

The Commonwealth Treasury of Australia

Economic Roundup

WINTER 1997

**Australian Government Publishing Service
Canberra**

Commonwealth of Australia 1997
ISBN 0 644 507 233

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This issue includes data up to 18 August 1997

Economic Overview

The focus of this Economic Overview is on recent and prospective employment trends.

Following moderate employment growth in the second half of 1996, underlying growth in monthly employment stalled in early 1997. These recent employment outcomes are likely to be a lagged response to two factors: the primary influence appears to be the easing in output growth in the second half of 1996; a complementary factor appears to be the strong real wage growth during 1996 from a combination of fairly stable nominal wage growth and falling inflation.

GDP growth, however, picked up in the March quarter 1997 from the relatively weaker performance over the second half of 1996; and, while the available data relating to the June quarter provide mixed signals, on balance they suggest that the step-up in the pace of output growth has been maintained.

Importantly, a number of factors should support strong GDP growth in the coming year. Continued strength in the international economy, easier monetary conditions and stronger growth in public spending at the State level, combined with a strong outlook for the construction sector — both residential and non-residential — support the Budget forecast of an acceleration in GDP growth in 1997-98.

While real wage growth is expected to remain relatively strong in 1997-98, some moderation from recent outcomes is in prospect. Nominal wage growth is expected to remain broadly unchanged, with falling inflation expectations and continuing high unemployment rates providing some moderating influence. Inflation is expected to edge up slightly from current levels, primarily reflecting recent exchange rate movements.

Recent and prospective movements in output and real wages are thus expected to underpin a pick-up in employment growth through the course of the coming year at a rate consistent with that forecast at Budget time. Early signs of this improvement are evident in recent increases in hours worked and continued trend growth in the level of job advertisements.

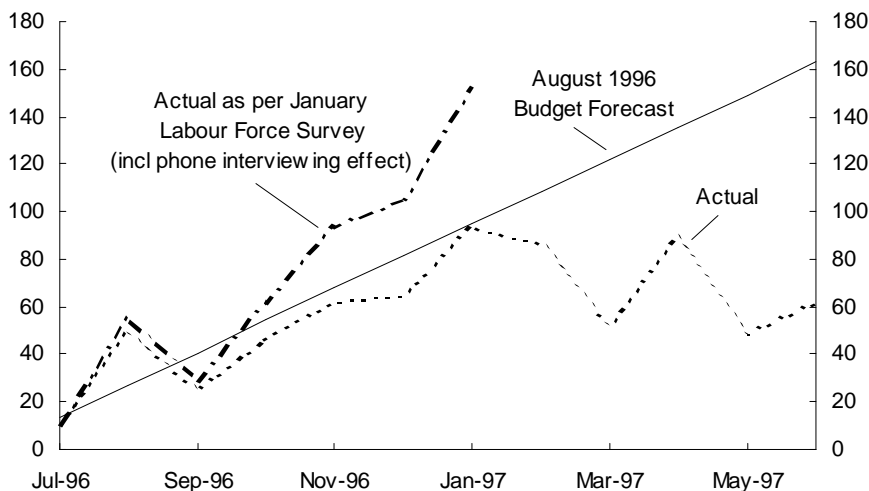
RECENT LABOUR MARKET CONDITIONS

A notable feature of the labour market during 1996-97 was the contrasting strength of employment in the first seven months of the year relative to subsequent months. This is particularly so if the possible impacts resulting from a change in surveying methodology were taken at face value. Initially the ABS reported that the introduction of telephone interviewing — rather than the predominantly face-to-face methodology previously used — was understating

monthly employment changes in the published data over the initial part of the phasing-in period, which included the first half of 1996-97; if allowance were made for such an occurrence, in January 1997 it would have been possible to conclude that the annual increase in employment had met or exceeded the 1996 Budget forecast of a 2 per cent increase in the year to the June quarter 1997 (Chart 1). However, the ABS subsequently concluded that the introduction of telephone interviewing had a transitory — rather than permanent — impact on survey responses, suggesting that the effect had dissipated by the February 1997 survey and that the estimated level of employment in that month was consistent with what would have been expected had the earlier surveying procedures been maintained.

Putting aside such impacts, as evident in Chart 1, the cumulative increase in employment in the seven months to January 1997 was in line with the monthly profile implied by the Budget forecast. Rather than continued growth, however, there was a net downturn in the subsequent five months. As a result, employment in the June quarter 1997 was 1 per cent above the level a year earlier, rather than the 2 per cent forecast in the 1996 Budget. After increasing by 0.5 and 0.4 per cent in the September and December quarters 1996 respectively, employment grew by 0.2 per cent in the March quarter 1997 and fell by 0.1 per cent in the June quarter.

Chart 1: Monthly Employment Growth required to meet August 1996 Budget Forecast



With part-time employment continuing to trend upward, the weakness in employment since January 1997 was reflected in a loss of full-time positions. On an industry basis, the weakness is primarily related to developments in the tertiary industries. Employment in manufacturing was flat, consolidating gains in the second half of 1996 and contrasting with trends in output. Primary sector employment increased slightly, with an increase in agriculture offsetting a drop

in mining. Within the tertiary sector there was a continued solid contribution from those areas related to private sector activity, offset by an equally solid deduction from those more closely related to public sector activity; for the latter, the fall in employment in the first half of 1997 contrasts with a stable employment outcome in the previous half year.

Determinants of Short-Term Employment Demand¹

In the short term, changes in employment can be expressed as being determined by changes in output and real wages. However, businesses are typically cautious in adjusting employment levels to changes in these factors. In response to variations in activity and/or real wages, businesses may initially rely more on altering the extent to which their employees are utilised (for example, by altering overtime levels) rather than the level of employment, preferring to delay adjustments in the latter until it is apparent the changed circumstances are not transitory. A convenient way of analysing these lagged effects in econometric analysis is by the use of an error correction framework, which enables the estimation of sensible long-run properties while at the same time examining factors responsible for short-run deviations from the long-run relationship.

Estimation of such an historical relationship, based on data since the early 1980s, suggests that:

- A 1 percentage point increase in non-farm GDP in the current quarter will increase employment by 0.8 per cent after 5 quarters.² Most of the impact arises from changes in activity in the three quarters following the change in activity.
- A 1 percentage point increase in real wages is estimated to reduce employment by about 0.3 per cent after 5 quarters, with the bulk of the impact occurring in the first and second quarters after the change in real wages.³ There is no impact on employment in the quarter in which real wages change.

This analysis suggests that changes in activity are the dominant factor affecting short-term employment movements, with changes in real wages playing a smaller, though still important, role. The predicted values derived from such an estimated relationship are compared with actual quarterly changes in employment in Chart 2. While employment is likely to be affected by factors other than output and real wages — for example, difficult to measure considerations such as the confidence of employers in the outlook — the

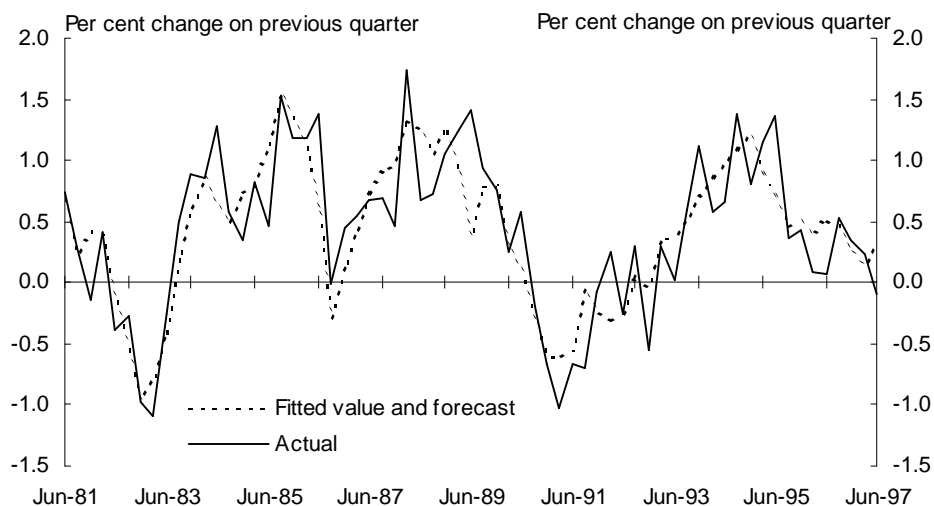
1 This analysis does not examine longer-run structural developments affecting the demand for labour or its supply — all of which are important in explaining unemployment.

2 Additional, though more minor, impacts of the change in output would be expected to occur after five quarters.

3 Again, the full effects would not be expected to have occurred after five quarters.

relationship, nevertheless, provides a good broad indication of quarterly changes in employment over the period since the early 1980s. Moreover, it also provides a good explanation of movements over the past year, although the predicted value for the June quarter 1997 is stronger than the actual outcome; nevertheless, that divergence is not inconsistent with previous experience.

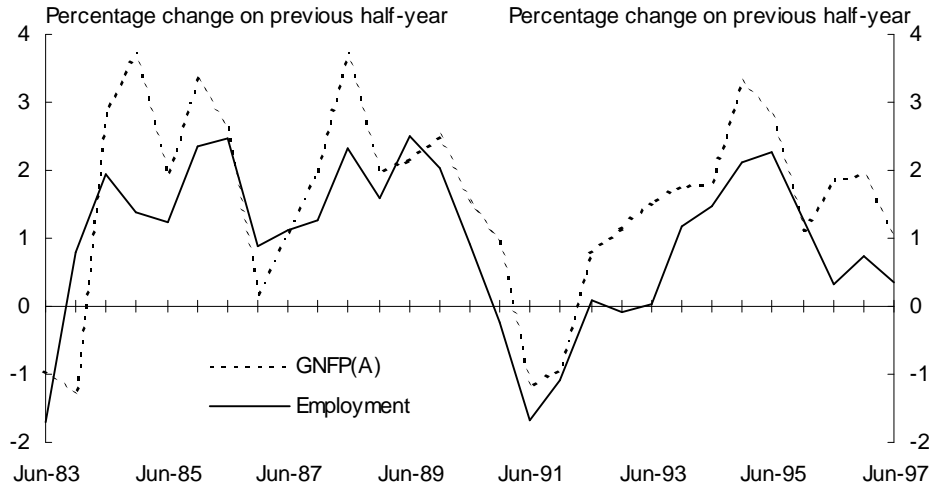
Chart 2: Employment Growth



The broad correspondence between fitted and actual values over the past year suggests that the net decline in employment in the first half of 1997 — while not anticipated at the time of the August 1996 Budget — can largely be explained by changes in output and real wages in the second half of 1996. While employment outcomes will represent the conjunction of movements in these two factors — with individual movements sometimes reinforcing each other, but at other times having opposing impacts — there is benefit in separately examining movements in each factor.

The relationship between half-yearly movements in output (non-farm GDP) and employment is presented in Chart 3; the above-mentioned lagged response of employment to changes in output is illustrated by bringing forward, by six months, the changes in non-farm GDP. Bearing in mind the high level of responsiveness of employment to changes in activity, the recent flat employment growth would appear to primarily be a lagged response to the slowdown in GDP growth in late 1996. Year-to growth in non-farm GDP in the first three quarters of 1996-97 eased to a greater extent than anticipated in the August 1996 Budget. The shortfall, which was concentrated in the first half of the financial year, was most apparent in public demand (due to much weaker consumption and investment at the Commonwealth level), but there also appears to have been some transitory weakness in private sector demand in the December quarter 1996.

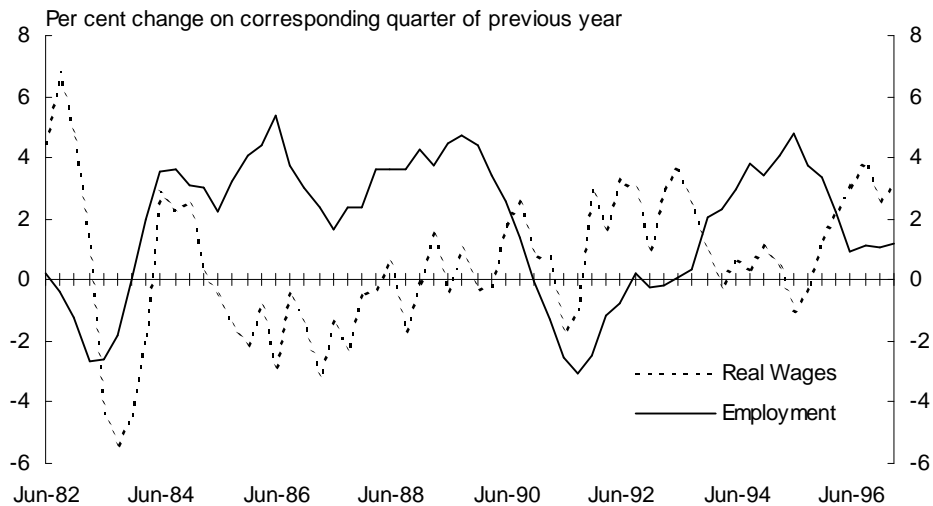
Chart 3: Growth in Non-farm GDP* and Employment



*GNFP(A) growth is brought forward 6 months, ie December 1996 half year growth appears as June 1997 half year growth, to illustrate the lag between growth in GNFP and employment.

An additional factor contributing to the recent weakness in employment appears to have been a significant rise in real wage growth, particularly from the beginning of 1996. The relationship between real wage growth and employment growth is illustrated in Chart 4.

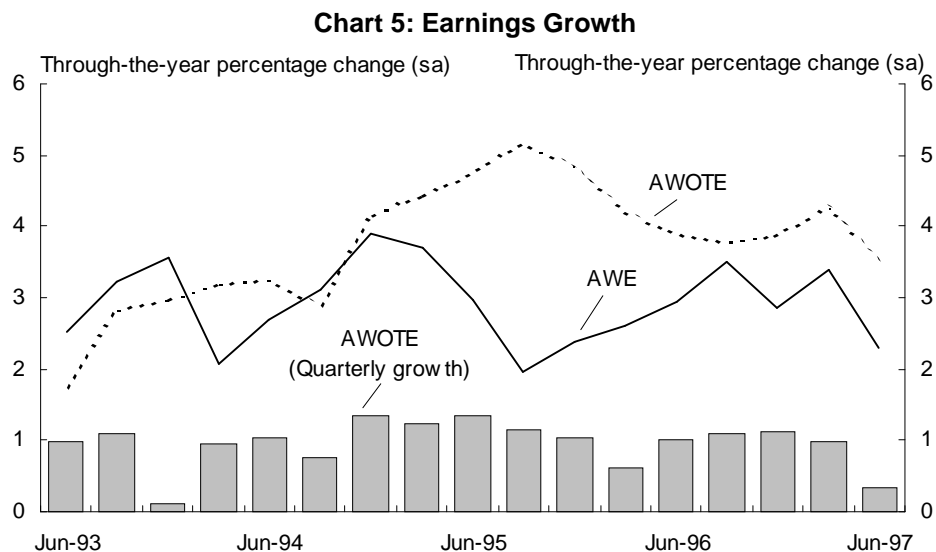
Chart 4: Real Wages and Employment Growth



There is a broad correspondence between periods of low real wage growth and strong employment growth (for example, throughout most of the 1980s and over the period from mid-1993 to late 1995) and, similarly, between periods of high real wage growth and weak employment growth (as in the early 1980s and the late 1980s/early 1990s). Real wage increases in excess of productivity gains will

reduce company profits unless the higher costs can be passed on through higher prices. If profits are affected, this is likely to lead to lower employment and perhaps also investment.

The recent strengthening of real wage growth reflects a sharper than anticipated fall in inflation rather than rising nominal wages. As evident in Chart 5, quarterly rates of growth in nominal wages have been fairly stable (at a relatively high level) over the past couple of years, other than for the March quarter 1996 and the June quarter 1997.



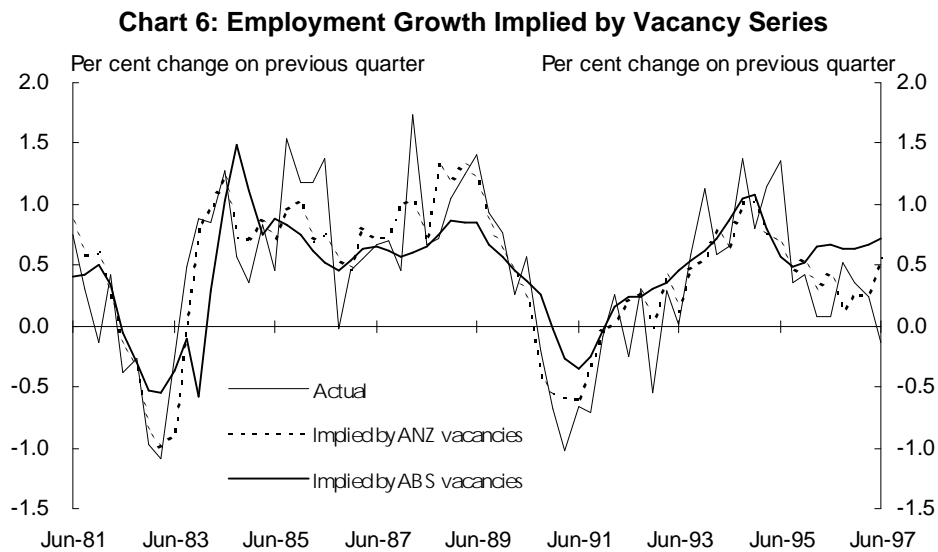
Other Indicators of Labour Market Demand

Recent employment outcomes can also be contrasted with more proximate indicators of labour demand, such as the level of job vacancies. Of the two data series which analyse aggregate vacancies movements,⁴ conceptually the ABS measure would be expected to provide the more comprehensive indication because it is based on a direct survey of firms. In contrast the ANZ series is based on the number of advertisements appearing in major metropolitan newspapers; this series thus suffers from the likelihood of multiple recordings of a particular vacancy and from an inability to account for vacancies which are filled by means other than media advertising. Nevertheless, both data sources are widely used by commentators as indicators of current and prospective movements in aggregate employment.⁵

4 A third series, compiled by DEETYA, relates only to skilled vacancies.

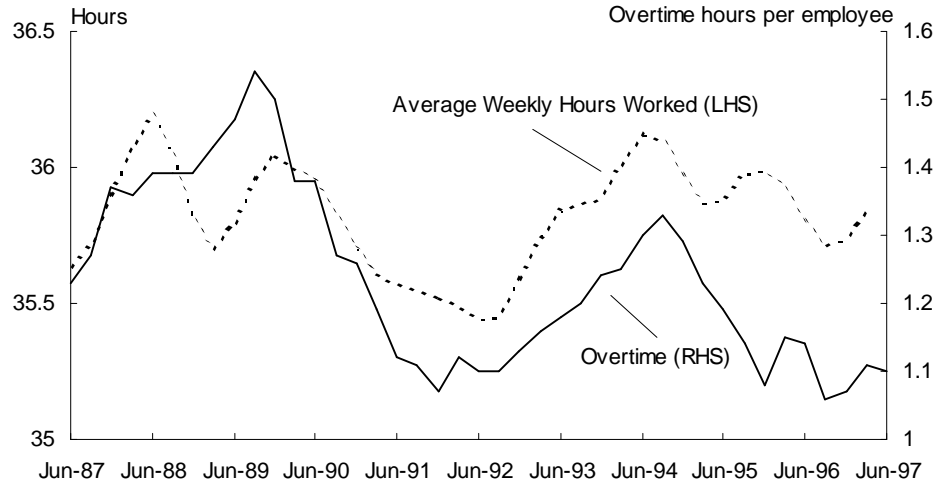
5 The relationship between vacancies and employment growth is discussed in the Winter 1996 *Economic Roundup*.

Based on estimated historical relationships, the predicted values for employment growth consistent with the level of the two job vacancies series are compared with actual outcomes in Chart 6. Despite the conceptual appeal of the ABS measure, the ANZ measure appears to have provided a better guide to actual employment movements over the entire period examined. This is particularly evident for recent outcomes, with the level of ABS vacancies being unusually high relative to employment growth. Based on historical relationships, the level of ANZ job ads would have implied slightly weaker increases in employment than actually occurred in the second half of last year, a similar outcome for the March quarter 1997, but a significantly stronger outcome for the June quarter 1997 than eventuated. As with the employment relationship discussed above, however, divergences of this magnitude over short periods are not out of line with earlier experiences.



As indicated above, changing circumstances in relation to aggregate labour demand are often more immediately apparent for indicators of the intensity with which the existing work force is being used, rather than the level of the work force itself. In this respect, there are some early and very tentative signs of an improvement in data relating to hours of work. While overtime data are volatile (see Chart 7), total overtime hours worked rose over the first six months of 1997. This follows substantial falls in the series since mid-1994, at least partly related to an increased tendency to cash out overtime in enterprise bargains. The small rise in overtime in recent quarters should therefore be interpreted in the context of a likely long-term trend decline in the series. Average hours worked by wage and salary earners rose in the March quarter, although these data are subject to considerable volatility.

Chart 7: Overtime and Hours Worked



The major business surveys provide mixed indications, in respect of both recent and prospective employment outcomes.

- In net balance terms, respondents to the NAB survey report actual employment outcomes for the March and June quarters 1997 which are somewhat more negative than for the previous half-year, consistent with the published aggregate employment data. The outcome for the March quarter was consistent with expectations, but the June quarter outcome failed to match earlier expectations of an improvement, rather like the above-mentioned relationships based on either output and real wages or job advertisements. Firms expect employment to improve in the September quarter, and in a more pronounced fashion than was expected for the June quarter.
- Respondents to the ACCI-Westpac survey reported a negative net balance for employment outcomes in the June quarter. The actual outcome, however, was significantly better than expected; in contrast, in the preceding four surveys, actual outcomes were slightly worse than expected. Employment expectations for the September quarter weakened again.
- Employment expectations for the Dun and Bradstreet survey are unchanged from earlier recordings, but above recent actual outcomes.

