II. Macroeconomic policies

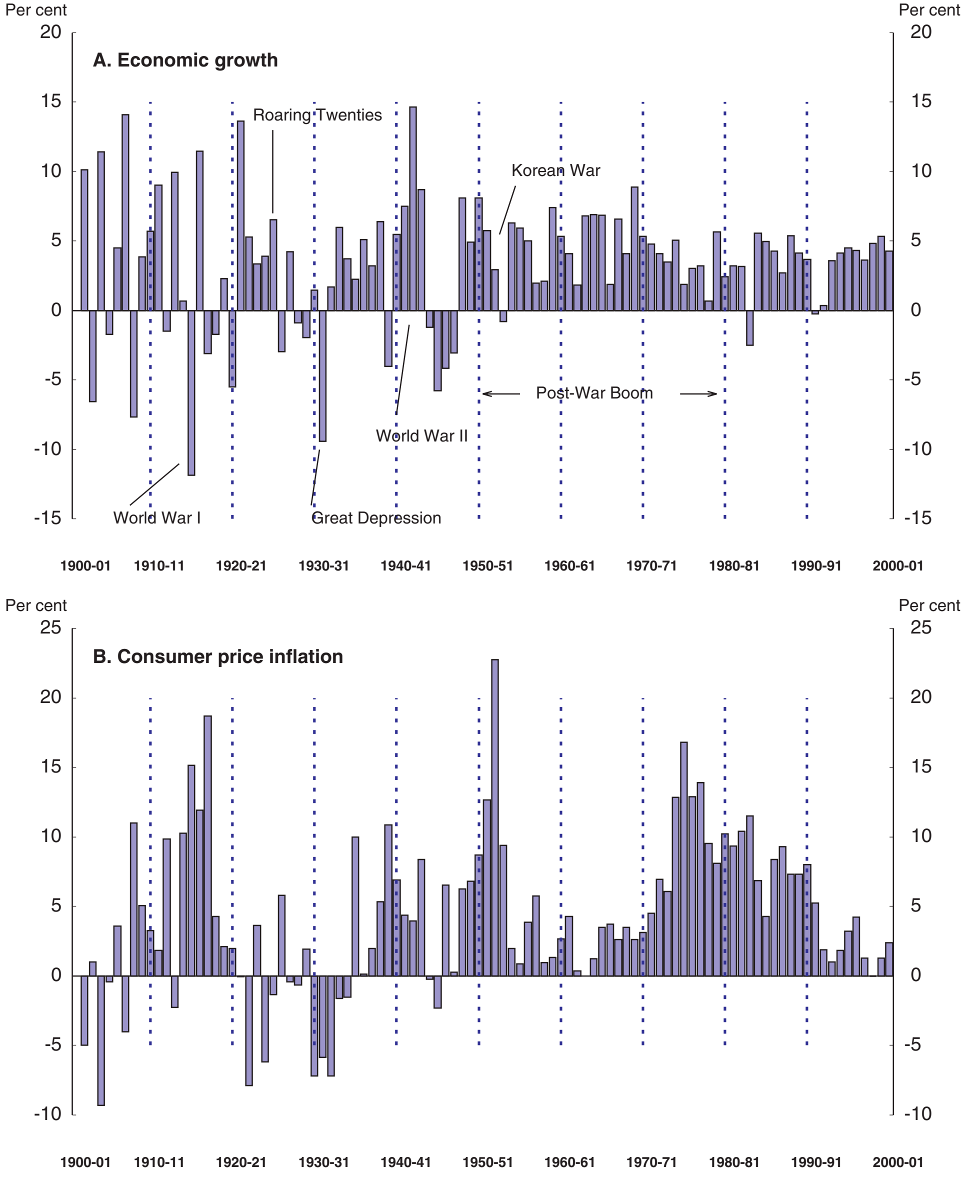
The effect of monetary and fiscal policies on long-term economic growth

Australia's monetary and fiscal policies are set in a medium-term framework. The objective of the Reserve Bank (RBA) is to maintain the inflation rate on average at around 2 to 3 per cent over the course of the business cycle while keeping monetary conditions conducive to sustainable growth in output and employment. At the Commonwealth level of government, fiscal policy aims at a balanced budget, also on average over the economic cycle. The medium-term orientation of economic policies has helped to achieve a degree of macroeconomic stability which is reflected in lower inflation and lower variability of inflation and output growth since the early 1990s (Figure 12). Together with the structural reforms discussed in the next chapter, this has provided a supportive framework for sustained growth.

The OECD Growth Project (2001f) found evidence for a significant impact of macroeconomic policy settings on output per capita across countries and over time. There is robust empirical support for the hypothesis that high inflation is negatively associated with the accumulation of physical capital in the private sector and through this channel, has a negative bearing on output. Also, the variability of inflation was found to be an important negative influence on output per capita. This supports the hypothesis that uncertainty about price developments affects growth *via* its impact on economic efficiency, for example by leading to a shift in the composition of investment towards less risky but also lower-return projects. All this assigns monetary stabilisation policy *inter alia* a growth-enhancing role over the long term.

The OECD Growth Project also found empirical evidence for the beneficial effects of sound fiscal policies on long-run economic performance. For example, the analysis lent some support to the notion that the overall size of government in an economy may reach levels which impair long-term growth. The comparatively small government share in Australia's GDP thus favours high trend growth, probably because it leaves more room for private initiative. The Growth Project's estimates also suggest that the lower overall tax burden in Australia than in most other OECD countries has a positive impact on output per capita in the long run.

Figure 12. **Economic growth and inflation in a long-term perspective**[1]



1. Variations are calculated on fiscal years.
Source: Australian Bureau of Statistics.

However, when controlling for the overall tax burden, a negative effect on growth has been found for tax structures with a heavy weight on direct taxes, which act as disincentive on saving and investment. *Ceteris paribus*, this would make the higher share of direct taxes in Australia relative to the OECD average an impediment to growth. However, the *New Tax System* reform package, which was implemented on 1 July 2000, provided for cuts in the personal income and company tax rates, and has shifted the tax mix somewhat towards indirect taxation. Nevertheless, marginal effective tax rates remain high for many low-income earners and the highest marginal income tax rates come into effect at relatively modest income levels, distorting the work/leisure trade-off and savings incentives.

