise from having to restart a market that had been closed or reinvigorating a market that had fallen into poor condition.

The financial sector has grown strongly over the last decade and seems set to expand further, as projections for superannuation savings point to on-going strong growth. In this event, demand for the government bond market to serve as financial infrastructure seems likely to strengthen. The focus on intergenerational funding needs would provide a natural, but controlled, growth pattern for the government bond market that would enable it to adequately perform its infrastructure role.

[9] For example, the Irish Government committed to set aside an amount equal to 1% of GNP each year to meet its future pension and social welfare liabilities.

A recent survey of international fiscal policy challenges by the Commonwealth Treasury identified significant medium to long-term issues for major economies from demographic pressures, amongst other things.[10] This may lead to a substantial worldwide increase in government debt ratios over time, which would likely lead to higher real interest rates. In this context, it may be advantageous for Australia to begin to pre-fund part of the projected rise in its fiscal imbalance, to avoid a higher funding cost at the time of greatest pressure.

3.5.3 Issues in Asset Fund Management

There are questions in the public mind that would need to be addressed if a government investment fund were to be established. For example, the approach taken to matters of governance, risk and cost may need to be carefully explained to promote widespread understanding of the policy and objectives.

Governance

The Government must have clear long-term policy objectives for an asset fund when it is established and there must be stringent operational rules to put the fund at arms length from the government so that it is focussed only on achieving the stated objectives. This means that the Government must establish transparent and effective governance procedures to manage the asset fund, so funds do not get diverted to other short-term interests and the fund is not used for purposes for which it is not intended.

For example, it would be necessary to set a firm mandate for the fund and have an independent board to oversee its management on an arms length basis from the Government. Other controls might include conditions that would strictly govern any draw down of funds, actuarial reviews of fund adequacy and a requirement for regular reports to the relevant Minister and Parliament.

Once the fund objectives are set, establishing the appropriate governance system is not a particularly difficult problem. For example, the Commonwealth Government already has established the necessary control mechanisms through the Public Sector Superannuation Scheme and Commonwealth Superannuation Scheme that manage certain public service pension funds on an arms length basis. State governments have established similar arrangements for their pension funds, while overseas governments have arms length arrangements to manage asset funds that have long-term objectives.

Risk in Holding Assets

The concern that the Government would be forced to accept undue economic and financial risks through asset fund investments is not valid. Certainly, there would be an element of risk involved but the returns from a well-managed, arms length fund should well exceed its funding cost[11]. Further, the level of risk involved for the Government is no more than that which it expects individuals to hold through their investments under its mandated superannuation arrangements. Indeed, the risks for government should be even less than it is for individuals, given the benefits of scale (including diversification and lower operating costs) that are to its advantage.

[10] Commonwealth Treasury, "A Survey of International Fiscal Policy Issues – Current Drivers and Future Challenges", *Economic Roundup*, Winter 2002.

[11] That is, equity market and general investment returns should exceed the risk free rate of return.

Fund Management Costs

An asset fund would necessarily involve some operational costs, including management fees. However, this should not cause concern unless there is an expectation that the value added to the fund through active management (taking account of the underlying funding cost) would be less than the return generated by the manager. This would not be a reasonable expectation and, indeed, the Government effectively requires most individuals to take this risk through their superannuation savings. Therefore, it cannot be seen as a significant risk in the context of a decision to establish a fund that has sensible controls and operating procedures for its management.

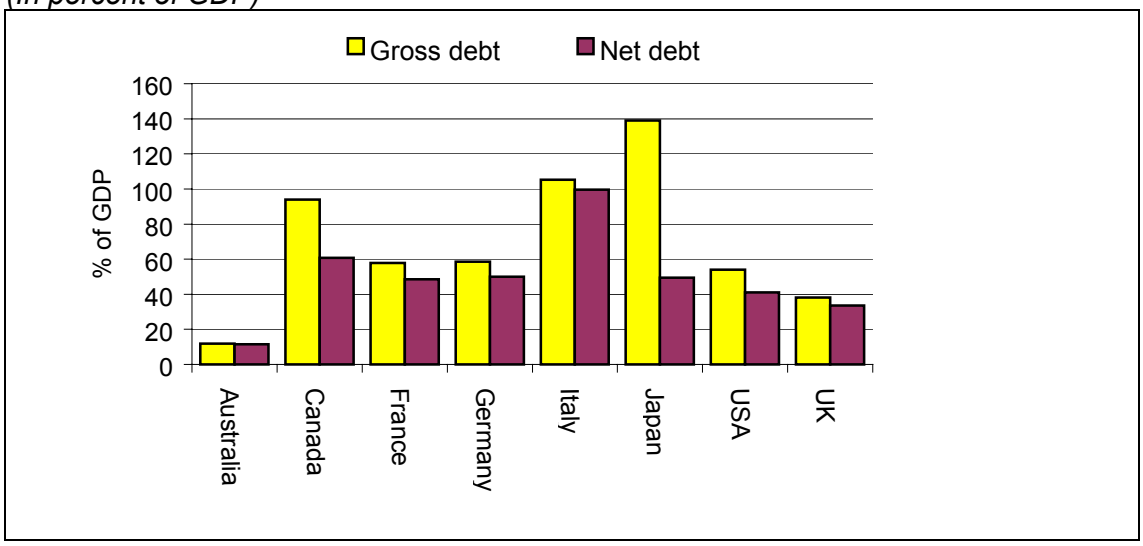
3.6 Concluding Comments – Government Managing its Risks

The Commonwealth Government bond market has been in decline in recent years and, given fiscal projections in the budget, the Government may have the option to effectively close the market with the receipts of privatisations, if they proceed.

Closure of the market would risk diminishing the effectiveness of our financial system by placing reliance on a capital markets structure that is less liquid and less efficient. Of course, the financial system would continue to operate and new products would emerge but it would most likely be less efficient, as there is no fully effective substitute for risk-free, highly liquid government bonds.

However, there is no need for the Government to take this risk, as unfunded superannuation liabilities reported in the budget papers and the projected pressure on the Government's budget cited in the Intergenerational Report provide a sound basis to maintain an effective government bond market. It would be necessary to establish prudent and effective governance procedures to control related asset funds but the necessary framework has been tried and tested both domestically and overseas.

Figure 9
Central Government Debt 2001 – Australia & the Major Economies
(In percent of GDP)



Note: Chart is derived from IMF data.

Australia now has one of the lowest levels of central government debt in the industrialised world (see *Figure 9*) and the significant macroeconomic benefits of debt reduction have been secured. The proposal here would not place this position this at risk – credit ratings agencies already focus on net debt, which would not be increased. Rather, proactive management of the unfunded superannuation liability

and the emerging pressure on the budget from an aging population may further enhance the standing of our fiscal and economic management.

4 Responses to Specific Key Questions

4.1 Pricing other financial products

- ***Whether CGS are used extensively as the primary benchmark for pricing the debt securities of other issuers?***

The standard or primary pricing convention in the Australian marketplace is to use the CGS bond yield curve and associated three-year and ten-year SFE bond futures contracts as pricing benchmarks. However, there are several dimensions to the pricing of securities and the complete answer to this question needs to address each of them.

Usually, the most efficient way to price a financial product and manage the associated risk exposures is to dissect the risk it embodies and price those component parts individually. Indeed, the ability to transact on this basis is a key feature of modern financial markets and directly impacts on their efficiency. The compartmentalisation of risk occurs as markets fine-tune their understanding of it, seeking the best place to price and trade each component. As in many other endeavours, specialisation produces better results. This compartmentalisation of risk is analogous to comparative advantage theory in trade and is how markets best serve their end-users.

Pricing benchmarks differ between each type of debt or interest rate product. Each risk component that makes up the price of a security has its own unit of measurement, against which value is best assessed.

In Australia, the CGS market is the best market in which to price outright interest rate risk, as CGS are the only debt instruments that are ”risk-free”, that is, free of credit risk. The CGS market has other desirable characteristics such as transparency, ease of settlement, low transaction costs – all features that promote the highest level of price discovery, competition, ease of transactional execution and encourage the greatest number of participants. The CGS market prices nothing other than the base component of interest rates that is common to all A$ interest rate products and, thus, it is the basic building block for A$ interest rate and debt products.

As discussed below, the myriad of debt and interest rate products that are offered in Australian markets have other components in addition to the base interest rate and these components are priced against different benchmarks.

Figure 10
A$ Interest Rate Swap to CGS - 3 year maturity
Pricing component traded by the swaps market only

In Australia, as in other countries, the prices of debt and interest rate instruments are referenced to the risk free "sovereign" curve, either directly to physical securities or indirectly via the futures contracts based on them. The fact that information on the CGS curve is easily obtained helps in this regard.

Swap benchmarks are important, as are other benchmarks to their particular market (component) but, unlike CGS, they are not used as a pricing convention for all A$ fixed rate instruments.

Corporate bond prices, for instance, have 3 components:

1. the outright CGS rate;
2. the bond-swap margin; and
3. the component specific to corporate bonds- the swap to corporate bond spread.

The corporate bond yield can only be determined after the price of each of these components has been identified. By aggregating the price of each component, prices can be constructed for a corporate bond. When each stage has been determined, the quote is then expressed as an all up margin to CGS, which is an abbreviated form of price communication only – it is not the method by which the price is determined.

In this manner, prices of corporate bonds and other A$ fixed income products are commonly expressed as trading as a margin to CGS, or the relevant futures contract.

- ***Whether the interest rate swap curve is used widely for pricing debt securities. If not, are there obstacles to using the swap curve in the future?***

As discussed in the answer to the previous question, specialisation and compartmentalisation of process promotes efficiency in the pricing of financial products and is best practice. For example, the price of a corporate bond may be broken down into three component elements that can be separately priced. The question here must be considered in this context of this compartmentalisation of risk.

There are significant limitations on the use of swaps as a benchmark pricing instrument. In particular, swaps are a sub-optimal instrument for price discovery of outright, or directional, A$ interest rate risk, as CGS have a comparative advantage

for pricing this component. Swaps are neither risk free nor are they a security, each of which creates an obstacle to using the swap curve to calculate the outright A$ interest rate level. This is best done using a risk-free security – CGS. Swaps are not a substitute for CGS in this sense, nor can they be developed into one.

Swaps are not free of credit-risk free because they are bilateral agreements. Only if one of those parties has a 'risk free' credit standing, can a swap be risk free to the other party. The credit risk inherent in transacting a swap with a specific counterparty is a characteristic of swaps that renders them incapable of being an adequate benchmark. For example, in times of financial stress, either systemic or normal periods of congestion, liquidity in credit dependent products is reduced. This is essentially a defensive reaction by market participants but an entirely rational one.

As a consequence, the swaps yield curve itself is benchmarked to the CGS curve. The total price for a swap is a combination of the outright interest rate level, as determined by the CGS market, and the bond-swap margin, which is the level above or below CGS at which the swap curve trades. The unit of measurement, and specialisation, of the swap market is the bond-swap margin.

Where swap based benchmarks can assist is in pricing the credit component of a corporate bond (or other non-government security). The unit of measurement in that market is the margin from the swap curve to the corporate bond in question. This is the third component to the pricing of a corporate bond identified in the answer to the previous question. There are no obstacles to using the swap curve as a pricing benchmark for this component. Indeed, it is standard practice to do so. Credit spreads of the same entity and the same level of seniority in the capital structure tend to gravitate towards the same level over the swap rate, regardless of the financial market that they are in or the type of debt product that they are.

The swap market is only well placed to price the "swap component" of a fixed interest rate, which is the margin between CGS and swap (the bond-swap margin). Similarly, the corporate bond market is only placed to price the "swap to non-government" component of other credit based assets. A similar approach exists in all sophisticated financial systems.

Whilst swaps could be used as a benchmark for outright interest rate risk if CGS did not exist, they would not be capable of providing the same quality of price discovery and outright interest rate risk clearing ability that is granted by the CGS market. Being forced to use the swap market would necessarily increase transaction costs and place upward pressure on the cost of capital, which would translate into higher interest rates for borrowers and lower returns for lenders.

Inefficiencies in clearing the outright component (directional or base interest rate risk) of a fixed interest rate cannot be offset in other markets. Each market has a speciality and those markets that clear their specialised forms of risk cannot take on the role of pricing and clearing outright risk in the same manner. Thus, extinguishing that market which best clears the (base) outright interest rate component – the first component of the price referred to above - would weaken the total pricing framework.

While efficiency itself is a relative concept, CGS are unique and a key part of the foundation for financial system efficiency. If part of that foundation is weakened though closure of the CGS market, then other markets will be commensurately weakened. Far from being alternatives that "have a chance to rise above their limited vocations", the other markets would be less efficient even for the risk in which they specialise – such is the importance of the base interest rate market in the system.

The CGS market is well understood by all participants. That this market has the most participants for A$ outright interest rate risk is, in part, due to the efficiencies inherent

in the settlements systems and processes associated with it and that they involve the least risk. It is a transparent market that attracts the greatest number of participants and competitive forces. Dealing capabilities are straightforward and easier to access than any other A$ market.

Much of the benchmark status that CGS has is due to this settlement and administration environment. CGS are settled in a “delivery versus payment” system so that counterparty risk is limited to revaluation effects from the time the trade is done to the time it settles. In Australia, this is 3 days but the market is moving towards a trade day plus 1 (T+1) capability. Trading in CGS requires minimal counterparty limits as a result.

The process and costs of swap trade administration are greater and involve credit risk. This introduces features not associated with benchmark status for outright interest rate. One is that both the floating and fixed rate sides of a swap have to be risk managed and administered. The trade confirmation and counterparty approval processes are more costly, as counterparty and documentation risks are greater. These factors exist for as long as a swap remains on an entity’s books.

If a swap were used as an instrument to trade outright rate risk, then that risk and the bond-swap margin risk would both exist on the books of each party to the swap. If the outright risk were to be eliminated, it would be no more than a coincidence if the swap could be terminated with the same counterparty. It is far more likely that two offsetting swaps with different counterparties would exist for the term of the swap. This means that, despite the outright risk being neutralised, credit exposure would still exist, as the swaps are still positions (albeit offsetting) in the participant’s books. Capital is utilised for the life of both swaps as a result. An additional encumbrance is that, for a time (until the swap termination occurs) the trader, who only wanted outright risk exposure, also had to take bond-swap margin market risk and floating rate market risk. These risks necessarily require management in their own right.

CGS can trade outright risk more efficiently on this score as there is no unwanted market risk taken with a CGS trade. After the offsetting trade to neutralise the outright risk is settled, no counterparty risk at all exists. The ease of settling securities generally favours securities being at least as in contention as is the interest rate swap as an alternative way to trade outright risk if the market was forced to seek one. They both are inefficient ways to trade outright risk but for different reasons.

The Sydney Futures Exchange Clearing House [SFECH] has recently further decreased settlement risk associated with securities, providing more evidence of the sophistication of, and efficiencies in, Australian financial markets. As at November 2002, the SFECH’s Bond and Repo Clear (“BRC”) system allows novation of settlement risk from individual counterparties to the Clearing House for transactions involving CGS and (most) semi-Government bond transactions between the ten BRC participants. This improves the efficiency of settlements and credit risk allocation. Enhancements of this ilk increase the efficiency of the market and ultimately impact favourably on the costs of trading for end-users. Swaps do not have this infrastructure.

In times of financial stress, the CGS market is more likely to continue to provide pricing discovery and transactional capability in outright (or directional) risk than would swaps and corporate bonds, or indeed any instrument that generates credit risk. In stressful situations, the ability to transact is essential in clearing risks and providing as stable conditions as achievable in the circumstances.

- ***What other options are available for pricing debt securities? How effective are they?***

Corporate and other non-CGS bonds, such as semi-government and supra-national bonds, can also be used to price debt securities. Foreign interest rates and bonds could also be considered as pricing benchmarks. However, all of these instruments introduce undesirable factors into the pricing and trading environment that make both the pricing of outright risk and the "upstream" pricing processes less efficient.

There are not sufficient Semi-Government bonds on issue to reach the threshold required for a benchmark yield curve in this economy. The sector's issuance is not "seamless" – in that a single "semi" curve is difficult to identify because each State jurisdiction issues stock in its own name and has a different set of stakeholders.

Greater coordination within this sector could potentially lift its status closer to "benchmark" for the purposes of price discovery and liquidity. It is closer to possessing the desired attributes than is any other alternative. However, it currently falls short on the key characteristics of volume on issue and a seamless yield curve.

Strong sovereign, or near sovereign, foreign "supranational" issuers also bring some of the attributes of a "benchmark for base interest rate risk" to the market but have the same deficiencies as does the semi-Government sector, in not being seamless and coming from multiple jurisdictions. Supranational issuers are sensitive to the levels at which A$ proceeds are swapped back to the currency in which they require funding. This process is often termed "exploitive" issuing, in that it is driven by relative issuance levels and not a ongoing commitment to building yield curves of "hot stocks" over time in any market, particularly smaller ones like Australia. As well, the volume of issuance required to achieve benchmark status would prove sufficiently difficult to hedge, which would prevent that volume being achieved.

A final contender as an alternative to CGS is the US (or another foreign) interest rate market. This alternative is the least appropriate. The reason goes to the heart of what a benchmark should be. A US$ based benchmark would not deliver the pricing efficiency of CGS. For A$ outright risk it will introduce a fundamental uncertainty into the pricing process in that it is insufficiently correlated with the Australian interest rate environment and economy. A benchmark should offer a direct and logical link to the factors that require benchmarking. Correlation and causation are both important. The more direct the causation, the more direct the intrinsic logic to the association and the higher the correlation, the better the benchmark.

If alternative instruments could adequately facilitate a market in which absolute interest rate risk could be cleared, the market's ever-present drive and incentive to seek efficiencies would have already found it and be using it. As a debt and interest rate instrument, the CGS market is unique. Its characteristics provide an infrastructure to the market place and economy that is unrivalled.

4.2 Referencing other financial products

- ***Whether the yield on CGS is commonly used as a reference benchmark for comparing the yields on other debt securities?***

The standard or primary fixed interest pricing convention in the Australian marketplace is to benchmark against the CGS curve and associated SFE futures contracts.

In addition to outright risk traded in futures markets, a large volume of transactions are executed on an exchange for physical ("EFP") basis. Under this arrangement, an

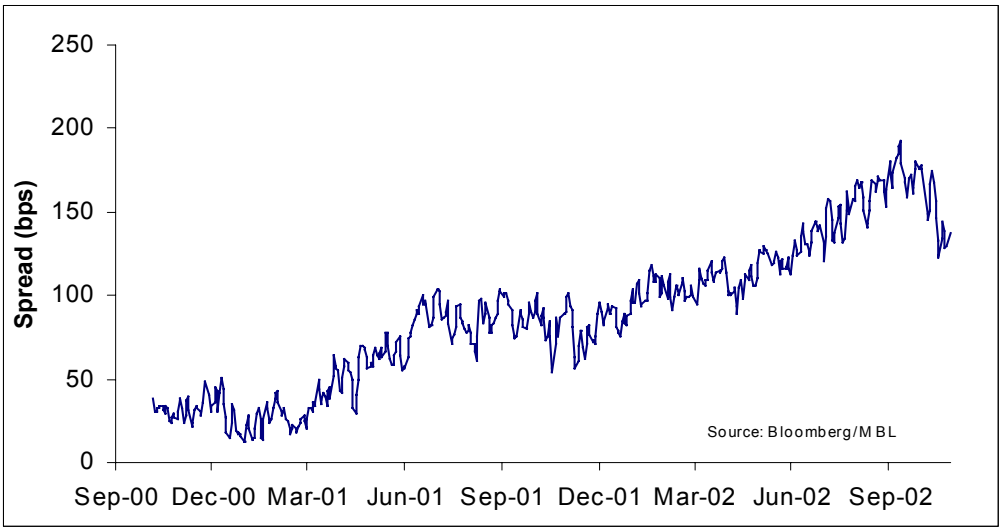
instrument (security or swap) is traded in exchange for an stipulated volume of futures contracts at an agreed spread. It is most prevalent in activity between intermediaries, and is a core component of market liquidity and efficient risk management practices. It allows risk to be broken down into tradeable components that most suit proper interest rate and liquidity risk management and has added momentum to the contraction in margins in the local market.

As a result, a high proportion of broker initiated trades between intermediaries in bonds or swaps are EFP based. Futures are the instrument of choice given their liquidity and base interest rate nature.

Underlying the SFE bond futures contracts are CGS. They are used primarily to quickly communicate levels and other pricing components have already implicitly been taken into account when this is done. CGS are used this way because the greatest number of people have access to information on that market. Swap benchmarks are important but are not used as a pricing convention for outright risk. The swap rate itself references the applicable bond, as do corporate bonds, semi-Government bonds and other fixed income securities. In an international context, the level of CGS against the equivalent security of foreign sovereigns is used as a proxy for pricing country risk, comparative economic snapshots and other relative value considerations. Together with the swap curve, CGS are a tool for determining, in the most efficient way, the relative values of different issuers and debt products across global markets.

Figure 11

Benchmarking Australian Sovereign Risk to US Sovereign Risk



- ***Whether any major obstacle hampers the interest rate swap curve or some other benchmark being used as a reference benchmark?***

Many aspects of this question have been covered in the responses to other questions.

The swap market's deficiencies in pricing and clearing outright risk principally emanate from:

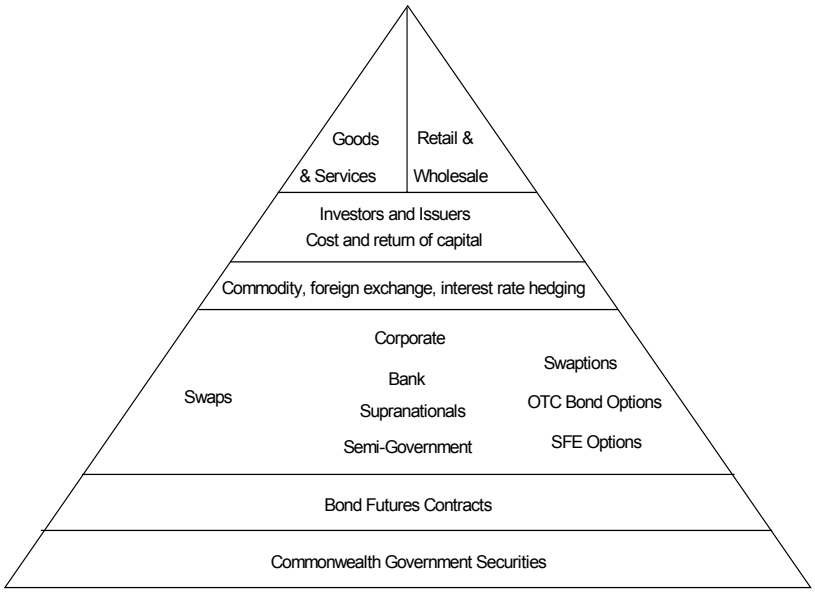
- the credit risk which it carries;
- its relatively costly and cumbersome administration process;
- the lack of clarity in the outright price information it delivers (unless the bond-swap margin is known); and

- fewer participants.

Without CGS, the market will be even less capable of pricing and clearing outright risk.

Outright interest rate risk is common to all debt instruments. As outlined above, the CGS market is best placed to facilitate trading in that risk. It is the least costly to trade in and has the longest maturities, highest volume, most transparency and is the most competitive. Thus, it is usual for issuers and investors in other products that embody outright risk to use the CGS market as a means to manage that particular risk component.

Figure 12



Source: MBL

As the CGS market is a clearing arena for outright interest rate risk, anything that affects its efficient operation would also impact on the pricing of financial services that are partly or wholly priced by it. More importantly, this can flow on to other markets that utilize these prices. For instance, efficient primary and secondary markets in equity and debt capital products are important in the formation and risk management of capital.

The CGS market is at the foundation of Australia's capital markets. Without it, many other endeavours will be less efficient. The market has been progressively weakened over the last five years as the volume of CGS on issue declined steadily. This has occurred at the same time that the rest of the economy and the investor pool have been growing. At a time when more activity is being managed through recourse to the private capital markets, there is a need to retain, maintain and nurture capital markets to ensure they can facilitate finance and risk management to the extent required to capably serve the economy. The CGS market has an important place in this process.

4.3 Managing financial risk

- ***Whether there is scope for the Treasury bond futures market to be replaced by a futures market based on alternative instruments. What could hamper an alternative futures market from developing?***

To answer this question, it is necessary to understand the functions that a futures market performs in the broad context. In the case of the Australian interest rate market, CGS and associated bond futures facilitate management of interest rate exposures. They attract a very large and diverse range of users because they reflect base interest rate risk, form a basis for all other interest rate instruments, allow comparisons to similar based instruments in other currencies. Bond futures have a robust settlement and closeout methodology. That is, they take on the desirable characteristics of the underlying instrument (CGS).

There is scope for alternative futures contracts to be developed but they will not be an effective substitute for those based on the CGS market. Alternative underlying instruments do not possess the characteristics that lend themselves to creating credible futures contracts.

The close out process for each contract must have the utmost integrity. Some technical aspects of this process can be difficult to manage, notwithstanding the best efforts of any futures exchange introducing the contract. This can be demonstrated by considering contracts based on the most likely alternate underlying instruments:

- Semi-Government bonds
- Swaps
- Corporate, or non-Government bonds

Semi-Government Bond Futures

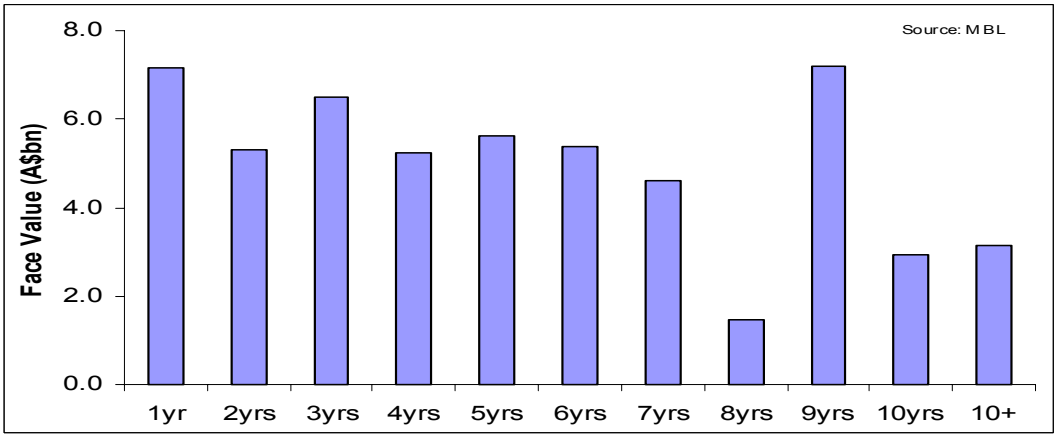
For a Semi-Government bond futures contract to be credible, the Semi-Government sector would need to continue to issue domestically and provide a firm commitment to maintaining a liquid curve out to at least ten years in adequate volume. The sector would also need to issue "seamlessly", which would require coordination of issues to maintain a liquid basket of maturities.

Table 3
Semi-Government Bonds Issuance by State, by maturity (as at Nov 2002).

AUD$M	NSWTC	QTC	TCV	WATC	SAFA	TASCORP	Total
0-1 year	-	3,585	752	1,454	807	552	7,149
1-2 years	3,597	-	1,048	-	-	676	5,321
2-3 years	-	3,988	-	1,112	729	655	6,484
3-4 years	3,747	-	1,481	-	-	-	5,228
4-5 years	-	3,453	-	1,097	887	200	5,637
5-6 years	3,895	-	1,469	-	-	-	5,364
6-7 years	-	3,166	-	949	500	-	4,615
7-8 years	-	-	1,459	-	-	-	1,459
8-9 years	3,376	2,916	-	905	-	-	7,196
9-10 years	1,871	-	1,046	-	-	-	2,917
10+ years	-	2,602	-	526	-	-	3,128

Unless the size of each maturity basket is sufficient to preclude close out manipulation, participants would be most unlikely to support such contracts. Of particular relevance is the current volume of Semi-Government paper in longer maturities. Even if other credibility issues were overcome, volumes issued in longer maturities by this sector would preclude a 10-year futures contract.

Figure 13
Collective Semi-Government debt on issue by maturity
(includes: NSW, Victoria, South Australia, Queensland, Tasmania, Western Australia)



The success of a listed derivative product is dependant on the liquidity of the underlying asset. There is close to A$15bn in securities underlying each of the CGS three-year and ten-year SFE bond futures contracts.

Futures contracts on semis are vulnerable to changes in the credit risk assessments made by the market on each of the issuers. Figures 14-16 present data from a period in the market's history where a rather dramatic divergence occurred in perceptions of relative credit quality between various State entities. A futures contract based on the collective issuance of States at those times would have been materially weakened as a credible instrument. Indeed, previous attempts to develop a futures contract based on this sector's collective issuance have failed, demonstrating the fundamental weakness in building a futures contract around multiple entities.