The preceding analysis suggests that recent employment outcomes are broadly consistent with developments in underlying fundamentals, namely the slowing of output growth and the rise in real wage growth in the second half of 1996. There have recently been some tentative signs of increased intensity of use of those who are employed, a common forerunner of increases in employment levels. Although mixed, the major business surveys also point to some improvement in employment expectations, and the level of job advertisements

has trended up since the beginning of 1997. The extent to which such positive indications translate into stronger employment outcomes will be critically dependent upon recent and prospective developments in relation to output and real wages, with the former being of particular importance.

RECENT INDICATORS OF ECONOMIC ACTIVITY

As indicated above, non-farm GDP growth slowed in the second half of 1996, with the aggregate increase of 0.9 per cent over the two quarters being about half that observed in the previous two half-year periods. Some strengthening of output growth was apparent in the March quarter 1997, with non-farm GDP rising by 0.8 per cent. The strengthening was particularly apparent in a sharp rise in final demand, partially met by a strong decline in private non-farm stocks.

It is always difficult to confidently draw conclusions from the available partial economic indicators about implications for likely rates of change in quarterly GDP estimates. Nevertheless, the available indicators of activity — while providing some mixed signals — on balance point to underlying strength in demand in the June quarter, and support the view that there has been some step-up in the pace of output growth in the first half of 1997.

Credit growth has picked up in recent months, particularly in relation to business lending. Finance for the leasing of **equipment** has surged in the June quarter. The level of **non-residential building** approvals in the first half of 1996 is well down on record levels in the second half of 1997. However, this earlier level was boosted by the approval of some Olympics-related infrastructure, and there have also been reports of some projects being deferred into 1997-98, with businesses encountering delays associated with the restructuring of financing arrangements. Encouragingly, the June data indicate a return to higher approvals values, broadly consistent with underlying levels experienced throughout the second half of 1996. Moreover, the value of work yet to be completed is high — for both engineering construction and non-residential building — providing a foundation for activity in this sector for some time to come. Business expectations for equipment and non-residential construction investment for the June quarter were strong.

Recent credit statistics relating to **housing** finance remain consistent with an ongoing moderate recovery in dwelling construction. While finance approvals for new dwellings have moderated in recent months, they were up by 6 per cent for the June quarter as a whole, and are around 18½ per cent above year-earlier levels. Approvals of private sector building approvals in the June quarter were almost 3 per cent higher than in the March quarter and more than 19 per cent above year-earlier levels. Recent approvals levels have admittedly been boosted by some Olympics developments. Nevertheless, the likelihood of a further improvement in the already record level of housing affordability, as a result of

the recent reduction in official interest rates, point to a continued strengthening in dwelling construction.

A feature of GDP growth in the March quarter 1997 was the extent to which a surge in final demand was met by a pronounced run down in **private non-farm stocks**, detracting 1.7 percentage points from GDP growth in the quarter. In the absence of any revisions to the March quarter data, changes in the level of non-farm stocks have the potential to be the most significant contributor to GDP growth in the June quarter; for example, a continuation of stock levels at the low levels attained in the March quarter would imply a contribution to June quarter growth of around 1 percentage point.

Allowing for likely movements in prices and applying appropriate quarterly seasonal adjustment factors, recent trade data indicate that fairly strong growth in **import volumes** appears to have resumed in the June quarter, after being flat in the March quarter. Such an outcome would be consistent with continued strength in sales in the quarter, and with a reduced proportion of aggregate sales being met by reducing stock levels than was the case for the March quarter. Abstracting from special influences (particularly the RBA gold sales), modest growth in **export volumes** appears to have continued in the June quarter, especially commodity exports.

A component which has not been a major contributor to the recent strengthening of credit growth is finance to individuals for purposes other than housing. **Consumer spending** is unlikely to have grown very strongly in the June quarter, with the final outcome being very dependent upon the extent to which consumption of services rebounded from a very weak March quarter. Allowing for the different seasonal adjustment processes involved, the decline in constant price retail turnover for the June quarter is likely to translate into an essentially flat outcome for the corresponding retail components in the national accounts; this differential would reverse that apparent for the March quarter data.

The **business surveys** represent another indicator with a more negative tone. On balance, respondents to recent surveys remained negative about actual trading conditions in the June quarter, with outcomes comparable with responses over the previous two years. However, it is difficult to draw precise implications for quarterly rates of growth in aggregate activity from such surveys; for example, the past two years have been characterised by significant variation in quarterly rates of GDP growth, encompassing instances of both very rapid and very marginal growth.

FACTORS INFLUENCING GROWTH OVER 1997-98

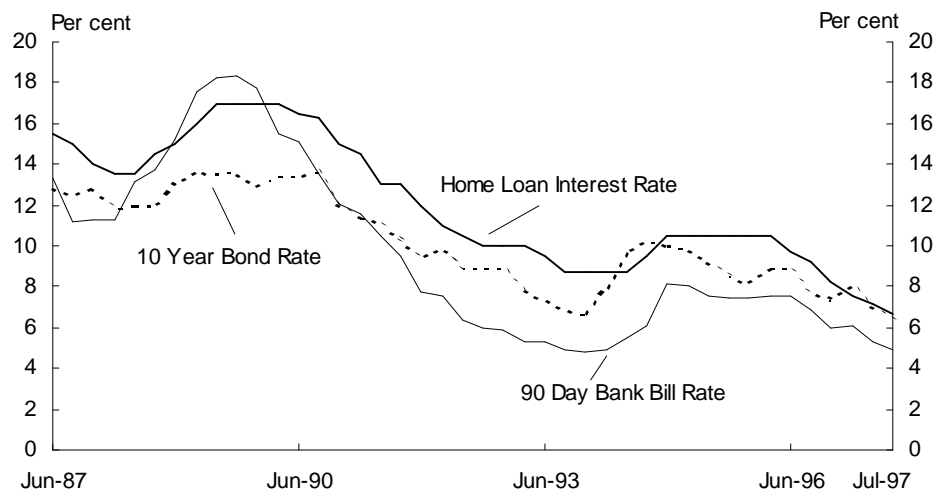
Given the lags which typically influence business decisions about employment, a pick-up in output growth in the first half of 1997 is a necessary requirement for the resumption of employment growth during the remainder of 1997. For such a strengthening in employment growth to be sustained, output growth will need

to remain strong over coming quarters and beyond. In relation to that, there are a number of factors which suggest solid GDP growth in 1997-98, consistent with the outlook presented in the May 1997 Budget.

The **international economy** remains supportive. Economic growth in our major trading partners is expected to be around 4½ per cent in 1997-98, with inflation remaining low at around 3 per cent. There has recently been some financial instability in the East Asian region, reflecting weaknesses built up over a number of years. These will have to be addressed but there is a general appreciation of what is required and some policy action is being put in train. More discussion of the international outlook is included in an accompanying paper in this issue of the *Roundup*.

Monetary policy has been eased in 1996 and 1997. Cuts in official interest rates, coupled with competitive forces within the financial sector, have resulted in falls in nominal lending rates over the past year (Chart 8). These declines are most noticeable in respect of housing rates, where variable rates have fallen by more than 3 ½ percentage points since May 1996. Business lending rates have fallen by a little under 2 percentage points over this period. Long-term bond rates have fallen by around 240 basis points over the past year, in the process narrowing the differential with US rates to around 30 basis points. This development would suggest greater acceptance of a low inflation environment domestically and the enhanced credibility of both fiscal and monetary policies. Relative to underlying inflation, both short and long-term rates have fallen significantly from levels pertaining until mid to late 1996. The influence of the series of interest rate reductions is still to fully impact on aggregate activity but is evident in the depreciation of the exchange rate, which forms part of the transmission mechanism.

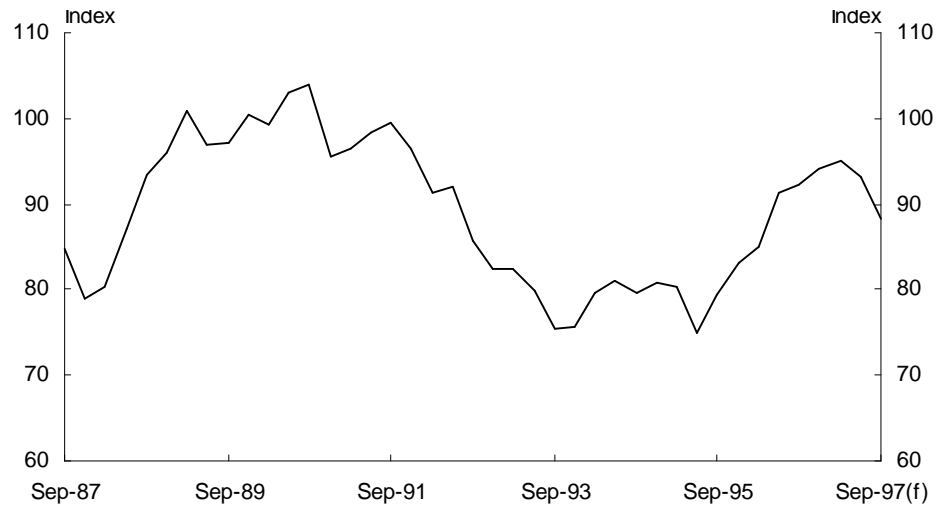
Chart 8: Interest Rates



Note: Data in this chart represents the last working day of the quarter except for the final observation with represents the last working day of July 1997.

After rising by about 24 per cent between the June quarter 1995 and March/April 1997, the trade-weighted index has fallen by almost 5 per cent, to a level comparable to that of a year ago. Primarily reflecting this depreciation, international cost competitiveness — calculated as exchange rate adjusted movements in relative unit labour costs — has improved since the March quarter 1997, reversing a deterioration evident from mid 1995 (Chart 9). Though the level of competitiveness remains below that experienced from early 1993 to mid 1995, this recent improvement should provide a stimulus for the tradables sectors over the year ahead.

Chart 9: International Cost Competitiveness



Note: An increase in the ULC index represents a deterioration in competitiveness. June and September quarters 1997 represent Treasury estimates.

Despite continued fiscal consolidation at the Commonwealth level, **public final demand** growth is expected to be stronger in 1997-98 than in 1996-97, partly reflecting some deferral of expenditure from 1996-97. Current estimates also suggest that growth may be stronger than forecast in the May Budget, primarily reflecting information outlined in subsequent State Budgets.

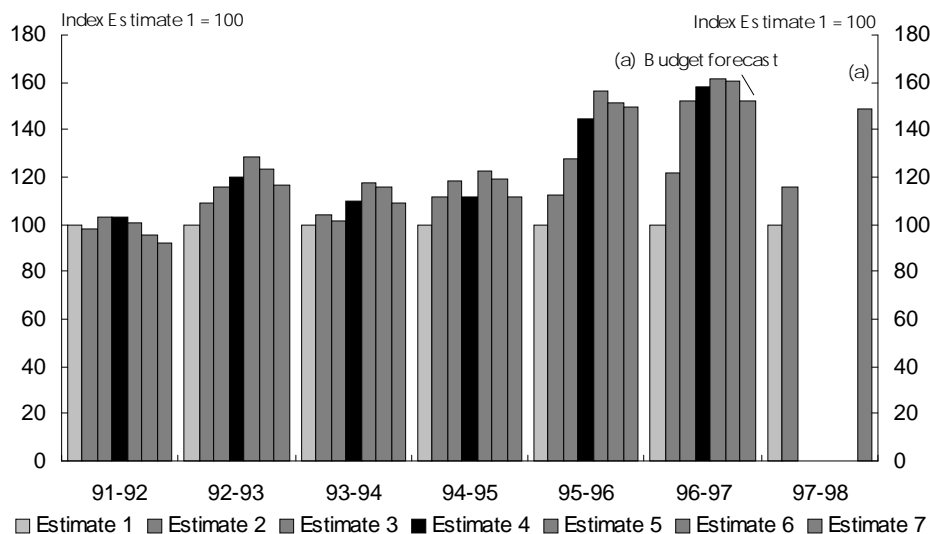
The **housing** upturn appears to be well under way. The record level of affordability, the erosion of excess supply, and aggregate vacancies levels are all pointing to a strong recovery. If anything, these indicators may be interpreted as suggesting that the upturn may prove to be stronger than currently expected. However, there remain a number of constraining influences — lower levels of immigration, continuing relatively high levels of unemployment and continued pockets of excess supply — which are still expected to result in the strength of the current housing recovery being somewhat more muted than past recoveries.

Conditions for business investment remain favourable. The outlook for **non-residential construction** remains very positive, with work yet to be done remaining high and business expectations pointing to strong growth. The buoyant expectations contained in the second ABS capital expenditure survey

estimate for 1997-98 (see Chart 10) suggest that buildings investment is expected to increase across all industries, and activity should be underpinned by several private infrastructure and Olympics related projects.

Equipment investment is expected to increase at a much more modest rate than in recent years, consistent with business intentions reported in the ABS capital expenditure survey. However, more recent surveys conducted by NAB and ACCI-Westpac point to some strengthening of expectations, and underlying fundamentals remain sound; for example, survey capacity utilisation measures have recently improved, and the corporate profit share and the net rate of return on the capital stock are high by historical standards.

Chart 10: Building Investment Expectations



While the preceding factors are all supportive of the outlook presented in the 1997-98 Budget, there are some areas of uncertainty. **Adverse weather conditions** have the potential to reduce farm product to a greater extent than currently forecast; the situation has become critical, with good rainfall required immediately in wheat-growing areas to avoid very low yields and production levels. There is also some uncertainty over the outlook for **consumer spending**. The forecast strengthening of consumption growth in 1997-98 will require the resumption of stronger employment growth, both in terms of directly boosting incomes and lifting consumer sentiment through reductions in unemployment. There is a risk that consumer spending in the early part of 1997-98 might be more subdued than forecast, given recent weak labour market outcomes. However, if employment growth does respond as anticipated to the stronger GDP growth experienced in the first half of 1997, stronger consumption expenditure would be expected to follow later in the year.

World Economic Outlook

As outlined in Statement 2 of the 1997-98 Budget, the world economy overall is expected to experience continuing strong economic growth and low inflation in the year ahead. This outlook depends on three key assessments.

- *The current low inflation environment will be sustained. Inflation has been reduced across most regions and is expected to remain low, including in the United States. However, if inflation in the US increases significantly, higher interest rates could adversely affect the outlook for world economic growth.*
- *Export growth in East Asia will pick up after last year's slowdown, despite underlying economic problems. If these problems are not addressed, economic prospects in the region could be adversely affected.*
- *Medium-term fiscal consolidation will continue in most of the industrialised world.*

This article briefly reviews the outlook for countries and regions of key importance to Australia in the light of developments since the Budget and considers the likely impact on the global economic outlook of the three issues listed above.

OUTLOOK FOR WORLD ECONOMIC GROWTH

The outlook for the international economy remains consistent with that outlined in the May Budget; economic growth rates in the major industrialised economies are expected to converge to between 2 and 3 per cent in 1997-98, while economic growth is expected to remain robust in East Asia.

The **United States** has entered its seventh year of sustained economic growth. Unemployment has fallen to around 5 per cent (its lowest level for 23 years) while inflation remains subdued. Economic growth surged in the last quarter of 1996 and the first quarter of 1997. However, since then activity appears to have moderated and economic growth is expected to return to broadly sustainable levels in 1997-98 (around 3 per cent); inflation is not expected to pick up significantly over this period.

The underlying strength of the **Japanese** economy remains difficult to gauge. In the first quarter of 1997 growth was very strong, but this was in part the result of spending being brought forward in anticipation of the 1 April rise in consumption tax. Economic growth is likely to moderate considerably in the second quarter of 1997, as the bring-forward of consumption is reversed. Despite continued fiscal consolidation and the recent appreciation of the Yen, growth is

still expected to continue at a moderate rate of 2 to 2½ per cent per annum in 1997-98, with the private sector replacing public expenditure as the main source of growth. While there will be a small one-off increase in the price level associated with the increase in the rate of consumption tax, no sustained inflation pressures are evident.

Economic growth in **Continental Western Europe** is expected to improve to between 2 and 2½ per cent in 1997-98, but remain patchy. Significant spare capacity remains across Europe, with few signs of inflation pressures. It is difficult, however, to predict what effect the recent French election will have on momentum towards the achievement of the Maastricht fiscal targets, and more generally towards a single European currency. The risks surrounding forecasts for Continental Western Europe have increased since the Budget.

Growth in the **East Asian**⁶ economies is expected to pick up slightly to around 7 per cent in 1997-98, with North East Asia⁷ contributing most to the region's higher growth. Although growth is likely to be lower than in recent years, it will remain high by OECD standards. Some economies have been affected by weak export demand over the past year but overall export growth is expected to improve by the end of 1997. Inflation pressures are likely to remain relatively moderate, but could be affected by the recent currency depreciations in a number of countries.

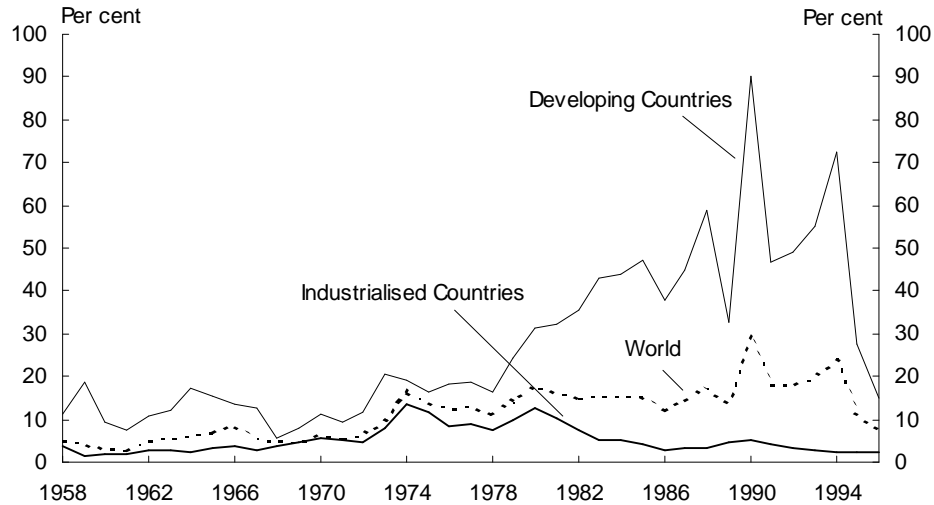
LOWER INFLATION – WILL IT CONTINUE?

One of the most notable international economic developments of the 1990s has been the general fall in inflation experienced across the world economy. This decline has been evident both across regions and among countries at different stages of development. While it has been most apparent in developing countries, where inflation had risen to very high levels, the industrialised countries have also been successful in reducing their average inflation rate; from the double digits experienced in the mid-1970s, back to the low single digit levels experienced in the 1950s and 1960s (see Chart 1).

6 In this article, East Asia is taken as comprising Indonesia, Malaysia, the Philippines, Singapore, Thailand, South Korea, Hong Kong, Taiwan and China.

7 In this article, North East Asia is taken as comprising South Korea, Hong Kong, Taiwan and China.

CHART 1 : INFLATION⁸ (ANNUAL PERCENTAGE CHANGE)



Source: IMF

The general reduction in inflation over the 1990s is a significant achievement because inflation can impose significant economic and social costs. By clouding relative price signals and generating uncertainty, inflation distorts investment decisions and the allocation of resources and adversely affects economic efficiency and growth. Moreover, inflation can also have significant effects on the distribution of income and wealth.

Several factors have been associated with the general lowering in inflation in the 1990s. One has been the ongoing internationalisation of the world economy.

- Increased openness to trade through reductions in protection has helped restrain inflation. Cheaper imports have directly reduced inflation, and greater openness has increased the incentives for domestic firms to set the prices of their products competitively.
- In addition, the introduction of improved production techniques, partly through foreign investment, has led to increased productivity and lower output prices, particularly in developing countries.

The second factor has been the adoption of sustained anti-inflation policies, as governments and central banks have learnt from the experience of the high inflation decades of the 1970s and 1980s.

8 Developing countriesWorld refers to non-oil producing developing countries as defined by the IMF.

- Foremost among these lessons is the importance of stopping inflation before it gains momentum. The global experience of the past thirty years has been that the short-run costs in terms of unemployment and lost output of pre-emptive actions to arrest incipient rises in inflation are likely to be far smaller than the long-run costs of allowing inflation to rise to high levels.
- Expectations of future inflation are important determinants of current inflation — thus, establishing credibility in the fight against inflation is crucial. Central banks that firmly establish and maintain an anti-inflation reputation will likely garner a ‘credibility bonus’, which will enhance the effectiveness of monetary policy in maintaining low inflation.
- In view of their dependence on trade and the detrimental impact relatively high inflation can have on export competitiveness, the East Asian economies have been aware of the need to contain inflation.
- Structural policies can also help to restrain price pressures. For example, policies that increase labour market flexibility or domestic product market competition can have a similar impact on prices as trade liberalisation.

Global inflation appears unlikely to increase significantly in 1997-98, because:

- policy makers generally are committed to maintaining low inflation, and have learnt from the lessons of the high inflation 1970s and 1980s;
- increased global competition across all regions will continue to restrain excessive wage and price increases; and
- relatively large output gaps remain in many countries, particularly those of Continental Europe, Canada and Japan.

The main risk to inflation is in the United States, where the economic upswing is mature, and where little spare capacity exists. As discussed in Box 1, several factors have helped restrain inflation in the US over recent years and some are expected to continue during 1997-98. Economic growth is expected to moderate to more sustainable levels through 1997 and the Federal Reserve Board appears ready to apply pre-emptive monetary policy if there are indications of a pick up in inflation pressures. Nevertheless, past experience has shown that a failure to halt emerging inflation pressures can quickly result in an increase in inflation expectations, which in turn can require a sustained period of tighter monetary policy to correct.