Fiscal policy can also have an effect on growth *via* its impact on the level of real long-term interest rates. A pooled regression study by Orr, Edey and Kennedy (1995) for a number of countries including Australia suggested that a fiscal stimulus of 1 per cent of GDP may on average raise the real ten-year bond rate by 15 basis points. The study by Comley, Anthony and Ferguson (2002) arrives at a higher short-run effect of budget balances on the ten-year bond rate differential between Australia and the United States.[22] They also found that an increase in the public debt by 1 per cent of GDP is associated with a widening in the Australia-US long-term interest spread by 15 basis points in the long run. Hence, the fiscal consolidation policy pursued in Australia since 1996 should have contributed to the observed *trend* reduction in long-term interest rates *vis-à-vis* the United States and should have stimulated investment and growth during a transitory period. All told, therefore, the evidence suggests that the macroeconomic policies pursued rather consistently over 10 or more years will have contributed to Australia's improved economic performance.

Macroeconomic policies in the short run

The medium-term framework for setting monetary and fiscal policies allows flexibility in the short term when needed. Hence, from mid-2000 onward, the domestic economic slowdown and the weakening international economic environment suggested the adoption of expansionary macroeconomic policies. Accordingly, interest rates were cut and budgetary policies were relaxed throughout the course of 2001. However, as the domestic economic situation improved, the expansionary influence of macroeconomic policies was wound back, though not yet wholly removed given the less sanguine outlook for the international economy.

The first part of this chapter reviews monetary developments during the renewed acceleration of economic growth in 2001 and 2002 while the global economy remained weak. The second section discusses the current fiscal policy stance, the planned profile of future consolidation and the policy implications of eliminating net government debt. This is followed by a discussion of the emerging trends in age-related spending and their impact on public finances. The final section reviews the progress achieved so far in reforming the business tax system.

Monetary policy

Cash rate management

Operating on the basis of central bank independence and a floating exchange rate regime, the RBA pursues a 2 to 3 per cent medium-term inflation objective. This approach, which uses as main policy instrument the cash rate – the overnight money market interest rate – has delivered low inflation over the past decade .[23] As the economy weakened in late 2000 and into 2001, partly as a reflection of global weakness, and with price and wage inflation under control and measures of inflation expectations signalling a benign inflation outlook, there was ample scope for monetary easing. Accordingly, the RBA cut the cash rate in six steps between February and December 2001 by altogether 200 basis points to 4.25 per cent (Table 7). This was the lowest level since the beginning of Australia's

Table 7. **Changes in official interest rates**
1994-2002

	Change in cash rate	New cash rate target
	Percentage points	Per cent
A. Tightening		
17 August 1994	+0.75	5.50
24 October 1994	+1.00	6.50
14 December 1994	+1.00	7.50
B. Easing		
31 July 1996	–0.50	7.00
6 November 1996	–0.50	6.50
11 December 1996	–0.50	6.00
23 May 1997	–0.50	5.50
30 July 1997	–0.50	5.00
2 December 1998	–0.25	4.75
C. Tightening		
3 November 1999	+0.25	5.00
2 February 2000	+0.50	5.50
5 April 2000	+0.25	5.75
3 May 2000	+0.25	6.00
2 August 2000	+0.25	6.25
D. Easing		
7 February 2001	–0.50	5.75
7 March 2001	–0.25	5.50
4 April 2001	–0.50	5.00
5 September 2001	–0.25	4.75
3 October 2001	–0.25	4.50
5 December 2001	–0.25	4.25
E. Tightening		
8 May 2002	+0.25	4.50
5 June 2002	+0.25	4.75

Source: Reserve Bank of Australia, *Bulletin*.

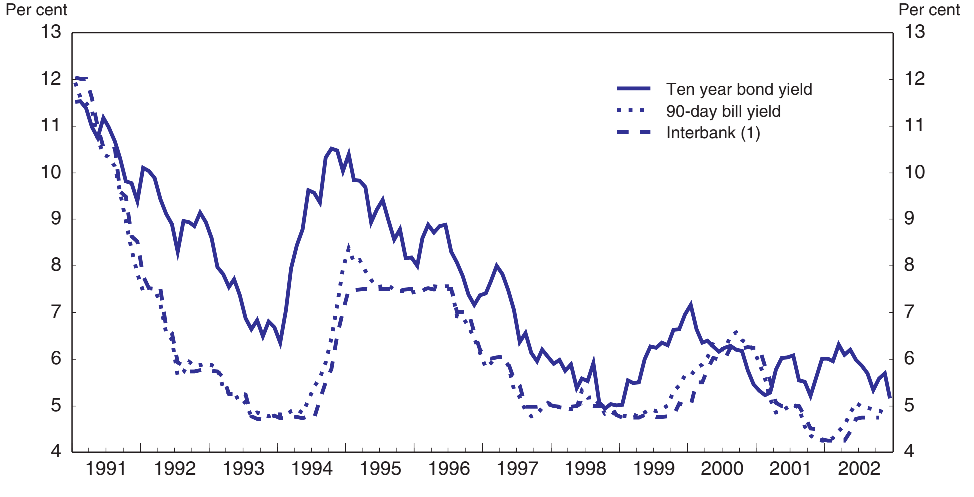
low inflation regime in 1992. The increased global uncertainty following the September 11 terrorist attacks strengthened the case for further monetary easing in the second half of 2001.