Figure 14
TCV 1998 Bond as a spread to NSWTC 1999 Bond

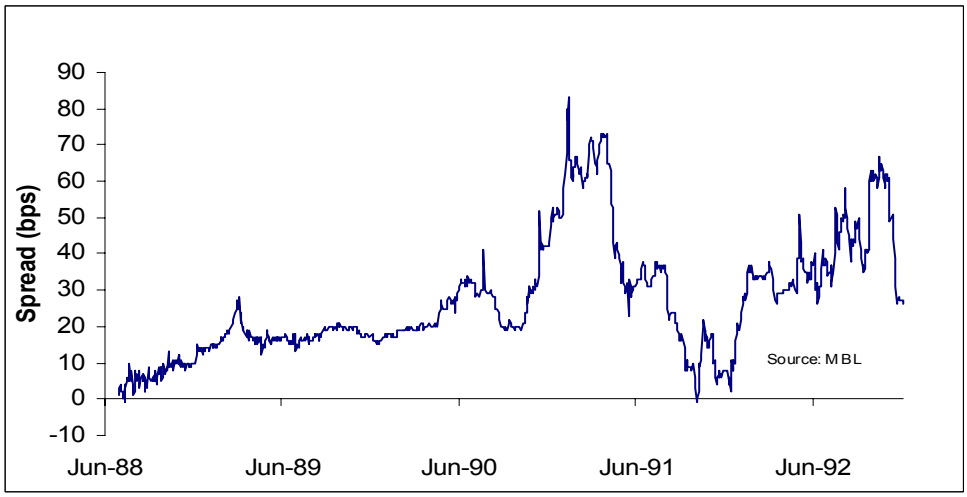


Figure 15
SAFA 1998 Bond as a spread to QTC 1999 Bond

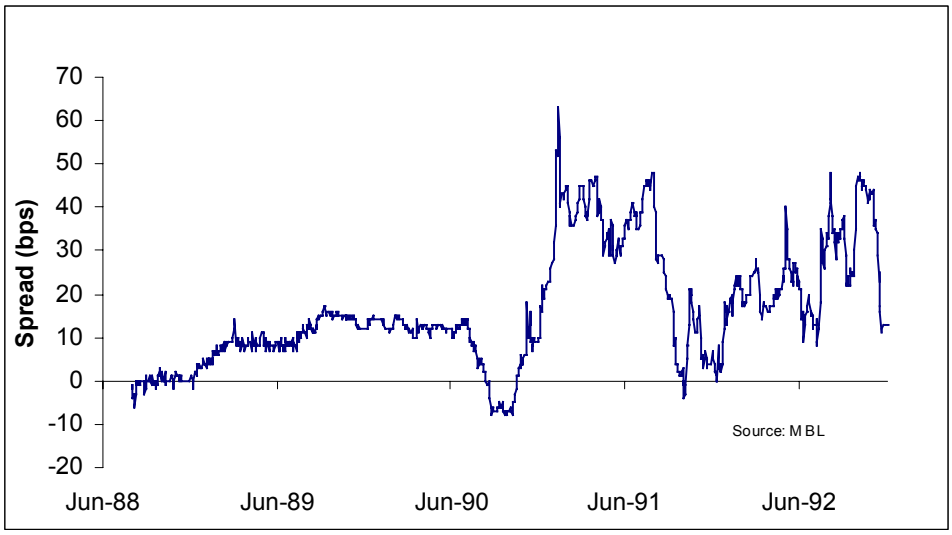
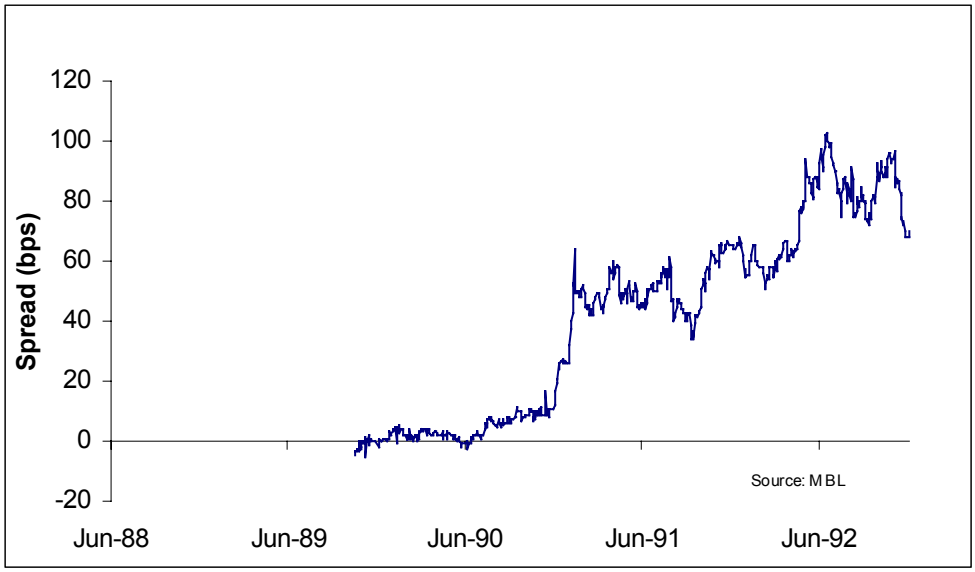


Figure 16
SAFA 2000 Bond as a spread to QTC 1999 Bond



Interest rate swap futures

The perceived liquidity in the swap market may lead to the suggestion that a futures contract based on swaps could be an alternative source for management and pricing of outright interest rate risk. Amongst a number of problems associated with such a contract, most of the concerns surrounding a swap based futures contract's credibility relate to features of the underlying swap instrument. Much of the earlier discussion relating to the underlying swap instrument is also relevant to answering this question. Nevertheless, there are other specific issues surrounding a swap futures contract that should be mentioned here.

The swap market's particular specialisation is the identification, pricing and management of the margin between the swap rate and the CGS curve. Swap bookrunners trade the outright interest rate risk they receive in the CGS market, as it is the most efficient market in which to trade that component of the swap rate. As a result, most volume traded in the swap market between intermediaries, arbitragers and other professional participants is transacted on the spread to CGS or via an

exchange for physical ("EFP") based on the CGS futures contracts. Such trades are duration (or outright interest rate exposure) neutral and are conducted almost exclusively on this basis as it is the most efficient, low cost way to manage and price the particular and specialised exposure.

The swap market is not capable of clearing and pricing outright risk, as it "outsources" that part of the total pricing and risk management process to the CGS market. If the underlying liquidity in outright interest rate risk is removed or decreased, then this will reduce the ability to manage the total risk of a swap, with a commensurate reduction in swap turnover.

Investors that are looking to open a short position or hedge a long asset position generate much of the activity in the futures market. Swaps being a cash flow, not an asset class, remove the necessity to use futures to accomplish this. Other things being equal, this would reduce liquidity in a swap futures contract. Also, as with most credit based instruments, swaps would be less useful as a benchmark for the management and price discovery process pertaining to outright interest rate risk in times of financial system stress, as in those times, the credit standing of the underlying instrument itself becomes a factor. The bundling together of outright risk and swap risk makes the process of managing both risks harder. Breaking down risk into components is the most efficient way to manage risks and anything that makes that process difficult makes the price discovery and transaction process more costly.

Of specific relevance to the swap futures contract is the close-out process defined in contract specifications. Settlement of a swap futures contract would potentially have less integrity than that required of a credible futures contract. Again, this is primarily due to credit issues and because the market for the underlying instrument is highly concentrated. The AFMA *2002 Australian Financial Markets Report* shows that more than 60% of the measured swap turnover in this market is transacted by the 4 largest respondents to the survey. This is a fundamental reason that a swap futures contract will not be well regarded by potential participants.

The duration of swaps transacted in the Australian market is substantially shorter than that of the CGS market. This further weakens the likelihood that a workable 10 year futures swap based contract can be developed.

Only risk-free markets can pass the "large numbers of buyers and sellers, with equal access to information" test critically required of benchmarks. The swaps market cannot pass that test, because it is concentrated, information is less freely available and access to it is limited to those with the necessary counterparty credit limits and the infrastructure to participate. Therefore, transactions occur less freely, which is a less than desirable feature of markets that are expected to provide pricing discovery and management ability for outright interest rate risk.

Corporate or non-government bond futures

This alternative to a CGS based futures contract is the one most unlikely to measure up. The reasons have been discussed in the preceding sections on the viability of futures based on semi-Government sector or on swaps.

In summary, the issues which would preclude a futures contract based on non-government securities are:

- A lack of adequate liquidity and volumes on issue, particularly in longer maturities;
- Multiple issuers giving rise to a discontinuous yield curve; and
- Credit issues.

The value of the underlying assets in such a basket would be difficult to ascertain given its illiquidity. Further, the components of its price would be hard to fathom, inasmuch as outright interest rate information would be inextricably intermingled with all other aspects of the basket of bonds and various credits.

It is generally agreed that, in times of uncertainty and high price volatility, the credit quality of private sector entities is likely to deteriorate somewhat more than will that of sovereign risks and accordingly the liquidity of corporate bonds would reduce. This is not a desirable feature of benchmarks.

- ***Whether the interest rate swap market is sufficiently liquid at maturities longer than 5 years to facilitate interest rate risk management;***

Reduced access to the CGS market's underlying pool of liquidity in managing outright interest rate risk would increase transaction costs in the outright swaps market (because spreads would widen). The outright interest rate risk would still require management and, if the CGS market did not exist, the risk management function would be carried out at greater cost. These costs would be priced into the swap.

Credit issues associated with swaps would add to the cost of hedging. Credit is a scarce resource and it becomes increasingly so as maturities lengthen. Collateral agreements and other credit enhancements partially mitigate this impact but credit still remains scarce and assignment of it involves costs that make swaps inappropriate as a tool to efficiently enable price discovery and management of outright interest rate risk.

Credit issues also impede access to those counterparties that are less creditworthy. The CGS market is largely indifferent among users. It facilitates trades for the highest numbers of users seeking to manage outright interest rate risk.

Swap transaction costs certainly vary between organisations. However, their fundamentally more cumbersome deal processing and counterparty exposure administration ranks them among the more costly transactions to settle. This is yet another characteristic of swaps that makes them an inappropriate tool for outright interest rate risk management. By comparison, securities trading is a far more simple process.

- ***Whether the viability of the interest rate swap market would be affected significantly by winding down the CGS market.***

The swap market would continue to exist even in the absence of the CGS market. However, its efficiency would be seriously undermined.

The capacity of a market to intermediate and provide "tight" pricing to end-users is dependent on a number of key factors, such as credit availability, balance sheet usage, transaction and processing costs, etc. However, a number relate directly to the market risk associated with a transaction. In descending order of importance, they are the ability of the intermediary to:

- unwind the risk;
- efficiently unwind the risk in a relatively short time frame; and
- translate the risk into a less volatile exposure.

Combining these, the key determinant of pricing tightness is the all-in cost of unwinding risk. In Australia, the swap market for maturities to around 12 years has the capacity to effect all three. Typically, when an intermediary transacts a swap with

an end-user, the former will look to unwind its directional risk. First this is done by buying or selling bond futures contracts. This neutralises the outright risk, which is the most volatile swap risk.

Once this is done, the bond-swap risk must be managed. If the swap is of a maturity which differs from that of the CGS or bond futures contract, yield curve risk comes into play in managing the bond-swap risk. This risk or portfolio management process allows the market to choose the most efficient method for unwinding risk. It also provides a suitable time frame over which to find offsetting risk.

If the intermediary was forced to unwind the risk immediately, or if there was no capacity to translate the risk, the cost to the end user would be substantially higher. CGS and futures provide the primary tools for translating volatile, directional risk. They are used not only by direct swap market participants but also by securities traders and those managing long dated FX exposures. If futures were to be lost as a result of the demise of the CGS market, the main liquidity pool for directional risk management would also be lost.

Alternatives would be found but efficiency would be badly damaged. Given that swaps are widely considered the basic interest rate risk management tool for corporate Australia, efficiency in this market is paramount.

- ***If alternate risk management tools were not available, what would be the likely impact of this on the cost of capital for corporate bond issuers?***

The local non-CGS fixed income market is quite large compared to the CGS market but the portion that is issued by domestic corporations is low. Much of it is issued by supranationals, banking and financial institution based entities.

As relevant to Australian-based entities, be they from the government sector, corporations or financial institutions, is the volume of debt issued overseas which is swapped back to A$. The landed cost of such debt will also be affected by the loss of the CGS market to the extent the liabilities are transferred into a fixed A$ interest exposure.

The cost of capital will increase for all borrowers due to the lack of liquidity and the commensurate increase in transaction costs, because risk transfer becomes more expensive. Investors will require more yield and intermediaries will require wider buy/sell margins to transact in markets that are illiquid. This means that end-users pay the price.

Competitive influences are reduced because the less a market is trading and the less transparent it is, the less frequent are the "check points". This is a feature of markets that are less open, have less participants, and where any one transaction occurs in conditions that less emulate those associated with the "perfect market" analogy. The CGS market, due to its accessibility to all, empowers all.

The specific increase in the cost of capital post any CGS market extinguishment is virtually impossible to calculate. At any given general level of economic activity and conditions, locally and globally, the level of A$ rates and the margins charged will be higher post any extinguishment of the CGS market to a point where it cannot provide the benefits to the market outlined in this submission. Efficiency is consistent with the lowest possible interest rate environment for any given set of circumstances.

Post any CGS extinguishment, the impact on the cost of capital results from the broad array of risk transfer inefficiencies caused by the decrease in transparency, liquidity and contestability of markets.

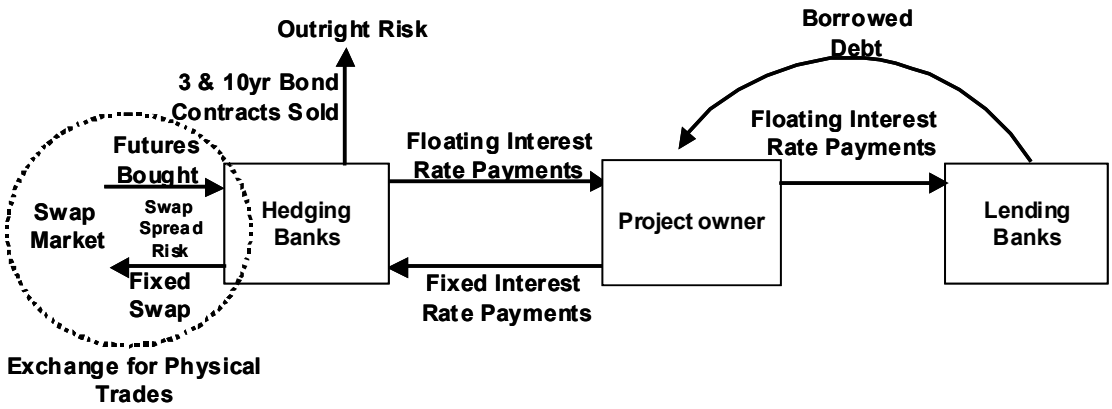
The following case study of a large swap transaction and how it may be hedged in both the CGS and non-CGS environment illustrates this. Those issuing or investing in bonds would face similar impacts. The discussion on this broad issue in the "long term investment vehicles" section of this submission is also relevant here.

Case Study – "Swap risk management in a post CGS world"

Consider the situation where an interest rate swap is associated with a large project. Assume that the trade is on a face value of A$2.0bn and that a normal market parcel in the professional market is A$25m to A$50m. Also assume that the duration of the deal is 10 years. This structure therefore has an interest rate sensitivity of A$1,512,086 per basis point.

Figure 17 shows the transaction that would fix the interest rate of the debt associated with the project in circumstances where the CGS market was open for business and acted as a place to discover price information and transact in outright interest rate risk.

Figure 17



This process compartmentalises risks and allows them to be traded efficiently in the most suitable market segment.

How to hedge in a market with no CGS

Under the scenario where the CGS market is no longer operational, the swap risk manager utilises one or both of two hedging techniques. The first is to hedge and price the risk using only Australian interest rate swaps or some other A$ interest rate security or product, for example corporate bonds. The second is to hedge some of the risk in foreign interest rate markets. Both choices involve using a hedging instrument which has liquidity much lower (in the case where the A$ market is used) or a correlation lower and/or intrinsic link less clear (in the case where foreign markets are used) than that available in an A$ risk free (CGS) market, in which to price and manage outright interest rate risk.

Hedging with a local A$ instrument has a risk profile primarily influenced by the time it would take to reduce to zero the risk position carried. The longer it takes, the greater is the likelihood that there is a change in the conditions which existed in the market when the price was made. This is due to the size of the deal relative to normal trading volumes that would exist in the A$ swap market and other A$ interest rate markets. Due to the time it would take to execute market parcel sized swaps and/or other deals in the market, the hedging banks would be at risk to market movements if the general level of interest rates was to rise while that process was

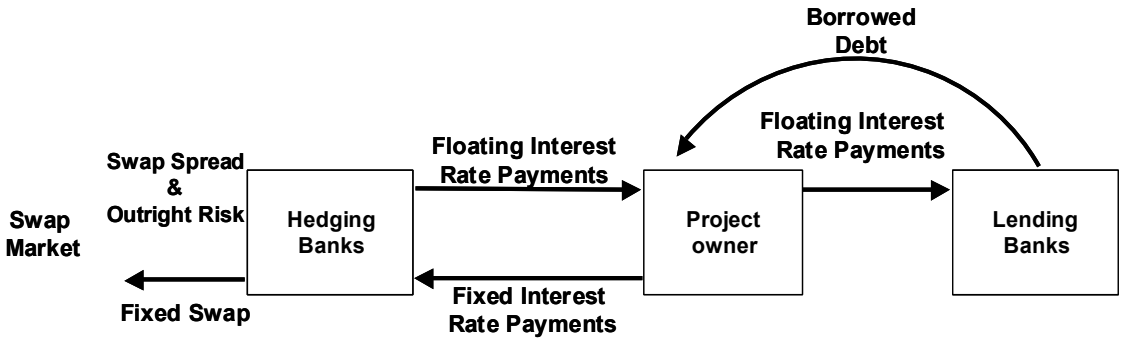
occurring. In particular, if a deal exposure remained at the end of the day, which would be not uncommon in such circumstances, it may leave the hedging bank open to the risk that A$ interest rates moved overnight in sympathy with foreign interest rate markets. If foreign markets are used, a spread risk to the Australian and foreign markets is taken until the position is reversed. Ultimately, the A$ exposure has to be neutralized in the A$ market, so that A$-US$ market risk spread position would need to be unwound. The risk to this spread makes the hedge contributes to the price of the swap rate quoted in A$.

The positive aspect of using the A$ swap market is that it clears both outright interest rate and swap spread risk. If a swap hedge is not possible and non-swap A$ interest rate products are used as a source of managing outright interest rate risk, the risk management outcome is not as clear. A side effect of dealing in a non-swap instrument (such as a corporate bond) to clear the outright interest rate component of risk in the swap, is that the swap bookrunner, by selling a corporate bond, has sold credit risk as well. There is no need to sell credit to hedge the swap book and that credit position must be unwind at a later date. It carries the credit risk until then, when the corporate bond risk will need to be replaced with a swap position so that the book is "square" all risks. It is a roundabout way of getting there. (This activity is expensive compared to dealing the outright risk in the CGS market and the bond-swap margin risk in the swap book which is how this activity takes place in the market with CGS providing a market to clear and price outright risk.)

The more cumbersome, inefficient and slower processes that swap bookrunners are forced to use in a world without CGS become part of the cost of transacting that swap and this flows through the swap rate quoted to the project. This increases the funding costs of the project and by implication, the cost of obtaining a return on equity.

The diagram below shows the structure if the hedging banks "ran" their risk until they could completely cover it in the swap market and hedged both the outright interest rate risk and swap spread risk using A$ interest rate swaps. There is no CGS market in this diagram, signaling a situation where it no longer exists. The factor not able to be observed, but strongly evident in this flow diagram, is the time it takes to close the original swap position to make the book "square". That time, and the degree of risk it adds, makes the swap price expensive to the end-user market.

Figure 18



Defensive pricing reactions generally

Even in a market with CGS, "defensive" pricing is sometimes necessary. Pricing a trade in that circumstance may necessitate a wider price if trading conditions are poor, or if the trade is done after the market closes or when the local market suffers some "event shock" and the market retreats and is unable to provide adequate liquidity. At such times, prices widen and it is not uncommon for transactions to be delayed. Widening market spreads in times of stress is a defensive reaction designed to price risk adequately in the prevailing the conditions and is a rational response.

Without a CGS market, such defensive actions would be a regular feature of markets, rather than an exception or irregular feature.

Cost of defensive pricing to the end user

In an environment where a CGS market exists, a defensive reaction may be caused by an event shock, by a position being large relative to available liquidity or when risk generally is higher than normal. A transaction in the order of A$2bn could be priced at up to 10 basis points (bps) from where a normal sized market parcel would be priced.

Without a CGS market, a further layer of risk is introduced and the increase in price from that effect could add another 15-20bps. The uncertainty in market information and the uncertainty in the hedging instrument and process make that level of interest rate margin necessary. In this case study, the cost to the end user is A$1,512,086 (the value of 1 basis point on A$2bn for 10 years) multiplied by 15 bps = A$22,681,290. This equates to just over 1% of the face value of the exposure being hedged. This increases the cost of debt capital and reduces the return on equity.

The foreign market alternative

If the CGS market has been extinguished, the second choice for hedging is using foreign interest rate markets. The issue is the same – for how long and what types of risk does the book have to carry to price and manage A$ swap risk in foreign interest rate markets? How closely, for instance, would movements in US Treasury bonds (or UK Gilts, Euro instruments) match those in Australian interest rates? Will they be a good hedge on the day? How much will it cost to unwind the hedge?

Some numbers: Hedging logic in a CGS based A$ financial market

A statistical analysis over 5 years of the volatility within a 24 hour period concludes that the yield on a 10 year futures contract moves 7.18 bps within one standard deviation, which means that approximately 65% of the time the movement within a day will be 7.18bps or less (or within 14bps, 95% of the time, which is 2 standard deviations).The margin that swap hedging banks quote for this large deal has to cover the volatility implied by these sort of statistics, and we are assuming that the judgement call and expected outcomes are consistent with quoting to cover the 7.18bps level of volatility. It is not a science, it is just a relative measure of volatility, and hence an indicator of risk level in the deal.

The bookrunner also has to price to cover the risk inherent in the bond-swap margin, which has a volatility implied by one standard deviation in the order of 1.42bps. As the CGS futures are liquid and able to be traded for 23 hours every day, the risk of a movement in outright interest rate levels (the 7.18bps per 24 hours level of risk) can be reduced relatively quickly.The remaining risk, the less volatile bond swap basis risk at 1.42 bps, can be cleared over a number of days.

The different types of market conditions applying to the different components of risk in the swap are amply demonstrated by these numbers and are why risk is best broken down into its component parts.

Any such cost increase in financing will be borne by any entity raising funds via domestic financial markets and passed on to their customers. These entities include providers of finance for home loans and personal loans, and private providers of infrastructure e.g. toll roads, schools and hospitals.

4.4 Providing a long-term investment vehicle

- ***The significance of CGS as a long-term investment vehicle, particularly for institutional investors such as superannuation funds and life offices;***

Government bonds are a critical component in the menu of available investment opportunities for all investors, not only superannuation funds and life offices, but also other managed investment vehicles and schemes. Investment institutions offer customers a range of products, covering the full spectrum of risk/return characteristics to meet a variety of investor needs. For the majority of those products, an allocation to the default risk-free CGS market is an important ingredient. In conjunction with various combinations of other assets, the allocation to CGS (and assets priced off CGS) creates an appropriate risk-return outcome for different investors.

Simply looking at aggregate holdings of CGS within the superannuation funds of life insurance industries is misleading. Their significance to such portfolios is greater than for other types of portfolios.

The superannuation system includes investors at different stages of life and therefore with different risk profiles. Younger investors are more tolerant of the vagaries of any particular episode in the markets and, as a result, will have a higher weighting towards equities. Indeed, their greatest risk in a portfolio construction would be that they are not exposed to equities or growth assets. More conservative investors, such as retirees, demonstrate a need to invest in asset classes that inherently have less risk in them. The most significant of these are CGS. The needs of such investors should not be overlooked, particularly given the demographic trends in this country.

An example of the role CGS play in providing for those in need of asset classes with less risk is the Government's reluctance to approve "growth pensions". This would appear to be based on a view that pension recipients should not be exposed to asset classes with a high risk classification.

Statistics on aggregate CGS holdings do not recognise the role that CGS and the associated bond futures contracts play in duration management. CGS are almost exclusively used as the avenue through which interest rate duration of portfolios is changed. In this regard, the funds management industry is no different to other agents in the economy. Indeed, it is part of the pool of participants that add to its liquidity because it has those very characteristics.

There are broader issues relevant to efficient portfolio management and the need for CGS. The following analysis demonstrates this:

Optimal portfolio allocation in a world without CGS

This section analyses how investors' optimal portfolio allocations would be affected by the elimination of CGS.

It is based on work done by the Federal Reserve a couple of years ago, when the US Government was considering paying down the stock of Treasury securities outstanding. [12]

The analysis concentrates on a broad range of domestic investments, partly because of data constraints but also to make the analysis tractable.

[12] Bomfin, A. (2001), 'Optimal Portfolio Allocation in a World Without Treasury Securities', Federal Reserve Finance and Economic Discussion Papers, No. 2001-11 http://www.federalreserve.gov/pubs/feds/2001/200111/200111pap.pdf

The assets chosen were:

- Bank bills;
- CGS;
- Semi-Government bonds;
- Corporate bonds (with a minimum credit rating of A-); and
- Equities.

The historical returns and standard deviation of the returns for these assets for the past twelve years are shown in the table below. As expected, bank bills have the lowest return and the lowest variability, while the bonds are grouped together, in terms of both average return and volatility. Unusually, equities do not return their typically large premium over bonds (stocks made large losses in the early 1990s recession), although, as expected, their returns are more volatile.

Table 4

Historical returns on different asset classes (1990-2002)

	Average return (%)	Std deviation
Bank bill*	7.33	3.32
Commonwealth Govt bond*	10.97	8.56
Semi-Government bond*	11.47	8.61
Corporate bond*	11.03	7.08
Equities#	11.25	16.57

** calculated from the respective UBS Warburg return indices*
 # ASX-200
Source: ABN AMRO, Bloomberg & Datastream

The correlations between the different assets are shown in the second table. The different types of bonds are extremely highly correlated, with only a low correlation with equities. Bank bills had a fairly high correlation with the different bonds and were mildly negatively correlated with equities.

Table 5

Correlations between the returns on different asset classes (1990-2002)

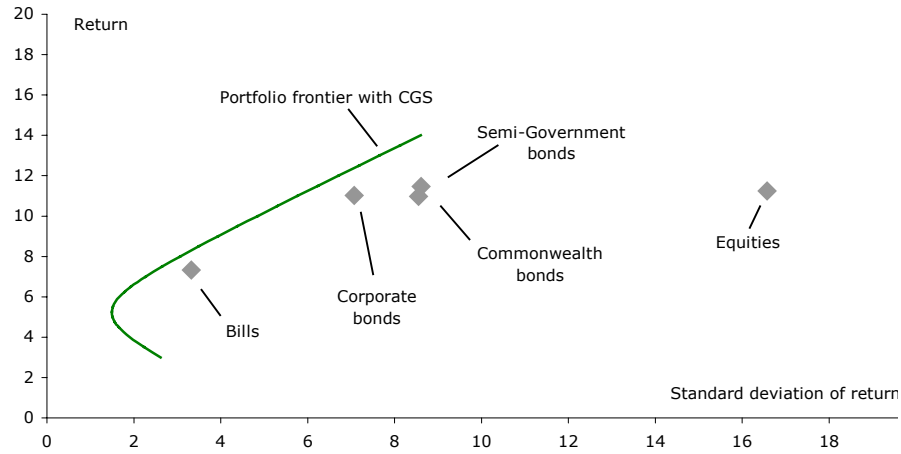
	Bank bill	Commonwealth Govt bond	Semi-Govt bond	Corporate bond	Equities
Bank bill	1.00				
CGS	0.59	1.00			
Semi-Government bond	0.64	0.97	1.00		
Corporate bond	0.74	0.95	0.96	1.00	
Equities	-0.29	0.37	0.35	0.26	1.00

Source: ABN AMRO, Bloomberg & Datastream

Using the data on returns, the optimum investment frontier for the portfolio standard deviations and correlations was constructed (see the chart below). The frontier encompasses the lowest possible standard deviation of investment returns for any given target return on the portfolio (only the top half of the curve is relevant given that the bottom part of the frontier is inefficient). The frontier lies above the individual asset returns given that there are no restrictions on short selling.

Figure 19

The ability to invest in a range of domestic assets produces a more efficient investment frontier, minimising the volatility of the portfolio for any given target return



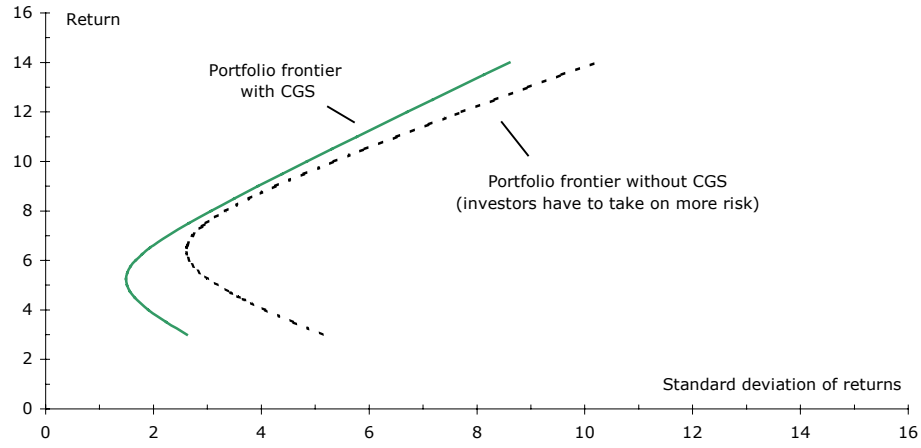
Source: ABN AMRO, Bloomberg & Datastream

Closing down the CGS market makes investors bear more risk even though other bonds are extremely highly correlated with CGS

Dropping CGS from the analysis and assuming that this did not have a material impact on the average returns and volatility of the remaining assets causes the investment frontier to shrink, even though other bonds have an extremely high correlation with CGS.