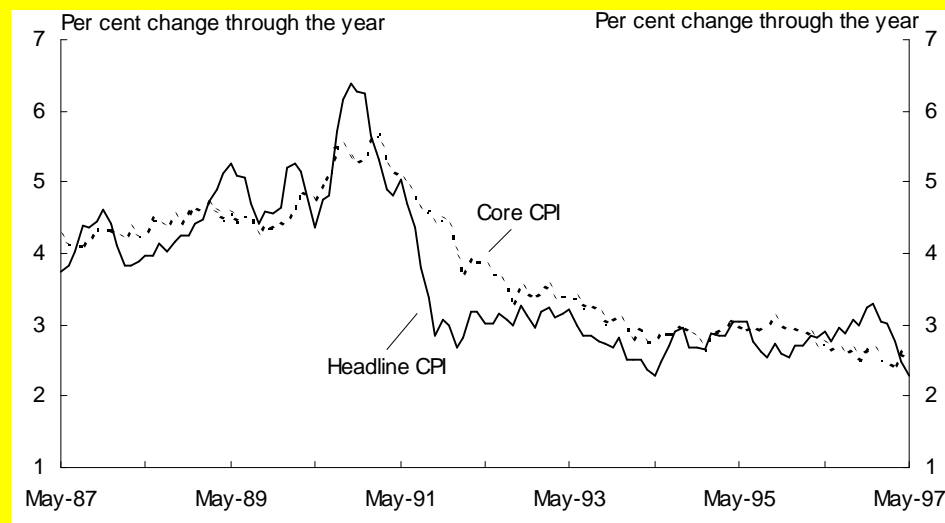
If inflation in the US were to pick up significantly in 1997-98, higher long-term and short-term interest rates would result, lowering the outlook for activity in the US and in the world economy more broadly. In particular, this would have

adverse consequences for the recovery currently underway in Japan and the pick up in growth expected in Continental Western Europe, as lower growth in the US would reduce demand for imports and world-wide long-term interest rates would rise in response to expectations of higher inflation in the US. In addition, higher interest rates in the United States could reduce the flow of capital to some developing countries.

Box 1: The US Inflation Experience over the 1990s

Over the past 18 months, the US economy has been operating at levels that many have considered to be above its output potential. During this period, growth has accelerated, employment growth has remained strong and the unemployment rate has fallen to a 23 year low, around 5 per cent. At the same time, core inflation has trended down (see Chart B1) and there have been no unambiguous signs of a strong upturn in labour costs.

CHART B1: US INFLATION



Over the 1990s, several factors have helped restrain inflation, including:

- the consistency of the (moderate) rate of economic growth since 1991 — as the United States economy has generally grown at rates broadly consistent with its growth potential, marginal resources (particularly unemployed labour) have been engaged more smoothly and with less impact on prices than would have been the case if economic growth had been more volatile;
- reduced job security — major restructuring of work arrangements in the 1980s and early 1990s appears to have contributed, amongst other factors, to labour attaching lower priority to wage increases relative to job security;

Box 1: continued

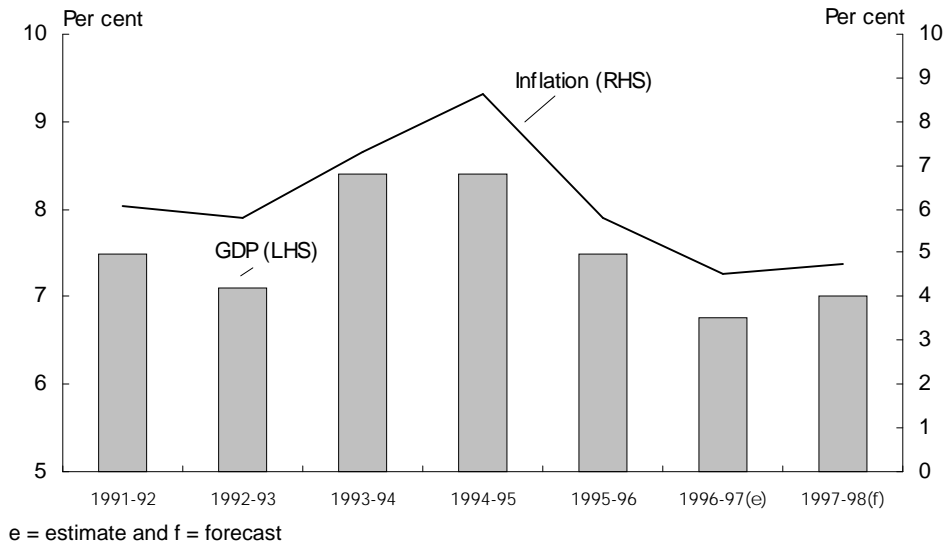
- lower growth in health care costs — as health care costs are a significant part of overall wages and benefits paid to workers, the reduction in their rate of growth, evident since the late 1980s, has helped restrain growth in employment costs;
- the increased competition in US product markets due to increasing import penetration and contestability of markets; and
- falling import prices due to the appreciation of the US dollar and benign energy prices resulting from weak demand in other industrialised economies.

With growth expected to return to moderate levels through the remainder of 1997 and 1998, there does not seem to be strong evidence to suggest that US inflation will pick up over this period. Nevertheless, with the economy operating at around capacity, the risks are predominantly on the upside.

EAST ASIA: STRONGER EXPORT GROWTH, BUT FINANCIAL MARKET INSTABILITY HIGHLIGHTS RISKS

The East Asian economies averaged nearly 8 per cent annual growth in the four years to 1994-95 (see Chart 2) fuelled, in part, by strong growth in exports. Since then growth has moderated and is expected to average around 7 per cent in 1997-98. While policy makers in some countries took restraining action to help counter inflation and rising current account deficits, a marked slowing in export growth was also a key factor in the region's lower rate of growth (see Box 2).

CHART 2: EAST ASIA, GDP GROWTH AND INFLATION (THROUGH-THE-YEAR, PERCENTAGE CHANGE)



By the end of 1997, most economies in East Asia are expected to experience a general pick up in economic growth, underpinned by stronger exports, as a result of stronger demand from industrialised economies, including improved semiconductor sales. The recent depreciation of several East Asian currencies will help to improve export competitiveness and should lead to stronger exports provided the boost to competitiveness is not lost through higher ongoing inflation.

The weakness in exports and economic growth in 1995-96 and 1996-97 revealed economic problems in some economies which had previously been masked by high growth rates, strong investment and high corporate profitability. While activity in the region is expected to pick up in 1997-98, these problems, which are outlined below, suggest that there are significant downside risks surrounding the forecast improvement.

First, the need for reform of the financial sector and for appropriate prudential and regulatory arrangements in many of the countries has been highlighted. The slowdown in economic growth and falling asset prices has increased the number of non-performing loans in some economies. Underpinning the forecast pick up in exports and GDP growth in 1997-98 is the expectation that this issue will be resolved in the period ahead, including through the use of supportive policies. To the extent that this does not happen, the capacity of affected financial institutions to lend for new investment would be impaired, adversely affecting the outlook for economic activity.

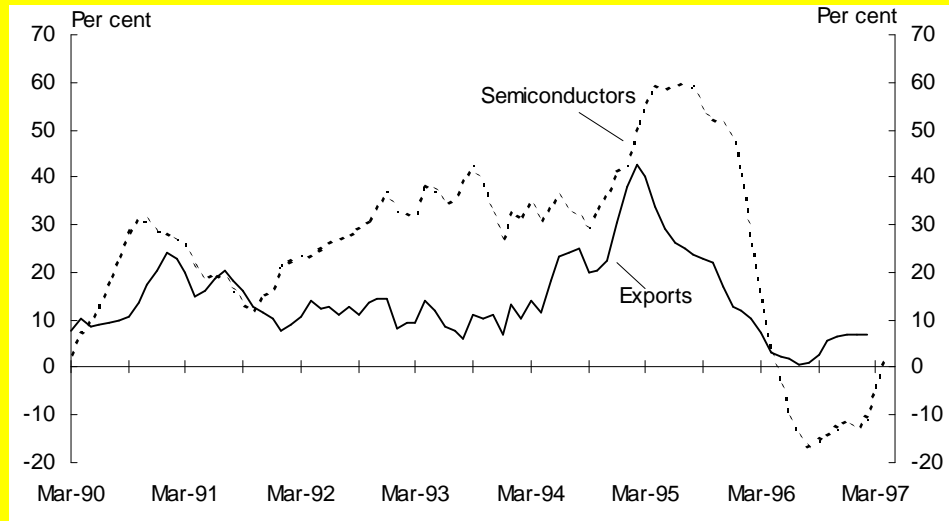
Secondly, the weakness in exports and economic growth has focussed attention on the need for sound macroeconomic policies and the difficulties associated with setting macroeconomic policies in the face of capital flow surges. Several countries have recently increased interest rates significantly in an attempt to support their external position. If maintained, these higher rates could weaken their growth outlook. Action to tackle underlying problems, including in respect of financial sectors, would help to allow lower interest rates. There are reasonable prospects that this will occur.

In particular, recent developments have shown the difficulties that can be encountered in trying to maintain a fixed nominal exchange rate that is not supported by economic fundamentals. Recent decisions by some countries in East Asia to allow greater exchange rate flexibility are, overall, positive developments that are likely to help underpin a pick up in export growth. However, simply allowing greater exchange rate flexibility is rarely a panacea and the forecasts are based on the expectation that introducing greater exchange rate flexibility will not be used as a replacement for addressing fundamental economic policy problems. Greater exchange rate flexibility can help policymakers to address those fundamental issues by removing the sense of crisis that can surround a fixed exchange rate when it is under pressure.

Box 2: Developments in East Asian Exports

After recording strong export-led growth during the first half of the 1990s, economic growth in East Asia slowed in 1995-96 and 1996-97. This was, in part, the result of a region-wide easing in nominal export growth⁹ (see Chart B2). While the decline in nominal export growth was widespread, the depth and length of the slowdown varied across the region.

CHART B2 : GROWTH IN EAST ASIAN EXPORT EARNINGS AND IN THE VALUE OF SEMICONDUCTOR SALES (THROUGH-THE-YEAR, 3 MONTH MOVING AVERAGE)



Source: Datastream

The region-wide decline in nominal export growth reflected a number of factors, including:

- a loss of price competitiveness by the East Asian economies, following real appreciation of exchange rates and greater competition from cheaper producers of the East Asian economies' traditional exports such as textiles and food products;
- slower growth in global demand and a fall in Asian import penetration to the US;
- significant intra-regional trade links, with Hong Kong and Taiwan being particularly affected by China's slowing during early 1996; and

⁹ Nominal exports rather than real exports are used because region-wide data on export volumes are unavailable.

Box 2: continued

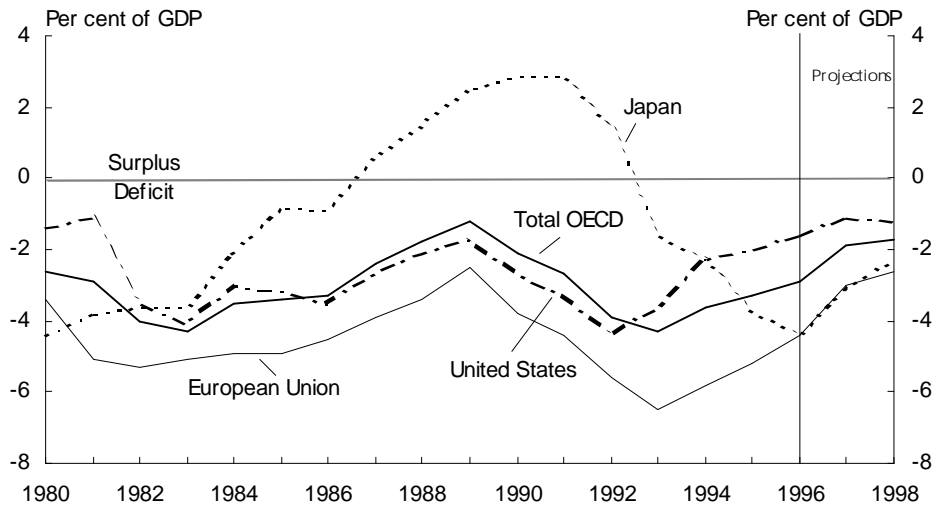
- a global oversupply in some goods, notably semiconductors. Singapore and South Korea's large semiconductor industries, in particular, were adversely affected in 1996 when unexpected weaker demand and over production resulted in DRAM (Dynamic Random Access Memory) chip prices falling by over 80 per cent. Semiconductor producers responded to the price reductions by reducing production. As a result, the value of East Asian semiconductor sales contracted for much of 1996 and through the first two months of 1997. It is expected that a run down in inventories, combined with the transition to new computer products, should help the recovery in the East Asian semiconductor industry during the year ahead.

So far in 1997 most East Asian economies have recorded some recovery in export growth, albeit to varying degrees. China and the Philippines have recorded strong export growth, while in economies which rely significantly on the electronics sector — such as Singapore and South Korea — the pick up has been slower.

FISCAL POLICY

Along with the general decline in inflation over recent years, there has been a major shift toward fiscal consolidation in most OECD countries. Nearly all OECD countries are undertaking consolidation and many have made significant progress. Fiscal positions deteriorated in most industrialised economies in the early 1990s, unwinding the substantial reduction in fiscal deficits achieved over the period 1983 to 1989 (see Chart 3).

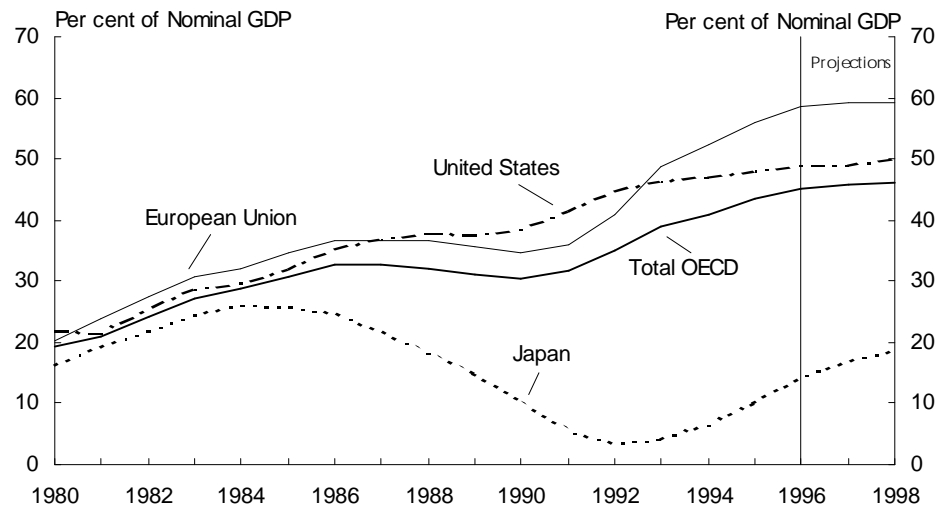
CHART 3: GENERAL GOVERNMENT FINANCIAL BALANCES



Source: *OECD Economic Outlook*, June 1997.

Since the early 1990s, fiscal positions across the OECD have generally improved, largely reflecting specific fiscal consolidation measures. The latest OECD Economic Outlook projects a continued improvement in the fiscal positions of most member countries in 1997 and 1998, which, as can be seen in Chart 4, is expected to result in general government net financial liabilities for the OECD region broadly stabilising relative to GDP.

CHART 4: GENERAL GOVERNMENT NET FINANCIAL LIABILITIES



Source: *OECD Economic Outlook*, June 1997.

Fiscal Policy Outlook

In view of the risks associated with debt accumulation and the growing pressure that most industrialised countries will face from their ageing populations, there is now widespread commitment across the OECD area to take further action to improve fiscal positions over the medium term.

Many countries have established plans to implement substantial fiscal consolidation programs over the coming years.

- Within Europe, many countries have announced plans for further fiscal consolidation to underpin their participation in the European Monetary Union (EMU).
- Japan introduced significant fiscal stimulus in the early to mid 1990s to assist recovery from recession. In 1996, the Japanese Government announced that this stimulus would be wound back, and that the combined deficit of the central and local governments would be more than halved as a proportion of GDP by early next century.
- The US has outlined a medium-term objective of balancing the Unified Federal Budget by 2002. In order to achieve this, considerable focus will need to be brought on welfare entitlement programmes.

Over the medium term, implementation of the announced fiscal consolidation plans will help to raise sustainable rates of economic growth and living standards.

In the short term, the impact on economic growth of fiscal consolidation is less clear. In some countries where economic growth has been relatively weak, such as Japan and many countries in Europe, some have argued that the degree of fiscal consolidation being undertaken may adversely affect their growth prospects.

However, international experience¹⁰ suggests that fiscal consolidation can have positive effects on economic growth. This is because the direct impact on activity from lower government expenditure may be offset by higher private expenditure generated by lower interest rates, possibly reflecting lower risk premia and less demand for funds from the public sector. In addition, transfers of functions from the public to the private sector should not reduce total activity and may increase demand by increasing efficiency and reducing prices. On the other hand, the benefits of consolidation may be smaller in economies with other structural rigidities which impede growth of the private sector.

In that context, the benefits of fiscal consolidation in Europe may be reduced to the extent that consolidation is not accompanied by structural reform and to the extent that consolidation reflects revenue rather than expenditure measures.

10 *World Economic Outlook*, May 1996 and *OECD Economic Outlook*, June 1996.

The OECD Jobs Study

The following article summarises the OECD Jobs Study and associated follow-up work which sought to address the issue of high and persistent unemployment amongst member countries.

INTRODUCTION

In response to persistent high and increasing unemployment amongst member countries, the OECD commissioned in 1992 a major study to examine the issue and make reform recommendations. The OECD concluded in 1994 in a report entitled *The OECD Jobs Study: Facts, Analysis, Strategies*, that labour and product market rigidities have hampered member countries' ability to adapt to change, leading to increases in structural unemployment.¹¹ A broad programme of macroeconomic and structural policy reform was recommended. In follow-up work, the OECD concluded that those countries that have embraced the reform recommendations most comprehensively have seen the most significant falls in their unemployment rates.

CONCLUSIONS AND RECOMMENDATIONS OF THE JOBS STUDY

The *Jobs Study* concluded that the main factor underlying persistent high unemployment has been the inability of the product and labour markets in many OECD economies to adapt to change (including technological change, globalisation and associated increased competition). This inability has been reflected in increased structural unemployment. While the potential for gains from these forces were identified, the *Jobs Study* stressed that many OECD economies are inadequately equipped to reap them.

The recommendations of the *Jobs Study*, which represent the *OECD Jobs Strategy*, are set out in Box 1. The *Jobs Study* recommended a broad programme of macroeconomic and structural policy reform designed to reduce unemployment sustainably. It stressed that broad and deep structural reforms across a range of markets, including specifically the labour market, are needed to increase the 'speed limits' of sustainable economic growth and reduce persistently high

11 Unemployment can, in principle, be divided into its cyclical and structural components. While high rates of output growth will reduce the cyclical component of unemployment, inflationary pressures caused by demand exceeding supply in various markets generally emerge below a certain level of unemployment — this level is often referred to as the structural level of unemployment. The structural component of unemployment will be higher the greater are wage, skill or location mismatches in the labour market.

structural unemployment. The OECD argued that broad-based reforms are likely to be more effective than reforms focussed on a particular area because there are synergies between structural reforms in different fields and reforms in one area often complement reforms in other areas.

Box 1: The OECD Jobs Study Recommendations

1. Set macroeconomic policy such that it will both encourage growth and, in conjunction with good structural policies, make it sustainable, ie non-inflationary.
2. Enhance the creation and diffusion of technological know-how by improving frameworks for its development.
3. Increase flexibility of working-time (both short-term and lifetime) voluntarily sought by workers and employers.
4. Nurture an entrepreneurial climate by eliminating impediments to, and restrictions on, the creation and expansion of enterprises.
5. Make wage and labour costs more flexible by removing restrictions that prevent wages from reflecting local conditions and individual skill levels, in particular of younger workers.
6. Reform employment security provisions that inhibit the expansion of employment in the private sector.
7. Strengthen the emphasis on active labour market policies and reinforce their effectiveness.
8. Improve labour force skills and competences through wide-ranging changes in education and training systems.
9. Reform unemployment and related benefit systems — and their interaction with the tax system — such that societies' fundamental equity goals are achieved in ways that impinge far less on the efficient functioning of the labour markets.
10. Enhance product market competition so as to reduce monopolistic tendencies and weaken insider-outsider mechanisms while also contributing to a more innovative and dynamic economy.

The *Jobs Study* also argued that any attempt to soften or thwart the pace of change through protectionism or other measures to restrict competition would not deal with the underlying causes of unemployment and would reduce living standards.

IMPLEMENTING THE JOBS STRATEGY

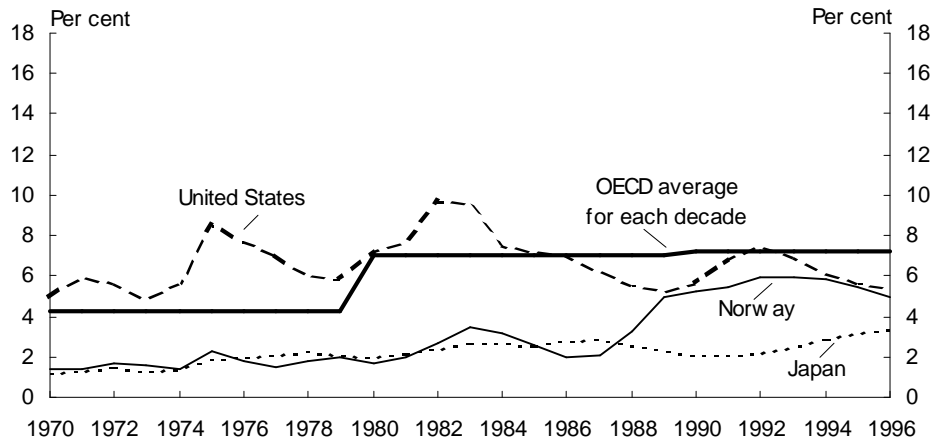
The Economic and Development Review Committee (EDRC) of the OECD examined the implementation of the *Jobs Strategy* as part of its regular reviews of individual member countries, summarising and synthesising the important lessons from the country review process in a 1997 report *Implementing the OECD Jobs Strategy: Member Countries' Experience*. The report provides a comprehensive update on labour market policies and conditions in member countries and concludes that unemployment can be reduced substantially by implementing the *Jobs Strategy*.