With the improvement in the outlook for the world economy in the first half of 2002 and with inflation around the top of the inflation target range, the historically low level of the cash rate was no longer appropriate.Hence, to avoid the emergence of inflation risks and of other imbalances that could jeopardise a continuation of the current expansion, the RBA decided to move to a less expansionary policy setting. It raised the cash rate in two steps in May and June 2002 by altogether 50 basis points to 4.75 per cent, which corresponds to the previous cyclical low points attained in mid-1993 and in late 1998. The actual cash rate also still seems to remain below a notional *neutral* cash rate, which may be put at 5½ per cent, with an error band of ½ percentage point around it.[24] In view of the weaker outlook for the global economy and the severe drought which has hit the farm sector, the Bank has subsequently abstained from further increases in the cash rate for the remainder of 2002.

Money and capital market interest rates

Three-month money market interest rates closely followed the six cuts in the cash rate in 2001 (Figure 13). With bond rates picking up in early 2001, the

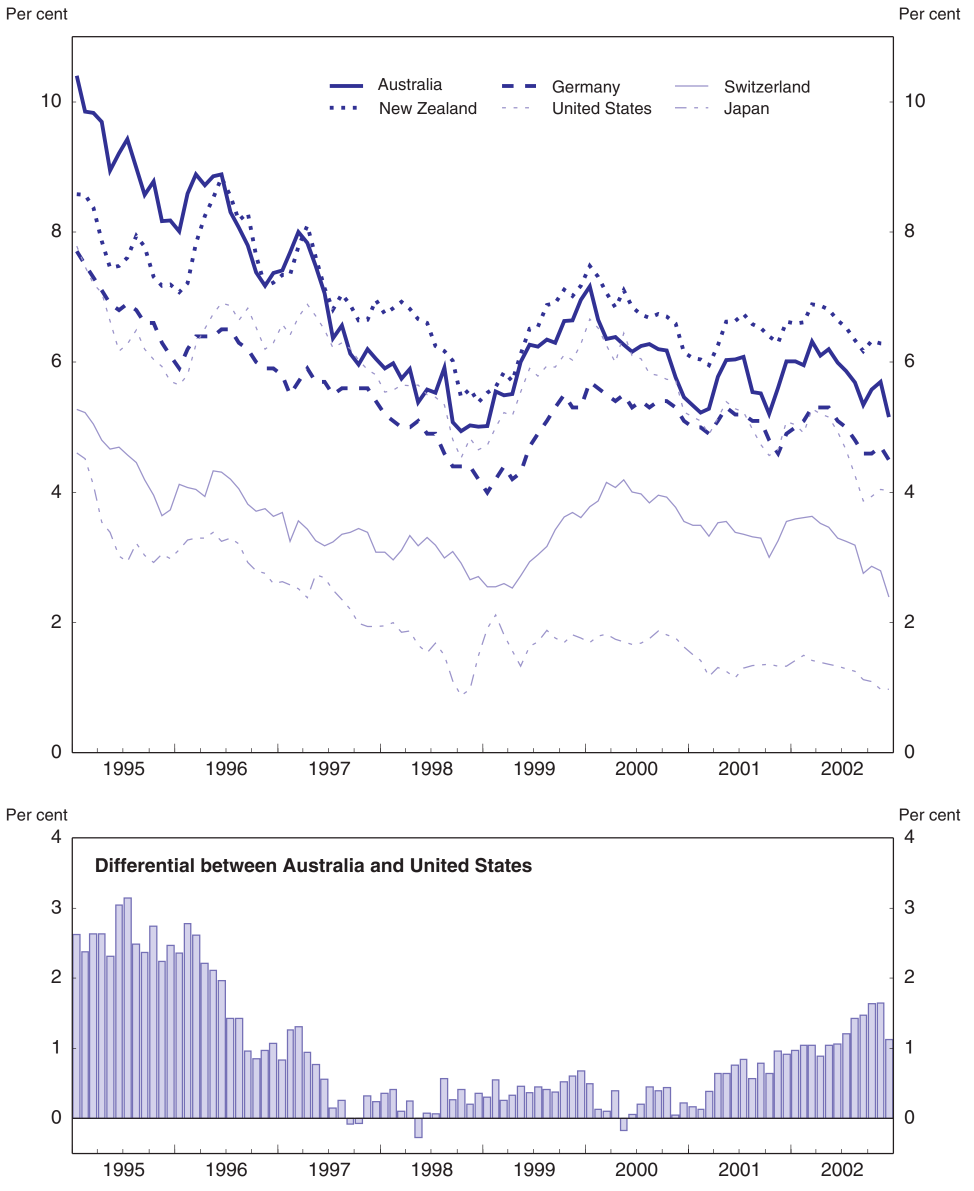
Figure 13. **Money and capital market interest rates**



1. Cash market, 11 a.m. call rate.
Source: Australian Bureau of Statistics.

Figure 14. **International comparison of long-term interest rates**

Ten-year bond yield



Source: OECD.

interest differential between ten-year government bonds and three-month bank bills (the slope of the yield curve) turned from negative to positive, indicative of the changing monetary policy stance. Combined with the lower Australian dollar exchange rate, monetary conditions were thus clearly supportive of economic activity throughout 2001 and into 2002.