Figure 20

This shrinkage of the portfolio frontier means that extinguishing the CGS market would force investors to bear increased risk for any given target return. Put another way, for any given volatility of returns, the investor would have to accept a lower return. The portfolio frontier becomes more inefficient when CGS are excluded from the analysis



Source: ABN AMRO

Increased risk as a result of closing down the CGS market makes investors worse off

This more inefficient outcome of increased risk directly reduces the well-being of investors. To quantify this effect, indifference curves for the typical investor within the return-standard deviation space were constructed. These curves are upward sloping

– the higher they are, the more well off the investor is, because they are achieving a higher return for a given standard deviation of returns. Given a particular portfolio frontier, the optimum combination of risk and return is where the frontier runs at a tangent to the highest indifference curve.

This point is calculated by adopting the commonly-used assumption that investor welfare can be measured by a utility function where:

Level of utility = Expected return – 0.005 * Coefficient of risk aversion * the variance of the portfolio

This function implies that investors are happier when the expected return increases and are worse off when the volatility of the portfolio increases.

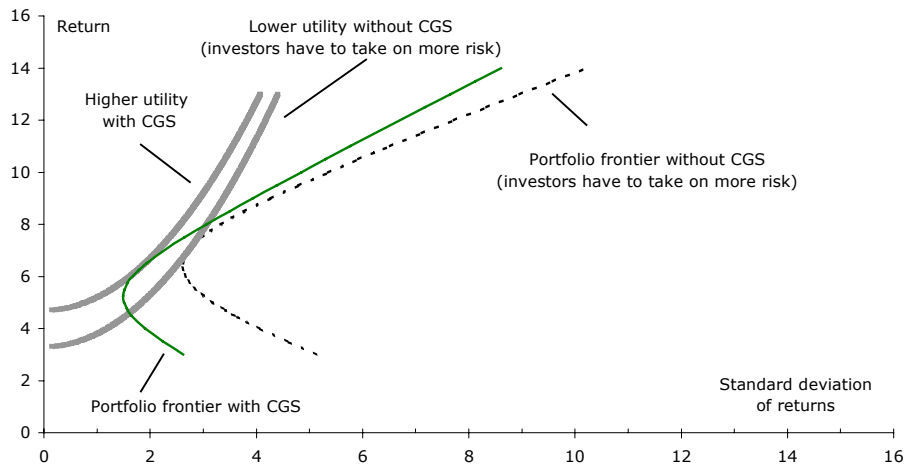
The coefficient of risk aversion measures the sensitivity of the investor to risk. For risk-neutral investors, the coefficient is zero, with a higher coefficient reflecting an increased degree of risk-aversion on the part of the investors.

A coefficient of risk aversion of 10 was assumed, which is a conservative estimate at the high end of US studies.[13] Using the utility function, the two indifference curves tangent to the portfolio frontiers were then mapped, as shown in the chart below.

The top indifference curve has a higher level of utility because it achieves a higher return for a given level of volatility. It runs tangent to the most efficient portfolio frontier, the one that includes CGS.

Figure 21

The lower indifference curve has a lower level of utility because it runs tangent to the lower portfolio frontier, the one that excludes CGS at the expense of increased portfolio volatility. Excluding CGS from the pool of investment options increases risk and makes investors worse off



Source: ABN AMRO

If the CGS market is closed down, it is estimated that investors would have to be compensated by an increase in returns of about 1.25%.

Comparing the two curves, it can be seen that investors are worse off without a CGS market even though other bonds are very closely correlated with Commonwealth securities.

[13] See Bomfin's paper for a discussion of this.

Keeping the volatility of the portfolio constant, it is estimated that investors would have to be compensated with an increase in returns of about 1.25% to make them as well off as they were before (the comparable figure with the same assumptions calculated by the Federal Reserve for investing without Treasury securities is 0.9%).

In dollar terms, this equates to a large amount. On the latest ABS figures, households hold about A$1.3 trillion in financial assets. Closing the bond market would reduce the expected return on this wealth by about A$16 billion, or about 9% of quarterly GDP or over 2% of annual GDP.

This is only a rough estimation (imposing restrictions on short selling would lower the figure, while it has been calculated using only the 12 years of available data) but it amply demonstrates that the existence of low-risk alternatives does not provide an adequate substitute for CGS. Consequently, investors would be measurably worse off if the Government winds down the bond market.

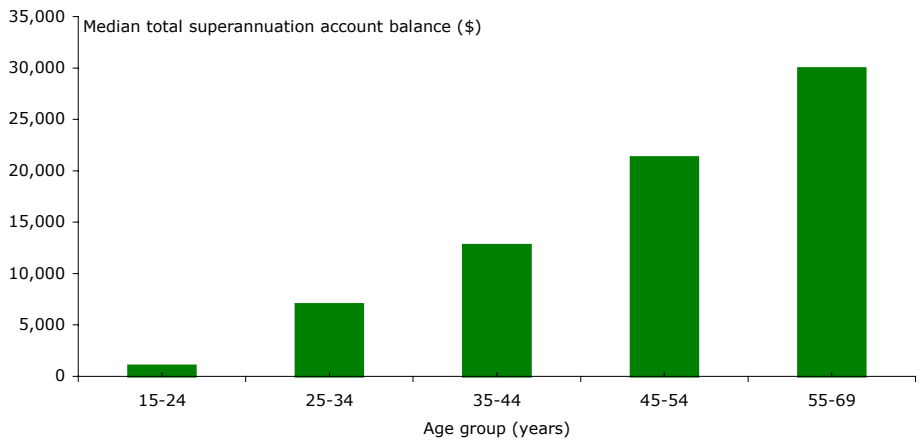
From an individual's perspective, the compounded impact on returns is significant

From an individual's perspective, the impact can be seen more clearly. With the Government's focus on increased private saving for retirement, excluding CGS as an option for investors will have a compounding impact on their well being over the life of their investment.

ABS figures show that, although superannuation coverage has increased significantly in recent years, superannuation account balances are still quite low. Taking the case of an individual in the 35-44 age group, the ABS calculates that the median account balance is currently less than A$15,000.

Figure 22

Median account balance of working-age people with superannuation

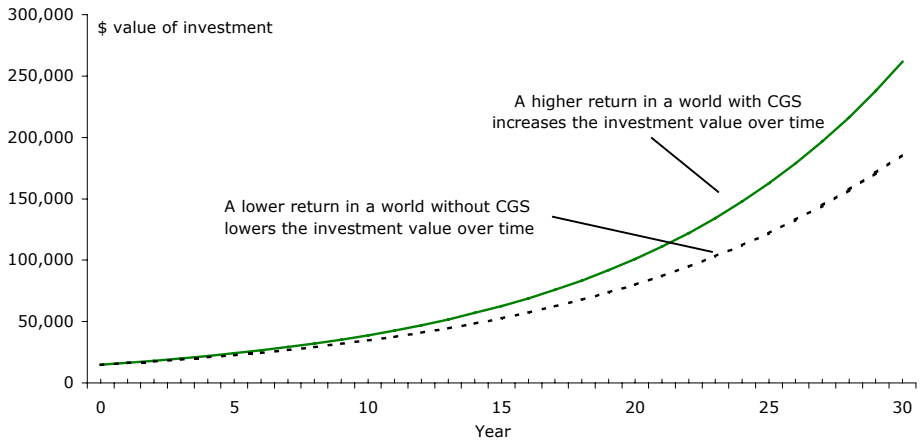


Using A$15,000 as an illustrative starting point for a 35 year-old and assuming a 30 year horizon, an arbitrary 10% return on the complete portfolio would generate about A$262,000 by the time a person retires.

Without the option of investing in CGS, the same investor would be left with a lower investment at the end of the thirty years. In this example, using the 1.25% impact calculated above, the investment would be A$76,000 lower at A$186,000.

Figure 23

Over an investment horizon of thirty years, a lower return has a significant impact on the value of the investment



Source: ABN AMRO

The Commonwealth Government's Intergenerational Report shows that the Budget will back in deficit by the time thirty years are up but this calculation demonstrates that the effect of compounding would have a significant impact on the average investor's well-being until the Government started to issue debt again.

Aspects relevant to insurance companies

General insurance companies manage a "tail" of liabilities which stretch over 10 years.

The prudent approach to investment of assets is to select a range of investments most likely to result in a cash flow which matches (or nearly matches) the expected cash flow predicted to meet claims.

The level of risk assumed in selecting a particular range of investments is assessed by the prudential regulator (APRA) which, after considering other risks, recommends the minimum capital required to ensure continuation of the appropriate licence.

APRA rates various categories of investments according to risk and through the application of an 'Investment Capital Factor', expressed as a percentage (ICF%), assess the amount of capital required to back each category of investment.

Debt obligation of the Commonwealth Government and all Australian State and Territory governments have an ICF of 0.5%. This is the lowest ICF available. An ICF of 0.5% means a company is required to have only A$5 of capital backing each A$1,000 invested in the assets described above. The next lowest ICF is 1%.

A reduction in the availability of CGS, in the absence of any amendment of ICFs by APRA, will compel general insurers to raise premiums for the following reasons:

- CGS are extensively used by general insurers to satisfy the need for long-term investments with a low risk profile.
- Although State and Territory issuances are rated by APRA as equivalent in risk to CGS, there is unlikely to be sufficient issuance to meet the additional appetite.
- Being forced to move up the (APRA) risk spectrum will require insurers to hold:
  - double the capital of that that required when holding CGS, for highly rated corporate issuance with a maturity of less than 1 year,

- four times the capital relative to holding CGS for highly rated corporate issuance with maturity greater than 1 year.
- An adequate return must be generated on this extra capital commitment.
- The expected increase in investment returns available from the higher risk investment will be minimal relative to the return from CGS. This is especially relevant in the current market.
- The only way to obtain the additional return required will be to increase product prices.
- Ultimately consumers will inevitably pay higher premiums.

The CGS market is a critical avenue for investment by general insurers. There is no logic in APRA amending its ICA percentages as they are based on perceived relevant riskiness of each category of asset.

Allocation of extra capital to general insurance businesses resulting from the removal of an investable asset category is clearly inefficient.

- ***Whether there is currently an unmet demand for CGS within the superannuation sector;***

The allocation to CGS by superannuation funds is currently quite low but this is partly due to the declining liquidity in the CGS market and to structural changes occurring in the funds management industry. That some funds managers are awarded mandates, whereby they are benchmarked to indices whose weighting in CGS is based on their volume on issue, leads to a decrease in the portion of fixed income funds invested in CGS, all other things equal. In these circumstances, at some point, if CGS keep declining in volume on issue, the situation will arise where too large a portion of fixed income assets are held in illiquid and non-risk free assets to remain consistent with correct portfolio construction for superannuation and other low risk portfolios.

This will tend to encourage funds managers into risk-free assets that have the requisite liquidity, as is already a feature of the industry. It is most likely that foreign credit-risk free assets, such as US Treasury Bonds or UK Gilts, would be the assets they would buy. The fixed income funds management environment is already being altered by the prospect of fewer CGS and much of the total funds allocated to fixed income may increasingly be allocated offshore. A juxtaposition of demographic trends and portfolio diversification principles leads to the conclusion that there will be an increasing demand for risk free assets, of which most would in the normal circumstances be CGS. It is appropriate for Australian investor pools to have access to a local risk free asset for portfolio management needs.

The current allocation to CGS should not be taken as an indication of the underlying level of demand for them. ABS data on superannuation and life company funds (*Cat No 5655.0, Managed Funds Australia*) shows that the current allocation is below the long run average and is only about 1/3 of the level that was held as recently as 1995. This is partly due to a cyclical and structural environment – not as an indicator of need for a risk local free asset. Such needs are based on being able to satisfy best practice portfolio diversification and management techniques. Less CGS in the marketplace will result in the risk free funds management needs being met in other markets. A knock-on effect of a CGS market extinguishment could, among other things, be less non-CGS (corporate and supranational) bonds being issued as our markets become less capable as a source of raising and trading debt.

That part of the funds management industry that requires a risk-free duration instrument may migrate to other markets. This is already evident, as increasing amounts are already being allocated to them. Fund trustees and asset consultants accelerate this trend when they allocate money to passive domestic management, offshore markets and, increasingly, to offshore managers. This means a smaller

percentage of funds are available for active duration management in Australian markets.

The trends in this regard are sub-optimal for the economy.

If CGS were to be increased as a proportion of the major domestic bond indices, the allocation to CGS in institutional funds would be higher than it currently is. This truism means that supply of CGS will create its own demand and that "crowding out" is not an issue germane to the current debate. The structure of the CGS market would be more robust as a result, the funds management industry would be able to efficiently trade the risk free assets most appropriate for the investor base and the cost of local capital would be as low as possible.

Ultimately, an investor base in the local currency helps in the capital formation task and appropriately balances the economy's overall risks. All other things equal, the more investors an economy has for its capital instruments, the lower the cost of capital. Such "home market advantage" should be exploited to a level consistent with sound risk management principles.

- ***the potential to develop alternative long-term investment instruments;***

The risk free and liquid nature of CGS is a key determinant in structuring a risk adjusted investment portfolio, whether within the fixed interest asset class or across a more balanced investment portfolio.

Although alternative long-term investment instruments will, by definition, evolve, no issuer can provide bonds to the market that have the liquidity and risk-free characteristics of CGS. By implication, no other bonds will be able to contribute as well to the funds management task as it applies to fixed income management.

The simplest and most attractive alternative would be for other issuers to take over the role of providing a liquid, low-risk yield curve. The larger semi-government issuers are a possibility, as are the AAA-rated supra-nationals such as World Bank (IBRD). That the RBA already accepts bonds issued by such names in its open market operations is a supporting factor. Such alternatives have a similar risk profile to CGS but are not substitutes for them in their role in the financial landscape.

In summary, it is the liquidity of those alternatives that most directly rules them out for the role currently taken by CGS, notwithstanding the unique credit credentials that the Commonwealth Government has in its own jurisdiction.

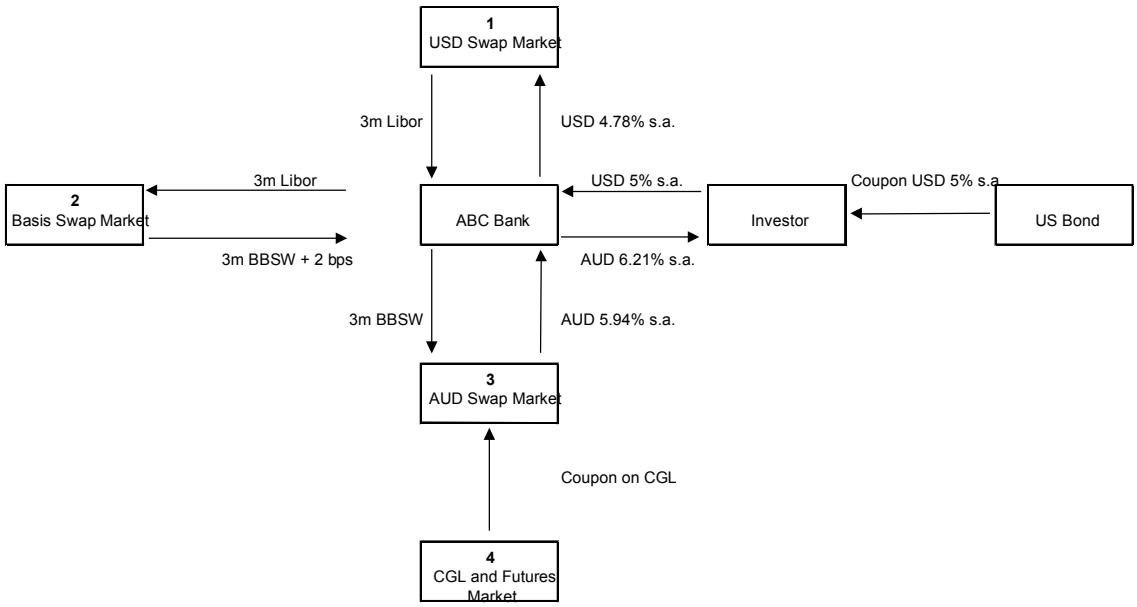
Other alternatives, like asset swapping foreign risk free assets, involve some degree of intermediation. The introduction of another party increases the probability of default. Some form of collateral could be provided to mitigate counterparty losses, but this costly and administratively cumbersome, and liquidity in such products is low. They may enhance a transaction but they are not appropriate in consideration of how an economy wide alternative to CGS may be developed. The part of the investor market that required risk free, capital guaranteed assets would find this unacceptable. Risk-free, by definition, is risk-free. Complicated structures involving private sector counterparties are not a consistent with the efficient provision of risk free assets nor are they a desirable imposition on a nation's investor pool.

Case Study – "Buying US Treasury Bonds & swapping into A$"

An example of buying a US Treasury bond and swapping it into A$ is shown below. This simulates a risk free (foreign risk free) asset swapped back to A$ fixed rate exposure via an intermediary. It demonstrates a significant increase in transaction costs. The deal administration specific costs are not included in this example.

Whilst this type of structure can be effected at this level of pricing for market parcels of A$20 to A$30m, such pricing is not attainable in any greater volume. Portfolio or economy wide amounts of synthetically generated A$ fixed rate exposure (with cross currency exposure to a counterparty) may not be possible. It should be noted that a cross currency swap with a 10 year maturity may be equivalent in credit risk terms to between 65% and 85% of the face value of the swap. In other words, a A$10m 10 year cross currency swap uses between A$6.5m and A$8.5m of credit; a direct loan of the same amount and term uses A$10m. Cross currency swaps are credit and capital intensive instruments.

Figure 24



Source: Deutsche Bank AG

Transactional Notes:

To hedge the transaction for the investor wanting to asset swap the US bond into an A$ fixed rate exposure, ABC Bank will transact:

- *A straight interest rate swap with the USD swap market (Box 1)*
- *A cross currency swap with the Basis (bills/libor) swap market (Box 2)*
- *A straight interest rate swap with the A$ swap market (Box 3)*

The net outright interest rate risk for the A$ swap market must be cleared by the swap bookrunner.

Box 4. A$ swap market can clear its net risk by buying CGS or associated futures if the market exists. Without it, the hedging process is elsewhere.

Table 6

Market		Buy/sell spread crossed (one way only) With CGS Market	Without CGS Market
USD Bonds		*0.5*	*0.5*
USD Swaps	(Box 1)	*0.5*	*0.5*
Basis Swaps	(Box 2)	*1.5*	*1.5*
AUD Swaps	(Box 3)	*1.0*	*3.0 **
TOTAL		*3.5*	*5.5*

** Note: This reflects the reflects an assumed spread in the less efficient swap market which would prevail in the absence of CGS.*

4.5 Implementing monetary policy

- ***The Government would appreciate views from stakeholders on the declining importance of CGS in the operation of monetary policy.***

A pay-down of Commonwealth Government debt would make it more difficult for the RBA to conduct its e monetary policy operations force it to change its operational methods.

The current use of repos by the Bank, its significant presence in that market and by implication, in the management of the day to day liquidity of the financial system, makes any move away from that practice a potential risk to the system. The Bank has already expressed concern about the diminishing supply of CGS and has altered its approach to implementing monetary policy but in practice it still deals extensively in CGS.

This strong preference indicates that the Bank believes that CGS are the best instrument for conducting monetary policy and that alternative approaches involve dealing in second-best substitutes. Implicitly then, moving to these substitutes is a less desirable path for the Bank and would involve increased costs as the Bank has to deal in a broader range of securities and other instruments (eg, credit risk would be a factor in repos on private sector paper or in dealing FX swaps).

At present, the RBA conducts its monetary policy using three types of market transactions:

- buying and selling shorter-dated CGS;
- accepting CGS, Semi-Government bonds and selected highly-rated supranational bonds in repurchase agreements: and
- undertaking foreign exchange swaps, which in practice ultimately involves investing in US Treasury bonds.

The second is the most common type of transaction, accounting for about 80% of total transactions.[14] Repurchase agreements were originally only for CGS but their coverage was extended in 1997 to include Semi-Government bonds.[15] In 2000 and 2001, the coverage was extended further to include selected AAA-rated

[14] See Jane Little's article on "Australia's approach to monetary policy" in the Second Quarter 2002 edition of the New England Economic Review for more detail.

[15] See the Reserve Bank press release No. 97-11 "Changes to the Reserve Bank's dealing arrangements and the prime assets requirement" for more detail.

supranational bonds and A$-denominated Semi-Government bonds issued in euro markets (also known as Euro-entitlements).[16]

The easing of collateral requirements for repurchase requirements by the Bank has been driven by concerns over the diminishing supply of CGS. Despite this concern, however, figures show that the bulk of repurchase agreements still use CGS as collateral.[17] There has been an increased reliance on Semi-Government bonds, although the usage of supranational bonds and Euro-entitlements has been minimal.

Table 7

Domestic securities outstanding (as at June 2001 - A$bn)		
	RBA holdings (outright or under repo)	**Total outstandings**
Commonwealth Government securities	11.8	65.4
Semi-Government bonds	5.9	52.8
Supranational bonds	0.4	3.5
Euroentitlements	0.4	15.0

Source: BIS Paper No. 12, August 2002

The fact that the Bank already has the option to become less reliant on CGS but has been slow to do so suggests that the Bank still has a strong preference to deal in CGS and that alternative securities act as a second-best substitute for CGS.

In the event of a further pay-down of Commonwealth Government debt, the Reserve Bank will have to increase its reliance on Semi-Government bonds and supranationals and might eventually have to accept high-rated sovereign or corporate debt in its repo transactions. This would be in addition to undertaking more foreign currency swaps (which effectively involves dealing in US Treasury bonds). The supply of semi-Government bonds has been relatively static for several years now, so this means that the Bank will have to deal more in supranationals, sovereign and corporate debt in its repo transactions.

This shift will involve some increased costs for the Bank as its staff will have to focus more on credit ratings and deal in and monitor a broader range of securities.

If the Bank eventually reaches the point where it needs to deal in corporate paper, there will be increased credit risk, as well as the need for guidelines over what sectors the Bank can invest in (in order to avoid concern that the Bank was concentrating on one industry sector or company over another).

In the case of foreign currency swaps, increased usage would come at a cost of reduced flexibility in liquidity management.[18] This reduced flexibility in liquidity management reflects the usual delivery lag in the settlement of foreign exchange transactions. To the extent that the RBA undertakes swap transactions with other central banks, there is an additional timing lag if the counterparty is in a different time zone. These lags reduce the usefulness of foreign currency swaps in "high

[16] See the Reserve Bank press releases No. 2000-17 "Changes to the Reserve Bank's dealing arrangements" and No. 2001-13 "Eligible collateral for Reserve Bank market operations"

[17] See Malcolm Edey and Luci Ellis's BIS paper No. 12 on "Implications of declining government debt for financial markets and monetary operations in Australia", published in August 2002.

[18] See Leonardo Bartolini's article on "Foreign exchange swaps" in the Second quarter 2002 edition of the New England Economic Review.

frequency" domestic liquidity management such that the swaps would still need to be complemented with other policy instruments.

This shortcoming helps explain why foreign currency swaps have become less popular with most central banks over time.

Perhaps the most detailed view from the RBA on the need to maintain a liquid and efficient CGS market came in August 1999, in a speech by the Assistant Governor (Financial Markets), Ric Battellino. He noted that

> "I want to record the point that there is also a degree of complementarity between the two (government and non-government debt) markets segments, ie. at some stage further reductions in the supply of government bonds will not necessarily lead to even greater issuance by the private sector, as the existence of a government (risk free) yield curve is an important part of the infrastructure underpinning non-government issues.
>
> The corporate market is, however, unlikely to be a satisfactory substitute for the CGS market. As noted, there is a degree of complementarity between the two markets. Efficient pricing in fixed-interest markets depends, to a large extent, on the existence of a well-defined yield curve for an asset of undoubted credit worthiness. No corporate issuer, or class of issuers, is ever likely to be able to provide a yield curve as well defined and liquid as that of the Commonwealth. Other domestic markets, such as the futures market and the repo market, also depend on a healthy market in government securities.
>
> These are the reasons why some countries have engineered a domestic government bond market, when the need for one has not existed. The authorities both in Hong Kong and Singapore, for example, have issued bonds in recent years even though the governments concerned had no need to borrow. The loss of the CGS market could have an adverse effect on the standing of Australian markets. That is why the Bank has been working closely with Treasury to examine ways to maintain an effective government bond market. While we face challenges in doing so, for the moment let me conclude by saying that I am confident that a deep, liquid and efficient fixed-interest market can be maintained in Australia."

More recently, in the June 2002 *Bulletin,* the RBA stated that "the Commonwealth government bond market remains the core debt market in Australia", with this function having been helped by the AOFM contracting amounts on issue into fewer, more liquid lines, and increased turnover and "price discovery" in the derivative markets, ie. futures and repos.

In August 2002, a paper was written for the BIS (*Implications of declining government debt for financial markets and monetary operations in Australia*), by Malcolm Edey of the RBA.. The introduction states that:

> "the paper argues that markets in Australia have so far coped smoothly with the reduced supply of government debt, although a further substantial reduction in gross debt would have implications for the viability of the government bond market and for the conduct of monetary operations."

In discussing the cyclical nature of government debt, the paper states that:

> "Unless some efforts are made to sustain a continued positive gross debt position, such a government (ie. one that needs to borrow again) would be forced to re-establish a market for government debt in every cyclical

downturn. This is likely to be difficult at the very time investor confidence is weak.

Highly liquid securities trade at a premium to less liquid alternative securities, as supply declines we would expect yields to increase relative to other markets where supply and liquidity are not falling" – ie. this would imply a widening in the Australia/US spread.

If a declining volume of bonds outstanding ultimately results in a highly illiquid bond market ... the yields paid on longer-term government bonds would become less representative of overall financial conditions and thus less relevant for pricing other forms of debt, whether in securities or retail lending markets."

In its 2001/02 Annual Report the Bank directly comments on the issue of the declining supply of CGS. It notes that:

"Structural changes in financial markets have meant that the RBA has had to adjust the arrangements under which it conducts its market operations in recent years. The introduction of real-time gross settlement (RTGS) and new arrangements for Commonwealth tax collections have boosted the demand for funds in financial markets. At the same time, the decline in the amount of CGS on issue has reduced the instruments available to the RBA, either to purchase or accept as collateral, in supplying cash to the system."

It then states that the RBA has adapted to the decline in CGS on issue "by broadening the range of collateral it is prepared to accept in its domestic repo operations." These operations form the backbone of the RBA's maintenance of the stability of the financial system on a day-to-day basis.

The process started in 1997 when the RBA included domestically issued State government bonds (semis) into the pool. This increased the pool of available bonds by around 40% (see *Figure 25*). In October 2000, the RBA added AAA rated A$ domestic debt issued by select supranational organisations. The range of acceptable supranational securities was then widened in June 2001, while at the same time A$ securities issued offshore by the States were also accepted.

As shown in *Figure 26*, these changes have meant that the total amount of securities available to the RBA to manage the financial system has been relatively flat over the past 3-4 years.

The big question is, however, what would happen if the supply of CGS was to fall significantly from current levels. With the RBA having seemingly exhausted the supply of AAA and highly rated A$ bonds issued by government and quasi-government issuers, the amount of securities available to the RBA would fall dramatically.

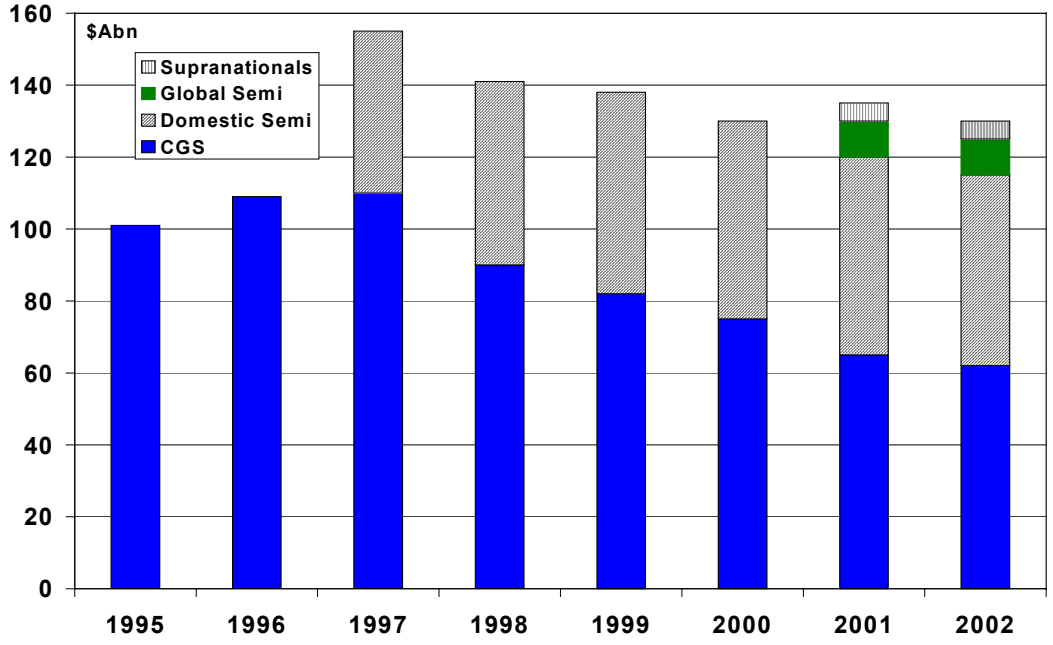
Alternatives, such as using A$ corporate debt or the debt of another currency, ie. FX swaps, would introduce a combination of credit, currency or market, that could weaken the financial system in times of stress. It is also worth noting that the FX swap market currently relies on the CGS market for its pricing ability.