For example, the OECD report suggests that the United States, Japan and Norway have been successful in maintaining low unemployment because their policies are consistent with the main thrust of the *OECD Jobs Strategy* (Chart 1, Panel A). In the United States, flexible labour and product markets, supported by a stable macroeconomic environment, have kept structural unemployment low. Japan's wage and working time flexibility, geographical mobility and functional versatility of labour within enterprises are the primary factors in keeping unemployment low in that country. Norway has focused on macroeconomic stability and human capital formation to maintain low unemployment. The report suggests that the experience of these countries may be a useful guide for other countries aiming to improve labour market performance.

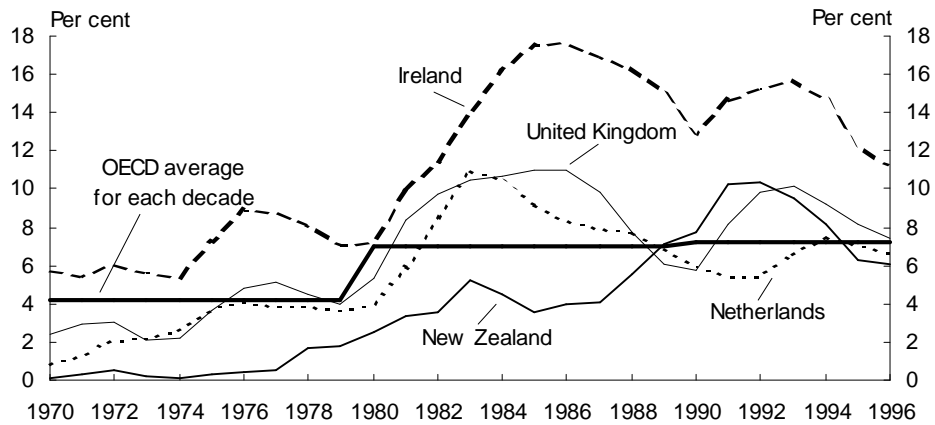
Another group of countries to receive favourable assessments were the United Kingdom, New Zealand, the Netherlands and Ireland, which all succeeded in reducing considerably both total and structural rates of unemployment over the 1990s (Chart 1, Panel B). The OECD argues that this reflects primarily the progress they made in implementing policies consistent with the *Jobs Strategy* in the 1980s and early 1990s.

The reform process in these four countries focused on a range of different issues, reflecting the need to deal with the most significant structural rigidities in each country. The United Kingdom gave priority to product market and industrial relations reform; New Zealand embarked on a path of trade liberalisation, industrial relations reform and reduced government intervention; the Netherlands concentrated on aggregate wage moderation and wage flexibility through a mix of tax reductions and centralised bargaining; and Ireland focused on reducing the generosity of unemployment benefits, reducing marginal effective tax rates and improving labour skills.

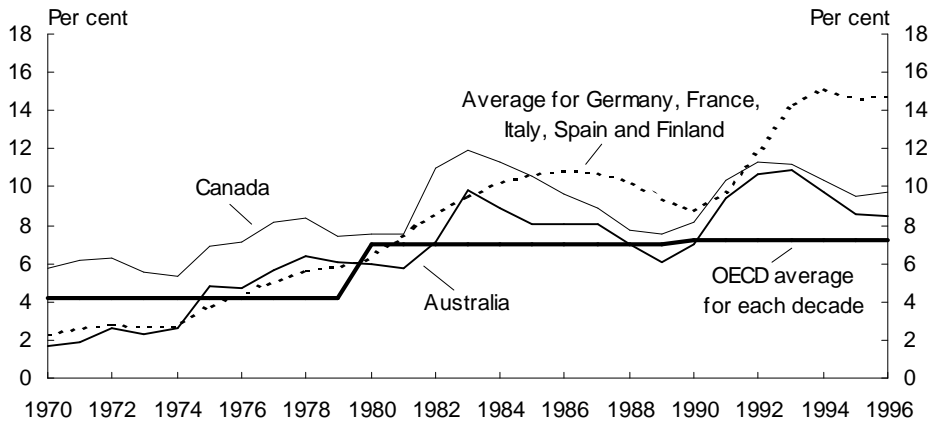
Chart 1: Comparative OECD Unemployment Rates
Panel A: United States, Norway and Japan



Panel B: United Kingdom, New Zealand, Ireland and the Netherlands



Panel C: Australia, Canada and Major European Countries



While each of these countries gave priority to its most pressing structural problems, their reforms were part of broad-ranging reform agendas — a feature which the *Member Countries' Experience* paper considers crucial to their success. The setting of policy to maintain a stable macroeconomic environment with a strong focus on sound public finances and the control of inflation is another common feature of successful structural reform in the four countries. By 1996, New Zealand had moved its budget balance into surplus and achieved an inflation rate of below 2 per cent, while the Netherlands, Ireland and the United Kingdom had reduced their budget deficits substantially.

The *Member Countries' Experience* paper identifies Australia and Canada as countries which have recently introduced significant and wide-ranging reforms, but the results in terms of the impact on unemployment are yet to fully emerge. While both countries succeeded in reducing the rate of unemployment in the mid-1990s, no significant improvement has been recorded since then, despite a high rate of output and employment growth (Chart 1, Panel C).

The successful countries' experiences contrast with those of many European countries — including Germany, France, Italy, Spain and Finland — which introduced only partial reforms and experienced a persistent increase in total and structural rates of unemployment. In 1996, unemployment was at or near record levels in most of these countries, ranging from around 10 to 12 per cent in Germany, France and Italy to around 22 per cent in Spain (see also Chart 1, Panel C).

CONCLUSION

The OECD concludes the experience of the successful countries holds out promise that other OECD countries can reduce structural unemployment by implementing the *OECD Jobs Strategy*. The OECD also argues that a concerted and sustained effort is required both on the part of governments and communities to move forward with the necessary changes. Governments need to hold out against pressure to resist change, while business, trade unions and workers need to be innovative and flexible to create new jobs for the future. The OECD concludes that such efforts are required to enable countries to reap the benefits of change in the form of reduced unemployment and increased living standards.

Commonwealth Government's 1997-98 Budget Financing Program and Debt Management Strategy

The following is a speech to the Australian Financial Markets Association by Mr Tony Hinton, First Assistant Secretary, Investment and Debt Division, Treasury, in Sydney on 6 August 1997.

INTRODUCTION

It is a pleasure to be with you once more this evening to discuss the Commonwealth's debt management strategy and budget funding program. Treasury has been addressing AFMA on this topic for a number of years now and we very much value the opportunity that this gathering provides. Over the years, we have found this to be a particularly useful forum for communicating our thinking and explaining our actions to key market participants. We also find this event particularly useful for receiving your feedback and comments.

I would like to begin my presentation tonight by discussing one or two of the key risk management considerations that are integral to the broad strategic framework within which the debt management strategy and issue program are formulated. Following on from that, I will provide you with some greater detail than was possible at Budget time about the make-up of the planned debt issue program for 1997-98 and set out projections as to the Commonwealth's net borrowing requirement and stock of Commonwealth Government Securities on issue over coming years. I will conclude my presentation this evening with a few words on the current state of play with the Consultants' Review of Institutional and Resourcing Arrangements for Commonwealth Debt Management, an exercise with which many of you will be familiar.

COMMONWEALTH DEBT MANAGEMENT FRAMEWORK

In common with most entities with significant financial exposures in their balance sheet, the Commonwealth has been moving increasingly in recent years to conduct its debt management within a risk management framework. As managers of a debt portfolio in excess of \$100 billion, charged explicitly with the task of minimising the cost of that portfolio over time, it is essential that we approach the management task cognisant of the full range of relevant risks to

longer-term cost performance. It follows that we need to have the capacity to measure, monitor and manage those risks on a comprehensive basis.

As this style of financial risk management framework is one that will be familiar to many of you, I don't propose to cover the component risks in all their detail. However, I would like to address two of the key risks that impact most directly on the Commonwealth's portfolio management and debt funding activities, namely funding risk and market risk.

A couple of definitions to start with. From our perspective, funding risk is broadly the risk to a borrower's capacity to raise funds in an orderly manner, without penalty, when required. Market risk (sometimes referred to as portfolio risk) is the risk to the value of the debt portfolio from changes in financial prices.

Funding Risk

The Commonwealth's broad objective with respect to managing funding risk is to maintain on-going market access on continuing favourable terms, such that we can be confident of raising funds in a cost-effective manner whenever required. In managing its funding risk, the Commonwealth places a high priority on maintaining the liquidity and efficiency of the market for Commonwealth Government Securities (CGS).

Consistent with this, for a number of years now in our Treasury Bond programs we have concentrated issuance into a relatively small number of highly liquid benchmark lines. We have also sought to maintain the liquid curve out to 12 to 13 years, partially with an eye to maintaining a steady profile of stocks through the 10 year bond futures contract. We consider the maintenance of liquidity in key benchmark lines as absolutely integral to the continuing efficient management of the Commonwealth's funding risk.

The Government's program of ongoing fiscal consolidation is, of course, a highly desirable one from a whole variety of perspectives. Fiscal consolidation does, however, pose certain challenges to the Commonwealth's capacity to achieve the objective of efficient management of the Commonwealth's funding risk. With smaller debt issue programs, there is less scope to maintain liquidity in key Treasury Bond lines and less scope to maintain the length of the Commonwealth yield curve.

To underpin our capacity to better manage the Commonwealth's funding risk and to maintain liquidity across the curve, it was announced in the Budget that, as was the case in 1996-97, it was proposed to gross-up the aggregate new debt issue program in 1997-98 through the early retirement of select lines of Treasury Bonds. Of course, as any early redemptions would be financed by the issue of new stock, any such transactions would have no effect on the Commonwealth's net call on the market, nor on the stock of Commonwealth debt outstanding.

For the present, the intention is that any early repurchases would be undertaken from the Reserve Bank's portfolio of CGS and would be limited to stocks with no more than 12 to 18 months till maturity. Any such transactions between the Commonwealth and the Bank, would of course, be priced at prevailing market rates.

Looking further forward, it is possible that the option of conducting reverse tenders direct in the market for stocks further out on the curve might need to be considered, although the need for, and timing of, any such move is quite uncertain at this stage. Moreover, given that the primary objective of any such exercise would be to enhance the Commonwealth's capacity to build and enhance the liquidity of its key benchmarks, reverse tender stocks would need to be selected carefully. Stocks from those years where there are currently two benchmark lines on issue would be an obvious point to start such an exercise.

Another conclusion that can be drawn from this risk management focus on maintaining the liquidity of the Commonwealth curve is that the Bond issuance program for 1997-98 is likely to be weighted towards those parts of the curve where benchmarks tend currently to be least liquid. I will elaborate on that aspect in the debt issue program part of my presentation.

Market Risk

Managing market risk requires a portfolio approach. As I have outlined to this gathering in the past, the Commonwealth's approach to the management of market risk has focussed for a number of years now on the establishment of a carefully defined benchmark to serve as a target for the debt portfolio.

The benchmark portfolio is defined in terms of domestic currency and US dollar shares (around 10-15 per cent of the portfolio in the latter case), with precise duration objectives specified within each currency sector. In the domestic sector of the portfolio, the duration target is around 3¼ years.

The benchmark, which is the outcome of considerable research and modelling undertaken with the assistance of the Union Bank of Switzerland's Quantitative Finance Group in London over the past couple of years, reflects a portfolio composition that, ex ante, can be expected to minimise the cost of Commonwealth debt over the long-term, subject to an acceptable degree of volatility in annual debt service costs.

Although I think the point is well understood already, I nevertheless re-iterate that, in our portfolio management operations, we do not attempt to outperform this benchmark by taking short-term interest and exchange rate views. Such action could readily be viewed as signalling an 'official family' view on the direction of interest and exchange rates. Obviously, this would be inappropriate and unacceptable.

Rather than some kind of 'line in the sand' that we might seek to outperform through taking views, the benchmark is a target that we seek to achieve in relation to the actual composition of the portfolio. Of course, in practice, to keep the actual portfolio closely aligned with the target, we do need to take actions to deliberately manage its composition. But again, our portfolio management operations are designed purely to keep the portfolio in line with the fixed benchmark, not an attempt to add value by trying to outperform it.

For the past several years, normal debt issue and debt redemption activities have been the primary vehicle for maintaining the domestic component of the debt portfolio in line with the benchmark duration target. The size of aggregate borrowing programs has been such that through primary issuance we have had the capacity to meet both funding risk and portfolio management objectives. That is, to both maintain liquidity across the curve and to position the domestic portfolio in line with benchmark targets. This is no longer the case.

In view of the relatively small primary issuance programs this year and in prospect over coming years, and the targeting of this issuance to meet funding risk management objectives, the scope to manage the domestic component of the portfolio in line with the benchmark target through normal debt issue and debt redemption activities will be considerably reduced.

Indeed, on current indications for 1997-98 and without some other action being taken, it would not be possible to both maintain liquidity across the curve *and* achieve domestic portfolio duration objectives in line with the benchmark target. It is a classic instance of too few instruments chasing too many objectives.

Domestic Interest Rate Swaps

To provide the additional flexibility required to assist us in achieving both funding risk and market risk management objectives in 1997-98, it is proposed to utilise domestic interest rate swaps to maintain domestic portfolio duration in line with the benchmark target. As emphasised already, any domestic interest rate swaps undertaken by the Commonwealth will be executed solely for portfolio management purposes, to maintain domestic portfolio duration in line with the benchmark.

Any such transactions should not be read in any way, shape or form as signalling a Treasury view on the direction of interest rates. We will, of course, have in place a rigorous and prudent system for managing the counterparty credit risk exposures inherent in the swaps program — just as we have for our foreign currency swaps programs that have been operating for quite some years. I will comment on the proposed domestic interest rate swaps program for 1997-98 later in my presentation.

1997-98 DEBT ISSUE PROGRAM

Much of what I have covered so far sets the framework within which the 1997-98 borrowing program has been cast. I now turn to the borrowing program itself, which was briefly outlined in May in Statement 6 of Budget Paper No 1. An aggregate debt issue program of around \$6½ billion to \$7½ billion was indicated for 1997-98.

At this stage, no revisions have been made to the 1997-98 Budget figuring. However, the preliminary Budget outcome for 1996-97 is now available and details are attached to the copies of my presentation that will be distributed. As you know, the budget outcome for 1996-97 was somewhat better than expected. Several factors contributed to this outcome. However, the net result was a run-up in Commonwealth cash balances of approximately \$3 billion at the end of 1996-97. This will, no doubt, have caused some of you to ponder possible implications for the 1997-98 borrowing program.

There are a number of options currently before us for dealing with that run-up in year-end cash balances. And, as noted earlier, in determining the size and make-up of the gross borrowing program, we take a variety of considerations into account, including the imperatives of managing the Commonwealth's funding risk. At this stage, we have no plans to amend the aggregate debt issue program announced in May. As indicated in the Budget, the 1997-98 debt issue program is expected to comprise the following elements:

- Treasury Fixed Coupon Bond issuance of around \$5 billion to \$6 billion;
- Treasury Indexed Bond issuance of around \$500 million to \$1 billion;
- Treasury Adjustable Rate Bond issuance of around \$1 billion;
- on an end-year basis, no net change in the stock of Treasury Notes on issue.

I will now provide some detail on each of these program elements.

TREASURY FIXED COUPON BONDS

As noted, Treasury Fixed Coupon Bond issuance in 1997-98 is expected to be of the order of \$5 billion to \$6 billion. In planning the broad composition of the Bond program for 1997-98, we have put particular weight on the importance of building and maintaining liquidity in key benchmark lines and of maintaining an efficient and liquid curve out to the present 12-13 years.

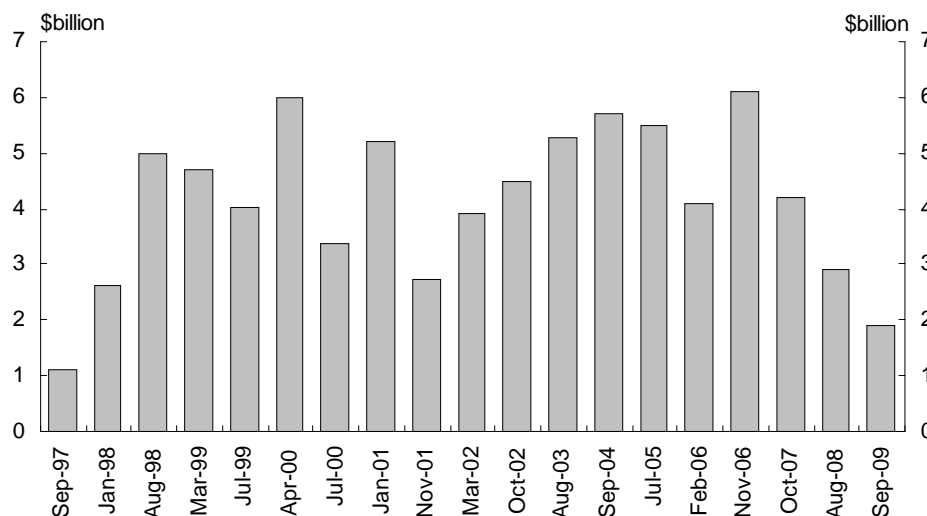
Consistent with that, at this stage it is expected that Treasury Bond issuance in 1997-98 will be weighted towards stocks at the long end of the curve. We plan, at this stage, to introduce a new 2010 benchmark line to maintain the length of the yield curve and to ensure, in the longer term, that a smooth progression of stocks is available to move into the 10 year futures contract. With an eye to possible

future borrowing programs implied by current forward estimates period projections, introducing a 2010 line this year should also allow time for the liquidity of the stock to be built up, prior to it becoming the 10 year benchmark in due course.

- We also recognise that liquidity in existing long-end Treasury Bond lines (specifically the October 2007, August 2008 and September 2009) needs to be built up further prior to the introduction of any new stock. Therefore, the proposed new 2010 line is not expected to be introduced until the second half of the financial year.
- At this stage, we would regard further issuance in 1997-98 into the November 2006 line as unlikely.

Chart 1 shows the face value currently on issue for each of the Commonwealth's benchmark Bonds.

**Chart 1: Benchmark Bonds on Issue
as at 6 August 1997**



After consulting widely in the market, we have decided to stay with the practice of conducting tenders for Treasury Bonds at approximately four to six week intervals. Given the expected 1997-98 aggregate program, this means that the average tender size will be around \$500 million to \$600 million, somewhat smaller than the average in recent years. The consensus seems to be that smaller sized tenders, held on a more frequent basis, will better cater for the liquidity needs of the market than larger, more infrequent tenders.

Also, in recent years, the general practice has been to offer two or more stocks in each tender. In circumstances of a reduced issuance program, it is possible that, in future, some tenders may only have one stock on offer, particularly where we are looking quickly to build liquidity into particular lines.

TREASURY INDEXED BONDS

The indexed bond market has continued to develop apace over the past twelve months. Last financial year saw the successful launch of a new 2020 capital indexed bond line via a \$250 million tender. We have also seen very healthy bidding interest in indexed bond tenders over the past twelve months. This allowed the average size of indexed tenders to be increased in 1996-97, compared with the average tender size of recent years.

For the past couple of years, issuance of indexed bonds has been deliberately targeted to meet identified market demand, in the interests of broad market development objectives. This approach has been successful in contributing to a growing confidence in the sector from intermediaries and investors alike.

Our market soundings indicate that, with the further development of the market, some change to the present issuance arrangements is now warranted. In particular, feedback from market participants suggests that greater certainty as to the timing of TIBs tenders would now be beneficial in terms of the further development of the indexed bond market.

Having carefully weighed the pros and cons of amending the present issuance arrangements, we have decided to move to an approach of conducting TIBs tenders on a regular six to eight week cycle. The volume and stock offered in each tender will depend on market demand and feedback. We are confident that this further commitment by the Commonwealth to the indexed market will be matched by continuing support for the sector from intermediaries and investors alike.

A TIBs issue program of around \$500 million to \$1 billion is envisaged for 1997-98. In 1996-97 priority was given to building up the liquidity of the new 2020 line. In 1997-98 issuance will initially continue to be targeted towards this line. However, we also plan to continue to issue the 2015 line as demand and circumstances permit. More than one stock could be offered in future tenders (eg, both the 2015 and 2020 lines could be offered in the same tender) depending on demand and market feedback. At this stage, we anticipate that the first tender of the 1997-98 TIBs issue program will be conducted prior to the end of this month.

TREASURY ADJUSTABLE RATE BONDS

As noted earlier, TABs issuance of around \$1 billion is envisaged for 1997-98. As you would appreciate, we shall be carefully assessing the impact on the TABs market of the recent changes to PAR requirements before coming to any firm views on the precise make-up of the 1997-98 program. Accordingly, the first TABs tender for 1997-98 is not expected to be held until the December quarter.

Subject to market demand, we will be looking to the possibility of launching a new TABs line during the year, given that the original March 1998 line matures this financial year and with the existing October 2000 line now having shortened to close to three years and with some \$4.3 billion already on issue. At this stage, our thinking is that any new TABs line would probably have a maturity of around five years. However, we will looking to market input prior to making any final decision.