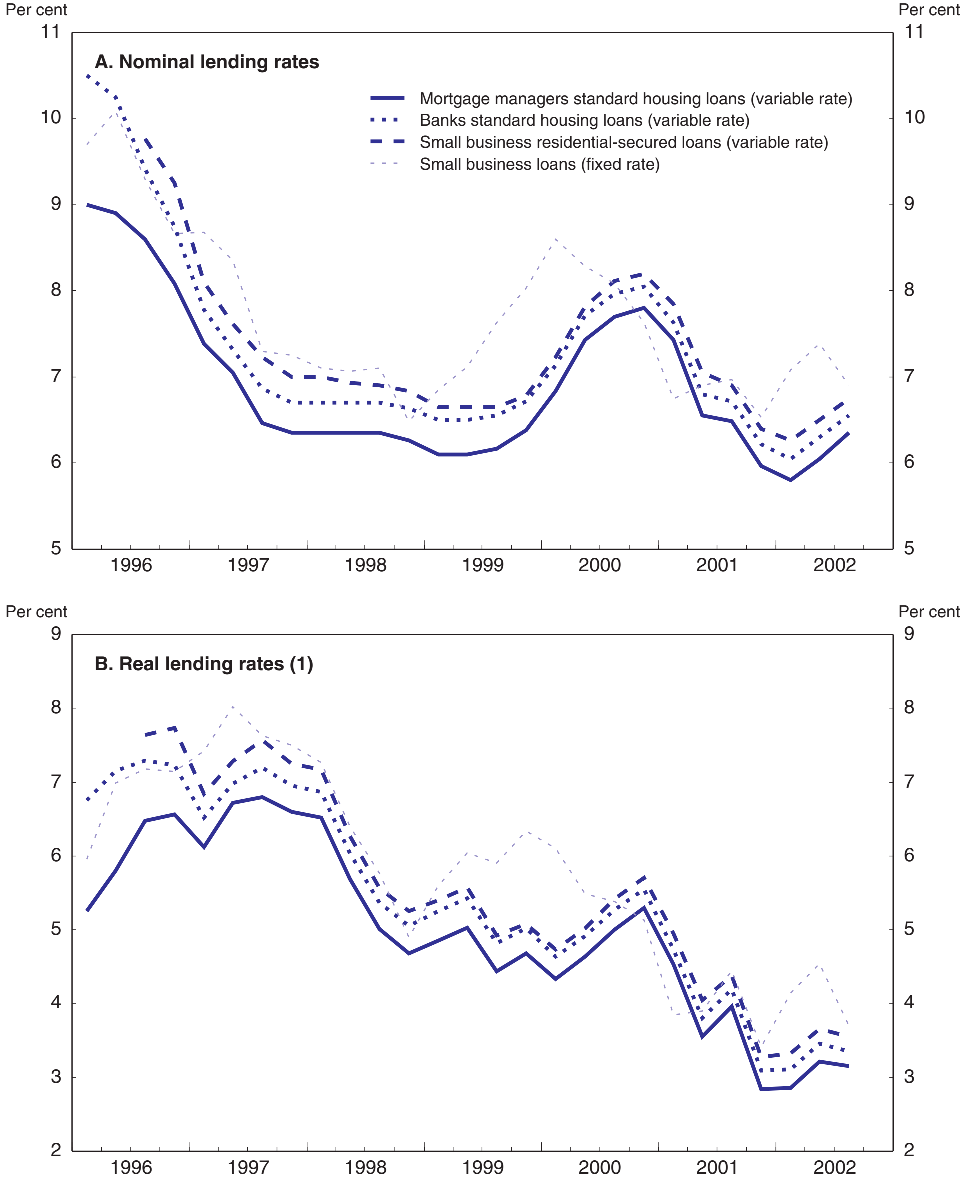
In response to the cash rate hikes of May and June 2002, the three-month money market interest rate rose to around 5 per cent in the second half of 2002. Conversely, long-term interest rates have declined since May 2002 (Figure 14), mirroring developments in global capital markets in the context of widely held perceptions of a worsening global economic outlook. By the end of 2002, ten-year government bond yields were close to their low level in the second half of 2001. The move to a less accommodating monetary policy stance is thus reflected in the rather flat, although still positively-sloped yield curve.

The fall in Australian bond rates was more muted than that in the United States, so that the spread between Australian and US ten-year bond yields widened, a process which had already begun in early 2001. In the second half of 2002, the average monthly spread amounted to about 1½ percentage points,[25] which is in striking contrast to the zero or even slightly negative yield differential recorded in the course of 2000. However, most of the recent rise in the spread can be attributed to the steeper fall in US bond rates, which seems to reflect financial market participants' concerns about the US growth prospects relative to those of Australia. It may also have been the result of increased risk aversion of US and international investors who shifted their portfolios from US equities into US bonds. Altogether, the widening yield spread seems largely to be a "US story" rather than being related to specific domestic factors in Australia.

Lending rates and financial intermediation

Interest rates on standard housing loans from banks, building societies and mortgage managers as well as on residential-secured loans for personal purposes and for small businesses all declined in line with money market interest rates throughout 2001 and into 2002 (Figure 15). Lending rates on some categories of banks' fixed-rate housing and business loans, which are usually funded in the capital market, edged up somewhat from late 2001 and during the first half of 2002, but declined thereafter, following movements in bond rates. If deflated by the GST-adjusted CPI, real lending interest rates in general were at a long-time low from late 2001 until early May 2002, further evidence of a supportive monetary policy stance. Borrowing has become somewhat more expensive both in nominal and in real terms since May 2002 as banks passed on in full the increase in the cash rate to their indicator lending rates. Nevertheless, lending rates remain at a low level by historical norms.

Figure 15. **Nominal and real lending rates**



1. Nominal rates less CPI inflation, adjusted for changes in taxation.
Source: Reserve Bank of Australia and Australian Bureau of Statistics.

Table 8. **Financial aggregates**
Per cent

	Twelve months to:		Three months to[1]:	
	March 2002	September 2002	June 2002	September 2002
Total credit	8.3	11.3	15.0	13.2
Personal	8.8	10.9	15.9	12.7
Housing	18.3	19.3	21.9	19.6
Business	–0.3	4.3	8.6	7.5
M3	13.8	11.4	3.3	12.1
Broad money	9.8	10.0	5.3	13.1
Memorandum item:				
GDP	7.0	..	3.8	..