As noted in the Treasury Discussion Paper and the RBA Annual report, daily operations of the RBA typically average A$1.8bn, although on some days turnover has exceeded A$4bn. Significantly, however, on the morning of 12 September 2001 (ie. immediately after the terrorist attacks in the US) the RBA boosted the amount of Exchange Settlement funds held by the banks at the end of the day to over A$5bn.

Whilst the RBA can be reasonably confident that it could successfully manage the requirements of the financial system on normal days, the absence of a CGS market would increase the risk of the RBA having difficulties in managing the system over days of extreme risk. That is, the very time that the market would want to be absolutely certain that the RBA would maintain the stability of the financial system, would be the occasion when the RBA would have the greatest difficulty in providing liquidity, without a liquid CGS market.

Australia currently has a financial system that is regarded as one of the most advanced and stable in the world. By removing a pillar of this system, the "risk-free" CGS market, the Government risks weakening Australia's financial system, and this "weakness" may only become apparent in times of financial stress.

Figure 25
Total Eligible Collateral for RBA Domestic Market Operations



Source: RBA

4.6 Providing a safe haven in times of financial volatility

CGS can play a unique safe haven role in times of financial instability and stress. Alternative low-risk securities can fulfil some of the hedging and benchmark roles of CGS in normal times but it is easy to conceive of financial shocks that disrupt the markets for these investments (examples of corporate distress are common, banks can come under pressure and State Governments can also run into problems). In turn, this would cause significant price changes, increase uncertainty and raise the cost of borrowing. Illiquidity and risk aversion in the absence of a CGS could produce a significant reduction in corporate borrowing.

CGS play a key role in periods of financial stress and instability by offering a unique risk-free asset to investors and acting as an anchor to the financial system. Other domestic substitutes do not possess the same characteristics as the CGS. That is, although other securities might currently be assessed as low-risk investments, their credit rating could abruptly change in a period of financial stress, depending on the nature of the shock.

In the case of domestic shocks, corporate distresses are not uncommon, banks have at times come under significant pressure and State Governments have also encountered problems (the early 1990s witnessed instances of all three events).

Without CGS, it is easy to envisage a situation where a domestic financial shock produces a freezing up of the market for a previously low-risk investment. If such an investment fulfilled some of the roles currently performed by CGS, illiquidity in its market would flow on to other financial markets. This could cause large price changes, increasing uncertainty and costs for corporate borrowers. At an extreme, it could cause a significant reduction in borrowing as markets more broadly freeze up.

- ***The importance of the CGS market in providing safe haven during periods of financial instability:***

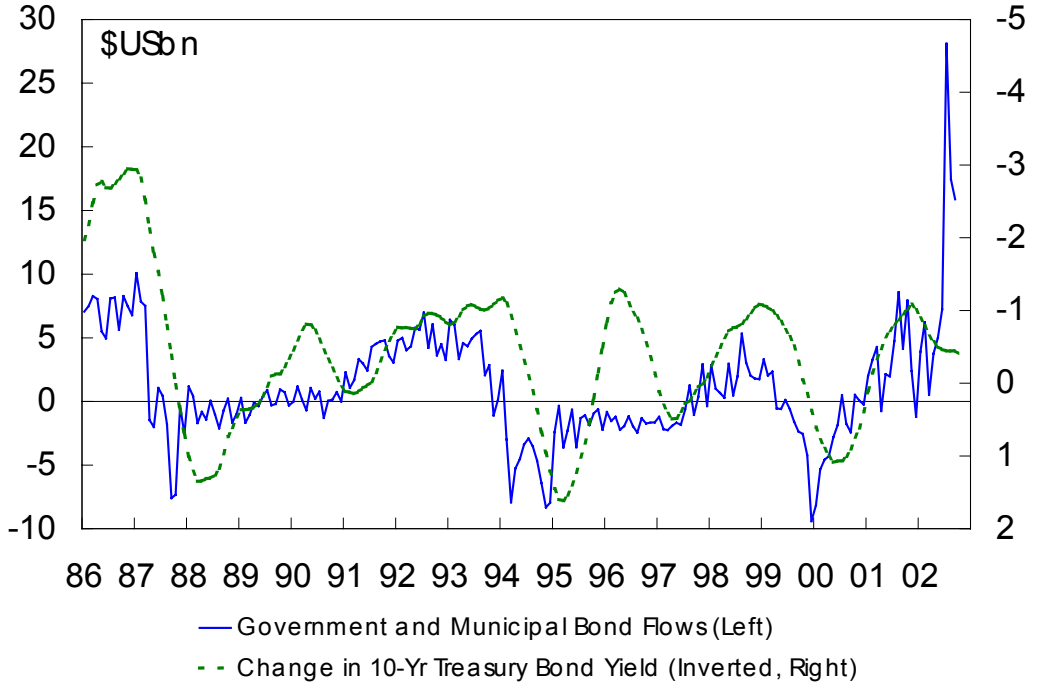
The best comparison with how a liquid CGS market would act as a safe haven in times of financial volatility is the US markets over the course of 2002. While the US equity markets have fallen heavily (with the Dow Jones Industrial Average down 16% since the start of the year) and corporate bond spreads have widened sharply, US Treasury bond yields have fallen extensively under the weight of significant capital inflow. US 10 year bond yields are currently (19 November 2002) trading at 3.99%, down from just over 5% at the start of the year.

The fact that US and global investors saw fit to direct significant sums into the US Treasury market and not other extremely liquid, fixed income markets in the US clearly illustrates the safe haven role played by government bond markets.

- ***What evidence is there of the role of CGS as a safe haven?***

The following chart also illustrates this point and shows the flow of money into US Mutual Bond Funds rose to extreme levels over the mid part of 2002.

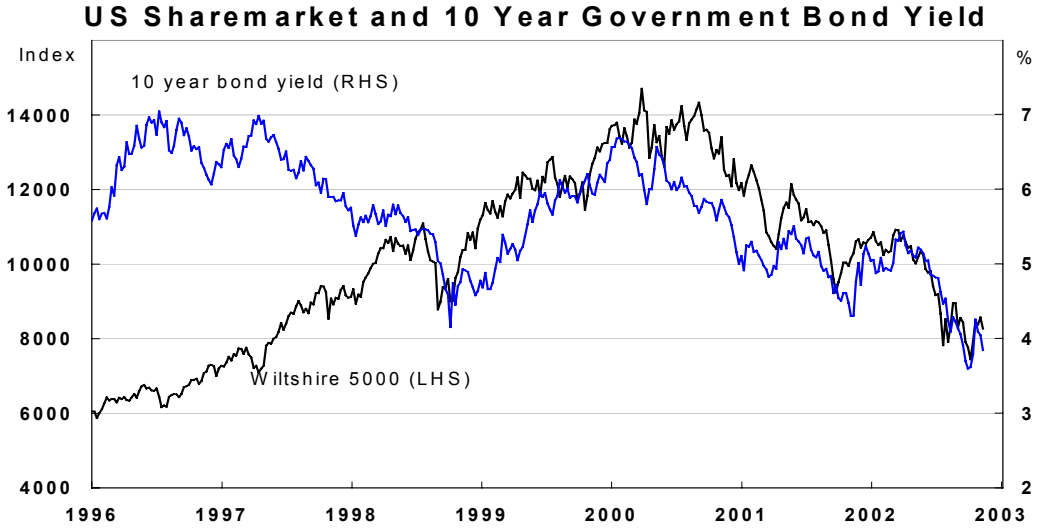
Figure 26
Flow of Funds into US Mutual Bond Funds



The critical safe haven role played by government bond markets in times of financial stress can also be seen by the very close relationship between the US equity market and the government bond market. As *Figure 28* shows, as the US equity market

declined sharply over the past year or so, there has been an extremely close correlation with US 10 year bond yields, clearly pointing to a direct relationship between money flowing out of the equity market (the risky market) to the government bond market (the risk-free market).

Figure 27



That it is the government bond market in the US that acts as the safe haven market in times of financial stability clearly demonstrates that it is Government debt, and only government debt, that can fulfil this role. More than any other bond market globally, the US has potential alternative safe haven markets for times of financial stress, eg, agency paper, corporate bonds, asset back securities, bank paper. However, none of these securities have played the vital role safe haven that the Government bond market has played over the past year.

When this experience is transferred into Australia, it becomes even more clear that it is the CGS market that can only play the role of "safe haven", especially as the potential alternative markets are significantly less active than they are in the US.

- ***What possible alternative safe havens exist and how appropriate are they?***

The experience of the Asian markets during the Asian crisis in the late 1990s also clearly demonstrate why it is government debt, and government debt only, that can act as the safe haven during times of financial stress. Without liquid government bond markets, many countries, such as Thailand, South Korea, Singapore and Malaysia, experienced significant global capital outflows that put major downward pressure on their exchange rates. With no safe haven investment available in their currency, global investors simple left the market. This is one reason that many of these countries are now actively trying to develop liquid sovereign bond markets.

It seems odd, therefore, that while many countries in the region are trying to develop liquid government bond markets to assist in times of financial stress and the US has relied actively on its Treasury market over 2002, that Australia would contemplate removing this vital financial market instrument.

The Review Discussion Paper notes that bank paper could act as a safe haven instrument during times of financial stress and/or the Government could issue new securities. However, as the Discussion Paper itself points out, if the Government or the RBA was to issue debt to provide a safe haven vehicle, this could actually

exacerbate the financial stress, as it would be taken as a clear signal by the market that the authorities are greatly concerned with the stability of the financial system.

It has been clearly evident through both the "Asian-crisis" of the late 1990s and the financial market volatility in the US this year that use of bank paper as a safe haven is no substitute for government securities, now matter how sound is the perceived prudential regulation of the banking system is.

The bottom-line is that the abolition of the CGS market would take away Australia's safe haven market, so that if (or when) there is another period of global (or local) financial market instability, then global capital would be more likely to flow out of Australia, putting significant downward pressure on the Australian dollar.

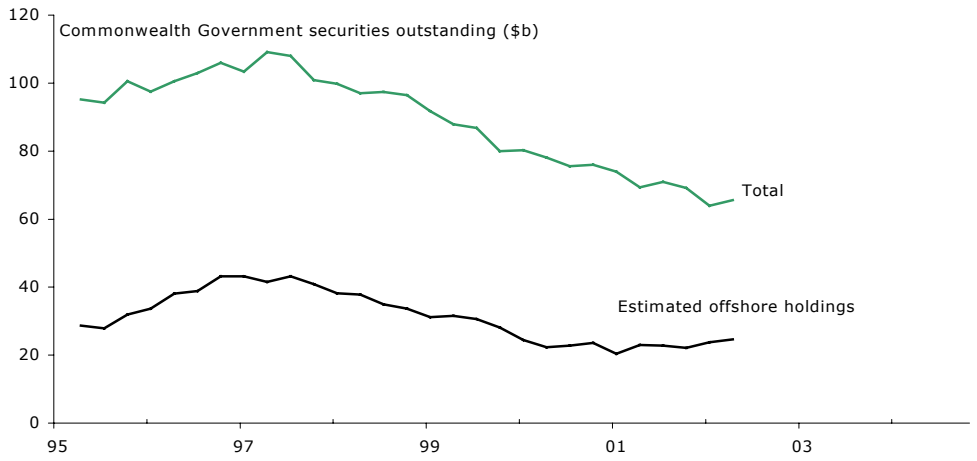
4.7 Attracting foreign capital flow

- ***Whether the absence of the CGS market would affect Australia's attractiveness to foreign investors;***

Offshore holdings of CGS are significant. The latest ABS estimates show almost 40% of CGS outstanding are held by non-residents (see *Figure 28*). If the CGS market was extinguished, this would lead to a net reduction in offshore demand for A$ debt instruments. Some demand would switch to alternative investments, but not all of it. Australian risk free bonds would disappear from global bond indices, as it is only the bonds of the highest sovereign issuer that are included in these indices. The proportion of investors using the global bond market indices as investment criteria cannot be determined but dropping out of the indices would see passive and some active investors exit the market. New Zealand, which has already disappeared from the global bond indices, provides an example of this, with investors active in the market only when yields are at extremes. This exaggerates the volatility in yields and the exchange rate and is not conducive to a stable environment.

Figure 28

Offshore holdings of CGS are significant



Source: ABS

Offshore demand for A$ bonds more generally is likely to be reduced if the CGS market is extinguished. The proportion of offshore demand that is dependent on the global bond market indices is difficult to estimate.

- ***How important global bond indices are for foreign investment in Australia.***

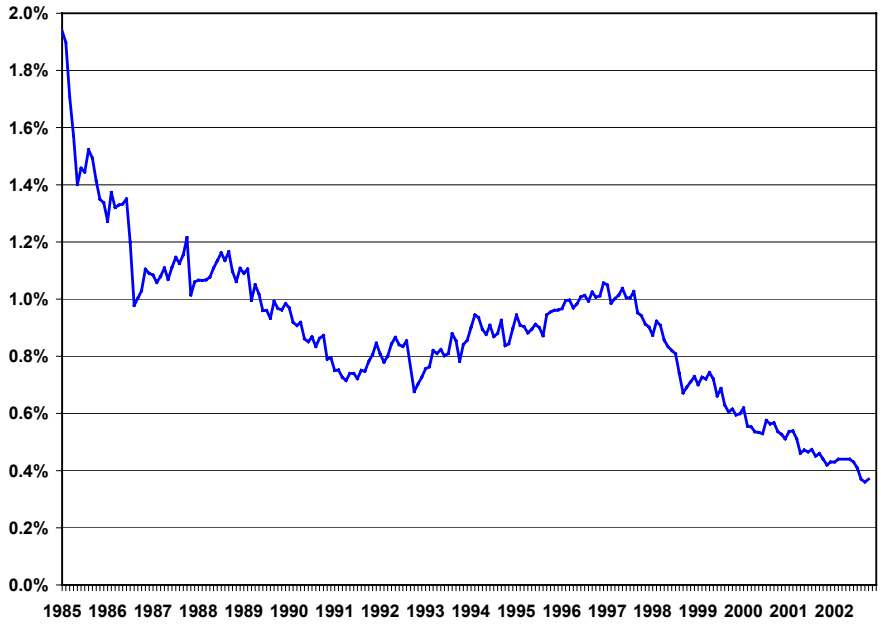
After representing around 2% of the Salomon Smith Barney World Government Bond Index [WGBI] in the mid-1980s, the Australian government bond market currently (as at end October 2002) represents 0.37% of the WGBI. *Figure 29* provides details.

It is important to note that even though Australia's share of the WGBI is very low (in fact, Australia is the second smallest market in the WGBI, just above Ireland at 0.28%), the fact that it is still in the WGBI is significant. By being in the WGBI, or other global benchmark indexes, global fund managers that measure themselves against the WGBI must at least spend a small part of their time looking at Australia.

If Australia were to fall out of the WGBI, global fund managers would have less incentive to look at the A$ bond market. Investing in A$ credit products, like corporate bonds, would require offshore investors developing expertise on Australian credits. It is unlikely that the reward for such effort would be great enough given the size of the A$ market relative to offshore portfolios and the size of specific debt programs. If an offshore fund wants credit exposure, it is most likely that greater portfolio efficiencies can be gained by looking at credit product from larger markets.

This subsequent decline in demand for Australian investments could be expected to have knock-on negative effects to the structure of interest rates, the cost of capital and the A$.

Figure 29
Australia's Weight in the WGBI



Source: Salomon Smith Barney

It is significant to note that Australia would be removed from the WGBI if the amount of CGS on issue falls below US$10bn for three consecutive months. With the A$/US$ exchange rate currently fluctuating around US$0.50 to US$0.60, CGS must stay above A$16bn-A$20bn to remain in the WGBI.

Potential substitute markets for CGS (ie. State government bonds or corporate bonds) are ineligible to be included in the WGBI. So even if these markets were to

expand if the CGS market was to be run down, Australia would still fall out of the WGBI and this would bring with it significant down side risks.

The level of foreign ownership of the CGS market has fluctuated between 20% to almost 50% over the past decade. While the total amount of CGS owned offshore has declined, the share of foreign ownership has moved up recently, as total supply falls quicker than does foreign ownership.

At around 37% for August 2002 (the latest data available), the level of foreign ownership is down a little from the recent peaks closer to 40% but, as shown in *Figure 4* above, current levels are close to the recent average.

Feedback from US-Based Investors

In this context, it is interesting to note the thoughts of international investors in the Australian CGS market. Feedback from international investment banks indicates that a large number of US-based fund managers see the possible demise of the CGS market as a great concern for Australia and for their investment intentions in Australia. These investors confirm that if Australia was to fall out of the global bond indexes (such as the SSB WGBI), then this would likely lead to a sharp fall in international investor interest in Australia.

A consistent comment is that, if Australia was not in the global indexes and did not have the liquid and efficient futures market that currently exists, investment into Australia would be much more on an opportunistic basis and that interest rate spreads to the US and real bond yields would have to be much wider/higher than is currently the case to attract investment. In essence, the Aussie market would be seen to be more like the New Zealand market rather than as a liquid alternative to the US.

US-based fund managers are also looking at the potential demise of the CGS market as a positive for their own intentions of gaining access to more of Australia's growing superannuation pool. These investors have been active in gaining mandates for international fixed income management of Australian superannuation funds and see the decline of the GCS market as opening more opportunities for themselves to get Australian funds to send more money into international markets. The bottom line here is that the demise of the CGS market is seen as a great business opportunity by US funds to take more of Australia's investment money offshore.

Feedback from Japanese-Based Investors

Feedback from Japanese-based investors also indicates very similar concerns about Australia falling out of the global bond indexes. Most global fund managers of fixed income money in Japan use the WGBI (or some other similar global bond index) to manage their portfolios and if Australia was to fall out of the WGBI it seems clear that many Japanese investors would cease buying Australian bonds irrespective of the issuer.

There is also a significant level of demand for Australia's bonds from the Japanese retail market, mainly because of the relatively high coupon compared to equivalent Japanese investments. These clients have expressed concern that, if Australia was to close down its CGS market, then they would have significantly less confidence in Australia as a source of relatively high yielding investments and they are concerned about the potentially negative impacts on the A$. The latter concern is because Japanese retail investors typically do not hedge their A$ exposure.

It seems clear, therefore, that for a country that requires significant capital inflow to fund its current account deficit (though, it must be said, not at a government level) the

demise of the CGS market will inevitably have negative implications. Indeed, the demise of the CGS market could to lead to both a reduction in global capital flowing into Australia and an increase in Australian savings flowing out (ie. via international fixed income investors managing Australian money out of London, NY, Boston etc).

Capital Flows and the A$

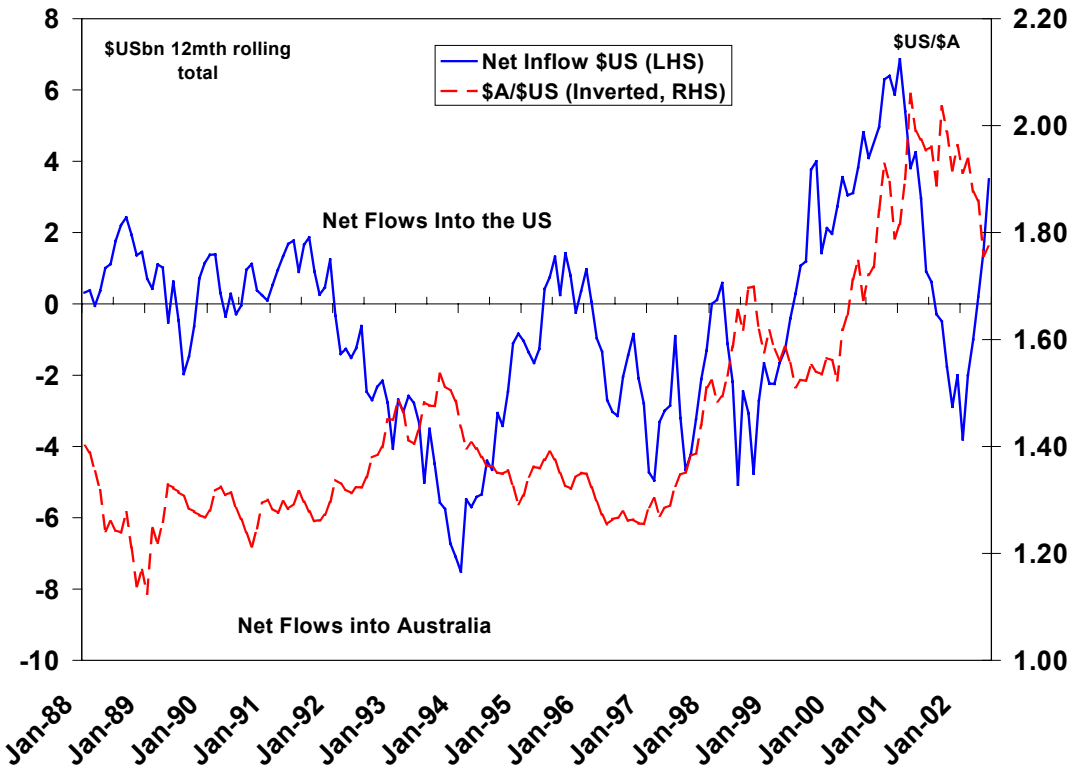
A key factor in the weakness of the Australian dollar over the past few years has been a lack of net capital inflow into Australia (see *Figure 32*). While the CGS market is a very small part of the overall source of domestic inflows, not having a liquid CGS market would provide yet another reason for international investors to ignore Australia.

Although Australia is less than 0.4% of the WGBI, it is, currently, still in the index and this encourages global fund managers to keep an interest in the Australian bond market. The danger in falling off the WGBI is that these international fund managers would then have no need to focus on Australia and the reduction in capital inflows that this implies could put downward pressure on the A$.

On the other side of the flows debate is the increasing amount of Australian money flowing into global markets. Recent years have seen an increase in the share of total superannuation assets that are being invested into international markets. As superannuation funds grow, largely due to the compulsory superannuation levy, the investment opportunities in the local government bond market have declined and this, among other factors, has seen an increase in the amount of superannuation money being invested offshore.

The bottom line is that the combination of less money coming into Australia from global fund managers and more money flowing out (as domestic investment sources decline) will result, all other things being equal, in a lower A$.

Figure 30
Capital Flows and the A$



4.8 Promoting Australia as a global financial centre

- ***Whether the CGS market plays a significant role in promoting Australia as a global financial centre; and***

- ***Whether the absence of a CGS market would affect transaction costs and Australia's attractions as a centre for global financial services.***

Paying down the CGS market would run contrary to the Government's efforts to promote Australia as a global financial centre, largely because of the integral role of the risk-free rate in supporting the broader range of local financial markets. Institutions would divert resources to alternative investment markets, with some scope for global institutions to pool their resources in larger financial centres.

The winding down of the CGS market would have some negative impact on promoting Australia as a global financial centre, largely because the existence of a risk-free rate is integral to the maintenance and development of the broader range of financial markets in Australia.

One of Australia's primary financial goals is to be an Asian financial centre and, as Singapore is the main competitor in this area, it is interesting to compare approaches to the government bond market.

The Web page for the Monetary Authority of Singapore (MAS) states that:

> "Singapore Government Securities (SGS) were initially issued to meet banks' needs for a risk-free asset in their liquid asset portfolios. In 1998, MAS spearheaded efforts to enhance the efficiency and liquidity of the SGS market as part of its strategy to develop Singapore as an international debt hub. Since then, the SGS market has grown significantly, making it one of the fastest developing bond markets in Asia.
>
> Unlike many other countries, the Singapore Government does not need to finance its expenditures through the issuance of government bonds as it operates a balanced budget policy and often enjoys budget surpluses. The principal objectives of developing the SGS market are to:
>
> i.) provide a liquid investment alternative with little or no risk of default for institutional investors;
>
> ii) establish a liquid government bond market which serves as a benchmark for the corporate debt securities market; and
>
> iii) encourage the development of skills relating to fixed income securities and broaden the spectrum of financial services available in Singapore."

It seems odd for our main competitor, in the race to provide a financial and capital market infrastructure capable of serving a regional financial centre, to be developing a liquid sovereign bond market as part of their goal to being a global financial centre, while Australia is, potentially, moving in the opposite direction.

While the Review Discussion Paper states that "removing a government debt market from an already sophisticated financial market is less likely to have adverse consequences" (page 5) and that "market infrastructure is unlikely to deteriorate significantly in the absence of outstanding CGS" (pages 67 and 78), international evidence available does not support such a view.

In fact, the IMF clearly thinks that the opposite is the case, stating that "the public benefits of effective government securities markets for pricing, quoting and hedging financial risks can be significant. Moreover, in providing some of the important characteristics of base money, and in serving as a safe haven during periods of turbulence, well developed markets for government securities, in adequate supplies in a range of maturities, may provide significant public benefits that would be difficult; if not impossible to replicate, even in the comparatively well developed (US) dollar fixed income market." (IMF Working paper, "Financial implications of the shrinking supply of US Treasury securities", 2001).

In terms of Australia's goal of being a global financial centre, it is also important to acknowledge the role Sydney Futures Exchange (SFE). As has been established, the 3 year and 10 year CGS Futures contracts form the prime price discovery markets for Australia's financial markets and these securities rely on a sufficient volume of CGS on issue to survive.

Data for 2002 to date (January to August) shows that the SFE 3 year Futures contract is the 8th most liquid interest rate futures contract in the world. The SFE 10 year futures contract is the 15th most liquid contract and the SFE 3 year overnight options contract is the 19th most liquid contract.

For Australia, a market that is less than 0.4% of the world's bond market, to have the 8th most liquid bond futures contract in the world, and three of the top 20 most liquid contracts in the world is testament to the strengths of Australia's financial markets, and its open and transparent trading philosophy. Without a CGS market, all three of these contracts would cease to exist and so Australia's place in the global financial markets would be lessened dramatically.

There is also no evidence to suggest that alternative contracts (ie. based on the swap market) could ever develop to the same extent as has the CGS futures markets contract, to be able to take their place in the league tables.

Financial markets infrastructure

There is a commonly held view that Australia's principal strength as a centre for financial services is its skilled workforce. This accords with the experience of international banks operating in Australia and is confirmed by the *IMD World Competitiveness Yearbook 2001,* which ranks Australia first in the world for the availability of finance skills.[19]

This high standing reflects a number of factors like the quality of the educational system and critically, in this context, the depth and sophistication of Australian financial markets. Indeed, this is a competitive advantage that we hold over Singapore and, as mentioned above, the Government there is trying to overcome this disadvantage by developing its government bond market as a means to improving the range and depth of its financial skills base. Presumably, this policy seeks to overcome the relatively small local economy that the Singaporean financial markets would otherwise have to base their activities on.

Closure of the CGS market would decrease the range and sophistication of activities that occur in the Australian financial services industry. The commensurate reduction in the quality and quantity of activities would make the market less able to service Australian needs and less able to service the needs of foreign customers. It would become more difficult to attract businesses to Australia and harder for existing

[19] Reported in the AXISS Australia publication "Australia – A Global Financial Services Centre in the Asian Time Zone", October 2001.

locally- based operations to remain as providers across the full spectrum of services. There simply would not be enough business conducted in the local market to justify the level of necessary resources. Centres where such investments in business infrastructure could compete for and provide a greater variety of services to a larger pool of customers would be the financial centres that grow, not Australia's.

The Government has a firm policy commitment to develop Australia as a base for international financial services and, in recent years, it has adopted a range of initiatives in the areas of tax and regulation with an eye to promoting this objective, amongst other things. A case for retaining the CGS market seems consistent with such policies.

The analysis here and in section 4.7 makes clear the potential for foreign investors to disengage from our markets and for some business currently conducted in Australia to be done offshore.

Of itself, this may not justify retention of the CGS market but it is a material benefit from an effective market that should be taken into account in the overall cost-benefit analysis.

4.9 Appropriate size of the Commonwealth Government Securities market

- ***The government would appreciate views from stakeholders on the appropriate size of the CGS market in the event that the market is to be maintained.***

For the CGS market to be function effectively in its role as a benchmark for the pricing of outright interest rate risk and to provide an effective avenue for participants to transact, the market has to be of sufficient size to be liquid. Liquidity is the ability to price and transfer risk with a reasonable expectation of being able to transact in an orderly fashion around the price level discovered.

Markets provide a sense of order in the financial system by providing an outlet to trade risk. Imbalances occur in the supply and demand for risk on an ongoing basis and it is the purpose of the market to facilitate exchange of risk so that the market establishes a price that restores equilibrium.