TREASURY NOTES

In 1997-98, as in the past, Treasury Notes will be issued primarily to fund within-year mismatches in expenditure and receipts. The volume of Treasury Notes currently on issue is around \$12½ billion, compared with \$13.3 billion as at end-June 1997. Note outstandings are expected to peak at around \$18 billion later this calendar year and then, on current Budget figuring, fall back to around \$13 billion by end-June 1998.

DERIVATIVES PROGRAM

Foreign Currency Swaps

The benchmark analysis continues to indicate a valuable cost and risk reducing role for a small, core holding of \$US in the portfolio. The Commonwealth routinely monitors and assesses a range of options to acquire this exposure. For a number of years now, a strategy of obtaining desired new foreign currency exposure through a combination of domestic issue and foreign currency swaps has offered cost advantages over various offshore issuance options, though this will not necessarily hold true in all circumstances. Of course, potential savings from any direct offshore issue that did occur would need to be set against domestic market liquidity considerations.

Maintenance of the Commonwealth's portfolio at the benchmark target in 1997-98 will require the acquisition of new \$US exposure of the equivalent of around \$A3 billion, after allowance for scheduled maturities. At this stage, the intention is that this exposure will be acquired via the standard domestic issue and foreign currency swap approach employed in recent years.

Domestic Interest Rate Swaps

It is difficult to be too precise at this stage as to the likely size of the program of domestic interest rate swaps to be undertaken by the Commonwealth in 1997-98. This is because, as I indicated earlier, we will be using domestic swaps on a needs basis, to maintain the actual portfolio in line with the benchmark duration target. Though actual portfolio duration at the start of the new financial year is

broadly in line with the benchmark target, the size, composition and timing of the domestic issue program, movements in market rates and time decay itself will all bear on portfolio duration through the course of the year and, hence, on the need to undertake domestic interest rate swap transactions for portfolio management purposes.

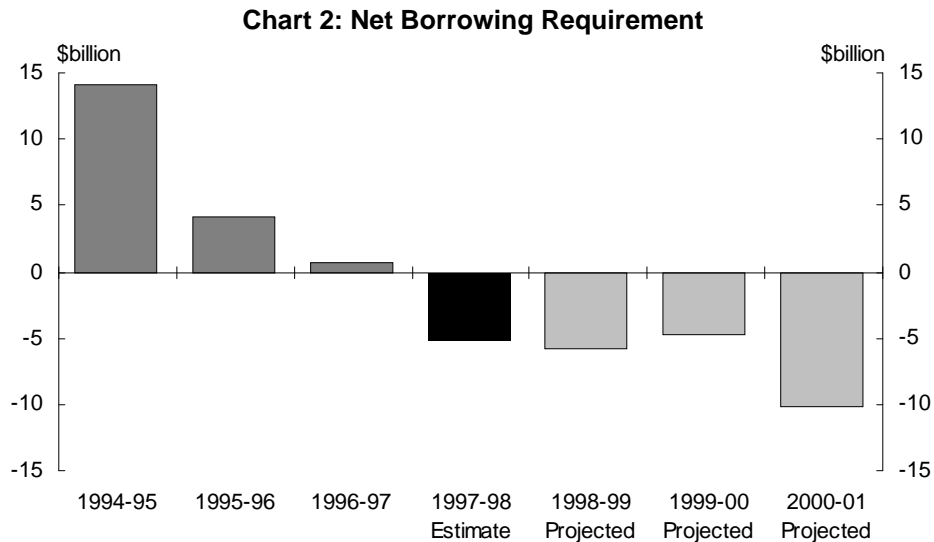
As the Bond issue program in 1997-98 is likely to be weighted towards longer-dated stocks, at this stage it would seem sensible to anticipate a reasonably sizeable program of domestic interest rate swaps through the course of the year. For the purposes of a very broad indication, I note that a program perhaps in the order of \$2 billion to \$3 billion might be anticipated.

NET BORROWING REQUIREMENT FOR 1997-98 AND THE OUT-YEARS

The Government's program of fiscal consolidation generates the particular benefit of the Commonwealth repaying a significant amount of debt in net terms over the next few years. The Commonwealth's net borrowing requirement for 1997-98 was estimated in the Budget to be negative \$5.2 billion. That is, the value of Commonwealth debt repayments was projected to be \$5.2 billion greater than the value of new debt issued. This reflected:

- an estimated headline budget surplus of \$6.4 billion, offset in part by
- an estimated \$1.2 billion in payments associated with Commonwealth public trading enterprise superannuation.

Consistent with the Budget-time figuring, Chart 2 depicts the net borrowing requirement out to 2000-01, as well as actual net borrowings for the three years to 1996-97.

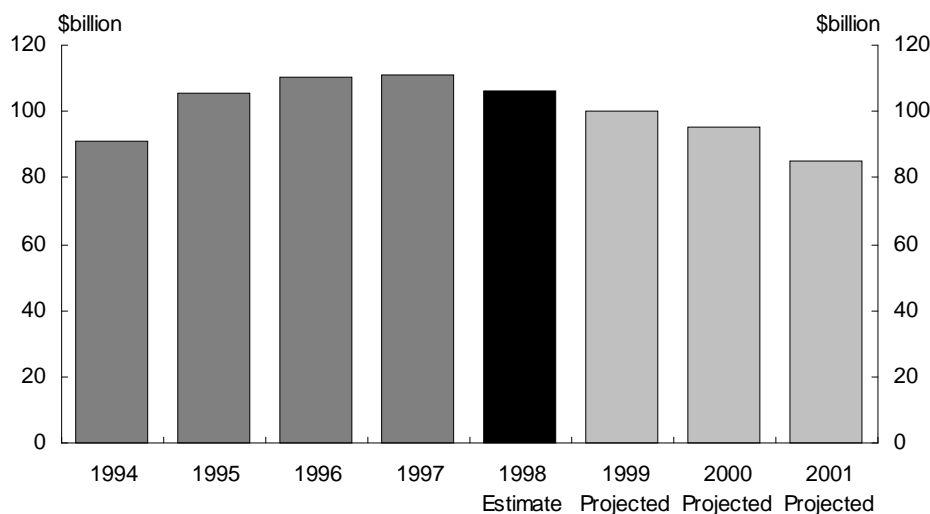


- The net borrowing requirement is projected to remain negative for each of the out-years. On current figuring, the negative net borrowing requirements for 1998-99, 1999-00 and 2000-01 are projected to be \$5.8 billion, \$4.8 billion and \$10.1 billion respectively.

STOCK OF COMMONWEALTH GOVERNMENT SECURITIES (CGS) ON ISSUE

Forward estimates period projections as to the stock of CGS on issue were provided in Statement 6 at Budget time, though these are now a little out of date in light of the preliminary Budget outcome for 1996-97. Chart 3 shows the stock of CGS on issue, at end-June 1994 to 1997, and the latest projections for the period to end-June 2001, consistent with the 1996-97 preliminary Budget outcome and budget time figuring for later years.

Chart 3: Stock of Commonwealth Government Securities on Issue as at 30 June



At end-June 1997, the face value of CGS on issue was just over \$111 billion, or around 22 per cent of GDP. The estimated negative net borrowing requirement for 1997-98 implies a reduction in the stock of CGS on issue over 1997-98. At end-June 1998, the face value of CGS on issue is estimated to be around \$106 billion or around 19 per cent of GDP.

- Further reductions in the stock of CGS on issue are projected in the out-years in line with the negative net borrowing requirements in these years. Between end-June 1998 and end-June 2001, the volume of CGS on issue is expected to fall by around \$20 billion to around \$85 billion or to about 13 per cent of GDP, well down on the 22 per cent at end-June this year.

DEBT MANAGEMENT REVIEW

In my presentation to AFMA last year, I noted that Treasury had retained a consultancy team consisting of Coopers and Lybrand Consultants, BT Risk Management Advisory Pty Ltd and Dr Jeffrey Carmichael of Carmichael Consulting to undertake a Review of Institutional Arrangements and Resourcing for Commonwealth Debt Management. The consultants were to review the Commonwealth's existing operational approach to its debt management, assess the adequacy and suitability of existing institutional arrangements and resourcing and, if necessary, consider alternative options for institutional arrangements and resourcing consistent with the preferred operational approach.

As many of you will be aware, during the course of the Review, the consultants met with a wide range of interests across the domestic financial markets and also travelled overseas in order to obtain information on the operations and experiences of a diverse range of sovereign debt managers. A wide range of views were put to the consultants.

The Review is now close to completion and will be considered within Treasury at an early date. The process for handling the Review's conclusions will form part of Treasury's consideration. We are conscious of considerable interest in the Review in the market, both domestically and overseas, and from other sovereigns.

At this stage it is, of course, too early to say anything concrete as to the outcome of the Review. I can say, though, that the Review will present for consideration a range of options for institutional and resourcing arrangements, depending on the preferred objectives and philosophies of the sovereign debt manager. We consider the Review to be a very valuable input into the Commonwealth's debt management and issuance activities. We hope to be in a position to make some further comment on the Review a little later in the year.

CONCLUSION

I conclude my presentation tonight by thanking you for your continuing interest in the Commonwealth's debt management and issuance activities. I would be pleased to respond to questions and comments.

PRELIMINARY OUTCOME FOR 1996-97

The preliminary Budget outcome for 1996-97 was released on 23 July 1997. Table 1 provides details of the preliminary net and gross borrowing requirement and associated debt issue program for 1996-97.

Table 1: 1996-97 Borrowing Requirement and Debt Issue Program^(a)

	1996-97 Outcome \$m
Headline Budget Surplus ^(b)	-2514
PTE Superannuation Financing	928
Other Financing ^(c)	-814
Change in Cash Balances ^(d)	3026
Net Borrowing Requirement	626
<i>Plus:</i>	
Domestic Debt Repayments ^(e)	5332
Overseas Debt Repayments ^(f)	783
Gross Borrowing Requirement	6741
<i>Financed as follows:</i>	
Treasury Fixed Coupon Bond Issuance	7014
Treasury Indexed Bond Issuance	822
Treasury Adjustable Rate Bond Issuance	900
Treasury Notes (Net Issuance)	-1995
Total Debt Issue Program	6741

- (a) Based on the face value of securities.
- (b) Surpluses reduce the borrowing requirement.
- (c) Includes difference between face value of securities and proceeds, net subscriptions to the International Monetary Fund, proceeds and payments relating to swap transactions classified as financing transactions and other financing transactions not elsewhere identified.
- (d) Change in cash balances held by the Commonwealth at the Reserve Bank. An increase in cash balances increases the borrowing requirement.
- (e) Excludes the refinancing of Treasury Notes.
- (f) \$A equivalent at exchange rate at time of transaction.

Full details of the Commonwealth's debt and portfolio management operations in 1996-97, as well as historical data on debt issuance and portfolio composition in previous years, will be presented in the *Commonwealth Debt Management Report* for 1996-97, which is expected to be published in September. Copies will be available from Government bookshop outlets.

Australia's Experience with Indexed Bonds

This paper was presented by Mr Peter McCray, Assistant Secretary, Debt Management Branch, Treasury to a BZW Investor Forum in New York on Tuesday, 10 June 1997. The presentation included a history of Australia's Treasury Indexed Bond program, the current state of the Australian indexed market and observations on the outlook for the Australian indexed market, focussing particularly on the Commonwealth's own issuance intentions.

INTRODUCTION

It is a pleasure to be with you to discuss Australia's experience with indexed bond issuance. I'll be covering three issues in my presentation:

- a brief history of the Australian Treasury's indexed bond program;
- a snapshot of the current state of the Australian market for Treasury indexed bonds, and more generally; and
- some concluding observations on the outlook for the Australian indexed market focussing, in particular, on Treasury's own intentions.

HISTORY OF AUSTRALIA'S INDEXED ISSUANCE

The development of an indexed securities market in Australia dates from the early 1980s, with Treasury among the earliest issuers into the new market. A variety of factors attracted Treasury to the new market. Prominent among them were the prospects for savings in debt service costs through avoiding the inflation risk premium implicit in nominal bonds, the opportunity to issue longer-term funding than was available in the nominal market and the possibilities for risk diversification, including through a broadening of the investor base.

Following a period of extensive investor liaison, Treasury came to the market with a debut auction of \$100 million of capital indexed bonds in July of 1985. Bond capital was indexed to the CPI, with coupons paid quarterly. Two stocks were offered, a ten year and a twenty year security, with the auction being conducted on the standard multiple price basis that we continue to employ to this day for all our debt securities. These two original stocks were regularly reopened at successive tenders over the following couple of years.

It would be fair to say that auction results in those early days were uneven as investors came to terms both with the price discovery process in an environment where there was very little in the way of relevant pricing benchmarks as well as the appropriate portfolio treatment of the new type of security. Domestic banks and institutions made up the bulk of the investor base at that stage, with demand motivated mainly by broad portfolio diversification objectives. However, the indexed product remained very much a niche element of investors' fixed interest portfolios.

Cautious bidding from investors in those early tenders, uncertain as to the market clearing price and wary of the proverbial 'winner's curse', saw wide ranges in accepted auction bids. Real yields drifted up to well over 6 per cent after stock at the initial auction had been cleared at yields between 4½ and 5 per cent.

Gradually though, after a couple of challenging years, auction results improved as the market began to come to terms with the singular features of the new instrument. By early 1988, though the secondary market remained underdeveloped, more consistent demand contributed to yields moving back under 5 per cent, with auctions regularly being taken out with comparatively narrow ranges in accepted bids.

By this time too, the semblance of a real yield curve for Treasury indexed paper existed. By early 1988, just under \$1 billion of Australian Government capital indexed bonds had been issued in the three years since the debut auction, with that issuance spread, via regular reopenings, across 7, 10 and 17 year securities.

A sharp turnaround in the Government's borrowing requirement in 1988 as the federal budget moved from deficit to sustained surplus proved to be a watershed for Treasury's indexed issuance program.

In the three years since the debut auction, indexed securities had continued to play very much a subsidiary funding role to conventional Treasury Bonds and Notes. In light of the Government's much reduced funding requirement, it was decided to suspend the indexed program and concentrate issuance, and hence liquidity, into the more established instruments. It was to be five years before the Government returned to the indexed market.

Despite Treasury's absence from the market, the indexed sector continued to develop through this period. There were a number of notable developments highlighting the increasing depth and sophistication of the market.

A number of successful State Government indexed issues — though not all in capital-indexed form — marked a growing investor interest in the sector. Partly, this reflected growing demand for long term inflation linked securities from the emerging superannuation or pension fund industry. For superannuation funds, this form of security was proving an ideal balance sheet asset to offset the real exposures in their accumulating liabilities. Increasing recognition by investors of indexed securities as a discrete asset class was a further notable advance,

marked by the establishment of a new Inflation-linked Composite Bond Index in March 1991.

In early 1993, with the federal budget by now returned to significant deficit, and recognising the opportunity presented by the greater depth and sophistication of the domestic indexed market, Treasury resumed issuance of capital indexed securities.

The cost saving and risk diversification potential of the indexed product continued to underpin Treasury's support for the program. The potential that the instrument offered to support the Government's objectives for the development of the superannuation savings sector was a further factor influencing the decision to return to the market.

All that being said, it was not quite business as usual on return. Mindful of the volatile pattern of auction results that marked the initial period of indexed issuance in the mid-1980s, and of the still developing nature of the investor base, it was decided that, for an initial period, a more managed issuance mechanism might be more apposite.

Accordingly, Treasury appointed a so-called 'dealer panel' or syndicate to assist in the placement of its indexed paper. The judgement was that the dealer panel could make an important contribution to the development and stability of the market via the specialised marketing role that panel members could play in introducing new investors to the product, educating potential investors and contributing, more generally, to the dissemination of information about the benefits of the indexed instrument.

This dealer panel selected by Treasury comprised five well credentialed institutions, including BZW, who were both active in the market for indexed securities and had a considerable institutional knowledge of the market to draw on. The panel was commissioned by Treasury to undertake regular and wide-ranging market consultations and analysis before putting recommendations to Treasury on indicative issuance volumes, the potential timing of new issuance and the ultimate price at which indexed stock should be placed.

Under the dealer panel arrangement, stock was provided to panel members in equal allotments for on-selling to investors. There was no underwriting element and, in principle, panel members were free to return unsold stock to a central pool, although in practice that never occurred. Fees were paid to individual members commensurate with the amount of stock each member placed.

The fact that indexed stock could be issued in volume and at a single market clearing price both enhanced the liquidity of the market and, by addressing the winners' curse problem, provided investors with greater confidence to participate in the market. The panel also enhanced Treasury's capacity to launch new indexed benchmarks with greater confidence, and in greater volume. New 2010 and 2015 Treasury indexed bonds were launched via the panel.

The panel played a very useful role over the eighteen months or so of its existence, both in broadening the investor base and in establishing the beginnings of a viable secondary market for indexed paper. But judging that the market had advanced to a new level of maturity, in July 1994 Treasury announced that future indexed issuance would return to the standard multiple price auction basis that existed for other Government securities and had applied in the earlier period of indexed issuance.

We have been very satisfied with auction results since that time. After some initial volatility, auctions over the last two to three years have generally been very well supported, clearing with narrow ranges of accepted bids and at close to mid-market levels.

A notable design feature of the auction program over the past couple of years has been a deliberate move on Treasury's part to tailor issuance volumes and the timing of issuance to market demand. In the interests of market development, there is no regular issuance calendar as such. Rather, Treasury issues only when our market liaison indicates that there is an appetite for stock.

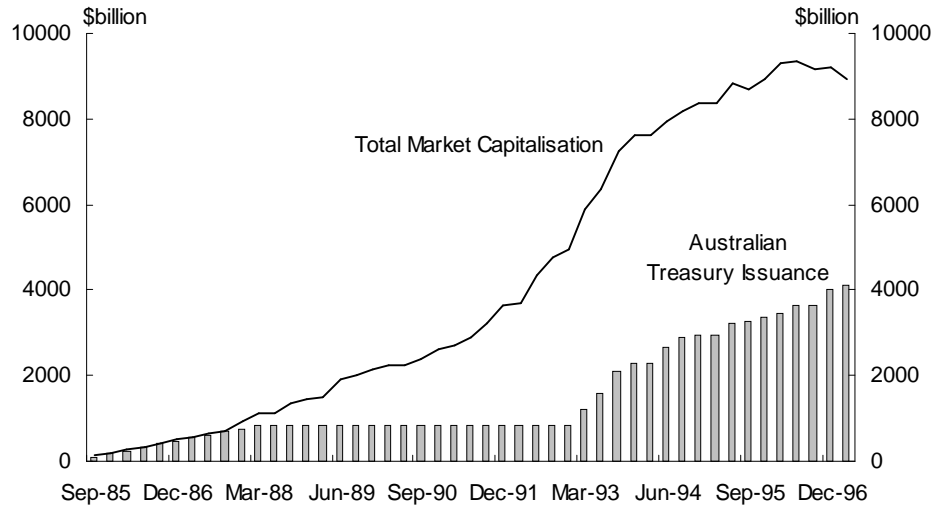
On average over the last few years, auction volumes have typically been around \$100 million of a single line, reopenings into either 2015 or 2020 maturities, with around five or six auctions conducted annually. In the current financial year, which concludes at the end of this month, we have issued around \$620 million of indexed bonds, a very respectable near ten per cent of aggregate new debt raisings in the year.

Treasury indexed bonds have come a long way since the experimental days of 1985.

THE CURRENT INDEXED MARKET IN AUSTRALIA

As at end May 1997, aggregate Treasury indexed bonds on issue amounted to some \$4½ billion dollars. While that represented only about 4 per cent of the Government's total debt portfolio, this stock of Treasury indexed bonds accounts for almost half of all indexed securities on issue in Australia.

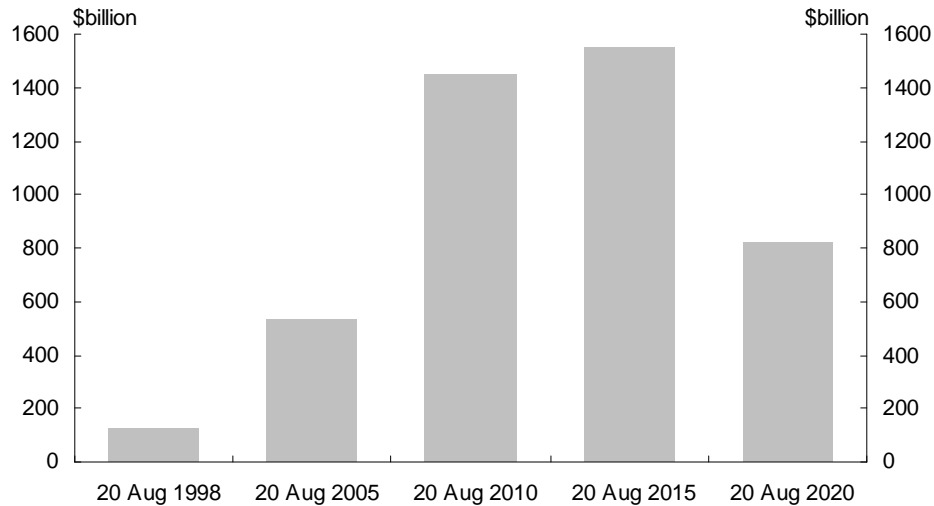
Chart 1: Market Capitalisation (face value)



Treasury paper is very much the dominant force in the domestic indexed market.

The market itself has developed significantly over the period since Treasury returned to the market in 1993. The Treasury yield curve now extends across five capital indexed securities ranging from 1998 to 2020 lines, albeit only the 2015 and 2020 lines remain open.