1. Seasonally adjusted, at annual rate.
Source: Reserve Bank of Australia.

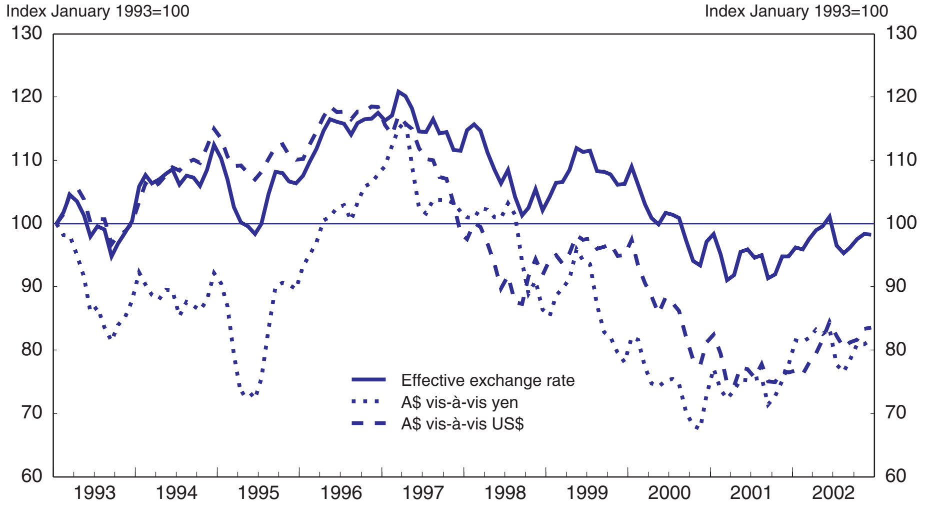
Combined with robust consumer and business confidence, the low nominal and real cost of credit have led to vigorous growth of financial intermediaries' lending to the private non-financial sector. The twelve-monthly rate of total credit growth accelerated to above 10 per cent during 2002, mainly on account of the rapid growth of housing loans (Table 8), in particular to investors. Annual growth in the broader monetary aggregates has been similar to that of credit,[26] with M3 and broad money[27] growing at two-digit rates during the twelve months to September 2002. Altogether, the rapid credit expansion well in excess of the growth rate of nominal GDP also points to an accommodative stance of monetary policy.

Exchange rate behaviour and monetary conditions

The downward trend of the Australian dollar exchange rate against both the US dollar and in (trade-weighted) effective terms which already had set in by mid-1999, continued in 2000 and 2001 (Figure 16). Hence in 2001, the average exchange rate depreciation of the Australian dollar amounted to 5¾ per cent (following 6½ per cent in 2000) in effective terms and to 11 per cent (10 per cent in 2000) against the US dollar. Together with an improvement in the terms of trade of a cumulative 7 per cent over the 2000 to 2001 period, this has added to the degree of monetary ease from the lowering of official interest rates.

There was some strengthening in the Australian dollar exchange rate in the course of 2002 which may have resulted in an average effective appreciation of around 3 per cent. Based on estimates of inflation in Australia's main trading partners as published in the OECD *Economic Outlook* 72, this implies an effective real

Figure 16. **Exchange rates**



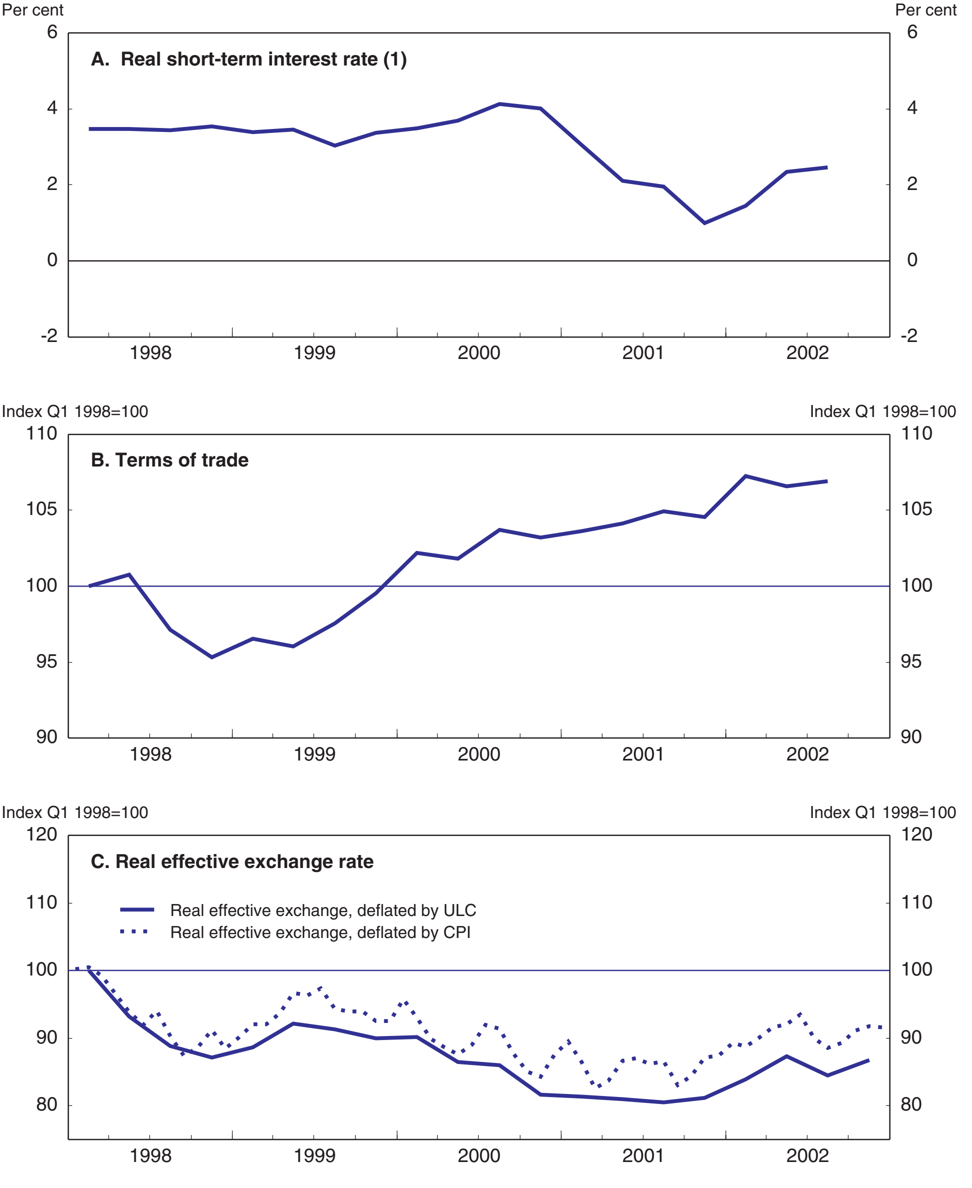
Source: OECD.