Liquidity implies a different sort of balance – a balance between the core participants in the market place and a balance brought about by a critical mass of end-users being involved in the market. Beyond a certain level of imbalance, the market's underlying structure does not engender liquid markets.

The size of the CGS market is important because of its role as the benchmark yield curve for pricing and trading outright interest rate risk. Because of this, the fixed interest rate flows of the economy as a whole ultimately make their way there and, as discussed above, this central role makes the market unique. Others can create a short position in the stock by borrowing the stock on repo and then selling it but only the Commonwealth Government as issuer can add supply to the market.

Repo facilities and increased outright turnover can alleviate a decrease in volume on issue to some extent. However, at some point as the stock of CGS declines, turnover would be insufficient to maintain the required level of liquidity for a properly functioning market. Some investors in CGS are passive holders, like Index funds and offshore funds, and they more typically buy and hold stock rather than trade it. Other participants will not lend their stock holdings enter the repo market. This effectively locks-up some stock and means other participants cannot access it to add to the market's liquidity.

As the CGS market declines in volume, participants who do not contribute to liquidity by being regular traders of stock (including through the repo and stock lending markets) have a greater relative effect on the market, which would cause a vicious circle to develop. Sourcing stock becomes harder and once active participants become more circumspect about trading.

This phenomenon is made more pronounced as the number of agents investing in the market increases, mainly as a result of a high growth rate in the value of the superannuation funds under management. At the same time as the CGS market has been declining, the investor pool has been growing. As the latter has grown, the number of passive participants has also grown and stock available for active trading has become relatively scarcer.

These factors are important when discussing the appropriate size. It leads to the conclusion that to maintain liquidity, the size of the CGS market needs to grow in line with the economy.

Five years ago, the volume of CGS on issue was around A$100bn. At that time, the superannuation pool was about A$300bn. Since then, CGS on issue has halved and the superannuation pool has doubled. That single snapshot highlights the major structural shift that has occurred in financial and capital markets due to this phenomenon. It also suggests that the market is not at its healthiest or is it as capable of providing liquidity as it has been. Liquidity in the CGS market is important to the financial markets and the economy, so it is reasonable to conclude that the market's decline has already been at some cost.

In 1998, the SFE stated that the requisite volume of CGS on issue to ensure contract credibility was A$30bn across both contracts. Furthermore, they identified the need for a buffer of another A$20bn across the rest of the yield curve to facilitate relative value trading and arbitrage. This is an important part of the processes that established the integrity of a futures contract. This A$20bn presumably precluded those CGS of a very short maturity and having no value in this process. The process also makes the underlying physical yield curve more efficient.

The SFE's statements were made in 1998, when the size of the investor pool was considerably smaller. Since then, the buffer of CGS outside the futures contracts maturities has fallen as a result of the AOFM's policy of using its switching program to concentrate CGS outstandings into the basket maturities.

It is certain that the ideal volume is higher than those 1998 numbers the SFE suggest. Given the growth in the economy and the investor pool from that time, one could arrive at a volume number of CGS on issue to maintain the same relativity between volume of CGS on issue and the size of the investor pool. That would put the ideal volume on issue at more than double where it is now.

The Review's question may best be answered by considering what volume allows the market to function, albeit at the reduced level of effectiveness that exists right now. In other words, functional volume may be the most pertinent question. The ratio of CGS in the futures "basket" to CGS outside it (in buffer stock of maturity not less than 18-24 months) should be close to the levels identified by the SFE in 1998, that is, a ratio of just over 2:1. This functional level would put the total amount of tradeable CGS at some A$70bn, which was the amount of CGS outstanding at that time. It takes no account of growth in the investor pool, or broader universe of financial and capital markets users since 1998, and is considered a minimum amount.

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5 Options available to the Commonwealth

Option 1: Wind down the Commonwealth Government Securities market

The Government can choose to be passive or active in its execution of a policy decision to buy-back CGS as a result of privatisation proceeds or operating surpluses.

A passive execution policy would be to let CGS decline in line with the maturity profile of the program. To the extent privatisation proceeds exist, then this slower extinguishment of the CGS would mean cash balances would need to be managed. Assuming this asset management task is possible, at face value, this would be the least disruptive to the CGS marketplace.

This assumes that the marketplace is indifferent to which stock is extinguished first and that is not the case.

For risk management based issues, longer stock should be left on issue for as long as possible. This would maximise the time that CGS could act as a benchmark curve for outright interest rate risk and fulfil its role as a risk-free long duration asset for portfolio managers. Other portfolio managers, for instance, may have a bias towards seeing the long stocks extinguished first. Some type of insurance products, for instance have exposures that require mid-curve, or 5-7 year stock.

If an activist extinguishment of the CGS is the chosen course, the debt buy-back arrangement will be an interesting exercise. A voluntary program of reverse tenders or entering the marketplace to transact, would be faced with the problem that the price to buy-back the debt would be increased by that action, as the Government's intentions would be clearly telecast to the marketplace.

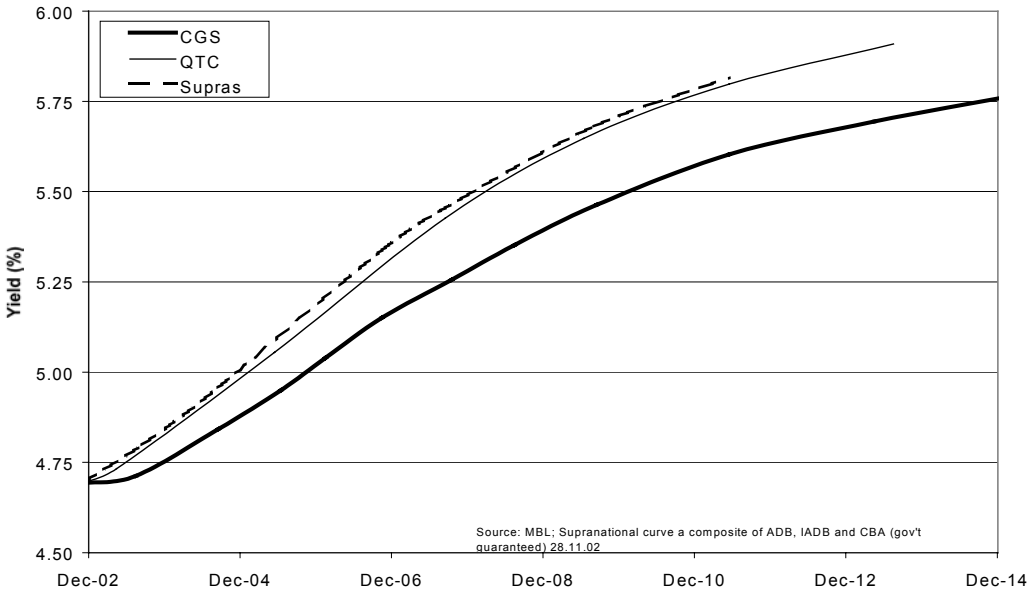
As recently as August 2001, the Commonwealth and State Treasurers considered and rejected a proposal to merge the debt-issuing activities of the Commonwealth Treasury (AOFM) and the various State Treasury Corporations. The Review Discussion Paper which analysed the costs and benefits of the proposal concluded that liquidity in the combined bond market would only be improved on a short-term basis and that the costs involved in removing financial discipline from the States could be large. It is unlikely that such a proposal will be revisited.

The general concept of using the collective volume of Semi-Government issues and CGS to bolster the shortcomings of the CGS market is valid but its success would require the collective pool to share all the characteristics of the CGS market to be an effective substitute. Risk free assets of other sovereigns, supra-nationals, or near sovereigns (like State entities) do not add to the pool of benchmark assets on the basis of their risk free/near risk free status only.

A single issuing entity and a co-ordinated issuance program would need to "umbrella" the component parts for this to be effective (Section 3.3 also discusses the Semi-Government sector). Benchmark status is as much about the liquidity of the risk free yield curve (and the conditions which lead to that liquidity being generated) as it is about the credit risk, financial position and taxing powers of the issuing entity.

Figure 31 demonstrates the premium for CGS liquidity in the local market. It shows three yield curves - the lowest one for CGS, that above for the Queensland Treasury Corporation, and the third is a mix of other AAA issuers in the A$ market (IADB, ADB and the CBA). The latter should not be considered a yield curve, but a proxy for where the debt as a group trades.

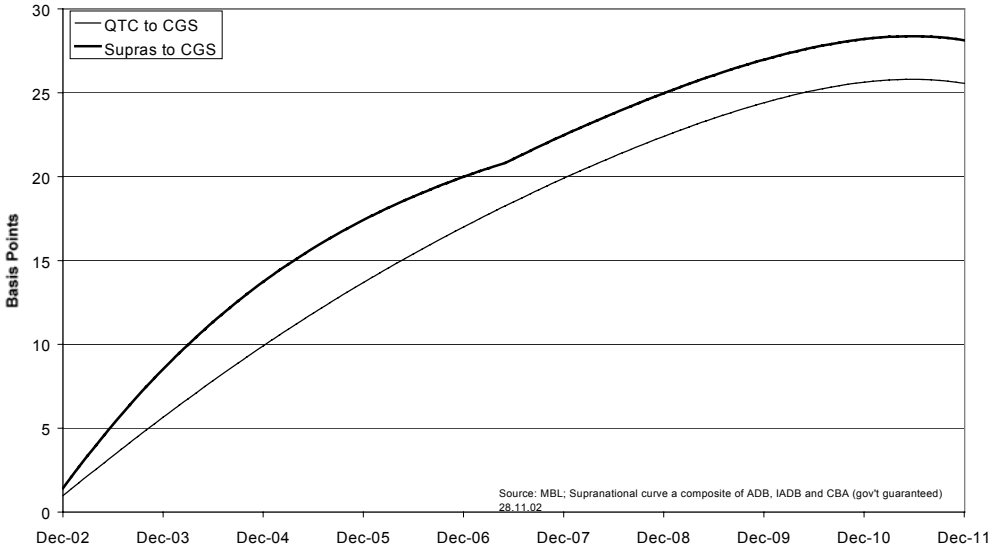
Figure 31



CGS, QTC and composite yield curves"

Figure 32 shows that for similar credit risks (AAA sovereign/near sovereign issuers) there is a spread between CGS and the other two. This is due to the liquidity that can only be generated by benchmark stocks.

Figure 32
"Spread over CGS - QTC and composite curve"



Option 3: Maintain the Commonwealth Government Securities market and fund the Commonwealth's unfunded superannuation liabilities

The CGS Market Industry Working Group briefed and commissioned a report from The Allen Consulting Group Pty Ltd in response to this question.

The executive summary of that report appears below, with a copy of the full Allen's report incorporated in this submission as a separate & distinct paper in Appendix 2.

Executive Summary

The Broad Issue — Is There a Case for Funding the Unfunded Superannuation Liabilities?

This report is premised on the Commonwealth having (hypothetically) sold financial assets and/or having the results of successive Budget surpluses to deploy. It focuses particularly on the option of using the proceeds to fund presently unfunded superannuation liabilities. This is "Option 3" canvassed in the Commonwealth Government's October 2002 Discussion Paper, Review of the Commonwealth Government Securities Market.

Two broad economic considerations argue in favour of funding unfunded Commonwealth superannuation liabilities and maintaining a market in Commonwealth Government Securities:

- the appropriate role of debt financing in overall management of the public balance sheet; and
- the benefits of pre-funding the superannuation liabilities accumulated over past years but crystallising in the future.

Experience in past decades in Australia and elsewhere demonstrates that governments need to be wary of over-relying on debt financing. However, there is an appropriate role for debt financing wherever governments have made (and continue to make) investments that will accrue benefits to the community over time. Financing such investments in substantial part by debt allows the costs and benefits of the investment to be better matched over time.

Sound public finance principles suggest that the taxpayers of the day should finance the full cost of contemporaneous government employees. With full funding not having occurred in the past, the issue now becomes one of how best to fund the outstanding liabilities. Given that substantial liabilities have accumulated, the most equitable solution is to share the funding burden across generations and to fund the liabilities as efficiently as possible — that is, at least cost.

Beginning to fund the liabilities now helps to achieve both these goals, via better matching of Commonwealth assets and liabilities and, as a result, a more equitable distribution of financing burdens across generations; and through the returns achievable over the long term from a portfolio of growth assets. This is the type of portfolio best matched to the liabilities, given that they will crystallise over many years ahead.

The Commonwealth is currently meeting the cost of accrued superannuation entitlements as they are claimed by former Commonwealth employees, on a pay-as-you-go (PAYG) basis. The nature of the superannuation liabilities gives the Commonwealth the opportunity to generate returns that will help fund the emerging entitlements by investing in a balanced portfolio of investments including growth

assets. Such a portfolio will entail somewhat higher risk than alternatives such as cash/fixed income, or indeed than reliance on the future tax base alone, but will nevertheless dominate such alternatives (even in risk-adjusted terms) over the long horizons involved. This approach will progressively reduce the cost to future taxpayers of meeting the entitlements.

Other jurisdictions, both within Australia and elsewhere, have come to this conclusion, i.e. that the costs associated with short-term fluctuations in returns are outweighed by the likely gains over the long term of investing in a balanced portfolio, especially where the purpose of the fund is linked to a long-term funding need. Intergenerational equity considerations reinforce that conclusion.

Summary Responses to Commonwealth Questions on Fiscal, Governance and Investment Strategy Issues

- What are stakeholder views on:
- The increased uncertainty for fiscal policy arising from variations in investment returns?

The funding of the unfunded superannuation liabilities through investment in a balanced portfolio of assets, financed by borrowing, would be positive in both economic terms and financial terms for the Commonwealth public sector as a whole over the long term. It would also be consistent with the Commonwealth Government's medium-term fiscal objectives.

There may be years when the volatility of investment returns will mean that the effects on the operating balance, public net worth and the underlying cash balance of funding the superannuation liabilities by borrowing will be negative. While such effects may pose presentational issues for governments, they are essentially transitory. Dealing with them is a matter of smoothing the fluctuations to the extent possible and presenting public finances with appropriate explanations, including by the use of alternative budget aggregate measures where useful — e.g. to distinguish the balance on operations from the effects of transitory asset and liability revaluations. It is not a significant enough issue to outweigh the clear positive long-term benefits of the strategy, and it is one that is already being managed by a number of governments in Australia and New Zealand that adhere to transparent financial reporting standards.

Governance arrangements for a hypothecated asset fund that stakeholders suggest would insulate investment decisions from direct Government control; and

Whether funding the unfunded superannuation liability through a superannuation fund is a good way of dealing with the governance issues associated with substantial Government asset holdings?

Given the size of the unfunded Commonwealth superannuation liabilities, the long term over which the entitlements will fall due and the fact that Commonwealth agencies do not have an established track record in asset management for specific purposes, the governance structure for any Commonwealth fund should be at arm's length from executive government.

Placing the funds within a superannuation fund structure clearly has benefits — there are stronger protections of fund independence and against governments accessing funds than there are for funds established by legislation but not also governed by general superannuation legislation. However, we are of the view that a structure of this type (e.g. that implemented by New Zealand) can afford strong protection. The governing legislation would not allow any government direction of the trustees/guardians, or funds managers they may engage, in investment matters. Their operations would be governed solely by the purposes set out in the legislation — i.e. an objective to invest so as to best match the future crystallising superannuation liabilities.

The operational costs and any costs of "diverting scarce senior management resources" or public scrutiny from core government functions that are highlighted in the Commonwealth's Discussion Paper seem to us to be second-order issues. The overall management of all of the Commonwealth's liabilities is, without doubt, a core function of government and should be treated as such. The cost of managing the assets is a real cost and needs to be taken into account, but the tasks involved would be largely undertaken away from central government. The analysis in Section 3 and the experience of other jurisdictions suggest that the overall equation is positive, even when management costs are accounted for.

- The appropriate limits on holdings of any single instrument if the Government were to invest in debt securities;
- The appropriate limits for equity holdings in any one company if the Government were to invest in equities;
- The likelihood of Government investment distorting asset prices;
- The impact of restricting Government investment to foreign securities.

The proposed Commonwealth fund would be a significant presence in the market, although there are a number of other Australian-based funds of comparable scale and many larger ones in the wider markets. Its establishment would nevertheless have some marginal impact, particularly in the initial years, when the Commonwealth suggests that the fund would need to grow strongly. However, it is important to consider that the Commonwealth is already operating in and therefore influencing a number of financial markets and that if the Commonwealth were to acquire financial assets, this would not occur in isolation. For example, the sale of Telstra will affect markets, with at least some investors selling other financial assets in order to buy Telstra stock — by simultaneously building up a portfolio of financial assets, the Commonwealth would absorb some of the immediate impact on markets of selling Telstra and help to equilibrate them more quickly.

As for the possible impact on individual stocks and debt instruments, if the fund's activities are at arm's length from Government, as we would recommend, the considerations pointed to by the Commonwealth become less difficult to handle. A Commonwealth fund managed in this way would clearly have some marginal impact on the markets for individual assets, but its impact would be no different from that of other investors of similar size and with a similar appetite for risk, particularly if investment activities were divided up among a number of independent specialist managers in each asset class, as is common practice. There is no reason why the management of a Commonwealth portfolio of assets should diverge from best practice funds management. There is also little case for special restrictions on the investments of the fund. There may be an argument to follow New Zealand's lead and restrict the fund from holding a controlling interest in a company and, as New Zealand officials have pointed out, this restriction is consistent in any case with sensible funds management practice. We see no case for restricting Government investment to foreign securities — or indeed, domestic securities.

6 Appendix 1… Members of the Industry Working Group

6.1 Industry Associations

Australian Bankers Association
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Australian Financial Markets Association
John Rappell, Director - Policy & Consulting
Gregory Wrate, Policy Executive
Allen Young, Head of Market Development & Policy

Insurance Council of Australia
Peter Anderson, Manager – Regulation, Finance and Taxation
Geoff Ludowyke – ICA Member Representative & Chief Investment Officer of Allianz Australia Limited

International Banks & Securities Association of Australia
Duncan Fairweather, Executive Director
David Lynch, Director of Policy

Investment & Financial Services Association Limited
Jennifer Wells, Senior Policy Manager

6.2 Industry Participants

AMP Henderson Global Investors
Kevin Talbot, Head of Fixed Income & Currency

ABN Amro NV, Australian Branch
Kieran Davies, Chief Economist

CitiGroup / Salomon Smith Barney Australia Securities Pty Limited
Stephen Halmarick, Director & Co-Head of Economic & Market Analysis

Colonial First State Investment Managers
Warren Bird, Head of Fixed Income & Foreign Exchange

Commonwealth Bank of Australia Limited
Timothy Hext, Head of Government Bond Trading

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Alastair Wait, Head of Fixed Income

Macquarie Bank Limited
Paul Bide, Head of Debt Markets Division

Merrill Lynch Investment Managers
Stephen Miller, Managing Director, Cash & Fixed Income

National Bank of Australia Limited
Boyd Winton, Head of Asset & Structured Credit Trading

UBS Warburg Australia Limited
Anthony Robson, Head of Government & Derivative Trading

Westpac Banking Corporation Limited
William Evans, General Manager, Economics

7. Appendix 2

December 2002

Report to the CGS Market Industry Working Group

Management of Government Assets and Liabilities

A Review of the Issues, focusing on Funding Unfunded Superannuation Liabilities

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Table of Contents

Executive Summary *1*

The Broad Issue — Is There a Case for Funding the Unfunded Superannuation Liabilities? 1

Summary Responses to Commonwealth Questions on Fiscal, Governance and Investment Strategy Issues 2

Section 1 4

Background *4*

1.1 Context 4

1.2 This Report 5

Section 2 7

Is There a Case for Funding the Unfunded Superannuation Liabilities? *7*

2.1 The Scope of the Issue 7

2.2 The Role of Debt Financing 8

2.3 The Benefits of Funding the Unfunded Liabilities 9

2.4 Options 15

Section 3 17

Fiscal Policy Issues *17*

3.1 Fiscal Goals 17

3.2 Budget Accounting Treatment 18

3.3 Short-Term Fluctuations 21

Section 4 24

Governance Issues *24*

4.1 Governance Considerations 24

4.2 Experience to Date 25

4.3 A Commonwealth Asset Portfolio 32

Section 5 35

Investment Strategy Issues *35*

5.1 Considerations and Experience to Date 35

5.2 A Commonwealth Investment Fund 37

Appendix A 40
Terms of Reference *40*

Appendix B 42
List of Consultations *42*

Appendix C 43
Budget Accounting Treatment *43*

C.1 Treatment of Unfunded Superannuation 43

C.2 Treatment of Using Cash to (Partially) Fund Unfunded Superannuation Liability 44

C.3 Treatment of Using Cash to Pay Off (Securitised) Public Debt 46

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Experience in past decades in Australia and elsewhere demonstrates that governments need to be wary of **over**-relying on debt financing. However, there **is** an appropriate role for debt financing wherever governments have made (and continue to make) investments that will accrue benefits to the community over time. Financing such investments in substantial part by debt allows the costs and benefits of the investment to be better matched over time.

Sound public finance principles suggest that the taxpayers of the day should finance the full cost of contemporaneous government employees. With full funding not having occurred in the past, the issue now becomes one of how best to fund the outstanding liabilities. Given that substantial liabilities have accumulated, the most equitable solution is to share the funding burden across generations and to fund the liabilities as efficiently as possible — that is, at least cost.

Beginning to fund the liabilities now helps to achieve both these goals, via better matching of Commonwealth assets and liabilities and, as a result, a more equitable distribution of financing burdens across generations; and through the returns achievable over the long term from a portfolio of growth assets. This is the type of portfolio best matched to the liabilities, given that they will crystallise over many years ahead.

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Other jurisdictions, both within Australia and elsewhere, have come to this conclusion, i.e. that the costs associated with short-term fluctuations in returns are outweighed by the likely gains over the long term of investing in a balanced portfolio, especially where the purpose of the fund is linked to a long-term funding need. Intergenerational equity considerations reinforce that conclusion.

Summary Responses to Commonwealth Questions on Fiscal, Governance and Investment Strategy Issues

WHAT ARE STAKEHOLDER VIEWS ON:

THE INCREASED UNCERTAINTY FOR FISCAL POLICY ARISING FROM VARIATIONS IN INVESTMENT RETURNS?

The funding of the unfunded superannuation liabilities through investment in a balanced portfolio of assets, financed by borrowing, would be positive in both economic terms and financial terms for the Commonwealth public sector as a whole over the long term. It would also be consistent with the Commonwealth Government's medium-term fiscal objectives.

There may be years when the volatility of investment returns will mean that the effects on the operating balance, public net worth and the underlying cash balance of funding the superannuation liabilities by borrowing will be negative. While such effects may pose presentational issues for governments, they are essentially transitory. Dealing with them is a matter of smoothing the fluctuations to the extent possible and presenting public finances with appropriate explanations, including by the use of alternative budget aggregate measures where useful — e.g. to distinguish the balance on operations from the effects of transitory asset and liability revaluations. It is not a significant enough issue to outweigh the clear positive long-term benefits of the strategy, and it is one that is already being managed by a number of governments in Australia and New Zealand that adhere to transparent financial reporting standards.

GOVERNANCE ARRANGEMENTS FOR A HYPOTHECATED ASSET FUND THAT STAKEHOLDERS SUGGEST WOULD INSULATE INVESTMENT DECISIONS FROM DIRECT GOVERNMENT CONTROL; AND

WHETHER FUNDING THE UNFUNDED SUPERANNUATION LIABILITY THROUGH A SUPERANNUATION FUND IS A GOOD WAY OF DEALING WITH THE GOVERNANCE ISSUES ASSOCIATED WITH SUBSTANTIAL GOVERNMENT ASSET HOLDINGS?

Given the size of the unfunded Commonwealth superannuation liabilities, the long term over which the entitlements will fall due and the fact that Commonwealth agencies do not have an established track record in asset management for specific purposes, the governance structure for any Commonwealth fund should be at arm's length from executive government.

Placing the funds within a superannuation fund structure clearly has benefits — there are stronger protections of fund independence and against governments accessing funds than there are for funds established by legislation but not also governed by general superannuation legislation. However, we are of the view that a structure of this type (e.g. that implemented by New Zealand) can afford strong protection. The governing legislation would not allow any government direction of the trustees/guardians, or funds managers they may engage, in investment matters. Their operations would be governed solely by the purposes set out in the legislation — i.e. an objective to invest so as to best match the future crystallising superannuation liabilities.

The operational costs and any costs of 'diverting scarce senior management resources' or public scrutiny from core government functions that are highlighted in the Commonwealth's Discussion Paper seem to us to be second-order issues. The overall management of all of the Commonwealth's liabilities is, without doubt, a core function of government and should be treated as such. The cost of managing the assets is a real cost and needs to be taken into account, but the tasks involved would be largely undertaken away from central government. The analysis in Section 3 and the experience of other jurisdictions suggest that the overall equation is positive, even when management costs are accounted for.

THE APPROPRIATE LIMITS ON HOLDINGS OF ANY SINGLE INSTRUMENT IF THE GOVERNMENT WERE TO INVEST IN DEBT SECURITIES;

THE APPROPRIATE LIMITS FOR EQUITY HOLDINGS IN ANY ONE COMPANY IF THE GOVERNMENT WERE TO INVEST IN EQUITIES;

THE LIKELIHOOD OF GOVERNMENT INVESTMENT DISTORTING ASSET PRICES;

THE IMPACT OF RESTRICTING GOVERNMENT INVESTMENT TO FOREIGN SECURITIES.

The proposed Commonwealth fund would be a significant presence in the market, although there are a number of other Australian-based funds of comparable scale and many larger ones in the wider markets. Its establishment would nevertheless have some marginal impact, particularly in the initial years, when the Commonwealth suggests that the fund would need to grow strongly. However, it is important to consider that the Commonwealth is already operating in and therefore influencing a number of financial markets and that if the Commonwealth were to acquire financial assets, this would not occur in isolation. For example, the sale of Telstra will affect markets, with at least some investors selling other financial assets in order to buy Telstra stock — by simultaneously building up a portfolio of financial assets, the Commonwealth would absorb some of the immediate impact on markets of selling Telstra and help to equilibrate them more quickly.

As for the possible impact on individual stocks and debt instruments, if the fund's activities are at arm's length from Government, as we would recommend, the considerations pointed to by the Commonwealth become less difficult to handle. A Commonwealth fund managed in this way would clearly have some marginal impact on the markets for individual assets, but its impact would be no different from that of other investors of similar size and with a similar appetite for risk, particularly if investment activities were divided up among a number of independent specialist managers in each asset class, as is common practice. There is no reason why the management of a Commonwealth portfolio of assets should diverge from best practice funds management. There is also little case for special restrictions on the investments of the fund. There may be an argument to follow New Zealand's lead and restrict the fund from holding a controlling interest in a company and, as New Zealand officials have pointed out, this restriction is consistent in any case with sensible funds management practice. We see no case for restricting Government investment to foreign securities — or indeed, domestic securities.

Section 1

Background

1.1 Context

The stock of Commonwealth Government Securities (CGS) on issue has been falling for a number of years, reflecting the Commonwealth's net debt reduction program. Between 1996-97 and the end of 2002-03, net debt is projected to have fallen by around $62 billion.[1] Further substantial reductions are projected in the Budget out-years as a result of cash surpluses and the planned sale of the Commonwealth's equity in Telstra, resulting in negative net debt by 2005-06.[2]

The Commonwealth's securitised debt forms only a component of its total liabilities, a major part of which is very similar in nature to 'debt'. In particular, its substantial unfunded superannuation liabilities (around $84 billion in 2002-03[3]) are certain obligations defined by legislation and trust deeds, fall due at regular and predictable intervals over a long period and should be regarded as little different from obligations such as securitised debt. Indeed the rating agencies so view these liabilities.[4]

The longer-term picture for Commonwealth finances (and borrowing requirements) is not clear, with the Commonwealth's own 2002 *Intergenerational Report* highlighting that trends such as the ageing of the population and effective but costly technological advances, especially in health, will mean increasing demands on the Budget in coming decades. With relatively stable revenue flows projected on base assumptions, this suggests a steady worsening of the Commonwealth's fiscal position in relation to GDP from 2008-09 onwards.[5]

Following concerns expressed by market participants, the Commonwealth Government undertook to consult interested parties on the future viability of the CGS market. The Government issued a Discussion Paper in late October 2002 and requested submissions on a range of issues.

One of the options canvassed by the Commonwealth is to maintain the CGS market and fund the Commonwealth's unfunded superannuation liabilities ('Option 3'). This option raises a number issues related to matters such as governance and budget treatment, on which the Commonwealth has requested stakeholder views.

Option 3 canvassed by the Commonwealth has parallels with developments in a number of other jurisdictions. For example:[6]

- Victoria and New South Wales have allocated financial assets to superannuation funds to meet their superannuation liabilities;

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[1] Commonwealth of Australia (2002a), 'Budget Statement 7: Budget Funding', *2002-03 Budget Paper No. 1*, Canberra, p. 7-3.

[2] Commonwealth of Australia (2002b), *2002-03 Mid-Year Economic and Fiscal Outlook*, Canberra, p. 26.

[3] Commonwealth of Australia (2002c), *Review of the Commonwealth Government Securities Market: Discussion Paper*, October, p. 94.

[4] The parallels between securitised debt and unfunded superannuation liabilities are recognised by, for example, Standard and Poor's (see Media Release of 7 October, 2002, "Victoria's 'AAA/A-1+' Ratings Affirmed on the Strength of Its Balance Sheet").