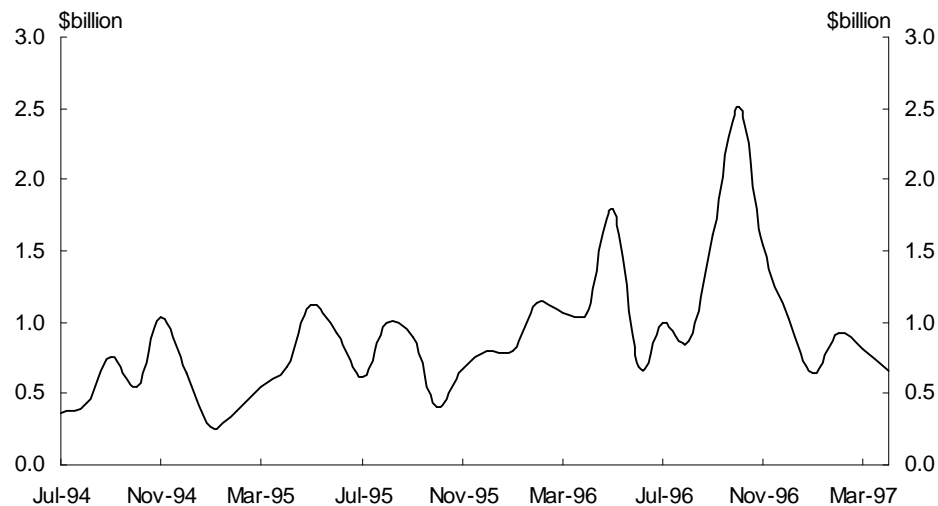
Chart 2: Treasury Indexed Bonds Outstanding as at June 1997



Whilst liquidity arguably remains the biggest challenge to the further development of the domestic market, it would be fair to say that the liquidity of the domestic market has improved substantially in the past two to three years. The emergence of an active repo market in the most liquid 2010, 2015 and 2020 lines has been an important factor.

Secondary market activity in Treasury indexed bonds has picked up markedly over the past couple of years, with the total stock of Treasury paper turning over on average, once every four months.

Chart 3: Secondary Market Turnover (all maturities)



While modest in terms of nominal bond market turnover performance, turnover on this scale represents a considerable advance for the domestic indexed sector.

The past couple of years have also seen the emergence of a modest market for index-linked swaps, though the potential of this form of hedging instrument remains largely undeveloped to date.

The nature of the investor base for Treasury indexed bonds and the style of investor asset management strategies are other important areas of the market where there have been notable developments in recent years.

On asset management strategies, there is now virtually unanimous recognition in Australia of indexed securities as a separate and quite distinct asset class, by investors and consulting actuaries or asset consultants alike.

In part, this reflects that the duration and volatility characteristics of the indexed instrument are quite distinct from nominal fixed interest securities. Likewise, there are a variety of studies that indicate very little correlation between the returns on indexed securities and those on most other asset classes. Finally, no other asset provides the near-perfect hedge against inflation that indexed securities offer.

Reflecting their treatment as a separate asset class, the vast bulk of indexed securities under investment in Australia are managed within dedicated portfolios, with performance benchmarked against specialist indexed market indices.

As to the investor base itself, I mentioned earlier that in the developmental days of the market back in the mid to late 1980s, the major banks and other financial entities were the primary investors in indexed paper. Much has changed since then.

First of all, it is worth noting though that there is not, and never has been, any real retail investor interest in indexed exposure. The Australian market for indexed paper is very much a wholesale market, with three broad investor groups prominent.

Insurance companies and particularly life assurance companies have a natural appetite for indexed exposure as these forms of securities represent an ideal balance sheet asset to offset long-dated real liabilities. As a generalisation, these investors tend towards buy and hold strategies rather than tactical asset allocation within and between different investment sectors.

Offshore investors have also become increasingly prominent in recent years, with British, Canadian and, more recently, US investors in particular seeking out opportunities for real yield pick-up and to play the spread between real yields in Australia and their home market.

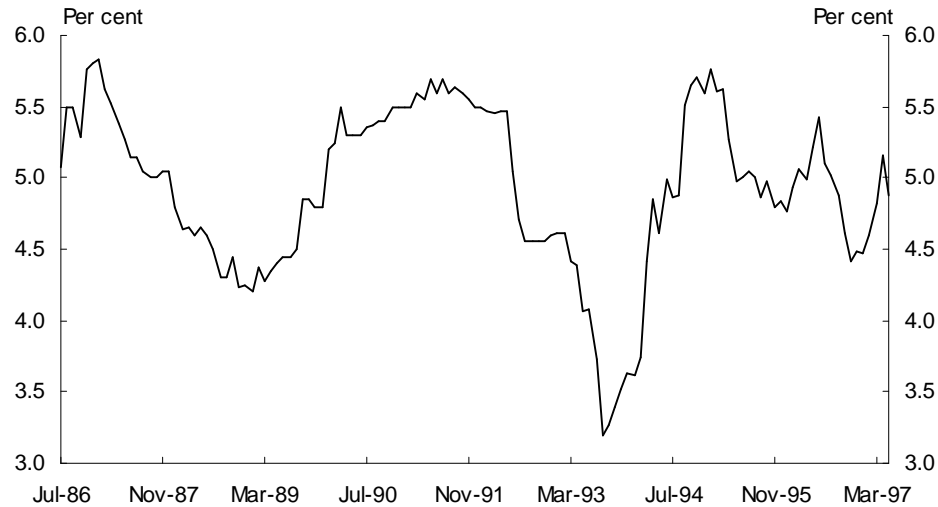
By far the most prominent investor group represented in the indexed market is the superannuation or pension fund sector. In Australia, 'compulsory' employer superannuation contributions and voluntary contributions made by, and on behalf of, employees and the self-employed are enhanced by substantial tax concessions. As a result, Australian superannuation funds control a large and growing level of assets.

Almost any projection you care to look at will point to very rapid growth, of the order of 10 per cent per annum or more, in superannuation funds under investment over the next decade. Much of this will find its way, of course, into other asset classes but growth of this order remains a strong net positive for the domestic indexed sector nonetheless.

In contrast to the insurance sector where buy and hold investment strategies tend to prevail as I mentioned, the superannuation funds in general tend towards more active investment approaches and, along with offshore investors, account for much of the turnover in the indexed market. Prospective growth in superannuation funds under management over the next decade and beyond points, obviously, to a larger pool of investors making asset allocation to the sector, but also to good prospects for continuing enhancement of domestic market liquidity and turnover.

Finally, on the current market, it is worth saying a few very brief words about real yields on Treasury indexed paper and the nature of the yield curve. Over the last couple of years and, in fact, for much of the twelve years that Treasury has been issuing indexed paper, real yields have moved in a fairly narrow range between around 4½ and 5½ per cent.

Chart 4: Real Yield — August 2005 Treasury Indexed Bond



That is perhaps not all that surprising when the lower volatility typically exhibited by this asset class is considered.

What is a little more striking is the persistently inverse yield curve for Treasury indexed paper. Whether it is the duration characteristics of the longer-dated stocks that appeals, the arguably greater liquidity at the long end or investor recognition of the increasing value of the effective embedded inflation option as you move out along the curve, this yield inversion appears to be an enduring feature of the Treasury indexed yield curve.

THE OUTLOOK FOR THE INDEXED MARKET IN AUSTRALIA

Let me conclude with a few very brief words on the outlook for the Australian indexed sector. On the demand side, I've already indicated the positive outlook for growing asset allocation to the sector and for continuing enhancement of domestic market liquidity and turnover associated, in particular, with prospective growth in superannuation funds under management and, potentially, a growing offshore investor base.

As to the supply side, while the various State Governments no longer play a substantive role in indexed issuance, issuance of indexed paper associated with the private financing of major infrastructure projects, such as freeways and power station developments, has picked up significantly over the last few years and appears set to become an enduring feature of the domestic indexed landscape.

However, all indications are that Treasury will continue to be the dominant force over the next few years in bringing new supply to the market. And let me say unequivocally that we continue to be very much committed to the continuing development of this market.

The first of our original indexed benchmarks, the August 1995, has now matured of course. Our ex post analysis demonstrates clearly that, despite the volatility of those early auctions, it proved to be a very cost-effective alternative to conventional nominal fixed rate funding. We continue to appreciate the risk management advantages of having indexed exposure in the debt portfolio, an issue that we are currently exploring in more depth.

We are also currently considering a revision to the framework within which we conduct auctions for Treasury indexed paper. I mentioned earlier a strategy over the past couple of years of tailoring indexed issuance to identified market demand to assist in the steady development of the sector. This approach has been successful.

But with the market having developed further over the past couple of years, we are currently considering proposals from a number of market interests that a move to a more scheduled issuance program might now be appropriate in the interests of providing greater certainty to investors wishing to plan allocations to the sector.

Finally, to put the issue of new supply in context, I should note the commitment by the Government to an ambitious program of fiscal consolidation over the next few years. On current figuring, the fiscal consolidation will deliver large ongoing budget surpluses, much reduced borrowing programs, and a significant decline in the stock of Government debt on issue by the turn of the century.

Nonetheless, in the current year, we are planning on around \$500 million to \$1 billion of new indexed issuance out of a total borrowing program of around \$7 billion and currently envisage issuance on a broadly equivalent scale to this over the next few years.

The fact that within these current and projected much reduced borrowing programs, we are continuing to allocate around 10-15 per cent of new issuance to the indexed program is a very clear statement of both our belief in the product and our commitment to the further development of the domestic indexed market.

Prospects for continuing steady development of the domestic indexed sector appear very soundly based.

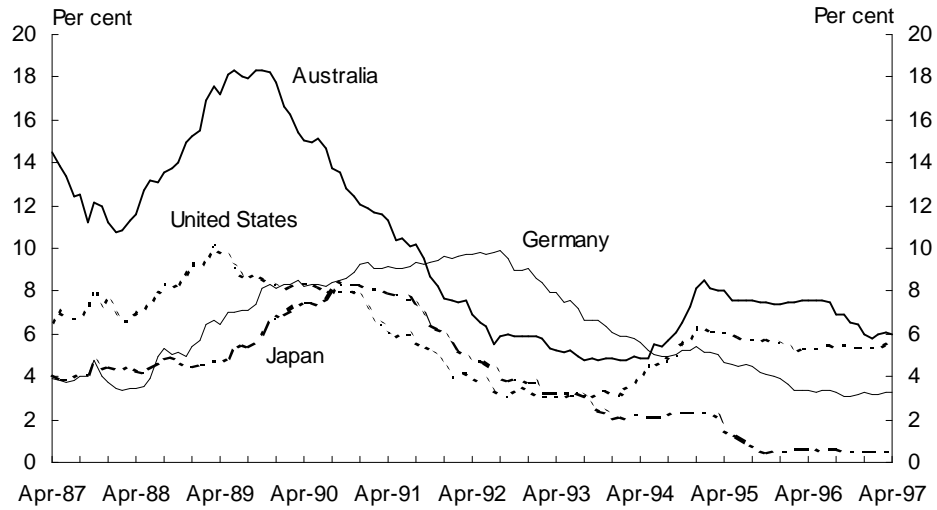
Statistical Appendix

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n.a.	not available
n.y.a.	not yet available
..	change less than 0.05%

Chart 1: Selected International Indicators

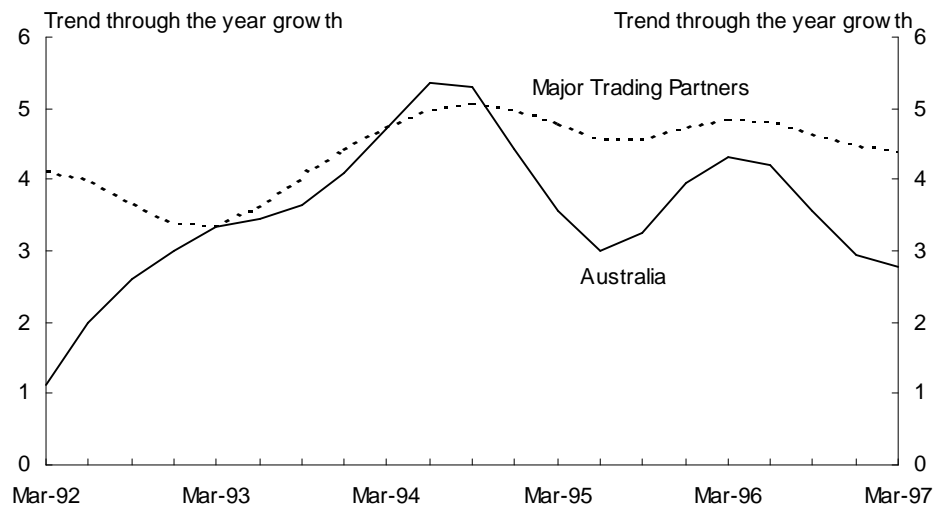
Panel A: Short-term Interest Rates^(a)



Source: OECD Main Economic Indicators.

(a) Average monthly rates; USA — certificates of deposits, Japan — 3 month certificates of deposit, Australia — 90 day bank accepted bills and Germany — 3 month FIBOR.

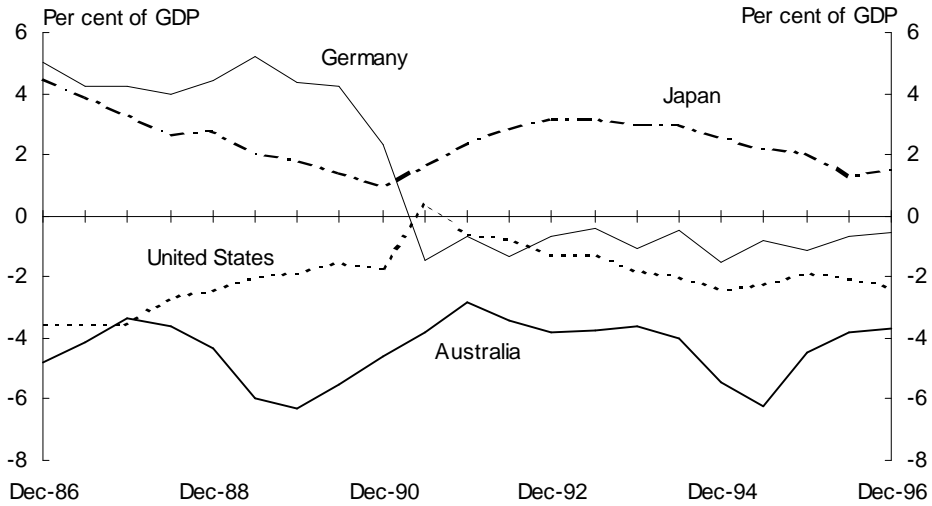
Panel B: Real Output^(a)



(a) Constant price seasonally adjusted GDP growth for each major trading partner is weighted by their respective shares of total Australian merchandise exports from 1993-94 to 1995-96. In this chart, major trading partners comprise OECD and Asian major trading partners. OECD major trading partners comprise the G7 (Japan, USA, UK, Germany, France, Italy and Canada) and New Zealand. Asian major trading partners comprise South Korea, Taiwan, Hong Kong, Singapore, China, Malaysia, Indonesia, Thailand and the Philippines.

Chart 1: Selected International Indicators

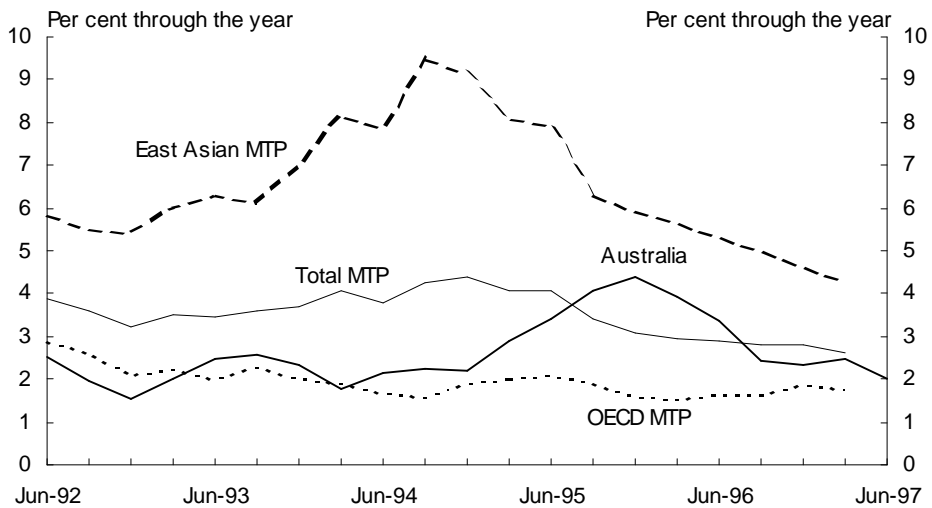
Panel C: Current Account Balances^(a)



Source: OECD Economic Outlook.

(a) Seasonally adjusted estimates. Germany refers to Western Germany only until June 1990, and unified Germany thereafter.

Panel D: Consumer Price Inflation^(a)



(a) In this chart the major trading partners (MTP) series is comprised of the ABS All Groups (excluding housing) CPI measure for the countries for which it is available (US, Japan, Germany, UK, New Zealand, Canada, South Korea, Singapore, Indonesia, Taiwan and Hong Kong) and the respective national government All Groups CPI series for the remainder of Australia's MTP (France, Italy, China, Malaysia, Thailand and the Philippines). None of the countries for which the All Groups CPI measure has been used includes the mortgage interest rate effect in the calculation of their All Groups CPI series.

The aggregate inflation rates are derived as the weighted average of the individual trading partner inflation rates, where the weights are the respective shares of Australian total merchandise trade from 1993-94 to 1995-96.

Chart 2: Contributions to Trend Quarterly GDP(A) Growth
 (Average 1989-90 Prices)

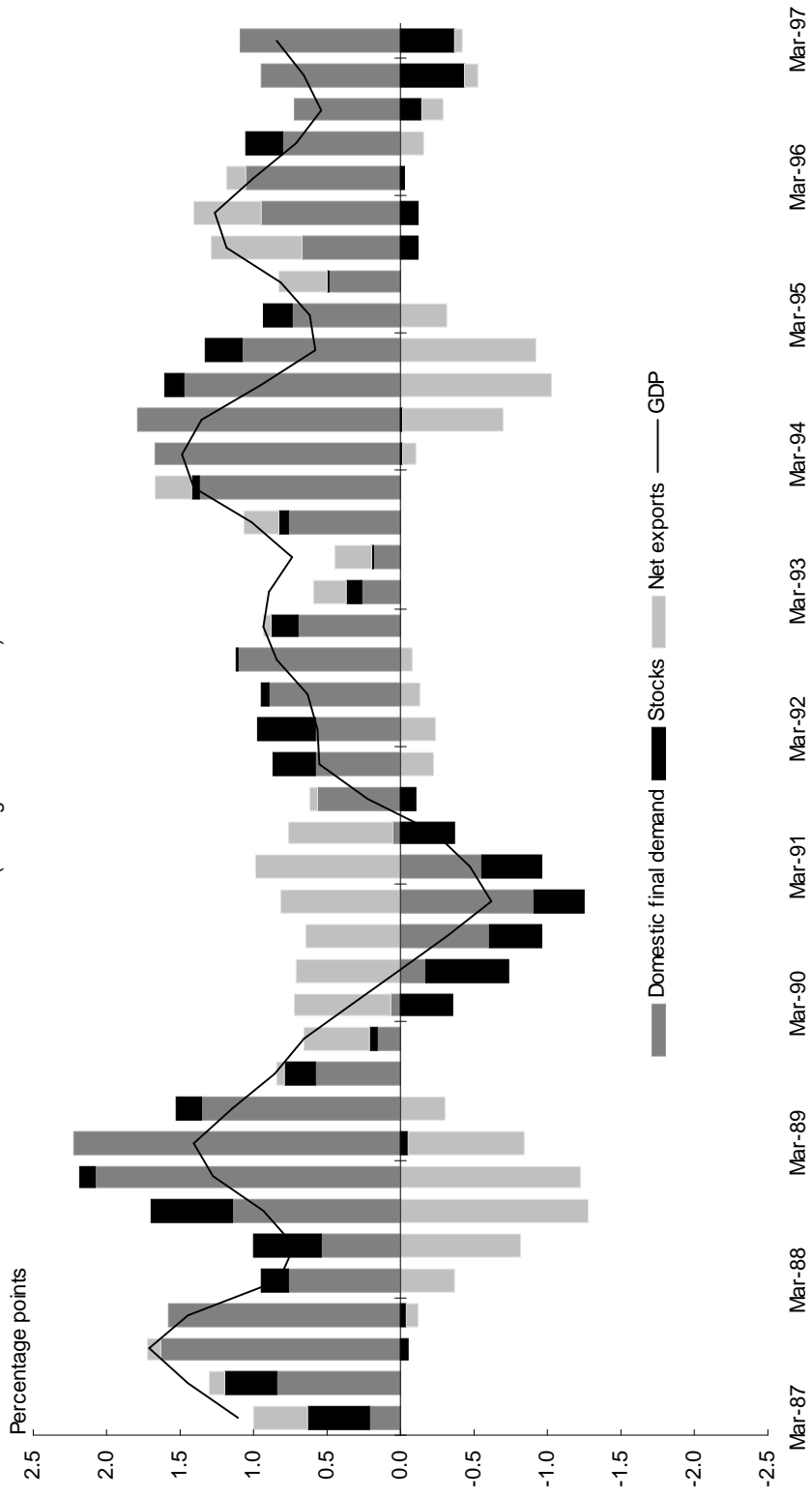


Table 1: Components of Gross Domestic Product (average 1989-90 prices)

Year -	Final domestic demand										GDP(A) adjusted for terms of trade		
	Private consumption	Private investment in dwellings	Private business investment	Private business fixed investment	Private final demand	Public final demand	Total final demand	Exports	Imports	Farm product (a)		Non-farm product (a)	GDP(A)(b)
1993-94	2.8	13.3	8.3	4.3	0.5	3.4	10.5	8.2	2.7	5.1	4.4	5.0	3.9
1994-95	4.5	3.8	15.6	5.7	5.6	5.7	3.5	17.7	-21.5	5.5	4.0	4.5	5.0
1995-96	4.2	-12.8	10.7	3.6	1.0	3.1	10.8	5.4	24.4	3.3	4.1	3.8	4.9
Quarter -	(Percentage change on preceding quarter - Trend)												
1996 Mar	1.0	-3.1	5.4	1.4	-0.2	1.1	3.2	2.8	3.0	0.9	1.0	0.9	1.5
Jun	0.7	-1.7	5.4	1.2	-0.8	0.8	1.7	2.5	0.7	0.8	0.7	0.8	1.2
Sep	0.5	0.9	3.8	1.0	-0.2	0.7	1.3	2.0	2.4	0.7	0.5	0.7	0.5
Dec	0.6	1.7	2.5	0.9	1.1	1.0	1.4	1.9	3.2	0.9	0.7	1.0	0.5
1997 Mar	0.6	2.3	2.2	0.9	1.7	1.1	1.6	1.9	3.7	1.0	0.8	1.1	0.0
Quarter -	(Percentage change on preceding quarter - Seasonally Adjusted)												
1996 Mar	0.7	-4.4	8.1	1.4	2.0	1.6	5.4	5.2	8.4	1.2	1.7	1.5	2.1
Jun	1.1	2.4	4.0	1.7	-2.5	0.8	-0.2	2.0	-4.0	0.5	0.3	0.3	0.8
Sep	-0.1	-2.4	6.7	0.7	-1.4	0.3	1.7	-0.5	4.6	0.8	0.8	0.9	0.6
Dec	0.7	1.8	-1.8	0.3	2.8	0.8	1.2	5.1	3.4	0.8	0.4	0.9	0.6
1997 Mar	1.0	5.2	5.3	2.0	2.4	2.1	2.5	0.1	4.1	0.8	0.9	0.9	0.0
Quarter -	(Percentage change on a year earlier - Trend)												
1996 Mar	4.3	-14.9	11.7	3.8	1.1	3.2	12.1	4.8	34.1	3.2	4.3	4.0	5.1
Jun	3.9	-13.3	17.0	4.6	-0.1	3.5	12.4	7.6	25.3	3.4	4.2	4.0	5.4
Sep	3.3	-8.2	19.1	4.8	-0.6	3.6	10.5	9.5	15.1	3.3	3.6	3.6	4.5
Dec	2.7	-2.2	18.2	4.6	-0.1	3.6	7.9	9.5	9.6	3.2	2.9	3.4	3.8
1997 Mar	2.3	3.2	14.6	4.1	1.8	3.6	6.2	8.5	10.3	3.3	2.8	3.6	2.3

(a) Income measure.