appreciation of the Australian dollar in terms of relative consumer prices in 2002, which more than offsets the real effective depreciation in 2001 (but not the real depreciation of 2000). Together with the policy-induced rise in real short-term interest rates in 2002, this has taken away some, but probably not all, of the stimulus from the earlier accommodating monetary conditions. On the other hand, the trend improvement in the terms of trade in 2002 on average has continued to have a stimulatory effect on the economy (Figure 17). Hence, the overall assessment of current monetary conditions depends heavily on the weight that is being attached to different influences. Application of a simple Taylor rule[28] would suggest that the current three-month money market interest rate is broadly consistent with the Reserve Bank's inflation target range (Figure 18).

Fiscal policy

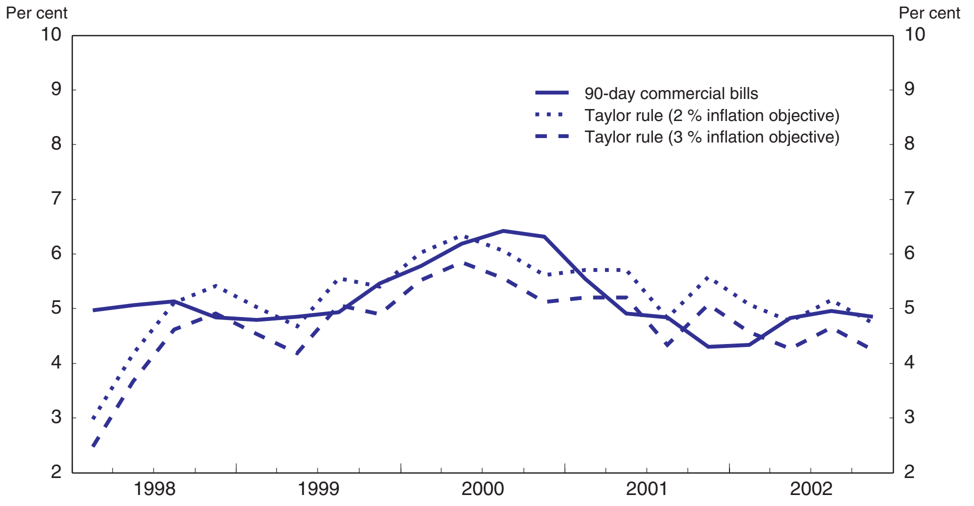
Fiscal policy in Australia was orientated towards consolidation from the mid to late 1990s, with an improvement in the net lending position of the general government standing well above the OECD average, in both actual and cyclically-adjusted terms (Figure 19).[29] A Commonwealth surplus was achieved in 1997-98[30] – one year ahead of the official target – and the objectives of halving the net debt

Figure 17. **Factors affecting monetary conditions**



1. Deflated by underlying inflation defined as the trimmed mean of CPI, adjusted for changes in taxation.
Source: OECD.

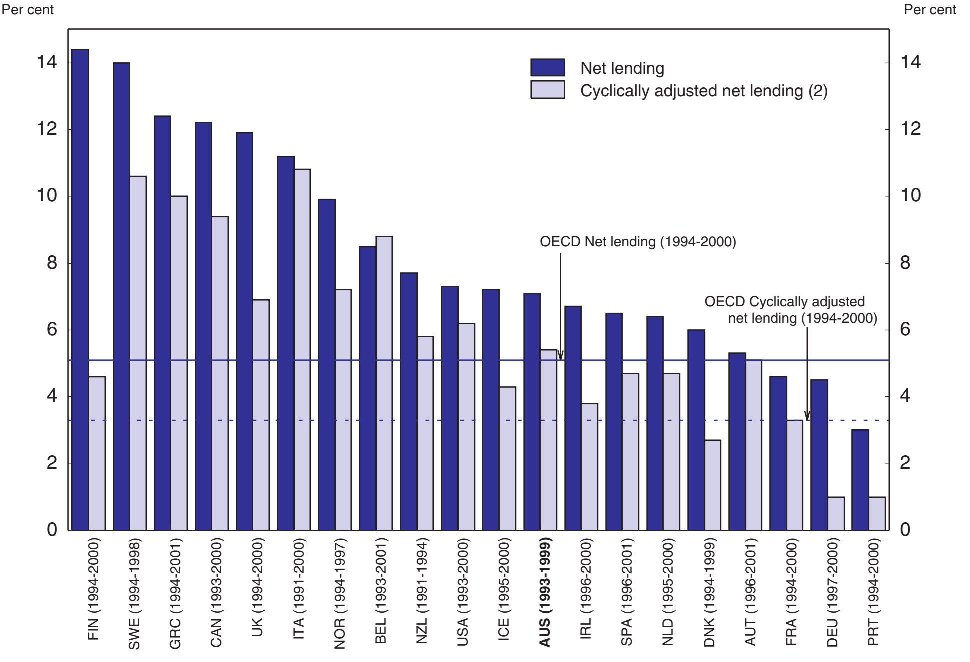
Figure 18. **The Taylor rule**



Source: OECD.

to GDP ratio, from its 1995-96 level of 19.1 per cent, by the turn of the century, and reducing the ratio of public expenditure to GDP were also realised, while the tax burden has not been increased from its 1996-97 level. These outcomes were facilitated by the reform of fiscal institutions that began with the *Charter of Budget Honesty Act* 1998.[31] The Charter requires the Commonwealth government to lay out its medium-term fiscal strategy and short-term objectives and targets in each budget, with both strategy and objectives based on the principles of fiscal management embodied in the Charter.[32] The medium-term orientation of fiscal strategy is designed to reduce the risk of slippage, while helping to lock in the gains from fiscal consolidation. The other major institutional reform has been the shift to accrual accounting in 1999-2000, which supports the principles of sustainability and sound fiscal management outlined in the Charter. Accrual accounting enhances transparency by providing a more accurate view of the total activity of government and its long-term repercussions. The move to accrual budgeting is also a crucial element for reforms aimed at improving the efficiency of public expenditures, as the full cost of providing public services becomes more apparent, and managers can more easily be held accountable for the performance of their agencies in contributing to the achievement of government objectives. It also allows for a better comparison of the costs of internal provision of services relative to outsourcing.