[5] Commonwealth of Australia (2002d), *2002-03 Budget Paper No. 5*, Canberra, p. 57-59.

[6] Commonwealth of Australia (2002c), pp. 88, 143.

- Queensland holds a diversified asset portfolio principally dedicated to meeting the future superannuation and other liabilities of government sector agencies; New South Wales has also recently announced the establishment of an investment fund that will hold financial assets against the State's superannuation liabilities; and
- New Zealand has established the New Zealand Superannuation Fund to pre-fund part of its future age pension liabilities.[7]

1.2 This Report

In brief, our project team was asked to investigate the issues involved in the Commonwealth Government managing assets and liabilities, based on the experience in New Zealand, some of the Australian States and with the Commonwealth superannuation funds.

The team was also asked to respond to the specific questions raised by the Commonwealth in relation to Option 3 in its Discussion Paper and to structure this report around those questions. The Commonwealth asked for stakeholder views on:

(a) governance arrangements for a hypothecated asset fund that stakeholders suggest would insulate investment decisions from direct Government control;

(b) whether funding the unfunded superannuation liability through a superannuation fund is a good way of dealing with the governance issues associated with substantial Government asset holdings;

(c) the appropriate limits on holdings of any single instrument if the Government were to invest in debt securities;

(d) the appropriate limits for equity holdings in any one company if the Government were to invest in equities;

(e) the likelihood of Government investment distorting asset prices;

(f) the impact of restricting Government investment to foreign securities; and

(g) the increased uncertainty for fiscal policy arising from variations in investment returns.

The detailed Terms of Reference for this report are set out in Appendix A.

The report is structured as follows:

- Section 2 looks at the broad issue of whether there is an economic case for the Commonwealth to begin funding its unfunded superannuation liabilities;
- Section 3 looks at relevant fiscal policy issues, including those relating to the budget treatment of accumulating assets (and answers Commonwealth question (g) above);
- Section 4 considers governance issues (and answers the Commonwealth's questions (a) and (b)); and
- Section 5 considers investment strategy issues (and answers the Commonwealth's questions (c), (d), (e) and (f)).

[7] In New Zealand, the equivalent of Australia's age pension is called 'superannuation'.

The report draws on published information and interviews with a number of experts in these matters in several jurisdictions (see Appendix B for details), as well as our own expertise.

Section 2

Is There a Case for Funding the Unfunded Superannuation Liabilities?

2.1 The Scope of the Issue

Taking a broad view of government balance sheet matters, a substantial change (such as the sale of a large asset (e.g. the Commonwealth's shareholding in Telstra) and/or the prospect of reaching a watershed point such as the elimination of gross debt) would usually prompt a review of the broad structure of the balance sheet and of alternative uses of incoming funds. Options would include, for example:

- investment in physical infrastructure assets, such as transport or environmental infrastructure or social infrastructure;
- the acquisition of financial assets, either for a specific purpose (such as to help fund the future demands on the Budget highlighted in the *Intergenerational Report* arising, in part, from the ageing of the population, or to 'match' currently unfunded superannuation liabilities) or to achieve a desirable overall public balance sheet structure; and
- reduction of liabilities, including both securitised debt and unfunded superannuation liabilities.

Here, the issue at hand has a relatively narrow scope. The Commonwealth Government has ruled out options that involve a change in what it calls 'fiscal strategy' — that is, options that involve a change in the burden of taxes or level of expenditure on programs, at least in the short run (all options canvassed will have 'fiscal' effects in this sense in the longer term, which is of course part of the rationale for considering them). The discussion here is therefore restricted to the issue of the composition of the Commonwealth's *financial* assets and liabilities, given no short-run change in 'fiscal strategy'.

Within that narrow scope, the Commonwealth has nominated two possible uses of future cash surpluses: the repayment of securitised debt, which would result in a winding down of the CGS market; and the funding of its unfunded superannuation liabilities, while retaining the CGS market.

Two broad economic considerations argue in favour of funding the unfunded superannuation liabilities and maintaining the CGS market:

- the role of debt financing in the context of the overall public balance sheet, the benefits it delivers and the appropriate recognition and meeting over time of the servicing costs; and
- the benefits of pre-funding the superannuation liabilities.

2.2 The Role of Debt Financing

The main options for financing government operations are: taxation revenue, non-tax revenue (such as user charges, fees and fines, dividends and interest), debt and asset sales. The characteristics of these options vary, resulting in differences in where the 'burden' of financing lies. For example, taxes impose income-related burdens on current taxpayers, while debt imposes intergenerational burdens.[8]

Different financing options will therefore have different social and economic effects that need to be taken into account in settling on the most appropriate mix of government financing. It is clear, though, that each option has a role to play, with choices among them influenced by the nature of the expenditure being financed and, in some cases, by practical considerations.

Experience in past decades in Australia and elsewhere demonstrates that governments need to be wary of **over**-relying on debt financing. Where debt levels are unsustainable in economic terms, they impose heavy burdens on future generations; even short-term escalations in debt can be regarded by markets as a sign of a lack of fiscal discipline and governments can face sharply higher interest rates.

However, there **is** a role for debt financing where governments have made (and continue to make) investments that will accrue benefits over time. This is true of investment in areas such as physical infrastructure (e.g. roads, bridges, other transport links, buildings), environmental repair and social investment (e.g. aspects of health and education spending that yield benefits over time). In these cases, it would be inequitable to ask those paying taxes at the time of investment to bear its full cost. Financing such investments by debt allows the costs and benefits of the investment to be better matched over time, so that each generation's contribution is broadly in line with the benefits it receives, and public net worth is passed on intact (or improving).

> "At the heart of the issue is the desirability of leaving the economic and social infrastructure intact from one generation to the next. This requires broadly matching the timing of services or benefits with their cost to the community. More generally, it requires that the government adopt the strategic approach of maintaining (or, where possible, increasing) the net worth of the public sector."
>
> Queensland Commission of Audit (1996), *Report of the Queensland Commission of Audit*, *Volume I*, p. 25.

These principles suggest that the most often used rules of thumb for debt financing by governments are if anything unduly conservative. For example, if debt is only used to fund capital projects that promise a return sufficient to fund the repayment of principal and interest, this could lead to underinvestment in 'social' infrastructure, which generates returns to the community but not necessarily as direct financial returns. The result is a loss of, or failure to enhance, net worth.[9]

An even more conservative approach — of maintaining no government debt — also clearly runs this risk, as well as imposing a larger than justified burden of financing on *current* taxpayers.

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[8] Queensland Commission of Audit (1996), *Report of the Queensland Commission of Audit*, *Volume I*, p. 23. (Members of the Commission were: V. FitzGerald, J. Carmichael, D. D. McDonough, and B. Thornton.)

[9] Queensland Commission of Audit (1996), p. 25.

Box 2.1

KEY CONCLUSIONS

Where governments have made (and continue to make) investments in infrastructure or other areas that will accrue benefits over time, there is a role for some debt financing. The Commonwealth Government is clearly in this situation; there is therefore a case on economic grounds for maintaining some outstanding Commonwealth Government debt.

2.3 The Benefits of Funding the Unfunded Liabilities

Similar grounds suggest that there is a good case for starting to fund the Commonwealth's unfunded superannuation liabilities now. (There is also a case in respect of other entitlements, notably long service leave — although the magnitudes are much smaller and time horizons shorter.)

The superannuation liabilities were accumulated because the full cost of employing (mainly) Commonwealth public servants has not been funded over a long period in the past. The services of those Commonwealth employees generated benefits to the community at the time, but there would be relatively little continuing benefit from **past** employment and services.

Sound public finance and equity principles suggest that the taxpayers of the day should finance the full cost of contemporaneous government employees. With full funding not having occurred in the past, the issue now becomes one of how best to fund the outstanding liabilities.

Intergenerational equity considerations are still relevant, even though it is too late to ask for a greater contribution from past generations:

- Future taxpayers should not be expected to bear the full cost of meeting the unfunded superannuation liabilities — the longer it is before the liabilities are funded, the less likely it is that taxpayers meeting the cost will have benefited from the services of the Commonwealth employees concerned.
- However, the *current* generation of taxpayers should not be required to meet **all** of the cost of funding the liabilities either, when a large part of the accrued liability relates to long past service of Commonwealth employees.

Given that the liabilities have accumulated, the most equitable solution is to share the funding burden across generations and to fund the liabilities as efficiently as possible — that is, at least cost. Beginning to fund the liabilities now helps to achieve both these goals.

2.3.1 Sharing the Burden

The Commonwealth Discussion Paper on the future of the CGS market suggests that applying proceeds from issuing CGS to fund the Commonwealth's superannuation liability is unlikely to change the intergenerational distribution of costs because future generations would bear the cost of the debt as well as the means of meeting the liability.[10]

[10] Commonwealth of Australia (2002c), p. 94.

Within the narrow confines of the argument, this has some substance, although it is likely that the returns from a balanced portfolio of investments would be higher than the cost of debt on an average basis, and even on a risk–adjusted basis, given long investment horizons (this is discussed further below). Thus starting to fund now would help to relieve future generations of part of the burden of meeting the liabilities as they crystallise in future.

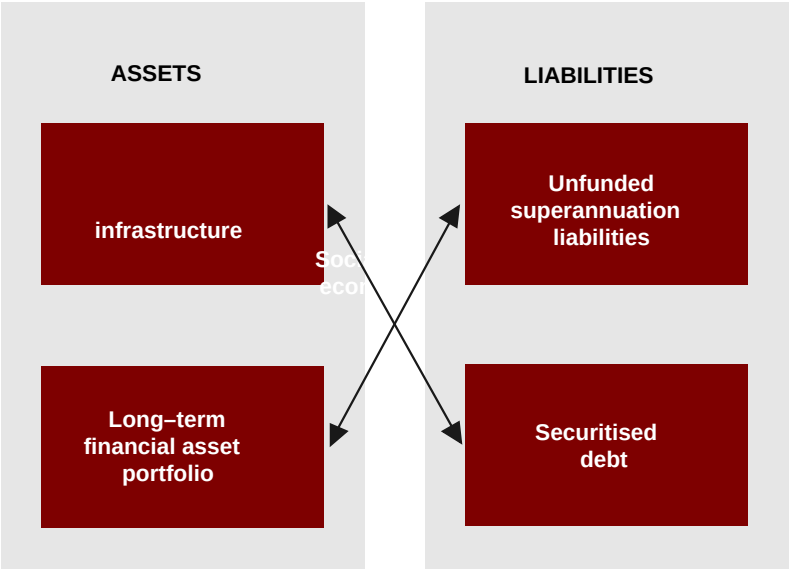
More broadly, though, the discussion in Section 2.2 is relevant to intergenerational equity considerations:

- if it continued to issue debt, the Commonwealth would appropriately be asking future generations to recognise and contribute to the cost of investments that will provide them with benefits;
- in starting to fund the superannuation liabilities, the Commonwealth would appropriately be asking less of future generations in meeting these particular costs. It can also be argued that in applying the proceeds of the sale of Telstra to partially fund these liabilities rather than reduce securitised debt, the Government would be appropriately using an asset accumulated by previous generations to fund liabilities accumulated by previous generations (as well as diversifying its asset base).

This strategy would therefore result in better matching of Commonwealth assets and liabilities as far as these components of the Commonwealth balance sheet were concerned (illustrated in Figure 2.1) and, as a result, a more equitable distribution of financing burdens across generations.

Figure 2.1

BETTER MATCHING OF SOME COMMONWEALTH ASSETS AND LIABILITIES



2.3.2 Funding at Least Cost

The Commonwealth is currently meeting the cost of accrued superannuation entitlements as they are claimed by former Commonwealth employees on a pay-as-you-go (PAYG) basis, effectively matching the superannuation liabilities with the growing 'asset' of the tax base. This 'asset' should ideally be dedicated to meeting the expense of delivering current services and benefits, since taxes are sourced (broadly) from the generation currently enjoying those services and benefits.

Feldstein[11] notes that although a PAYG system of funding pension or similar entitlements does not utilise a return on invested funds, the increase in the tax base that results from a growing labour force and increasing average real wages implies that a PAYG system can generate an analogous increasing capacity to pay for government services and benefits over time. In effect, it is an 'asset' whose real yield is growth in the employed work force plus growth in per capita productivity. The nominal yield is then approximately the growth in nominal GDP.

Treasury analysis confirms that the Federal tax base in Australia indeed grows broadly in line with nominal GDP.[12] Growth in nominal GDP has typically been around 6 per cent in recent years, but is projected to decline to under 5 per cent in coming decades as growth in the labour force slows.[13]

The Commonwealth's superannuation liabilities are expected to rise at an average nominal rate of around 2 per cent per year over the forward estimates period[14] and the emerging employer cost of the major components of the liability were projected in 1999 to decline as a proportion of GDP in coming decades.[15]

This may seem to suggest a reasonable match of assets (the tax base) and liabilities. However, it ignores the nature of the superannuation liabilities and the fact that the entitlements will generally be claimed over a long period into the future, well after most of the liabilities are accrued, i.e. well after the government benefits and services they relate to were delivered. Moreover, this long time lag gives the Commonwealth the opportunity to generate additional returns to fund the emerging entitlements by investing in a balanced portfolio of investments including growth assets albeit with attendant higher (but managed) risk, and thus to reduce the cost to future taxpayers of meeting these entitlements.

Table 2.1 shows the average and median nominal return on balanced funds, after tax and management fees, over the periods 1983 to 2002 and 1991 to 2002 (the latter period is also shown because asset-weighted average returns are not available before 1991). These rates of return compare favourably with the Commonwealth's cost of borrowing over the same periods (using yields on Commonwealth 10 year bonds as a proxy for the cost of borrowing), even taking account of fund management fees and tax (Commonwealth taxes, of course, would not be payable in net terms by the Commonwealth).

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[11] Feldstein, M. (1997), "Transition to a Fully-Funded Pension System: Five Economic Issues", National Bureau of Economic Research Working Paper 6149, p.3.

[12] Commonwealth of Australia (2002d), p. 53.

[13] Commonwealth of Australia (2002d), p. 30.

[14] Commonwealth of Australia (2002c), p. 94.

[15] Commonwealth of Australia (2000a), *PSS and CSS Long Term Cost Report*, Report by Towers Perrin using data as at 30 June 1999, www.dofa.gov.au/super; Commonwealth of Australia (2000b), *Military Superannuation and Benefits Scheme and Defence Force Retirement and Death Benefits Scheme*, Report by the Australian Government Actuary using data as at 30 June 1999, www.dofa.gov.au/super.

Balanced portfolios comprise a mix of income-generating assets, including debt securities and equities, with a well-constructed portfolio generating the maximum return consistent with a particular level of risk, which relates to the investment horizon. Where the horizon is long, as would be the case for a portfolio designed to fund superannuation liabilities, the optimal asset mix would include growth assets including equities. Even on a risk-adjusted basis, such a portfolio will dominate low risk, low yield portfolios over long horizons. As is well known, a cash or fixed income portfolio will, with high probability, perform very much worse over decades than an efficient balanced portfolio — a conclusion reflected in the portfolio choices of all responsible superannuation fund trustees.

Table 2.1

RETURNS ON BALANCED PORTFOLIO VS COMMONWEALTH BOND YIELDS

	Average Commonwealth 10-year Bond Yields, calendar year[(a)], (per cent)	*Nominal Return on Balanced Funds, Year to October[(b)] (per cent)*		
		Arithmetic Mean	*Asset Weighted Mean*	*Median*
1983 to 2002	9.8	12.2	na	12.1
1991 to 2002	7.5	9.1	8.7	9.3

(a) Bond yield for 2002 is average of January to end-October.
(b) Rates of return are after tax and after management fees.
Sources: Reserve Bank of Australia, *Bulletin*; Reserve Bank of Australia, *Economic Statistics*; Mercer Investment Consulting, Pooled Funds Survey- Balanced Funds. Surveys covered between 22 and 41 funds each year.

Table 2.2 shows that over 20 and 30 year time horizons, Australian equities have typically earned a nominal return substantially higher than the Commonwealth bond yield. This premium reflects the higher risk associated with investing in equities, which is also seen in greater **short-term** volatility of equity returns. The risk attaching to equities can be ameliorated advantageously by combining with other (distinct) asset classes in an efficient portfolio. It is more difficult to obtain long term data on such portfolios, but they are much closer on the spectrum to equities than to fixed income securities. Annual average returns for balanced funds from the Mercer survey underlying Table 2.1 show a minimum average return of negative 4.7 per cent (in 2002) and a maximum average return of 34.8 per cent (in 1986).

It is notable, though, that over the 30 year time horizon, average nominal equity returns appear to have been relatively stable at between 11 and 12 per cent (the same is true of real returns which, for the same 30 year periods as in Table 2.2, ranged from 4.2 per cent to 4.8 per cent[16]). The variation in average equity premiums over the 30 year periods shown in Table 2.2 came mainly from variation in the Commonwealth bond rate, associated with substantial shifts in the rate of inflation, rather than from large variation in average equity returns over extended periods.

[16] Dimson, E., Marsh, P. and Staunton, K. (2001), *Millenium Book II — 101 Years of Investment Returns*, ABN AMRO and London Business School, London, p. 157.

Table 2.2

NOMINAL RETURNS ON EQUITY VS COMMONWEALTH BOND YIELDS FROM 1950

	Average Commonwealth 10-year Bond Yields (per cent)	*Average Nominal Return on Australian Equities (per cent)*	*Average Equity Premium (percentage points)*
20 year horizons:			
1950 to 1969	4.6	14.6	10.0
1960 to 1979	6.7	9.1	2.4
1970 to 1989	10.9	11.2	0.3
1980 to 1999	11.0	14.5	3.5
30 year horizons:			
1950 to 1979	5.9	11.4	5.5
1960 to 1989	8.9	11.9	3.0
1970 to 1999	10.1	11.3	1.2

Sources: Reserve Bank of Australia, *Bulletin*; Reserve Bank of Australia, *Economic Statistics*; Dimson, E., Marsh, P. and Staunton, K. (2001), *Millenium Book II — 101 Years of Investment Returns*, ABN AMRO and London Business School, London, p. 155.

The Commonwealth states in its Discussion Paper that it has a low tolerance for risk,[17] although many would argue that governments in general have no lower tolerance for risk than the community overall and that in fact one of their roles is to absorb some risk from other sectors, especially in extreme situations such as natural disaster, particular corporate collapses and individual misfortune. The Commonwealth's appetite for financial risk will clearly influence decisions about the appropriate make-up of any investment portfolio. The risk of some **short-term** fluctuation in returns from such a portfolio will remain and needs to be handled (this is discussed in more detail in the following Section). However, the analysis above suggests that:

- there are clear potential gains to be made — and thus potentially substantial savings to future taxpayers — from investment in a balanced portfolio that includes some equity component (effectively diversifying the Government's asset base); and
- the **long-term** returns associated with such investments appears to be high relative to the risks. Recent US evidence on expected returns from equity investment[18] suggests that the ex post return to equity in the past 50 years has been significantly higher than expected returns (based on fundamentals); and that expected returns have been higher than what is usually regarded as the compensation needed for the riskiness of equity, given a reasonable view of risk aversion (a margin of 1/2 to 1 percentage point over the bond rate). The explanation for this is not entirely clear, and it is not clear whether ex post returns will continue to be higher than expected returns, but broadly, it has something to do with ups and downs averaging out more as the horizon is extended (more, that is, than expected on the basis of shorter-term experience). However, even if actual returns converge towards expected levels, investment in equities would continue to more than compensate for the risk of the investment, given reasonable views about risk.

[17] Commonwealth of Australia (2002c), p. 90.

[18] Fama, E. F. and French, K. R. (2002), "The Equity Premium", *Journal of Finance*, April, pp. 637-659.

– For a long-term investment strategy, then, the Commonwealth looks to be overly pessimistic in commenting that 'The level of returns exceeding the interest cost of CGS would closely relate to the additional risk and any additional operational costs'.[19]

Other jurisdictions, both within Australia and elsewhere, have come to the conclusion that the costs associated with short-term fluctuations in returns are outweighed by the likely gains over the long term of investing in a balanced portfolio, especially where the purpose of the fund is related to a long-term funding need. See, for example, comments by the New Zealand Minister of Finance in 2000 in relation to the choice between continuing to pay down debt and pre-funding part of the Government's future obligations for the New Zealand equivalent of the age pension, New Zealand Superannuation (Box 2.2).

Box 2.2

PRE-FUNDING IN NEW ZEALAND

"Instead of pre-funding, the Government could finance the future cost of [New Zealand Superannuation] by conscientiously continuing to reduce net borrowing to zero and only then building up net positive financial assets; or establishing a general government fund of financial assets. Establishing a separate dedicated Fund now rather than first paying down debt is preferred for two reasons.

First, having to make explicit annual provision for funding of future obligations brings home to the present the cost of future retirement income obligations. The political reality is that, without that discipline, the demands of current expenditure would be likely to dominate, and continuing to rapidly pay down Crown debt much below the comfortable levels we already enjoy would not receive the same priority. …

Second, I do not pretend that there is any "free lunch" from the higher returns likely to be obtained from investing in risky financial assets. However, there certainly are benefits for the financial position of the Crown as a whole from diversifying its portfolio of assets and liabilities."

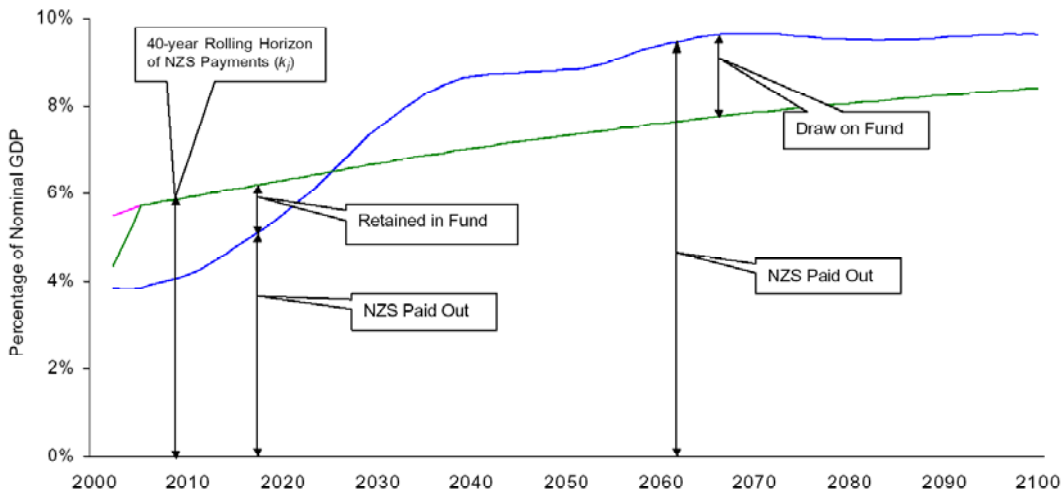
Source: The Hon Dr Michael Cullen (2000), "Pre-Funding New Zealand Superannuation: Funding Arrangements", Minute to Chair, Cabinet Policy Committee, 6 September, www.treasury.govt.nz/release/super/default.asp.

In New Zealand's case, the strategy has involved a bolder step than that currently being considered by the Commonwealth, with potentially very substantial returns. Rather than a rearrangement of the Government's balance sheet, the accumulation of an asset portfolio in New Zealand represents a deliberate change in fiscal policy, with the aim of saving somewhat more now to fund future demands on the budget as the population ages. The projected gains to future New Zealand budgets from some pre-funding are substantial, thanks to the likely returns over the long term from a balanced portfolio of assets and the impact of reinvesting earnings over the initial decades of the Fund's life (see Figure 2.2).

[19] Commonwealth of Australia (2002c), p. 89.

Figure 2.2

THE GAINS FROM PRE-FUNDING IN NEW ZEALAND



Source: New Zealand Treasury New Zealand Superannuation Fund Model in McCulloch, B. and Frances, J. (2001), *Financing New Zealand Superannuation*, New Zealand Treasury Working Paper 01/20, Figure 3.

Given the future pressures on Commonwealth budgets identified in the recent Inter-Generational Report and the likely benefits of pre-funding part of future costs, there is a case for the Commonwealth to consider a move similar to New Zealand's. However, even without such a move, the more limited step of funding the unfunded superannuation liabilities has clear long-term benefits, as discussed above.

Box 2.3

KEY CONCLUSIONS

Funding the Commonwealth's superannuation liabilities would have two benefits: there would be some (small to moderate) redistribution of the funding burden away from future generations, effectively sharing the burden better between current and future generations; and generally, through investment in a balanced portfolio, the liabilities could be funded at lower cost to all taxpayers over the long term.

Funding these liabilities and continuing to issue securitised debt would result in better matching of Commonwealth assets and liabilities as far as these components of the Commonwealth balance sheet were concerned and, as a result, a more equitable distribution of financing burdens across generations.

2.4 Options

Given that there is a case for funding the Commonwealth superannuation liabilities, the remaining issue is how this would best be done.

The Government notes two options in its Discussion Paper:

- the creation of an asset fund hypothecated against the superannuation liabilities; and
- transferring funds into a superannuation fund.

The remainder of this report considers various implications of these options and provides responses to the specific questions raised in the Commonwealth's Discussion Paper in relation to their Option 3.

We assume for the purposes of the analysis that the asset fund would be classified as within the general government sector, but that the superannuation fund would be outside that sector.

We also interpret the second option reasonably broadly, including the possibilities of:

- the Commonwealth creating an additional fund for management by structures that already exist — such as the Commonwealth Superannuation Scheme (CSS) and the Public Sector Superannuation Scheme (PSS) Boards and administration — or by structures that are close variants on them; or
- the Commonwealth placing funds with existing public sector superannuation funds, such as the CSS and the PSS for management alongside, but separate from, employee funds;
  - we are advised that this may be possible for the PSS with only a change in the Trust Deed (not requiring amended legislation), but that a change in legislation would probably be required to enable the Commonwealth to place funds directly with the CSS scheme for management under its existing structures.

Section 3

Fiscal Policy Issues

3.1 Fiscal Goals

In simple terms, the funding of the Commonwealth's unfunded superannuation liability involves a rearrangement of the Commonwealth's balance sheet, by the exchange of one type of asset (cash) for another (a portfolio of assets) or, where the assets are funded through borrowing, the acquisition of one type of liability (debt) and the acquisition of a portfolio of assets.

The analysis in Section 2 suggests that the funding of these liabilities through investment in a balanced portfolio of assets, financed by borrowing, would be positive in both economic terms and financial terms for the Commonwealth public sector as a whole over the long term.

- The better matching of assets and liabilities on the Commonwealth balance sheet would achieve a more equitable distribution of financing burdens across generations.
- The diversification of the Commonwealth's assets through the accumulation of a balanced portfolio of assets rather than repaying debt (or taking a step back in the process, holding a portfolio rather than equity in a single entity, Telstra) would enable the Government to reduce taxes, increase spending in other areas, build up the Commonwealth's net worth or a combination of all three.

This strategy would therefore be consistent with the Commonwealth Government's medium-term framework for fiscal policy, designed to 'ensure that government finances remain sustainable over time'.[20] It would, in fact, be a next logical step for a Government that has made considerable progress in meeting its fiscal goals.

The nature of government budgeting and accounting and the associated commentary, however, does not always keep the focus on either the position of the broad Commonwealth public sector, or the long term. For example:

- the principal Commonwealth financial accounts (prepared under the Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) framework) focus on the general government sector, rather than the public sector as a whole — and this is reflected in the Commonwealth's stated medium-term goals for fiscal policy:[21]
  - a primary objective of maintaining budget balance, on average over the course of the economic cycle;
  - supplementary objectives of:
    - maintaining surpluses over the forward estimates period while economic growth prospects remain sound;

[20] Commonwealth of Australia (2002e), 'Budget Statement 1: Fiscal Strategy and Budget Priorities', *2002-03 Budget Paper No. 1*, Canberra, p. 1-7.
[21] Commonwealth of Australia (2002e), p. 1-7.

  - no increase in the overall tax burden from 1996-97 levels; and
  - improving the Commonwealth's net asset position over the medium to longer term;

- some reported budget aggregates — such as the underlying cash balance — are useful for particular purposes, but do not capture the full economic significance of financial flows;
- the classification of asset and liability classes does not always capture their true nature. For example, we would argue that superannuation liabilities are akin to a debt — they are certain obligations defined by legislation and trust deeds, they fall due at regular and predictable intervals over a long period, etc — and should be regarded as little different from obligations such as securitised debt, and yet they are classified differently and are not considered to be part of the Government's gross or net 'debt'; and
- the nature of the political cycle means that there is inevitably a media focus on fluctuations in budget aggregates in particular years, although there are signs that some financial commentators are becoming more sophisticated in this area.

The Commonwealth Government is therefore understandably concerned about potential impacts in both the short term and long term on standard budget accounting aggregates of the funding of superannuation liabilities. This issue is examined in the following sections.

3.2 Budget Accounting Treatment

In recent years, most Australian jurisdictions have moved from a cash to an accrual basis for government accounting and reporting. There are two main accrual-based standards for public sector budgeting and reporting in Australia:[22]

- the ABS GFS standard, which is an economic reporting standard for governments based on relevant international standards (the United Nations' *System of National Accounts* (SNA93) and the IMF *Manual on Government Finance Statistics*); and
- the Australian Accounting Standard (AAS31), *Financial Reporting by Government*.

In March 2000, the Australian Loan Council agreed to a revised uniform presentation framework for accrual-based budgetary and fiscal information that should be published by Australian governments for external purposes. That framework is based on the ABS GFS framework.