(b) GDP(A) is the average of the income (GDP(I)), expenditure (GDP(E)) and production (GDP(P)) based estimates of GDP. Source: ABS Cat. No. 5206.0

Table 2: Contributions to Change in Gross Domestic Product (Average 1989-90 prices)^(a)

Year - Quarter -	Final domestic demand				Change in stocks				GDP(A)	
	Private consumption	Private investment in business dwellings	Private investment in fixed investment	Private final demand	Public final demand	Total final demand	Private non-farm	Farm & public authority		Net exports
1993-94	1.7	0.7	0.8	3.3	0.1	3.4	0.3	-0.2	0.6	4.4
1994-95	2.7	0.2	1.5	4.4	1.2	5.6	0.6	-0.1	-2.6	4.0
1995-96	2.6	-0.7	1.2	2.9	0.2	3.1	-0.2	0.2	1.1	4.1
1996 Mar	0.6	-0.1	0.6	1.1	0.0	1.1	0.1	-0.1	0.1	1.0
Jun	0.4	-0.1	0.6	1.0	-0.2	0.8	0.3	0.0	-0.2	0.7
Sep	0.3	0.0	0.5	0.8	0.0	0.7	-0.2	0.0	-0.1	0.5
Dec	0.3	0.1	0.3	0.7	0.2	0.9	-0.4	0.0	-0.1	0.7
1997 Mar	0.3	0.1	0.3	0.7	0.4	1.1	-0.3	-0.1	-0.1	0.8
1996 Mar	0.4	-0.2	0.9	1.1	0.4	1.6	0.3	-0.2	0.1	1.7
Jun	0.6	0.1	0.5	1.3	-0.5	0.8	0.3	0.2	-0.5	0.3
Sep	-0.1	-0.1	0.8	0.6	-0.3	0.3	0.0	-0.1	0.5	0.8
Dec	0.4	0.1	-0.2	0.3	0.6	0.8	-0.2	0.0	-0.9	0.4
1997 Mar	0.6	0.2	0.7	1.5	0.5	2.0	-1.8	-0.1	0.6	0.9
(Contribution to change in GDP(A) - Seasonally Adjusted)										

(a) The sum of the contribution of the expenditure components do not precisely sum to the change in GDP(A) due to the statistical discrepancy between GDP(E) and the average of GDP(E), GDP(I) and GDP(P).

Source: ABS Cat. No. 5206.0

Table 3: Gross Product by Industry (average 1989-90 prices)

Year- Quarter -	Agriculture, forestry & fishing		Manufacturing		Electricity, gas & water		Construction		Wholesale trade		Retail trade		Accommodation, cafes & restaurants		Transportation & storage		Community services		Finance & insurance services		Property & business services		Government administration & defence		Education services		Health & community services		Cultural & recreational services		Personal & other services	
	Agri-culture, forestry & fishing	Manu-facturing	Electri-city, gas & water	Cons- truction	Whole- sale trade	Retail trade	Accom- odation, cafes & restaurants	Trans- port & storage	Communi- cation services	Finance & insur- ance services	Property & busi- ness services	Gov. ad- minist- ration & defence	Edu- cation services	Health & comm- unity services	Cultural & recre- ational services	Personal & other services																
1993-94	2.2	1.5	4.8	3.6	6.7	7.2	2.0	6.1	7.2	9.8	-1.3	-0.5	4.1	5.1	2.8	2.1	0.3															
1994-95	-19.7	4.2	2.5	2.9	6.3	10.8	4.2	8.5	5.8	12.6	1.6	7.2	4.1	1.2	2.1	6.6	6.5															
1995-96	21.8	5.0	0.3	0.2	1.2	6.4	3.7	4.1	5.0	13.6	3.6	3.6	4.0	0.8	6.3	4.1	7.3															
(Percentage change on preceding year)																																
(Change on previous quarter - Trend)																																
1996 Mar	2.7	2.1	0.9	0.2	0.1	1.4	0.8	0.4	1.2	3.0	-0.1	0.6	0.7	-1.6	0.4	1.7	1.7															
Jun	0.6	1.3	0.4	0.1	0.4	0.0	0.4	-0.8	0.7	2.8	-0.5	1.0	0.5	-1.3	-0.4	1.2	0.8															
Sep	2.1	0.5	-0.2	0.1	1.2	-0.5	0.1	-1.1	0.7	2.4	0.0	1.2	0.6	0.1	-0.1	0.5	0.3															
Dec	2.8	0.2	-0.6	0.4	1.4	0.4	0.2	-0.5	0.9	2.5	0.7	0.9	0.7	1.1	0.2	0.3	0.5															
1997 Mar	3.2	0.4	-0.6	0.7	1.2	1.3	0.5	0.2	1.1	2.4	1.1	0.6	0.6	1.4	0.2	0.2	0.7															
(Change on previous quarter - Seasonally Adjusted)																																
1996 Mar	7.7	4.1	2.2	1.6	-3.2	4.8	1.8	1.2	2.5	4.4	0.0	0.2	0.4	-1.1	0.0	2.7	2.9															
Jun	-3.8	2.1	-1.8	-0.3	1.9	-3.1	-0.2	-0.1	-0.3	2.5	0.5	2.0	-0.4	-2.4	-0.2	0.5	-0.4															
Sep	4.3	-2.3	2.7	-0.8	4.0	-0.6	0.3	-2.3	0.3	1.5	-2.1	-0.2	1.4	0.4	-1.2	0.3	1.0															
Dec	2.9	2.2	-2.8	1.1	-3.6	0.9	-0.5	-1.4	1.9	3.4	1.8	2.6	0.9	1.5	2.1	0.8	-0.6															
1997 Mar	3.6	0.4	-0.2	1.0	5.4	2.3	1.7	3.2	0.7	2.4	2.1	-0.7	-0.2	1.8	-1.1	-0.3	2.1															
(Change on year earlier - Trend)																																
1996 Mar	30.3	5.7	1.5	0.1	1.1	6.8	3.7	4.1	5.4	13.2	3.1	3.0	5.0	-0.3	6.7	4.0	7.3															
Jun	22.6	6.6	2.7	0.5	0.9	5.5	3.2	2.2	5.3	12.7	1.0	3.0	4.2	-3.0	4.5	5.0	6.2															
Sep	13.5	6.0	2.0	0.8	1.6	3.1	2.3	-0.3	4.5	11.9	-0.1	3.4	2.9	-3.4	1.8	4.8	4.7															
Dec	8.5	4.1	0.5	0.8	3.1	1.2	1.6	-1.9	3.6	11.2	0.1	3.7	2.4	-1.7	0.1	3.7	3.3															
1997 Mar	9.0	2.4	-1.0	1.3	4.3	1.1	1.2	-2.2	3.4	10.5	1.2	3.7	2.3	1.2	-0.1	2.2	2.3															

Source: ABS Cat. No. 5206.0

Table 4: Household Income (Constant price, seasonally adjusted estimates)^(a)

Year -	Non-farm wage and salary earners	Non-farm average earnings	Non-farm wages, salaries and supplements		Income of unincorporated enterprises, etc		Real household disposable income	
			Farm	Other (b)	Real household income	Real disposable income		
1993-94	2.0	1.4	3.4	15.6	-2.5	2.9	2.8	
1994-95	4.6	-0.2	4.4	-49.6	11.2	5.0	4.7	
1995-96	2.7	1.5	4.2	180.2	1.3	4.9	4.2	
Six months to -								
			(Annualised percentage change)					
1995 Mar	5.8	-1.1	4.6	-61.6	14.9	6.4	5.4	
Sep	4.0	-0.3	3.7	197.6	-2.2	3.2	3.0	
1996 Mar	1.0	3.7	4.7	196.0	0.6	5.5	4.2	
Sep	1.7	3.1	4.8	-43.0	7.2	4.3	4.3	
1997 Mar	2.3	2.4	4.8	31.0	-5.1	2.9	1.9	
Quarter -								
			(Percentage change on preceding quarter)					
1996 Mar	-0.3	0.5	0.3	8.3	3.4	1.2	1.2	
Jun	0.3	0.8	1.1	-25.8	3.3	1.5	1.5	
Sep	1.2	1.0	2.2	-4.2	-2.9	0.1	0.0	
Dec	0.7	0.2	0.9	10.2	-1.8	1.1	0.6	
1997 Mar	-0.3	1.0	0.7	12.3	1.5	0.6	0.8	
Quarter -								
			(Quarterly percentage change on year earlier)					
1996 Mar	1.4	2.2	3.6	423.4	1.9	4.8	4.4	
Jun	1.0	3.0	4.0	393.0	5.4	5.8	5.3	
Sep	1.7	3.8	5.5	-26.2	2.3	4.0	3.3	
Dec	2.0	2.6	4.6	-15.2	1.9	3.9	3.4	
1997 Mar	2.0	3.0	5.1	-12.1	0.0	3.4	2.9	

(a) Deflated by the implicit price deflator for private final consumption expenditure.

(b) Includes income of non-farm unincorporated enterprises, income from interest and dividends and imputed income from dwellings.

Source: ABS Cat. No. 5206.0

Table 5: Wages, Labour Costs and Company Income^(a)

Year -	Average weekly earnings (Survey basis)		Average earnings (National accounts basis)		Unit labour costs			Factor Shares			
	Full-time adult ordinary time earnings	All persons total earnings	Nominal	Real (b)	Nominal (c)	Real (d)	Private corporate Real (e)	Private Corporate share (g) (f)	Corporate GOS share (h) (f)	GOS share less net tax and net interest (i) (f)	
1994-95	4.1	3.4	1.6	-0.2	0.5	96.6	98.1	56.8	33.4	17.6	21.3
1995-96	4.5	2.5	4.2	1.5	3.5	97.3	98.6	57.3	33.1	17.8	19.9
1996-97	3.9	3.0	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a
Quarter -	(Percentage change on preceding quarter)										
1996 Jun	1.0	1.0	1.1	0.8	0.2	96.7		57.1		18.0	
Sep	1.1	0.7	1.5	1.0	1.7	97.9		58.0		17.5	
Dec	1.1	0.4	0.4	0.2	0.5	98.2		58.0		17.8	
1997 Mar	1.0	1.3	1.4	1.0	-0.1	97.3		57.8		17.5	
Jun	0.3	-0.1	n.y.a	n.y.a	n.y.a	n.y.a		n.y.a		n.y.a	
Quarter -	(Percentage change on year earlier)										
1996 Jun	3.9	3.0	5.3	3.0	2.2						
Sep	3.8	3.5	5.5	3.8	3.6						
Dec	3.9	2.8	4.2	2.6	2.6						
1997 Mar	4.3	3.4	4.5	3.0	2.3						
Jun	3.5	2.3	n.y.a	n.y.a	n.y.a						

(a) Seasonally adjusted data.

(b) Deflated by the implicit price deflator for private final consumption expenditure.

(c) Ratio of nominal hourly labour costs (non-farm wages, salaries and supplements, plus payroll tax and fringe benefits tax less employment subsidies, per hour worked by non-farm wage and salary earners) to average hourly productivity (real gross non-farm product per hour worked by all employed persons).

(d) Nominal unit labour costs as defined in footnote (c) deflated by the derived implicit price deflator for gross non-farm product. (Base for index: 1966-67 to 1972-73 = 100.0)

(e) Ratio of wages, salaries and supplements, payroll tax (less employment subsidies) and fringe benefits tax paid by the private non-farm corporate sector to private non-farm corporate sector gross product at factor cost, plus payroll tax (less employment subsidies) and fringe benefits tax. (Base for index: 1966-67 to 1972-73 = 100.0)

(f) The ratio of non-farm wages, salaries and supplements to gross non-farm product at factor cost.

(g) Ratio of the gross operating surplus (GOS) of the private non-farm corporate sector to the gross product at factor cost of the private non-farm corporate sector.

(h) The ratio of the gross operating surplus of non-farm corporate trading enterprise companies to gross non-farm product at factor cost.

(i) The annual non-farm gross operating surplus share defined in footnote (g) less net tax and net interest paid by private non-farm corporate trading enterprises.

(j) Excludes private financial trading enterprises.

Sources: ABS Cat. Nos. 5204.0, 5206.0, 5222.0, 6301.0 and 6302.0

Table 6: Prices

	Consumer price index (a)			Implicit price deflators (d)	
	All groups	All groups excl. mortgage interest & consumer credit charges (b)	Underlying rate (c)	Gross non-farm product (e)	Private final consumption expenditure
Year -	(Percentage change on preceding year)				
1992-93	1.0	2.3	2.0	1.2	1.9
1993-94	1.8	2.5	2.1	1.0	1.6
1994-95	3.2	2.7	2.1	1.4	1.8
1995-96	4.2	3.6	3.2	2.9	2.6
Quarter -	(Percentage change on preceding quarter)				
1995 Jun	1.3	1.0	1.0	1.1	0.6
Sep	1.2	1.3	1.2	0.8	1.0
Dec	0.8	0.8	0.7	0.3	0.3
1996 Mar	0.4	0.3	0.4	0.7	0.5
Jun	0.7	0.7	0.8	0.8	0.3
Sep	0.3	0.4	0.5	0.3	0.5
Dec	0.2	0.7	0.4	0.5	0.2
1997 Mar	0.2	0.7	0.4	0.3	0.4
Quarter -	(Percentage change on a year earlier)				
1995 Jun	4.5	3.2	2.5	2.7	2.2
Sep	5.1	3.8	3.1	2.9	2.8
Dec	5.1	4.1	3.2	3.2	2.9
1996 Mar	3.7	3.5	3.3	2.9	2.5
Jun	3.1	3.2	3.1	2.6	2.2
Sep	2.1	2.3	2.4	2.1	1.6
Dec	1.5	2.2	2.1	2.4	1.6
1997 Mar	1.3	2.6	2.1	2.0	1.5

(a) Based on the eight capital cities consumer price index.

(b) See article in the January 1989 edition of *The Economic Roundup* regarding the use of this series for economic analysis.

(c) ABS estimate based on Treasury methodology. An article on the construction of this estimate appeared in the Summer 1995 edition of *The Economic Roundup*.

(d) Quarterly and through-the-year figures are derived from seasonally adjusted data. The year-average data are trend.

(e) Gross non-farm GDP(E).

Sources: ABS Cat. Nos. 6401.0 and 5206.0

Table 7: Labour Market

	ANZ Bank job advertisements series	Employed persons			Unemployment		Participation rate
		Full-time	Part-time	Total	Rate	Persons	
	(Percentage change on preceding year)				(Levels)		
Year -					(per cent)	('000)	(per cent)
1994-95	29.1	3.2	6.6	4.0	9.0	794.5	63.3
1995-96	-7.0	2.3	3.3	2.6	8.5	766.7	63.7
1996-97	-8.5	0.3	3.4	1.1	8.7	796.5	63.5
Quarter -	(Percentage change on preceding quarter - seasonally adjusted)						
1996 Jun	-7.3	-0.1	0.6	0.1	8.3	775.8	63.5
Sep	-4.3	0.5	0.5	0.5	8.7	795.6	63.6
Dec	-2.2	0.0	1.5	0.4	8.6	791.6	63.6
1997 Mar	2.4	-0.3	1.9	0.2	8.7	801.5	63.6
Jun	10.4	-0.3	0.5	-0.1	8.5	796.7	63.2
Quarter -	(Percentage change on a year earlier - seasonally adjusted)						
1996 Jun	-12.1	0.7	1.6	0.9			
Sep	-14.2	0.7	2.4	1.1			
Dec	-12.8	0.6	2.4	1.0			
1997 Mar	-11.2	0.1	4.5	1.2			
Jun	5.8	-0.1	4.4	1.0			
Month -	(Percentage change on preceding month - seasonally adjusted)						
1997 Jan	3.3	0.0	1.2	0.3	8.6	790.9	63.7
Feb	1.8	-0.4	0.8	-0.1	8.8	810.8	63.7
Mar	-1.9	-0.5	-0.2	-0.4	8.7	803.0	63.3
Apr	16.7	0.5	0.4	0.4	8.7	802.3	63.5
May	-7.3	-0.4	-0.8	-0.5	8.8	809.8	63.2
Jun	0.5	-0.3	1.4	0.1	8.5	777.8	63.0

Sources: ANZ Bank and ABS Cat. No. 6202.0

Table 8: Balance of Payments (seasonally adjusted)

Year (b) -	Current Account Balance			Net Income Balance			Volume of			
	Balance on merchandise trade	Balance on goods & services	Net income balance	Net unrequited transfers	Net transfers	Percentage of GDP	Percentage of current account balance	Exports of goods & services	Imports of goods & services	Terms of Trade (a)
1993-94	-589	-959	-15232	66	-16126	3.8	94	85916	-76281	87.7
1994-95	-8269	-8728	-18506	393	-26841	5.9	69	88944	-89782	91.7
1995-96	-1798	-558	-20595	1043	-20110	4.1	102	98517	-94635	95.5
Quarter -										
1996 Mar	-171	143	-5248	322	-4783	3.9	110	25398	-24234	96.0
Jun	-364	106	-4629	303	-4220	3.4	110	25352	-24716	97.9
Sep	98	634	-5281	326	-4321	3.4	122	25791	-24602	97.9
Dec	-498	-63	-5514	315	-5262	4.1	105	26103	-25859	98.8
1997 Mar	245	654	-5488	247	-4587	3.5	120	26754	-25890	99.3
Month -										
1996 Jul	111	388								
Aug	152	267								
Sep	-30	102								
Oct	-39	89								
Nov	-375	-162								
Dec	110	303								
1997 Jan	-204	-29								
Feb	103	313								
Mar	-220	-129								
Apr	15	182								
May	804	873								

(a) The ratio of the implicit price deflator for exports of goods and services to the implicit price deflator for imports of goods and services, 1989-90 = 100.

(b) Annual data are original data.