Figure 19. **Fiscal consolidation in selected OECD countries**[1]
Changes in general government net lending in per cent of GDP, 1990-2001



Note: Fiscal consolidations are defined between 1990 and 2001 as periods of protracted (more than three years) improvements in the annual general government's net lending position in per cent of GDP, as compared to the previous year, where such periods are allowed to be interrupted if the worsening of that balance does not exceed 0.5 per cent of GDP and does not last for more than one year.

1. Value in the last year of the consolidation minus the value in the year before the consolidation.
2. Excluding interest payments.

Source: OECD, *Economic Outlook* No. 72, December 2002.

The objective of the Commonwealth's medium-term fiscal strategy is to maintain budget balance, on average, over the course of the economic cycle. This is to ensure that, over time, the Commonwealth makes no net call on private sector saving, and so does not directly impact on the aggregate saving-investment balance (*i.e.* current account). The medium-term fiscal policy framework safeguards the sustainability of public finances over time. It allows policy to react to short-term economic fluctuations to support growth, while ensuring that additional government spending in periods of weaker activity is made possible by savings during periods of stronger growth. An important policy question in this regard is how effective fiscal policy is as a demand management tool. Recent empirical evidence suggests the presence of significant private sector savings offsets in Australia, which imply that the size of any fiscal stimulus will need to be correspondingly larger to have the same impact on aggregate demand. The significant interest rate offsets, discussed earlier, may also limit the effectiveness of fiscal policy as a demand management tool. The empirical findings also reveal that automatic stabilisers may be a more effective option for managing aggregate demand than discretionary policy actions – although such a result needs to be treated with caution (Comley *et al.*, 2002).[33] The cyclical sensitivity of the budget, in any case, is below the OECD average, a 1 per cent change in the output gap leads to a change of 0.3 per cent in net lending as a percentage of GDP, compared with 0.5 per cent for the OECD average (van den Noord, 2000).

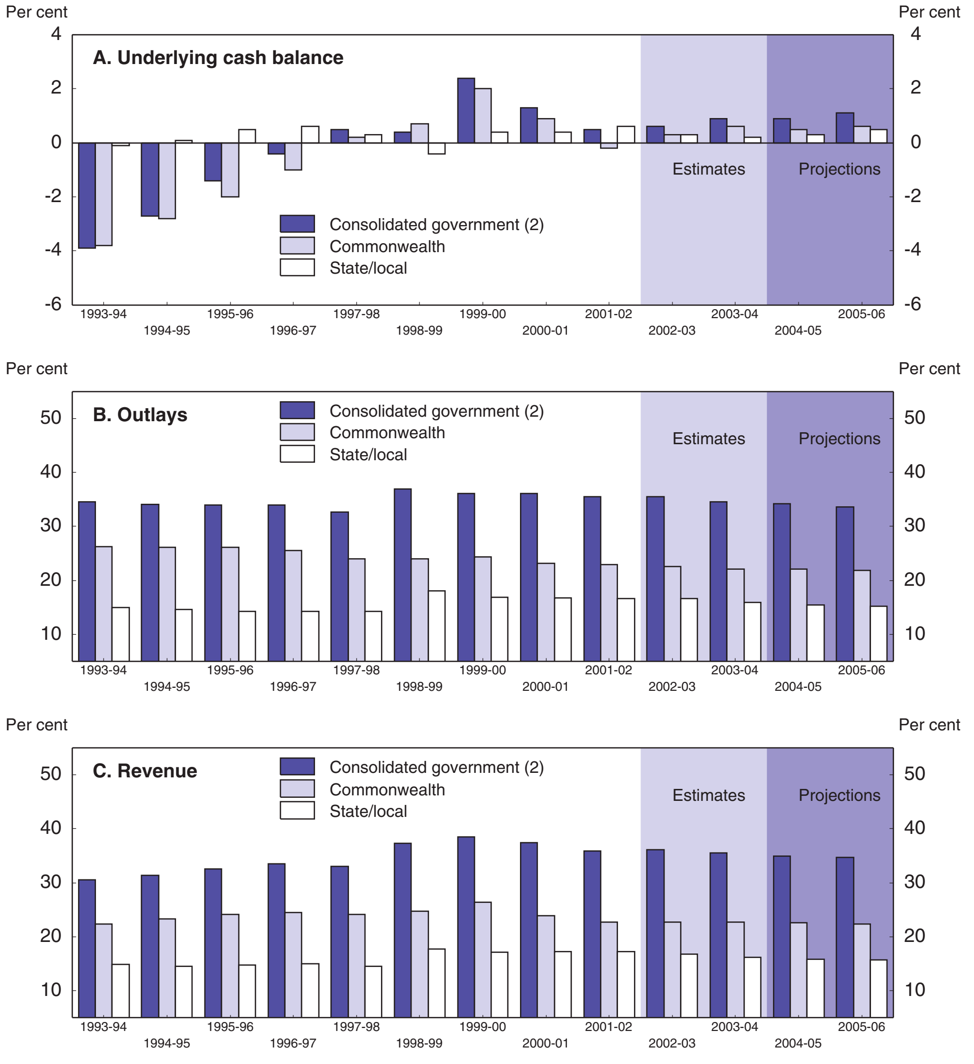
Adherence to the fiscal objective of balancing the budget on average over the economic cycle further contributes to other important goals, including lower levels of Commonwealth net debt relative to GDP over time and stabilisation of the tax burden.[34] The fiscal strategy sub-objective (introduced with the transition to accrual budgeting) of improving the net worth[35] position over the longer term is based on the view that intergenerational equity considerations should be taken into account when formulating fiscal policy. A stronger net worth position would enable the Commonwealth to better manage emerging fiscal pressures more adequately, notably those arising from the ageing population.