The Commonwealth's principal reporting framework is the ABS GFS framework, but it also reports on an AAS31 basis. A number of States (including Queensland and Victoria) use AAS31 as their principal reporting framework, but also report on a GFS basis.

This Section considers the budget accounting treatment of two options — funding the Commonwealth's unfunded superannuation liabilities and repaying Commonwealth securitised debt.

[22] Commonwealth of Australia (2000c), *Accrual Uniform Presentation Framework*, for the presentation of Uniform Information by Commonwealth, State and Territory Governments, April, www.Treasury.gov.au, p. 3.

It is important to note that the analysis here and in Appendix C is limited in scope. It takes the Government's 'fiscal strategy' as given and does not, in particular, examine the impact on the various budget aggregates of transactions such as the sale of the remaining Commonwealth equity in Telstra. The budget treatment of the two options is therefore considered in isolation from the effect of other events that would, in some cases, have offsetting implications for budget aggregates such as net debt.

3.2.1 GFS Treatment

Appendix C to this report outlines the detailed impact on GFS budget accounts of:

- various aspects of the treatment of superannuation (Section C.1);
- using cash already held to (partially) fund the Commonwealth's superannuation liability (Section C.2), either by:
  - transferring funds to an existing unfunded superannuation scheme (outside the general government sector, as we understand the relevant Commonwealth schemes are regarded as being[23]) for their trustees to manage. (The budget accounting impacts would be similar if the Commonwealth transferred the funds to a new superannuation scheme outside the general government sector); or
  - transferring funds to a hypothecated fund (within the general government sector) as partial 'offset' to the superannuation liability; and
- using cash to pay down (securitised) public debt.

In summary, for the main alternative uses of future surpluses being considered by the Commonwealth:

- (Partially) funding the unfunded superannuation liability by transferring funds to unfunded superannuation schemes, for their trustees to manage has the following effects:
  - a rise in net debt when the payment is made, possibly with no effect on the underlying cash balance;[24]
  - in following periods, the net operating balance (and thus net worth) and the underlying cash balance are affected by the *net* impact of changes in various interest and earnings flows. If the transferred funds earn more in the fund on average than they would have earned as cash and short-term deposits (allowing for management costs), and fund investment returns are used to meet PAYG pension payments, the impact on both the net operating balance (and thus net worth) and the underlying cash balance will be positive.
- Transferring funds to a hypothecated fund (within the general government sector), as partial 'offset' to superannuation liability, has the following effects:
  - no impact when the payment is made;

[23] This is because they are not 'controlled entities'.

[24] A view on this was sought from Commonwealth Treasury. Their view is that the underlying cash balance is affected in this situation but they emphasised that there is uncertainty around the treatment of such a transaction ahead of implementation and detailed work on classification issues. Our own view is that in economic substance the transaction would amount to assigning part of the Commonwealth's assets for meeting future emerging liabilities, and that this is not in economic terms a current expense. We note that this issue does not arise where funds are transferred within the general government sector to a fund hypothecated solely to meeting emerging superannuation liabilities.

  - in following periods, the impact on net debt depends on the composition of financial assets held by the fund (no change if invested in fixed income securities, but would rise to the extent equities were purchased). The net operating balance (and thus net worth) and the underlying cash balance are affected by the net impact of changes in various interest and earnings flows. If the transferred funds earn more in the fund than they would have earned as cash and short-term deposits (allowing for management costs), the impact on both the net operating balance (and thus net worth) and the underlying cash balance will be positive.

- Using cash to pay off (securitised) public debt:[25]
  - a reduction in gross debt but not net debt when the payment is made;
  - in following periods, the operating balance (and net worth) and the underlying cash balance will be affected by the net impact of reduced interest on debt and reduced interest income on cash and deposits. If interest on borrowings is higher than interest on cash, the impact on both the net operating balance and (thus net worth) and the underlying cash balance will be positive.

This analysis suggests that funding the superannuation liabilities would be consistent with the Government's specific fiscal targets:

- net debt will be higher if the superannuation liabilities are funded than if debt is repaid, but net debt is not one of the Commonwealth's explicit fiscal targets set out in Section 3.1 — it appropriately uses the broader aggregate of net assets, that is, net worth. Funding the liabilities could be expected to have a more positive effect on net worth over time than paying down debt;
  - as noted above, we would also argue that superannuation liabilities are very much like debt in nature; and
- while initial payments to a superannuation fund outside the general government sector **may** affect the underlying cash balance, although this is not certain (see earlier footnote), this would in any case be avoided by the hypothecated fund approach. On either approach, the analysis in Section 2 suggests that returns on the balanced portfolio of assets (held by either the hypothecated fund or the superannuation fund) will be higher than the cost of Commonwealth borrowing over time and that this option will therefore have a more positive effect over time on the operating balance, net worth and the underlying cash balance than repaying debt. Also:
  - if the underlying cash balance is affected by the initial payment to a superannuation fund, the nature of the payment suggests that there would be a case for considering the presentation of a budget aggregate that nets out this payment (see Section 3.3).

[25] Strictly speaking, the treatment in this Section relates to the repurchase and cancellation of debt that is at or close to maturity and/or where the prevailing rate of interest is close to the rate at which the debt was issued. Where debt is repurchased some time ahead of maturity and the prevailing interest rate is different from the rate at issue, the Commonwealth would incur a capital loss (or, conceivably, a capital gain). While there would be no immediate change in the underlying cash balance from such a repurchase, the capital loss (or gain) would result in a reduction (or increase) in net worth being recorded in the Commonwealth's balance sheet (as well as a reduction in net debt). Under AAS31 treatment, the capital loss or gain would be recorded as a revaluation and would affect the operating result.

3.2.2 AAS31 Treatment

There are a number of differences in treatment under the AAS31 standard, compared with the treatment under GFS. The key difference relevant to the subject of this report is the treatment of capital gains and losses on financial assets.[26] Both GFS and AAS31 treatment recognise the impact of these gains and loses on government finances, but in different ways.

Under the GFS framework, gains and losses are treated as 'other economic flows—revaluations' and affect net worth, but not the operating balance. In the options examined above, the operating balance and underlying cash balance would be affected only indirectly by such gains and losses. For example, where capital gains allowed PAYG pension payments from the budget to be lower, the cash balance and operating balance would be improved (the former directly, the latter because interest on cash balances would be higher) — and vice versa.

Under AAS31, capital gains and losses are treated as either revenue or expenses in the operating statement and include profit and loss on the sale of assets, realised and unrealised gains and losses on derivative financial instruments, and realised and unrealised gains and losses on securities valued at historic cost.

The impact of recent capital losses has been clear in the financial accounts of States that use AAS31 as their principal reporting framework. For example, in its Pre-Election Budget Outlook published in mid-November, Victoria reported that the superannuation expense for 2002-03 was estimated to be $655 million higher than anticipated in the May 2002 Budget, mainly reflecting the impact of weak international equity market performance on the value of financial assets held by the State superannuation funds and therefore on the State's unfunded superannuation liability and superannuation expense.[27]

3.3 Short-Term Fluctuations

The remaining fiscal issue is the impact of short-term volatility in investment returns on Commonwealth Government finances.

While average returns from an investment portfolio could be expected to be higher than the bond rate over the long term, there would undoubtedly be years when they were low or negative. The Mercer survey shows that for 9 of the 20 years from 1983 to 2002, returns from balanced funds after tax and management fees were below the bond rate; in 6 years, returns were more than double the bond rate. The Commonwealth also points out that the total return on a financial asset often includes an element of capital gain[28] — there may be times when, until the asset is sold and the gain realised, this part of the return would not be available to fund cash payments to those receiving entitlements (although we note that relevant kinds of financial assets trade in highly liquid markets and can readily be sold for cash at short notice).

There will therefore be years when the impact on the operating balance, net worth and the underlying cash balance of funding the superannuation liabilities through borrowing will be negative.

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[26] Australian Bureau of Statistics (2000), *Information Paper: Accruals-based Government Finance Statistics*, March, www.abs.gov.au, para 6.6.

[27] Secretary of the Department of Treasury and Finance (2002), *Pre-Election Budget Update*, November, p. 11.

[28] Commonwealth of Australia (2002c), p. 102.

While this may pose a (mainly presentational) issue for governments, it is essentially transitory and therefore a matter of smoothing the fluctuations to the extent possible and presenting the reasons for remaining volatility carefully. Those jurisdictions that use AAS31 as their principal reporting framework have considerably larger fluctuations to deal with — as the example of Victoria shows, their operating balances can change by hundreds of millions of dollars in a few months due to market revaluations. Their willingness to press ahead with similar strategies, and the increasing understanding of financial commentators of the reasons behind the fluctuations and their significance (see Box 3.1), suggests that this is not a significant enough issue to outweigh the clear positive long-term benefits.

Possible strategies for handling the issue include:

- smoothing the impact on Commonwealth flows, where possible — for example, by allowing earnings to build up within the fund when returns are higher than average, rather than all being used to meet PAYG requirements; this would allow the Commonwealth's remaining contributions to PAYG commitments to be smoother;
- clear explanations of the reasons for fluctuations in budget aggregates and where relevant, the use of alternative measures.

Box 3.1

SELECTED COMMENTARY ON THE VICTORIAN PRE-ELECTION BUDGET UPDATE

"The largest drag on finances relates to the poor performance of investment markets, which has resulted in a blowout in the state's unfunded superannuation liabilities by more than A$1.2 billion in fiscal 2003. Even if investment markets return to historical average returns, the liability is expected to be A$1.5 billion higher than initially estimated by fiscal 2006. Continued weakness would obviously lead to a larger blowout.

Nevertheless, net financial liabilities are forecast to stay at low levels at about 60% of revenue, despite some upward drift in their dollar value. The impact of the increase in the unfunded superannuation liability has been partly ameliorated by an estimated reduction of A$800 million in net debt.

The implications of the weak investment markets for the state's cash finances are minimal. Indeed, the state's overall cash position—a summary budget measure favoured by some other jurisdictions—remains very strong, with a fiscal 2003 cash surplus estimated at just under A$1 billion. Cash flows have been boosted by the property market, which continues to be strong, providing the state with higher-than-expected conveyancing revenue."

Standard and Poor's (2002), "Victoria's Finances Remain Consistent with 'AAA' Rating", Press Release, 15 November.

"Yesterday Treasury wrote down its expected investment return this financial year from 7 per cent to just 1 per cent. Together with the Emergency Services super scheme going into deficit (and hence its net liabilities appearing on the budget books), this is why Treasury's estimates of spending and unfunded super liabilities have shot up. ... this has nothing to do with the government's economic management. All investment funds, public and private, are suffering the pain of the slump in global stock values."

Tim Colebatch (2002), "Odds on Labor as it serves up the bottom line, strong and black", The Age, 16 November.

"These [Victorian defined benefits] schemes have been closed to new members since 1994, so changes to the unfunded liability only arise from rises and falls in either the estimated future liabilities or the current value of the long-term investment portfolio. During 2001-02, the unfunded liability increased by $1.5 billion. Of this, $1.1 billion was due to negative investment returns on the investment portfolio. An investment performance comparable with that of the entire funds management industry and not attributable to any action or inaction of the State Government."

Glenn Moore (2002), "Unfunded superannuation in Victoria", Crikey.com, 11 November.

On the use of alternative measures, the Commonwealth already departs from the general GFS reporting framework in a number of respects.[29] Some of these departures occur for practical reasons — for example, to ensure reporting of reliable budget estimates and outcomes, taxation revenue is recognised the earlier of when an assessment of a tax liability is made or a payment received by the Australian Taxation Office or the Australian Customs Service. However, a number of departures are made because the Commonwealth judges that the GFS-recommended treatment would be misleading. For example, Commonwealth revenue and expenses estimates in some Budget Statements do not include Goods and Services Tax (GST) collections and equivalent payments to the States, even though the GST is constitutionally a Commonwealth tax and is widely recognised as such, including by the ABS (under international government finance guidelines).[30]

We do not suggest that the Commonwealth depart from accepted reporting standards in this case, but the presentation of additional measures that 'see through' the impact of short-term fluctuations in investment returns (and if relevant, the initial payments to the fund) would not be inappropriate. Indeed, the use of additional measures inside Government would be essential to enable judgements to be made about appropriate directions for fiscal policy. For example, New Zealand publishes a suite of budget aggregate measures, including an Operating Balance Excluding Revaluations and Accounting policy Changes (OBERAC). OBERAC abstracts from the effects of revaluations, including those to the New Zealand Superannuation Fund, and therefore provides a better basis than the operating balance for comparing outcomes with budget estimates and comparing outcomes over time.

Box 3.2

KEY CONCLUSIONS AND SUMMARY RESPONSE TO COMMONWEALTH QUESTION:

WHAT ARE STAKEHOLDER VIEWS ON THE INCREASED UNCERTAINTY FOR FISCAL POLICY ARISING FROM VARIATIONS IN INVESTMENT RETURNS?

The funding of the unfunded superannuation liabilities through investment in a balanced portfolio of assets, financed by borrowing, would be positive in both economic terms and financial terms for the Commonwealth public sector as a whole over the long term. It would also be consistent with the Commonwealth Government's medium-term fiscal objectives.

There may be years when the volatility of investment returns will mean that the effects on the operating balance, public net worth and the underlying cash balance of funding the superannuation liabilities by borrowing will be negative. While such effects may pose presentational issues for governments, they are essentially transitory. Dealing with them is a matter of smoothing the fluctuations to the extent possible and presenting public finances with appropriate explanations, including by the use of alternative budget aggregate measures where useful — e.g. to distinguish the balance on operations from the effects of transitory asset and liability revaluations. It is not a significant enough issue to outweigh the clear positive long-term benefits of the strategy, and it is one that is already being managed by a number of governments in Australia and New Zealand that adhere to transparent financial reporting standards.

[29] Commonwealth of Australia (2002e), 'Statement 2: Fiscal Outlook', *2002-03 Budget Paper No. 1*, p. 2-15.
[30] ABS (2000), Appendix 1.

Section 4

Governance Issues

4.1 Governance Considerations

Governance arrangements for any government investment fund need to be decided in the context of the particular purpose of the fund. In settling on the appropriate arrangements to define the relationship between the government and its fund (especially the degree of control over fund policies and operations; and access to fund resources) and requirements such as accountability standards, governments will face inevitable trade-offs. Some relevant, sometimes conflicting, considerations will be:

- whether the fund should fulfil a single financial purpose or be required to meet broader goals through, for example, investment to meet social, environmental and regional goals;
- the balance between risk and return — while a government may be keen for the assets to be managed commercially in order to maximise returns for a given level of risk, they may wish to retain reserve powers to influence the broad direction of investment policy under certain circumstances;
- public support and confidence — information, security, probity, accountability
  - adopting a policy of building a portfolio of assets requires strong public support and confidence in the ongoing arrangements — broad government funding arrangements need to be in place over the longer term and should not be subject to frequent reversals by future governments;
  - the government of the day will not want to face ongoing demands for the funds to be spent to meet immediate needs or to be used to lower taxes instead of being accumulated; nor will it want there to be doubts about the way the funds are managed or the purpose for which they will be used, either in the short term or by future governments;
- market confidence
  - a change in investment strategy by a publicly-owned investment fund could have sharp effects on market confidence under some circumstances — governments need to be aware of the impact of their investment activities, including any perceptions that their various roles are overlapping (for example, there may be concerns that a public fund could operate with 'inside' information usually only available to government);
- establishment, administration and management costs
  - asset management needs to be professionally handled but any new arrangements should involve a minimum of additional administrative and management costs; additional costs need to be outweighed by the benefits from moving to the new arrangements.

4.2 Experience to Date

Experience in other jurisdictions with asset management, and within the Commonwealth sector itself with the CSS and PSS,[31] provides some useful insights into these issues. The experience considered here range across the full spectrum of possible governance arrangements reflecting, in part, the different purposes of the various funds.

At one extreme are the CSS and PSS (and a number of State superannuation schemes which are not considered in detail), whose governance arrangements are set out in Box 4.1.

These schemes were established under acts of the Commonwealth Parliament, but are also subject to more general legislative requirements relating to superannuation, including the *Superannuation Industry (Supervision) Act 1993*. As the Commonwealth's Discussion Paper points out, this affords the Trustees of these and similar schemes a very substantial degree of autonomy in managing the funds. It also effectively protects any Government contributions to the funds from access by the Government for other purposes. As is the case with all legislation, both the fund-specific acts and the more general superannuation legislation are subject to change by future parliaments, but a significant change in the governance arrangements surrounding these and similar funds seems unlikely to be politically feasible.

[31] The discussion here is confined to the main Commonwealth superannuation schemes (in terms of coverage and liabilities), the CSS and PSS. Other schemes include the Defence Force Retirement and Death Benefits Scheme (DFRDB) which in 1991 was closed, like the CSS, and the Military Superannuation and Benefits Scheme (MSBS), which remains open. Governance arrangements for these schemes are broadly similar to those of the two main civilian schemes, whose liabilities are about twice the size of the military schemes'. In addition, there are the Parliamentary and Judges' schemes whose liabilities are significant but much smaller again.

Box 4.1

GOVERNANCE ARRANGEMENTS FOR COMMONWEALTH SUPERANNUATION SCHEME (CSS) AND PUBLIC SECTOR SUPERANNUATION SCHEME (PSS)

Legislation

The CSS and PSS are each governed by a Board of Trustees. The CSS Board is constituted under the *Superannuation Act 1976* and the attendant regulations to the Act. The PSS Board is constituted under the *Superannuation Act 1990* (the PSS Act).

In each case, the Board of Trustees is responsible for the management and investment of funds and has a responsibility to safeguard the assets of the scheme and the interests of the beneficiaries. The Board is accountable to members of the relevant Scheme under the Act, under the *Superannuation Industry (Supervision) Act 1993* (the SIS Act) and under general corporate legislation.

Board Appointment

All Trustees are appointed by the Minister for Finance and Administration and include representatives nominated by the Australian Council of Trade Unions (ACTU).

The PSS Board has five Trustees comprising: two with experience in the formulation of government policy and public administration; two nominated by the ACTU; and an independent chairperson. The CSS Board comprises those Trustees on the PSS Board plus two additional members. Of these two additional members, one is required to be a person with experience in, and knowledge of, the administration of public authorities. The other is nominated by the ACTU.

The CSS and PSS Boards are provided with administrative support from the Chief Executive Officer and the staff of Comsuper.

Relationship with Government and Funding

The Boards stand independent of the government of the day and independent of any other constituency. The principal responsibility of the Board is to act in good faith, with prudence and in the members' best interest in respect of the investment and administration of the Scheme. The SIS Act provides that fund rules must not, except in very limited circumstances, permit trustees to be subject to direction by another party and various provisions ensure that the trustees' powers and duties are unfettered.

Most of the PSS and CSS employer costs are met at the time of benefit payment rather than as the benefit is accrued. Were the Government to pre-fund some of these costs, it would not be able to access those funds unless there was a surplus of assets over liabilities (and, as the Commonwealth notes in its Discussion Paper, it may face difficulties in doing so even where there was a surplus, given the composition of the CSS and PSS Boards). They could, however, suspend payment to the funds temporarily and rely on existing fund assets.

Accountability Arrangements

Both Boards are required to produce an annual report to members and an annual report to Parliament, including financial statements audited by the Australian National Audit Office (ANAO).

The combined PSS/CSS Audit Committee advises both Boards on accountability and audit related matters. It operates as a check on the management practices of its own operations, the Scheme administrator (ComSuper), fund investment managers, and master custodians. The Audit Committee is the point of communication between the Board and the internal Audit Committee of ComSuper and with the ANAO.

The Department of Finance and Administration (DOFA) undertakes a Triennial actuarial long-term cost review of the CSS and PSS, with the last one in 1999-00. This report details to long term costs of the funds, including forecasts for unfunded liabilities.

Sources: Commonwealth Superannuation Scheme (CSS) (2002), *Annual Report 2001-02*, AusInfo, Canberra; Public Sector Superannuation Scheme (PSS) (2002), *Annual Report 2001-02*, AusInfo, Canberra; Commonwealth of Australia (2002c), *Review of the Commonwealth Government Securities Market: Discussion Paper*, October, p. 100; www.dofa.gov.au.

At the other extreme is the newly-created New South Wales General Government Liability Management Fund, which is to accumulate Government employer contributions and hold financial assets against the State superannuation liability. Its governance arrangements are set out in Box 4.2.

The New South Wales Government has over time made payments directly to its defined benefits public superannuation schemes, with the original objective of fully funding superannuation liabilities by 2045. As a result of higher than originally estimated employer contributions, various liability management initiatives and favourable investment returns over a number years, New South Wales now has the highest ratio of funded superannuation liabilities after Queensland and the Government has brought forward the full funding target date by fifteen years from 2045 to 2030.[32]

The purpose of the new fund is to provide more flexibility to manage unfunded superannuation liabilities in a way that minimises the costs of providing for this liability (including because the new fund will not be subject to Commonwealth tax, whereas the superannuation funds are). It will also allow finer estimation of the level of contributions that should be transferred to the superannuation trustee to meet the emerging liabilities and help to avoid the risk of overfunding.[33]

Given these intentions, the governance arrangements involve a reasonably close relationship between the fund and government, with management and oversight of the fund to be conducted largely within the Treasury, under the direction of the Treasurer (although day-to-day management of funds will be outsourced to the Treasury Corporation, once investment benchmarks are set by the Liability Management Ministerial Corporation, on the advice of the Management Committee).

[32] NSW (2002), *Budget Paper 2 – Budget Statement 2002-03*, Chapter 4: Net Financial Liabilities, http://www.treasury.nsw.gov.au/bp02-03/bp2/bp2.htm , accessed on November 15, 2002.

[33] NSW (2000) and consultations.

Box 4.2

GOVERNANCE ARRANGEMENTS FOR NSW GENERAL GOVERNMENT LIABILITY MANAGEMENT FUND

Legislation

The New South Wales Government established the General Government Liability Management Fund was established in July 2002 under the *General Government Liability Management Fund Act 2002*.

The Act specifies that the payments can only be made from the Fund to meet accruing or accrued superannuation liabilities (including surcharge debt liabilities incurred by judges), or, once those liabilities are fully funded (expected to be around 2030), to repay debt raised by the Treasury Corporation.

The Fund is established under legislation as a general government non-budget dependent entity.

Fund Oversight and Relationship with Government

The Act specifies that the Fund will be managed by the Liability Management Ministerial Corporation (LMMC), whose affairs are to be managed by the Secretary to the Treasury in accordance with any directions of the Treasurer.

A Management Committee is to advise the Secretary in relation to the management of the Fund, including investment strategy, appointment of consultants, investment managers, etc and monitoring and reviewing the performance of assets, investment and service providers and is to review the long-term fiscal target to eliminate State sector unfunded superannuation liabilities by 30 June 2030.

The Management Committee comprises: the Secretary to the Treasury, another Treasury officer appointed by the Secretary, the Chairperson of the STC Board (which manages the State's pooled superannuation funds) or his or her nominee, the Chief Executive of the Treasury Corporation or his or her nominee and one other person (not an officer of the Treasury) appointed by the Treasurer.

Accountability

The annual report of the LMMC is to be published as part of the annual report of the Crown entity prepared by the Treasury and the LMMC is subject to the *Public Finance and Audit Act 1983*.

Sources: NSW (2002), *Budget Paper 2 – Budget Statement 2002-03*, Chapter 4: Net Financial Liabilities, http://www.treasury.nsw.gov.au/bp02-03/bp2/bp2.htm, accessed on November 15, 2002; *General Government Liability Management Fund Act 2002;* Commonwealth of Australia (2002c), *Review of the Commonwealth Government Securities Market: Discussion Paper*, October; consultations.

Two examples between these extremes are:

- the Queensland Investment Corporation (QIC); and
- the New Zealand Superannuation Fund (NZF Fund).

The Queensland Government has a long record of fully funding its superannuation (and other) liabilities and the QIC evolved out of earlier arrangements within government for managing assets, in recognition of a desire to put this management on a more commercial footing. The QIC has an exclusive mandate as investment manager for the financial assets held for core government purposes[34] and has a range of government clients and other select investors.[35] Its governance arrangements are set out in Box 4.3.

[34] The State Service Superannuation Fund; Government Officers' Superannuation Fund; State Public Sector Superannuation Scheme (Qsuper); Parliamentary Contributory Superannuation Fund; Police Superannuation Fund; and for funds invested for and on behalf of the Consolidated Fund and Trust and Super Funds.

[35] The QIC's Charter limits the powers of the QIC Board to accept business that is not connected with the Queensland public sector, its employees or superannuants. To undertake business not connected with the Queensland public sector, the QIC Board must seek the approval of shareholding Ministers, on the basis that such external business would improve the ability of the QIC to achieve its core business objectives of

Box 4.3

GOVERNANCE ARRANGEMENTS FOR QUEENSLAND INVESTMENT CORPORATION

Legislation

The Queensland Investment Corporation (QIC) was established as a statutory authority under the *Queensland Investment Corporation Act 1991*. It is also subject to the *Government Owned Corporations Act 1993*.

Board Appointment

The QIC is governed by a Board which comprises a Chairman and eight directors, appointed by the Governor in Council. In appointing a person as director, the Governor in Council must have regard to the person's ability to make a contribution to the QIC's commercial performance and the implementation of the Statement of Corporate Intent.

The QIC's Chief Executive Officer is also appointed by the Governor in Council on the recommendation of the Board.

Relationship with Government

The QIC Board is accountable to the shareholding Ministers (the Premier and Treasurer) for development and maintenance of both the commercial and investment processes of the QIC. It is also accountable to shareholding Ministers for the achievement of commercial performance targets appropriate to the degree of risk undertaken by the QIC in respect of its business.

Shareholding Ministers have the responsibility for monitoring the integrity of the overall performance reporting process. They are also responsible for monitoring the commercial performance of the QIC as judged against the annual Statement of Corporate Intent, and for reviewing the annual corporate plan. In addition, the shareholding Ministers are responsible for undertaking appropriate and regular reviews of the QIC's operations and performance.

Under the QIC Act, the shareholding Ministers may not give directions to the QIC Board about the QIC's decision-making generally about investments; dealing in, or exercising voting rights attached to, securities of a corporation; otherwise dealing with assets or liabilities; or control or conduct of affairs of any entity which the QIC has an investment.

Most of the funds managed by QIC are hypothecated to specific purposes (mainly funding superannuation liabilities). The Government has no access to these funds unless there is a surplus of assets over liabilities; as in the case of the Commonwealth, its ability to access surplus funds is likely to be limited. The QIC also manages surplus funds for the Government that are not hypothecated — these are accessible for other purposes.

Accountability

QIC's accountability to its clients is established in a written agreement (Investment Policy Statement) between QIC and each client fund detailing the investment objectives and policies which QIC is to follow in respect of that fund.

The QIC is subject to the *Financial Administration and* Audit Act and the *Public Finance Standards*. The QIC must prepare and table annual reports in accordance with the requirements in the *Government Owned Corporations Act 1993*.

Sources: QIC Corporatisation Charter; Queensland (2002), *2002-03Budget Paper No. 2*; consultations.

The arrangements governing the relationship between the QIC and its government are clear and are governed by legislation — the arrangements define the relationship between a client (or several clients) and a service provider, where the provider has independence in managing the arrangements for providing services and is accountable to its clients. The funds under QIC management are not available for Government use for other than their prescribed purpose.

providing an effective funds management service to the Queensland public sector and also conditional on the business being obtained on a competitively neutral basis.

It is relevant to observe that the QIC's independence from government, as far as its operations are concerned, and the lack of access that governments have to the funds it manages are reinforced by Queensland's history of sound fiscal management. While the *QIC Act* and other relevant legislation are subject to change by future parliaments, this would be deemed by the electorate and by commentators a highly political act, given successive Queensland governments' rigour in fully funding their accruing liabilities — quite apart form concerns that would be expressed by superannuation beneficiaries.

The NZS Fund was established by the New Zealand Government to smooth the projected increases in the fiscal cost of New Zealand Superannuation (NZS). NZS is a universal pension paid to all eligible New Zealanders over the age of 65; the level of payment is based on the national average earnings level and is not subject to individual means-testing (but is taxable). Under current arrangements, annual pension payments are expected to rise from about 4 per cent of Gross Domestic Product (GDP) in June 2002 to more than 9 per cent of GDP by 2050. The projected increase reflects the rising proportion of New Zealanders who will be aged 65 and over.

As discussed in Section 2, in establishing the NZS Fund, the New Zealand Government has deliberately changed fiscal policy, with the aim of saving more now to fund future demands on the budget as the population ages. The Government is required to make contributions to the Fund each year which, for the first few decades, will need to cover the annual cost of NZS, along with an additional capital contribution to build up the Fund to help finance the transition to the higher future cost of NZS. In the longer run, the invested funds will be allowed to run down to zero, and the higher cost of NZS will need to be met on an ongoing basis from the annual Budget. Under current policy, the Fund is not projected to wind down to zero until into next century.[36]

The governance arrangements for NZS Fund are set out in Box 4.4.

Like the QIC, the NZS Fund has a significant degree of independence in its operations, enshrined in legislation — the Minister has power to give directions to the Fund's Guardians, but they are not bound by those directions. Government access to the funds for other purposes is ruled out by legislation; and access, even for the stated purpose of paying NZS, is not available until 2020.