Sources: ABS Cat. Nos. 5368.0 and 5302.0

Table 9: Australia's External Liabilities

	Public sector gross debt	Private sector gross debt	Total gross debt	Net debt	Net external liabilities
(Levels of Australian Foreign Liabilities)					
(\$A million)					
As at end -					
1994 Jun	95782	111134	206917	164256	238589
1995 Jun	100117	123564	223681	181477	260739
1996 Jun	97918	138094	236012	187535	285580
1996 Mar	96380	134684	231064	186331	281150
Jun	97918	138094	236012	187535	285580
Sep	94072	146624	240696	195833	291726
Dec	99377	146530	245907	199197	303262
1997 Mar	98317	152217	250533	199902	301428
As at end -					
(Percentage of GDP)					
1994 Jun	22.3	25.9	48.2	38.2	55.5
1995 Jun	21.9	27.0	48.9	39.7	57.0
1996 Jun	20.0	28.2	48.2	38.3	58.4
1996 Mar	20.0	28.0	48.0	38.7	58.4
Jun	20.0	28.2	48.2	38.3	58.4
Sep	19.0	29.6	48.6	39.6	58.9
Dec	19.8	29.2	49.0	39.7	60.4
1997 Mar	19.4	30.0	49.4	39.4	59.4

Source: ABS Cat. No. 5306.0

Table 10: Australia's Income Flows

	Public sector gross debt	Private sector gross debt	Total gross debt	Net debt	Net external liabilities
(Gross and Net Interest Payable, and Net Investment Income)					
(\$A million)					
Year ended -					
1994 Jun	5575	5373	10948	9272	14098
1995 Jun	5571	5994	11565	9802	17314
1996 Jun	5789	7070	12859	11019	19388
Quarter ended -					
1996 Mar	1641	1772	3413	2940	4895
Jun	1228	1771	2999	2597	4249
Sep	1628	1851	3479	3019	5139
Dec	1255	1933	3188	2710	5146
1997 Mar	n.a.	n.a.	3342	2941	5114
Year ended -					
(Percentage of Exports of Goods and Services)					
1994 Jun	6.8	6.5	13.3	11.2	17.1
1995 Jun	6.4	6.9	13.3	11.3	20.0
1996 Jun	5.9	7.2	13.1	11.2	19.7
Year ended -					
1996 Mar	6.0	7.3	13.4	11.3	19.8
Jun	5.9	7.2	13.1	11.2	19.7
Sep	5.9	7.3	13.2	11.4	20.1
Dec	5.7	7.3	13.0	11.2	19.3
1997 Mar	n.a.	n.a.	12.9	11.1	19.4

Source: ABS Cat. No. 5306.0

Table 11: Selected Economic Indicators

Year - Quarter (h) -	Indices of unit labour costs & prices adjusted for exchange rate changes (b)(c) (1989-90=100)									
	Price based					Unit labour cost based (f)				
	Private non-farm stocks to sales (a)	Imports to sales (a)	CPI based (d)	GDP deflator based (e)		Components of unit labour cost index		Nominal exchange rate	Saving ratio (g)	Trade weighted index (i)
1993-94	0.895	0.241	78.4	76.6	77.9	96.8	80.5	3.5	51.4	
1994-95	0.881	0.259	80.3	77.8	78.9	97.0	81.4	3.7	52.8	
1995-96	0.879	0.252	86.4	82.9	84.7	99.2	85.4	3.7	54.8	
1996 Mar	0.866	0.253	87.2	83.6	85.0	98.7	86.1	3.7	55.2	
Jun	0.875	0.248	92.3	88.8	91.3	100.2	91.1	4.2	58.0	
Sep	0.880	0.242	91.9	88.4	92.3	101.6	90.9	4.3	57.9	
Dec	0.885	0.250	93.4	90.1	94.0	101.7	92.5	4.2	58.8	
1997 Mar	0.844	0.241	94.4	91.2	95.2	101.6	93.6	4.0	59.3	

(a) ABS National Accounts measure.

(b) A discussion of these indices and detailed figures covering the period from the September quarter 1970 to the March quarter 1983 may be found in a supplement to the July 1983 Roundup of Economic Statistics titled 'International Comparisons of Relative Price and Cost Levels'.

(c) The weights used are based on a 3 year moving average of Australia's imports from the US, Japan, UK and Germany. The four countries are the source of about 60 per cent of Australia's imports. Observations are quarterly averages. A rise (fall) implies a deterioration (improvement) in Australian costs and prices relative to the four countries above after adjusting for exchange rate changes.

(d) The CPI based index is the ratio of the Australian Consumer Price Index to the weighted geometric average of the exchange rate adjusted consumer price indices of Australia's four major import sources.

(e) The GDP deflator based index is the ratio of the GDP deflator for Australia to the weighted geometric average of the exchange rate adjusted GDP deflator of Australia's four major import sources.

(f) The unit labour cost based index is the ratio of unit labour costs in the non-farm sector of the Australian economy to the weighted geometric average of the exchange rate adjusted unit labour costs in the business sector for Australia's four major import sources.

(g) Ratio of household saving to household disposable income.

(h) Quarterly data are seasonally adjusted except for the trade weighted index and the nominal exchange rate.

(i) Period Average, May 1970 = 100.

Sources: ABS Cat. Nos. 5206.0 and 5302.0

INDEX OF ARTICLES AND OTHER MAJOR TREASURY PUBLICATIONS

Articles in the Economic Roundup

Details of articles published in the past two editions of the Economic Roundup are listed below:

Summer 1997	Supplementary Treasury Submission to the Financial System Inquiry Submission to the Review of the Rural Adjustment Scheme Australia's Foreign Investment Policy and the Role of the Foreign Investment Review Board Australian Net Private Wealth
Autumn 1997	Economic Outlook Structural Change: Recent Developments, Benefits and the Role of Policy The International Monetary Fund's New Arrangements to Borrow Taxation of Financial Arrangements — Selected Topics APEC, Investment and Pacific Island Economies Treasury Submission to the Senate Heritage Access Inquiry Treasury Submission to the Inquiry into Fair Trading

Copies of these articles are available from the Treasury. Written requests should be sent to The Director, Current Economic Conditions Section, The Treasury, Parkes Place, Parkes, ACT, 2600. Telephone requests should be directed to Antonietta Caggiano on (06) 263 2932.

Treasury Economic Papers

Titles and publication dates of Treasury Economic Papers (TEP) issued in recent years are listed below:

TEP 14	Financial Monitoring of Government Business Enterprises: An Economic Framework (1990)
TEP 15	Competition Policy — Submission to the Cooney Committee Inquiry into Mergers, Monopolies and Acquisitions and the Lee Committee Inquiry into the Print Media (1991)
TEP 16	Treasury Submission to the National Competition Policy Review (1993)
TEP 17	Research and Development Policy: A Framework for Analysis (1994), Treasury Submission to the Industry Commission Inquiry into Research and Development in Australia

Copies of these papers can be purchased from your local Government InfoShop (formerly the Commonwealth Government Bookshops) — **for InfoShop locations and further information phone toll free on 132 447.**

Treasury Research Papers

Titles and publication dates of Treasury Research Papers (TRP) issued in recent years are listed below.

	Title	Author	Date
TRP1	Asset Price Inflation	Tony Urbanski	December 1990
TRP2	The Redistributive Effects of Inflation	Brian Cassidy	March 1991
TRP3	Inflation and Uncertainty	Martin Parkinson	September 1991
TRP4	Economic Infrastructure in Australia	Alison Smith	September 1992
TRP5	Australia's Medium-Term Economic Growth: A Policy Perspective	Bart Dowling	November 1992
TRP6	National Saving and External Balance	Glenys Byrne	July 1993
TRP7	Aggregate Saving in Australia: Measurement and Trends	Brendan Flynn	October 1993
TRP8	Extended Measures of Investment and Saving	Peter Depta, Frank Ravalli & Don Harding	February 1994
TRP9	Climate Change: Interpreting and Measuring Emission Targets	Rob Sturgiss	April 1995
TRP10	What Future for Payroll Taxes in Australia?	Matthew Ryan	September 1995
TRP11	Derivatives, Financial Innovation and Taxation	Richard Wood	December 1996

Copies of these papers can be purchased from your local Government InfoShop (formerly the Commonwealth Government Bookshops) — for InfoShop locations and further information phone toll free on 132 447.

1995-96 Tax Expenditures Statement

The *1995-96 Tax Expenditures Statement* was released in January 1997 and provides comprehensive information on the extent and cost to revenue of tax expenditures for the years 1992-93 to 1999-00. Tax Expenditures Statements are prepared annually in conjunction with the Australian Taxation Office.

Copies may be downloaded from the Treasury web site (<http://www.treasury.gov.au>).

Copies can be purchased from your local Government InfoShop (formerly the Commonwealth Government Bookshops) — for InfoShop locations and further information phone toll free on 132 447.

Treasury Annual Reports

Annual reports are published separately for the Treasury and the Royal Australian Mint.

Copies of Treasury Annual Reports and those of other Treasury Portfolio Agencies can be purchased from your local Government InfoShop (formerly the Commonwealth Government Bookshops) — **for InfoShop locations and further information phone toll free on 132 447.**

Treasury Conference Papers

These Papers were presented to the 25th Conference of Economists, Economic Society of Australia, Australian National University, Canberra, 23 to 25 September 1996.

1. Douglas, J and Bartley, S. (1996-01), *Risk Premia in Australian Interest Rates*.
2. Ferry, N. (1996-02), *Australia's Current Account Performance and Microeconomic Reform*.

Copies of these articles are available from the Treasury. Written requests should be sent to The Office Manager, Economic Division, The Treasury, Parkes Place, Parkes, ACT, 2600. Telephone requests should be directed to Antonietta Caggiano on (06) 263 2932.

A Summary of Australia's Foreign Investment Policy

A general summary of policy and a summary specifically related to real estate are available from the Executive Member, Foreign Investment Review Board, The Treasury, Canberra, ACT, 2600 (Phone (06) 263 3795; Fax (06) 263 2940).

These policy summaries are also available on the Internet. Copies may be downloaded from the Treasury web site (<http://www.treasury.gov.au>).

Pre-Budget Submissions 1997-98

The *Pre-Budget Submissions 1997-98: Individuals and Business, Community and Labour Organisations* was published in April 1997. The publication contains an overview and summaries of Pre-Budget submissions received by Treasury for the 1997-98 Budget.

Copies may be downloaded from the Treasury web site (<http://www.treasury.gov.au>).

Copies can be purchased from your local Government InfoShop (formerly the Commonwealth Government Bookshops) — **for InfoShop locations and further information phone toll free on 132 447.**

Publications by the Business Law Division

Section 52 Trade Practices Act and Dealings in Securities was published in March 1997. This report deals with the application of Section 52 of the *Trade Practices Act* to prospectuses and other aspects of dealing in securities.

Copies may be downloaded from the Treasury web site (<http://www.treasury.gov.au>).

Corporate Law Economic Reform Program was published in March 1997. This document outlines the strategies to be employed to improve the content and implementation of Australia's Corporate Law to promote business and economic development.

Copies may be downloaded from the Treasury web site (<http://www.treasury.gov.au>).

Corporations Law Amendment (ASX) Bill 1997 was published in August 1997. This booklet lists proposed amendments to the Corporations Law for the regulation of stock markets consequential on the proposed change of company type of Australian Stock Exchange Limited.

Copies of these publications can be purchased from your local Government InfoShop (formerly the Commonwealth Government Bookshops) — **for InfoShop locations and further information phone toll free on 132 447.**

Treasury Macroeconomic (TRYM) Model — Public Release

Licensed access to the Treasury macroeconomic (TRYM) model on computer disk is available for purchase — either on a single issue basis or on subscription which involves quarterly updates.

There are two versions of the TRYM model: a TSP version, and a standalone Windows version. The TRYM data base is also available as a separate product.

The **standalone version** has the model (equation, parameter and data base files) incorporated in computer software to run the model. The software simulates the model and presents results in Windows format. It allows the concurrent use of time series data bases and multiple data views and graphs, facilitating comparison of different model scenarios. Graphs and data derived from TRYM data bases and simulations can also be pasted into other Windows applications, such as spreadsheets and word processing documents.

The **TSP version** has the model in a format compatible with the Time Series Processor econometric package, a copy of which will be needed to run the model. Although running simulations with the TSP version demands more expertise than does the standalone version, the TSP version allows access to TRYM equations and parameters. It therefore provides flexibility for research into individual equations and model sectors, as well as experimentation with model specifications, assumptions and solutions.

Each version comes with a user's guide specific to that version, documentation of the data base and two other manuals:

- a new version of the TRYM documentation which provides a detailed description of the model, incorporating the specification and diagnostics of individual equations (including those added, changed or updated since the 1993 conference); and
- *The Macroeconomics of the TRYM Model of the Australian Economy*, which describes the theoretical macroeconomic mechanisms and interrelationships underlying TRYM and discusses how TRYM relates to some macroeconomic issues of interest.

The latter two manuals are available for separate purchase from the Treasury. Telephone requests can be directed to Lea Buckton on (06) 263 3273.

Requests for information on the public release of TRYM in computer-accessible form should be directed to:

TRYM Contact Officer
Analytical Services Section
Australian Bureau of Statistics
PO Box 10
BELCONNEN ACT 2616
Phone: (06) 252 6122
Fax: (06) 253 1033

TRYM Related Papers

1. Antioch, L. & Taplin, B. 1993, *Savings, Dwelling Investment and the Labour Market: Decisions by Households*, TRYM Paper No 5, Commonwealth Treasury, Canberra.
2. Ryder, B., Johnson, A., Taplin, B. & Jilek, P. 1993, *Australia's Trade Linkages with the World*, TRYM Paper No 6, Commonwealth Treasury, Canberra.
3. Taplin, B. & Parameswaran, P. 1993, *Employment, Investment, Inflation and Productivity: Decisions by the Firm*, TRYM Paper No 3, Commonwealth Treasury, Canberra.
4. Jilek, P., Johnson, A. & Taplin, B. 1993, *Exports, Imports and the Trade Balance*, TRYM Paper No 4, Commonwealth Treasury, Canberra.
5. Downes, P., Louis, C. & Lay, C. 1994, *Influences on the Australian Business Cycle*, paper presented to the 23rd Annual Conference of Economists, Economic Society of Australia, Gold Coast 25-28 September.
6. Johnson, A. & Downes, P. 1994, *The Impact of a Lower NAIRU on the Australian Macroeconomy — Responses in the Treasury Macroeconomic (TRYM) Model*, paper presented to the 23rd Annual Conference of Economists, Economic Society of Australia, Gold Coast, 25-28 September.
7. Johnson, A. & Louis, C. 1994, *An Analysis of the Macroeconomic Effects of Higher Productivity Using the TRYM Model*, in EPAC 1994, *A Comparison of Economy-Wide Models of Australia*, Office of the Economic Planning Advisory Council, Commission Paper No 2, AGPS, Canberra.
8. Downes, P. 1995, *An Introduction to the TRYM Model: Applications and Limitations*, paper presented to the International Federation of Automatic Control (IFAC) Symposium, 'Modelling and Control of National and Regional Economies', Gold Coast, 2-5 July.
9. Edge, R. 1995, *Modelling Import Prices in the Treasury Macroeconomic (TRYM) Model*, paper presented at the Econometrics Conference, Monash University, 13-14 July.
10. Gardner, R. 1995, *Consumption and Saving in the TRYM Model*, paper presented to the 24th Annual Conference of Economists, Economic Society of Australia, Adelaide, 24-27 September.
11. Lay, C. & Johnson, A. 1995, *The Relative Price Block in the Treasury Macroeconomic (TRYM) Model*, paper presented at the Econometrics Conference, Monash University, 13-14 July.
12. Louis, C. 1995, *Control Applications of the TRYM Model*, paper presented to the International Federation of Automatic Control (IFAC) Symposium, 'Modelling and Control of National and Regional Economies', Gold Coast, 2-5 July.

13. Stacey, G. & Downes, P. 1995, *Wage Determination and the Labour Market in the Treasury Macroeconomic (TRYM) Model*, paper presented to the 24th Conference of Economists, Adelaide, 24-27 September.
14. Louis, C. 1996, *A Rational Expectations Solution Method for the TRYM Model*, paper presented at the Econometric Society Australasian Meeting, University of Western Australia, 10-12 July.
15. Downes, P. & Stacey, G. 1996, *The NAIRU in the Treasury Macroeconomic (TRYM) Model of the Australian Economy: Definition, Measurement and Policy Implications*, note prepared for input into the OECD Economic Policy Committee Working Party 1, Programme of Work, Autumn 1996, Topic A.2, NAIRU: Concepts, Measurement and Policy Implications, Commonwealth Treasury, Canberra.
16. Downes, P. & Louis C. 1996, *Monetary Policy in the TRYM Model: Uncertainty, Expectations and Policy Credibility*, paper presented to the Economic Modelling Bureau of Australia (EMBA), Model Comparison Conference, 'Monetary Policy: Price Level and Inflation Targeting', Canberra, 23 May.

Copies of TRYM related papers can be obtained from the Treasury. Written requests should be sent to The Director, Modelling Section, The Treasury, Parkes Place, Parkes, ACT, 2600. Telephone requests should be directed to Antonietta Caggiano on (06) 263 2932.

Publications by the Retirement Income Modelling Task Force

The views expressed in these papers are those of the authors and do not necessarily reflect the views of the Departments financing the RIM Task Force or of their Ministers or advisers.

Technical Papers

1. Bacon, B. 1994, *RIM Population and Demographic Modelling*, Working Paper No. 2.
2. Osborne, S. 1994, *The RIP Model: System Documentation*, Working Paper No. 3.
3. Rothman, G. 1994, *The RIP Model: Parameter Documentation*, Working Paper No. 4.
4. Rothman, G. 1994, *The RIP Model: User Manual*, Working Paper No. 5.
5. Brown, C. & McDiarmid, A. 1995, *Legislative References & Assumptions for RIMHYPO*, Technical Paper No. 1.
6. Brown, C. & McDiarmid, A. 1995, *RIMHYPO: An Outline of the Code*, Technical Paper No. 2.
7. 1995, *INDMOD VERSION 3.2: Operating Instructions*, Working Paper No. 2.
8. Rothman, G. 1995, *Estimating Superannuation Parameters for the Self Employed*, Working Paper No. 4.
9. Bacon, B. 1996, *Pensioner's Share of Wealth: An Income Distribution Survey Analysis*, Working Paper No. 1.

Conference and Other Papers

1. Brown, C. 1993, *Tax Expenditures & Measuring the Long Term Costs & Benefits of Retirement Incomes Policy*, Conference Paper No. 1.
2. Gallagher, P., Rothman, G. & Brown, C. 1993, *Saving for Retirement: The Benefits of Superannuation for Individuals and the Nation*, Conference Paper No. 2.
3. Gallagher, P. & Dr Preston, A. 1993, *Retirement Income Modelling & Policy Development in Australia*, Conference Paper No. 3.
4. 1994, *Response to the Senate Elect Committee on Superannuation for Analysis of the Effects of Allowing Withdrawals from Superannuation Funds for Housing Deposits*, Retirement Income Modelling, Paper No. 1.
5. McDiarmid, A. 1994, *Taxation of Superannuation and Disposable Income in Retirement*, Women & Superannuation Seminar, Conference Paper No. 1.
6. Brown, C. 1994, *The Distribution of Private Sector Superannuation Assets by Gender, Age and Salary of Members*, Conference Paper No. 2.
7. Rothman, G. & Bacon B. 1994, *The Impact of Population & Labour Force Scenarios on Superannuation, Tax Expenditures & Pension Costs*, Colloquium of Superannuation Researchers 1994, Melbourne, Conference Paper No. 3.
8. Gallagher, P. 1994, *Submissions to the Strategic Review of the Pensions' Income & Assets Test*, Retirement Income Modelling Paper No. 2.
9. Brown, C. 1995, *Measuring the Adequacy of Retirement Incomes*, Colloquium of Superannuation Researchers, University of Melbourne, July 1995, Conference Paper No. 1.
10. Rothman, G. 1995, *The Distribution of Superannuation by Sector, Account Type and Personal Characteristics*, Colloquium of Superannuation Researchers, University of Melbourne, July 1995, Conference Paper No. 2.
11. Gallagher, P. 1995, *The Policy Use of the Products of the Retirement Income Modelling Task Force*, Colloquium of Superannuation Researchers, University of Melbourne, July 1995, Conference Paper No. 3.
12. Bacon, B. 1995, *Projecting Labour Force, Earnings, Assets and Retirement Behaviour*, Conference Paper No. 4.
13. Bacon, B. 1995, *Labour Force Status, Earnings, Asset Accumulation, Retirement Behaviour and Long-Run Projections*, Conference of Economists, Adelaide 24 September 1995, Conference Paper No. 5.
14. Bacon, B. & Gallagher, P. 1995, *Early Retirees — Trends and Their Use of Superannuation Benefits and Social Security Payments*, Retirement Income Modelling Task Force, DSS Seminar on Early Retirement, 14 December 1995, Conference Paper No. 6.
15. Gallagher, P. 1995, *The Impact of the New Superannuation Scheme on Long-Term Personal Savings*, Retirement Income Modelling Task Force, 8 November 1995, Conference Paper No. 7.

16. Bacon, B. 1996, *Retirement in Australia: A model of retirement — 'RETMOD'* Retirement Income Modelling Task Force, Fourth Annual Colloquium of Superannuation Researchers, University of Melbourne, 11-12 July 1996, Conference Paper No. 1.
17. Brown, C. 1996, *Sources of income and the assets of older Australians*, Retirement Income Modelling Task Force 1996, Fourth Colloquium of Superannuation Researchers, University of Melbourne 11-12 July 1996, Conference Paper No. 2.
18. Rothman, G. 1996, *Aggregate and Distributional Analysis of Australian Superannuation Using the RIMGROUP Model*, Retirement Income Modelling Task Force, Fourth Colloquium of Superannuation Researchers, University of Melbourne, July 1996, Conference Paper No. 3.
19. Bacon, B. 1996, *An Ageing Society: A Working Life/Retirement Perspective*, The Eighth National Conference of the Australian Population Association, 3-6 December 1996, Conference Paper No. 4.
20. Brown, C., 1997, *Preservation and the Effectiveness of Retirement Incomes Policy — Some Results of Individual Modelling*, Retirement Income Modelling Task Force, Fifth Colloquium of Superannuation Researchers, University of Melbourne, 11-12 July 1997, Conference Paper No. 1.
21. Rothman, G. P., 1997, *Aggregate Analyses of Policies for Accessing Superannuation Accumulations*, Retirement Income Modelling Task Force, Fifth Colloquium of Superannuation Researchers, University of Melbourne, June 1997, Conference Paper No. 2
22. Gallagher, P., 1997, *Assessing the National Saving Effects of the Government's Superannuation Policies Some Examples of the New RIMGROUP National Saving Methodology*, Retirement Income Modelling Task Force, Paper No. 3

Copies of these articles are available from the Treasury. Written requests should be sent to The Director, Retirement Income Modelling Task Force, The Treasury, Parkes Place, Parkes, ACT, 2600. Telephone requests should be directed to Kay Hutchins on (06) 263 3934.