The Government's key considerations in designing the Fund's governance arrangements were:[37]

- that the Fund be managed on a sound commercial basis to ensure that there are strong long-term returns; and
- that the Fund will not be available to the government of the day to use for any other purpose than the payment of NZS.

[36] McCulloch, B. and Frances, J. (2001), *Financing New Zealand Superannuation*, New Zealand Treasury Working Paper 01/20.

[37] McCulloch, B. (2000), *Pre-Funding New Zealand Superannuation,* New Zealand Treasury Working Document, June, p. 53.

Box 4.4

GOVERNANCE ARRANGEMENTS FOR NEW ZEALAND SUPERANNUATION FUND

Legislation

The New Zealand Superannuation Fund (NZS Fund) is established under the *New Zealand Superannuation Act 2001* (the Act). It is a financial portfolio of investments owned by the Crown that is held for the purpose of paying New Zealand Superannuation (the equivalent of the Australian age pension).

The Guardians of New Zealand Superannuation ('the Guardians') is the name of the Crown entity established under the Act to manage and administer the NZS Fund. The Guardians may organise the day-to-day management of the Fund as they see fit, and have the power to appoint the people required to administer the Fund, including fund managers and custodians. The Guardians are responsible only for the management of the Fund; administration of payments of NZS to recipients remains the responsibility of the Ministry of Social Development.

Board Appointment

All decisions relating the business of the Guardians must be made by a Board comprising five to seven members, each serving renewable terms of up to five years. Board members are appointed by the Governor-General on the recommendation of the Minister of Finance. The first Board of Guardians was appointed in August 2002.

The Minister must only recommend appointment of people who have substantial experience, training, and expertise in the management of financial investments, and who have been short-listed by a nominating committee. The Minister appoints this committee. It must comprise at least four people with proven skills or relevant work experience that will let them identify suitable candidates. The use of a nominating committee inserts an additional step that is not present in standard processes for appointments to boards of government authorities, where appointments are made directly by the Minister.

Relationship with Government and Funding

The Government of the day cannot instruct the Guardians on how to manage the Fund. However, the Minister of Finance may, after consultations with the Guardians, give directions regarding the Government's expectations of investment performance, including expectations concerning risk and return. Under the Act, the Guardians must 'have regard to any direction given by the Minister', but this regard does not override the investment strategy requirements set out in the Act (see Section 5) – the directions are therefore not binding on the Guardians. Any Ministerial directions must be presented to Parliament. The Guardians must tell the Minister how they plan to follow the direction, and the Guardians' annual report to Parliament must report on how they have had, or are having, regard for any directions.

Under the Act, the Government's required capital contribution to the Fund is calculated each year by the Treasury based on a legislated formula. The formula aims to ensure that the required contribution takes the next 40 years' superannuation costs into account. In the normal course of events, the required capital contribution will be the amount the Government actually contributes to the NZS Fund each year. If the Government decides to contribute less than the formula requires, it must publicly disclose the amount involved, its reasons, and its future plans for contributing to the Fund. The Government is free to contribute more money to the Fund than is required under the Act. If the required capital contribution is negative, the Government may make a capital withdrawal from the Fund up to that amount, to be deposited into the Crown Bank Account. However, no withdrawal can be made from the Fund before 2020. Current projections indicate that withdrawals will start in the late 2020s.

Dismantling the Fund or changing NZS in any significant way would require a change in the relevant legislation.

cont'd …

Box 4.4 (continued)

GOVERNANCE ARRANGEMENTS FOR NEW ZEALAND SUPERANNUATION FUND

Accountability

The Guardians are a Crown entity and so must meet the accountability requirements for Crown entities set out in the *Public Finance Act 1989*, including presenting to Parliament an annual Statement of Intent and an Annual Report. The Statement of Intent must include performance expectations of the Fund, a statement of risks to achieving this performance and steps to be taken to manage these risks, and forecast financial statements.

The Annual Report must also: include audited annual financial statements for the Fund; analyse and explain the Fund's performance against expectations; set out current investment policies, standards and procedures and whether the Fund has met them; and identify investment managers and custodians of each part of the Fund.

In addition, the NZS Fund is subject to the following: the Auditor-General is auditor of both the Fund and the Guardians; the Guardians must report on the Fund to the Minister of Finance when and on whatever the Minister may require; external performance reviews of how effectively and efficiently the Guardians are doing their job must occur as soon as practicable after 1 July 2003 and then not less frequently than every five years after that; and as property of the Crown, the Fund is also included in the Crown's audited consolidated financial statements prepared under the Public Finance Act 1989.

Sources: *New Zealand Superannuation Act 2001*; New Zealand Superannuation Fund (2002), *More Questions and Answers*, http://www.superfund.govt.nz/qanda.htm , downloaded on 18 November 2002; McCulloch, B. and Frances, J. (2001), *Financing New Zealand Superannuation*, Treasury Working Paper 01/20; consultations.

The New Zealand Government has moved to entrench the Fund's legislative protections by:

- instituting a two-step selection process for the Guardians of the Fund (a nominating committee appointed by the Minister draws up a short list of candidates; the Minister then recommends individuals for appointment from that list);
- embarking on a significant ($NZ 1 million) information campaign to inform the public about the purposes of NZS Fund and how it is to work; and
- requiring strong accountability procedures and transparent processes where any directions are given by Ministers to the Fund.

Of course the relevant legislation remains open to amendment by future New Zealand parliaments, but as in Queensland's case, any attempt to do so in order to divert funds to other purposes would no doubt evoke fierce public opposition.

4.3 A Commonwealth Asset Portfolio

Given the size of the unfunded Commonwealth superannuation liabilities, the long term over which the entitlements will fall due and the fact that Commonwealth agencies do not have an established track record in asset management for specific purposes (at least on the scale that Queensland does, for example), the governance structure for any Commonwealth fund should be at arm's length from executive government, rather than close to the NSW model.

Placing the funds within a superannuation fund structure clearly has benefits — there are stronger protections of fund independence and against governments accessing funds than there are for funds established by legislation but not also governed by more general superannuation legislation.

However, we are of the view that a structure such as that implemented by New Zealand affords strong protection. Additional measures taken by the New Zealand Government help to entrench the protections enshrined in legislation.

The operational costs and any costs of 'diverting scarce senior management resources' or public scrutiny from core government functions that are highlighted in the Commonwealth's Discussion Paper[38] seem to us to be second-order issues.

- The overall management of all of the Commonwealth's liabilities is, without doubt, a core function of government and should be treated as such. It deserves the dedication of appropriate public resources and to be under public scrutiny.
- The cost of managing the assets is a real cost and needs to be taken into account, but as the tasks involved would be largely undertaken away from central government, they should not include substantial senior time. The analysis in Section 3 and the experience of other jurisdictions suggests that the overall equation is positive, even when management costs are accounted for.

Once a decision is taken to go ahead, and the appropriate governance arrangements are decided, the Commonwealth can then explore the least cost way of achieving those arrangements. For example, we referred in Section 2.4 to the possibility of the Commonwealth creating an additional fund for management by structures that already exist — such as the CSS and the PSS Boards and administration — or by structures that are close variants on them; or placing funds directly with those funds for management alongside, but separate from, employee funds.

Such an arrangement has the advantage of minimising set-up costs for the Commonwealth by taking advantage of economies of scale in funds management. The CSS and PSS Boards, and Comsuper, are already experienced in the management of funds with different liability structures and objectives and the Commonwealth would have the option of nominating a Board of Trustees with some different members from the PSS and CSS Boards if it wished.

[38] P. 97.

Box 4.5

KEY CONCLUSIONS AND SUMMARY RESPONSE TO COMMONWEALTH QUESTIONS:

WHAT ARE STAKEHOLDER VIEWS ON:

GOVERNANCE ARRANGEMENTS FOR A HYPOTHECATED ASSET FUND THAT STAKEHOLDERS SUGGEST WOULD INSULATE INVESTMENT DECISIONS FROM DIRECT GOVERNMENT CONTROL; AND

WHETHER FUNDING THE UNFUNDED SUPERANNUATION LIABILITY THROUGH A SUPERANNUATION FUND IS A GOOD WAY OF DEALING WITH THE GOVERNANCE ISSUES ASSOCIATED WITH SUBSTANTIAL GOVERNMENT ASSET HOLDINGS?

Given the size of the unfunded Commonwealth superannuation liabilities, the long term over which the entitlements will fall due and the fact that Commonwealth agencies do not have an established track record in asset management for specific purposes, the governance structure for any Commonwealth fund should be at arm's length from executive government.

Placing the funds within a superannuation fund structure clearly has benefits — there are stronger protections of fund independence and against governments accessing funds than there are for funds established by legislation but not also governed by general superannuation legislation. However, we are of the view that a structure of this type (e.g. that implemented by New Zealand) can afford strong protection. The governing legislation would not allow any government direction of the trustees/guardians, or funds managers they may engage, in investment matters. Their operations would be governed solely by the purposes set out in the legislation — i.e. an objective to invest so as to best match the future crystallising superannuation liabilities.

The operational costs and any costs of 'diverting scarce senior management resources' or public scrutiny from core government functions that are highlighted in the Commonwealth's Discussion Paper seem to us to be second-order issues. The overall management of all of the Commonwealth's liabilities is, without doubt, a core function of government and should be treated as such. The cost of managing the assets is a real cost and needs to be taken into account, but the tasks involved would be largely undertaken away from central government. The analysis in Section 3 and the experience of other jurisdictions suggest that the overall equation is positive, even when management costs are accounted for.

Section 5

Investment Strategy Issues

5.1 Considerations and Experience to Date

As is the case for broader governance arrangements, consideration of the appropriate investment strategy for a government investment fund must be guided by the purpose of the fund and its broad objectives.

The importance of these broader considerations is highlighted by New Zealand's consideration of options for specifying an investment strategy for NZS.[39] The Treasury assessed various options against the Government's stated policy that:

- the fund was not to be available for any other purpose than payment of NZS;
- the fund was to be managed on a sound commercial basis;
- the establishment of the fund was to bring stability to retirement income policy; and
- the fund would be financed at a rate sufficient to fund NZS over sixty years.

They concluded that:

- the sole purpose of the Fund — that is, to pay NZS — overrode any case for investment objectives that encompassed broader social outcomes (such as limitations on investment in socially undesirable firms and industries or requirements to invest commercially in particular areas) or that contributed to the management of the domestic economy;
- while there were potential synergies with financial and fiscal management of the Crown as a whole, the long-term interests of the Crown were best served by avoiding 'raiding' of the Fund and the Government should therefore have only very limited ability to make directions related to the interest of the Crown as a whole; any directions would need to be transparent and carefully prescribed; and
- the requirement for stability was best served by a general requirement that the Fund be managed on a 'prudent' basis rather than a requirement to invest in low-risk securities or managed 'conservatively';
  - the former was considered too prescriptive and a restriction that could prevent the Fund from maximising overall return for a given level of risk; it was thought it could also be seen as a form of 'raiding' if the result was that the Fund was invested in New Zealand Government securities;
  - the latter was thought likely to result in lower returns and thus a higher contribution rate than would a more neutral commercial management objective.

[39] McCulloch (2000), pp. 36-43.

The eventual investment objectives for the Fund are shown in Box 5.1, along with arrangements for the CSS and PSS, NSW General Government Liability Management Fund and QIC. As well as the broad objective for the NZS Fund discussed above, the Government imposed two restrictions on its investment strategy — the Fund cannot borrow without the Minister's approval; and it may not take a controlling interest in a stock, which would result in the Crown holding a controlling interest. The latter restriction reflects a wish to avoid 'red tape' and to ensure that the Fund remains a financial investment vehicle, not a manager of businesses (and would be consistent with normal liquidity risk management of an investment fund in any case).

As the other examples in Box 5.1 show, the general approach of governments has been **not** to restrict the investment strategy of their funds, either because:

- they are not permitted to (in the case of superannuation funds); or
- the gains from leaving the funds unrestricted, but with clear objectives that encompass the 'client's' position on the trade-off between risk and return, outweigh the costs.

Box 5.1

EXTERNAL RESTRICTIONS ON INVESTMENT STRATEGY

New Zealand Superannuation Fund

Under legislation, the Guardians of the NZS Fund are required to "invest the Fund on a prudent, commercial basis and, in doing so, must manage and administer the Fund in a manner consistent with—

> best-practice portfolio management; and
>
> maximising return without undue risk to the Fund as a whole; and
>
> avoiding prejudice to New Zealand's reputation as a responsible member of the world community."

The Fund cannot take a controlling interest in a stock. The Fund cannot borrow without approval from the Minister.

CSS/PSS

None. The principal responsibility of the Boards is to act in good faith, with prudence and in the members' best interest in respect of the investment and administration of the Scheme. The Fund's objective is to maximise the long-term real return.

New South Wales General Government Liability Fund

No legislated restrictions. Fund assets to be invested by the Liability Management Ministerial Corporation (essentially the Secretary to the Treasury), in accordance with any directions of the Treasurer and on the advice of the Management Committee.

QIC

None. The objective of the QIC is to conduct a successful commercial enterprise through the efficient provision of professional investment and fund management services and other financial services to the State, statutory bodies and any other persons whatever so as to generate a satisfactory commercial return on the State's investment in the corporation.

Sources: *New Zealand Superannuation Act 2001*; CSS (2002); PSS (2002); *General Government Liability Management Fund Act 2002;* QIC Corporatisation Charter; consultations.

5.2 A Commonwealth Investment Fund

In its Discussion Paper, the Commonwealth notes that some financial market participants have suggested that around the current volume of $50 billion outstanding CGS would provide an adequate pricing benchmark for markets. Given the (then) projected debt retirement, and assuming that the level of outstanding securities grows by 6 per cent (approximately in line with nominal GDP), this implied that the Commonwealth would need to accumulate a financial asset portfolio of around $10-20 billion in the short term (2003-04 and 2004-05), rising to around $60 billion by the end of the decade.[40] (We have not examined whether this is, in fact, an appropriate size for the asset portfolio and take the estimates as an indication of broad magnitudes only.)

Total assets under management by Australian funds managers were $645 billion in the June quarter 2002,[41] and a number of these managers have assets under management in the broad range of $25-75 billion. (In the wider markets, there are many with much larger pools.) Superannuation funds, which have a long-term focus and thus a similar appetite for risk as would the Commonwealth, had $519 billion under management in the June quarter 2002.[42] Total funds under management and superannuation funds under management grow on average at well over 10 per cent a year. This suggests that over the years until the end of the decade, the proposed Commonwealth fund would hold assets equivalent to around 5 per cent or less of total superannuation funds under management in Australia, a lower proportion of total managed funds and a very small percentage of managed funds in the global market.

As an indication of the size of a Commonwealth fund relative to other public sector funds:

- QIC had $26.6 billion under management in a trustee capacity at 30 June 2002;[43] and
- the CSS and PSS had almost $10 billion under management at 30 June 2002.[44]

The fund would therefore be a significant presence in the market and would have some marginal impact on markets particularly in the initial years, when the Commonwealth suggests that the fund would need to grow strongly. However, it is important to consider that:

- the Commonwealth is already operating in and therefore influencing a number of financial markets — it conducts large transactions in cash, debt securities and it has a very substantial holding of a single stock (Telstra). As noted above, the Commonwealth superannuation schemes already have substantial funds under management; and

[40] Commonwealth of Australia (2002c), p. 69-71.
[41] Australian Bureau of Statistics (2002), *Managed Funds*, Cat. No. 5655.0, June quarter.
[42] Australian Prudential Regulation Authority (APRA) (2002), *Superannuation Market Statistics*.
[43] Queensland Investment Corporation (2002), *Annual Report 2001-02,* p. 6.
[44] Commonwealth Superannuation Scheme (CSS) (2002), *Annual Report 2001-02*, AusInfo, Canberra, p. 45; Public Sector Superannuation Scheme (PSS) (2002), *Annual Report 2001-02*, AusInfo, Canberra, p. 43.

- if the Commonwealth were to acquire financial assets, this would not occur in isolation. For example, the forward estimates (and the projected reduction in CGS outstanding) include projected receipts from the sale of Telstra. This sale in itself will affect markets, with at least some investors selling other financial assets in order to buy Telstra stock. By simultaneously building up a portfolio of financial assets, the Commonwealth would absorb some of the immediate impact on markets of selling Telstra and help to equilibrate them more quickly.

As for the possible impact on individual stocks and debt instruments, if the fund's activities are at arm's length from Government, as we would recommend, the considerations pointed to by the Commonwealth become less difficult to handle — particularly if investment activities were divided up among a number of independent specialist managers in each asset class, as is common practice. Once the Commonwealth had set the objectives for the fund over the relevant time horizon, the board tasked with managing the fund would then need to formulate an investment strategy, incorporating an appropriate risk/return position and benchmarks for particular asset classes (see Box 5.2 for the PSS Board investment strategy as an example) and engage a range of experts to invest and manage the funds on the Commonwealth's behalf, as do other public funds.[45]

Under these arrangements, the impact of the fund's activities would be diffuse and there is no reason why the management of a Commonwealth portfolio of assets should diverge from best practice funds management. There is also little case for special restrictions on the investments of the fund. There may be an argument to follow New Zealand's lead and restrict the fund from holding a controlling interest in a company and, as New Zealand officials have pointed out, this restriction is consistent in any case with sensible funds management practice.

A Commonwealth fund managed in this way would clearly have some marginal impact on the markets for individual assets, but its impact would be no different from that of other investors of similar size and with a similar appetite for risk.

Box 5.2

PSS INVESTMENT STRATEGY

In developing the investment strategy, the Board has adopted the following constraints in order to manage the level of short-term volatility of returns:

- on average, expected nominal fund returns will be positive four years out of five;
- on average, the crediting rate will exceed the Bank Interest Rate by 1% or more in three years out of five; and
- not more than 25% of the Fund's investments are to be invested in illiquid assets, with a minimum cash allocation of 2%.
- After a recent review of investment strategy, a new strategic asset allocation has been adopted. This new allocation involves a move away from international shares (allocation reduced from 42% to 25%) towards Australian and International Bonds, reflecting the changing international market conditions.

Source: Public Sector Superannuation Scheme (PSS), *Annual Report 2001-02*, AusInfo, Canberra.

[45] For example, the CSS currently has over 20 major fund managers and over 50 altogether (CSS (2002), p. 39).

Box 5.3

KEY CONCLUSIONS AND SUMMARY RESPONSE TO COMMONWEALTH QUESTIONS:

WHAT ARE STAKEHOLDER VIEWS ON:

THE APPROPRIATE LIMITS ON HOLDINGS OF ANY SINGLE INSTRUMENT IF THE GOVERNMENT WERE TO INVEST IN DEBT SECURITIES;

THE APPROPRIATE LIMITS FOR EQUITY HOLDINGS IN ANY ONE COMPANY IF THE GOVERNMENT WERE TO INVEST IN EQUITIES;

THE LIKELIHOOD OF GOVERNMENT INVESTMENT DISTORTING ASSET PRICES;

THE IMPACT OF RESTRICTING GOVERNMENT INVESTMENT TO FOREIGN SECURITIES.

The proposed Commonwealth fund would be a significant presence in the market, although there are a number of other Australian-based funds of comparable scale and many larger ones in the wider markets. Its establishment would nevertheless have some marginal impact, particularly in the initial years, when the Commonwealth suggests that the fund would need to grow strongly. However, it is important to consider that the Commonwealth is already operating in and therefore influencing a number of financial markets and that if the Commonwealth were to acquire financial assets, this would not occur in isolation. For example, the sale of Telstra will affect markets, with at least some investors selling other financial assets in order to buy Telstra stock — by simultaneously building up a portfolio of financial assets, the Commonwealth would absorb some of the immediate impact on markets of selling Telstra and help to equilibrate them more quickly.

As for the possible impact on individual stocks and debt instruments, if the fund's activities are at arm's length from Government, as we would recommend, the considerations pointed to by the Commonwealth become less difficult to handle. A Commonwealth fund managed in this way would clearly have some marginal impact on the markets for individual assets, but its impact would be no different from that of other investors of similar size and with a similar appetite for risk, particularly if investment activities were divided up among a number of independent specialist managers in each asset class, as is common practice. There is no reason why the management of a Commonwealth portfolio of assets should diverge from best practice funds management. There is also little case for special restrictions on the investments of the fund. There may be an argument to follow New Zealand's lead and restrict the fund from holding a controlling interest in a company and, as New Zealand officials have pointed out, this restriction is consistent in any case with sensible funds management practice. We see no case for restricting Government investment to foreign securities — or indeed, domestic securities.

Appendix A

Terms of Reference

Project Terms of Reference

The commissioned paper is designed as a companion piece to work being completed by the bond group. The paper is expected to focus on the practical issues involved with the Commonwealth Government managing assets.

Corporate governance and investment strategy issues — the paper is to:

- examine the corporate governance arrangements for the following:
  - arrangements between the Federal Government and Commonwealth and Public Sector Superannuation Schemes (CSS/PSS);
  - arrangements for how the State Governments are pre-funding their own liabilities (specifically cover the set-up of the Queensland Investment Corporation and how NSW has addressed the issue);
  - arrangements in New Zealand with its New Zealand Superannuation Fund;
- review the investment strategies of the CSS/PSS, State Government bodies (especially QIC and New South Wales) and the New Zealand Superannuation Fund and outline any restrictions or guidelines they operate under;
- if possible, assess how the Commonwealth/States/New Zealand Governments weighed up the various issues when establishing their investment strategies; and
- make any recommendations based on the CSS/PSS, State and New Zealand arrangements that would be relevant to the Commonwealth managing assets. Include recommendations on restricting access for future Governments to the assets.

Accounting issues — the paper is to:

- assess the treatment of accumulating assets for the cash and accrual measures of the budget balance, net debt and the broader balance sheet (i.e. net worth);
  - include a discussion of the treatment of capital gains/losses and interest flows from a portfolio;
  - investigate whether the treatment varies across Federal/State Government jurisdictions (i.e. is the budgetary approach of Queensland and NSW any different to the Commonwealth's?);
- assess the flexibility of the accounting standards (i.e. is there scope to vary the treatment of these issues under the ABS/IMF/DoFA etc statistical standards?) and recommend any changes or a preferred fiscal indicator if appropriate (e.g. is balance sheet net worth a better indicator of fiscal sustainability than net debt?).

Commonwealth Questions on Option 3

The Commonwealth asked for stakeholder views on:

- governance arrangements for a hypothecated asset fund that stakeholders suggest would insulate investment decisions from direct Government control;

- whether funding the unfunded superannuation liability through a superannuation fund is a good way of dealing with the governance issues associated with substantial Government asset holdings;
- the appropriate limits on holdings of any single instrument if the Government were to invest in debt securities;
- the appropriate limits for equity holdings in any one company if the Government were to invest in equities;
- the likelihood of Government investment distorting asset prices;
- the impact of restricting Government investment to foreign securities; and
- the increased uncertainty for fiscal policy arising from variations in investment returns.

Appendix B

List of Consultations

Robert Carling, Executive Director Economic and Fiscal, and Ian Neale, Executive Director Financial Management, New South Wales Treasury

Bill Cushing, former senior executive, Victorian Dept of Treasury and Finance

Brian McCulloch, Principal Advisor Asset and Liability Management Branch, and Steve Leith, Principal Advisor, Budget and Macroeconomic Branch, New Zealand Treasury

Doug McTaggart, Chief Executive, Queensland Investment Corporation

Andre Moroney, Chief Investment Officer, CSS/PSS Boards, Peter Carrigy-Ryan and Ephraim Grunhard

Ken Searson, former Commissioner for Superannuation

Appendix C

Budget Accounting Treatment

NOTE:

(1) THE TEXT IN THIS APPENDIX REFERS PRIMARILY TO TREATMENTS UNDER GOVERNMENT FINANCE STATISTICS (GFS) CONVENTIONS. SOME KEY DIFFERENCES IN ACCRUAL TREATMENT UNDER RELEVANT ACCOUNTING STANDARDS ARE NOTED IN SECTION 3;

(2) THIS APPENDIX OUTLINES THE DETAILED ELEMENTS OF BUDGET TREATMENT. IN PRACTICE, NOT ALL ELEMENTS WILL BE SHOWN SEPARATELY IN JURISDICTIONS' GOVERNMENT ACCOUNTS;

(3) THE ANALYSIS HERE AND IN SECTION 3.2 IS LIMITED IN SCOPE. IT TAKES THE GOVERNMENT'S FISCAL STRATEGY AS GIVEN AND DOES NOT, IN PARTICULAR, EXAMINE THE IMPACT ON THE VARIOUS BUDGET AGGREGATES OF TRANSACTIONS SUCH AS THE SALE OF THE REMAINING COMMONWEALTH EQUITY IN TELSTRA. THE BUDGET TREATMENT OF THE OPTIONS FOR USING SURPLUS CASH IS THEREFORE CONSIDERED IN ISOLATION FROM THE EFFECTS OF OTHER EVENTS THAT WOULD, IN SOME CASES, HAVE OFFSETTING IMPLICATIONS FOR BUDGET AGGREGATES SUCH AS NET DEBT.

C.1 Treatment of Unfunded Superannuation

A. Charge the accruing expense of superannuation:

Operating Statement

Dr Superannuation expense - employer contributions accruing to (unfunded) defined benefit schemes

Dr Nominal superannuation interest expense

Balance Sheet

Cr Superannuation liability (contra to superannuation expense)

Cr Net worth (accumulated reserves and provisions—contra to nominal interest expense)

Expenses reduce net operating balance; net worth reduced by increased superannuation liability and increased by nominal interest provision.

No change in underlying cash balance.

B. Pay required amount to defined benefit (DB) scheme to meet pensions on PAYG basis (assume immediate payment as 'second leg' of A):

Balance Sheet

Dr Superannuation liability

Cr Cash and short-term deposits

No change in net worth. Operating balance not affected.

Decrease in underlying cash balance.

C. Take in new (upwards) actuarial valuation of the unfunded superannuation liability (based on retirement rates, fall in market values of scheme investments, etc.):

Balance Sheet

Dr Net worth (other economic flows—revaluations)

Cr Superannuation liability

Net worth declines in period 1. No impact on operating statement in period 1

Nominal superannuation interest expense increases in periods 2 to n; reduces net operating balance, increase in reserves and provisions and no change in net worth.

No change in underlying cash balance.

C.2 Treatment of Using Cash to (Partially) Fund Unfunded Superannuation Liability

A. Partial funding of unfunded superannuation liability by transferring funds to unfunded superannuation schemes, for their trustees to manage:

Balance Sheet

Dr Superannuation liability

Cr Cash and short-term deposits (or other financial assets drawn down)

No change in net worth in period 1. Net debt rises.

Underlying cash balance may be reduced in period 1.[46]

[46] A view on this was sought from Commonwealth Treasury. Their view is that the underlying cash balance is affected in this situation but they emphasised that there is uncertainty around the treatment of such a transaction ahead of implementation and detailed work on classification issues. Our own view is that in economic substance the transaction would amount to assigning part of the Commonwealth's assets for meeting future emerging liabilities, and that this is not in economic terms a current expense. We note that this issue does not arise where funds are transferred within the general government sector to a fund hypothecated solely to meeting emerging superannuation liabilities.

Reduced nominal superannuation interest expense in periods 2 to n (period n is when superannuation liability is fully met) and reduced future interest stream from cash and deposits, although if fund investment income is used to meet PAYG pension payments, this would allow higher cash balance than otherwise and associated higher interest income flows.

Net operating balance affected from period 2 by the net impact of interest flows and net worth varies from period 2 to reflect this.

Underlying cash balance affected from period 2 by the net interest forgone on cash but improved by (possible) lower outgoings on PAYG pension payments.

B. Transfer funds to a hypothecated fund (within general government sector), as partial 'offset' to superannuation liability

Balance Sheet

Dr	Investments
Cr	Cash and deposits

Superannuation liability and nominal superannuation interest expense unchanged. Impact on net debt depends on the composition of financial assets held by the fund. No change if invested in securities, but would rise to the extent equities were purchased.

Net worth and operating balance unchanged in period 1.

No period 1 change in underlying cash balance.

Operating balance subsequently improved by the difference between income earned on investments and interest forgone on cash and deposits. Net worth varies in line with effects on operating balance.

Underlying cash balance improved from period 2 by the difference between income earned on investments and interest forgone on cash and deposits.

C.3 Treatment of Using Cash to Pay Off (Securitised) Public Debt[47]

Balance Sheet

Dr	Government securities
Cr	Cash and deposits

Reduction in gross debt but no reduction in net debt. No change in net worth in period 1.

No period 1 change in underlying cash balance.

Interest expense on debt subsequently reduces, as does interest income on cash and deposits. Net operating balance increases (or falls) by the difference and net worth increases (or falls) correspondingly.

Underlying cash balance increases (or falls) by difference between reduced interest expense and reduced interest income on cash and deposits.

[47] Strictly speaking, the treatment in this Section relates to the repurchase and cancellation of debt that is at or close to maturity and/or where the prevailing rate of interest is close to the rate at which the debt was issued. Where debt is repurchased some time ahead of maturity and the prevailing interest rate is different from the rate at issue, the Commonwealth would incur a capital loss (or, conceivably, a capital gain). While there would be no immediate change in the underlying cash balance from such a repurchase, the capital loss (or gain) would result in a reduction (or increase) in net worth being recorded in the Commonwealth's balance sheet (as well as a reduction in net debt). Under AAS31 treatment, the capital loss or gain would be recorded as a revaluation and would affect the operating result.