The 2001-02 Commonwealth Budget outturn

Following a period of strong consolidation since the mid-1990s, fiscal policy became more expansionary after the turn of the century, when economic growth slowed (Figure 20). At the Commonwealth level, the underlying cash balance recorded a surplus of 2 per cent of GDP in 1999-2000 and 0.9 per cent of GDP in 2000-01, followed by a small deficit in 2001-02. These have resulted in an estimated economic stimulus of around 1 per cent of GDP in both 2000-01 and 2001-02[36] (Table 9). The earlier easing mainly reflected the introduction of income tax cuts under *The New Tax System* in July 2000; while in 2001-02, the stimulus was largely related to the impact of unanticipated non-cyclical expenditure, in defence, domestic security and border protection.

The unanticipated slowdown in output growth in the second half of 2000 and new policy decisions[37] worsened the starting point for the initial 2001-02 Budget position.[38] In the event, and although economic growth proved stronger than originally anticipated,[39] the 2001-02 Commonwealth Budget outturn under-performed expectations. The Commonwealth sector recorded an underlying cash deficit of 0.2 per cent of GDP in 2001-02 – the first since 1996-97 – rather than an expected surplus of the same size.[40] The slippage mainly reflects the effect of new policy decisions among them unanticipated increased expenditure on defence, domestic security and border protection; the provision of a safety net arrangement for entitlements for employees of the collapsed Ansett company, with large immediate

Figure 20. **Government finance**[1]
As a percentage of GDP



1. As at the end of financial year. There is a break in the series between 1998-99 and 1999-2000. Data for the years up to and including 1998-99 are consistent with the cash Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) reporting requirements. From 1999-2000 onwards, data are derived from an accrual ABS GFS framework.
2. Consolidated general government includes Commonwealth, and State/local governments and universities.

Source: Commonwealth Treasury of Australia.

Table 9. **Commonwealth government budget developments**[1]

(A$ billion)

	2000-01	2001-02		2002-03			2003-04		2004-05		2005-06	
	Outcome	2001-02 Budget	Outcome	2001-02 MYEFO estimates[3]	2002-03 Budget	2002-03 MYEFO[3] estimates	2002-03 Budget	2002-03 MYEFO[3] estimates	2002-03 Budget	2002-03 MYEFO[3] estimates	2002-03 Budget	2002-03 MYEFO[3] estimates
GFS Revenue[2]	**161.5**	**158.8**	**162.4**	**166.3**	**169.6**	**169.6**	**179.6**	**180.1**	**189.4**	**188.8**	**199.3**	**198.1**
(*per cent of* GDP)	24.0	22.6	22.7	22.6	22.6	22.5	22.6	22.6	22.5	22.4	22.3	22.3
Total tax revenue	151.2	146.8	149.8	155.5	158.5	158.5	168.6	169.3	178.0	177.9	187.6	187.2
Income tax	120.9	117.3	119.0	125.1	127.6	127.4	136.9	137.3	145.8	145.6	154.8	154.3
Total individuals[4]	78.1	84.3	86.4	90.8	93.0	92.0	100.2	100.1	107.0	106.9	114.2	113.7
Companies	35.1	27.2	27.1	28.0	28.4	29.2	30.3	31.0	32.3	32.7	33.9	34.6
Superannuation funds and other	7.7	5.7	5.5	6.3	6.2	6.1	6.4	6.1	6.5	6.0	6.7	6.1
Indirect tax	25.6	24.7	25.6	25.4	25.7	26.3	26.4	27.0	26.9	27.3	27.5	27.7
Fringe benefits and others	4.7	4.8	5.2	5.0	5.1	4.9	5.3	5.0	5.4	5.0	5.4	5.2
Non tax revenue	10.4	12.1	12.5	10.8	11.2	11.1	11.0	10.7	11.4	10.9	11.7	10.9
GFS expenses[2]	**156.8**	**160.9**	**166.5**	**168.6**	**170.2**	**170.7**	**177.6**	**177.2**	**184.9**	**185.2**	**192.0**	**192.7**
(*per cent of* GDP)	23.3	22.9	23.3	22.9	22.7	22.6	22.3	22.2	21.9	22.0	21.5	21.7
Social Security and Welfare	66.9	68.2	69.1	71.9	72.9	72.6	76.0	75.5	79.0	78.7	81.6	82.1
Health	25.2	26.8	27.6	29.1	29.1	29.4	30.5	30.7	32.2	32.4	33.8	34.0
Education	11.0	11.5	11.8	12.3	12.3	12.3	13.0	13.0	13.6	13.6	14.3	14.2
Defence	11.4	12.2	12.0	13.2	13.1	13.3	14.0	13.9	14.4	14.2	15.0	14.7
Other	42.3	42.2	46.0	42.1	42.8	43.2	44.0	44.1	45.6	46.2	47.4	47.6
Net operating balance	4.7	–2.0	–4.1	–2.3	–0.5	–1.0	2.0	2.9	4.5	3.6	7.3	5.4
Net capital investment	–1.2	–1.2	–0.4	–1.1	–0.7	–0.5	–0.6	–0.5	–0.5	–0.5	–0.4	–0.4
Fiscal balance (A$ billion)	**5.9**	**–0.8**	**–3.7**	**–1.3**	**0.2**	**–0.5**	**2.6**	**3.4**	**5.0**	**4.2**	**7.7**	**5.8**
(*per cent of* GDP)	0.9	–0.1	–0.5	–0.2	0.0	–0.1	0.3	0.4	0.6	0.5	0.9	0.7
Underlying cash balance (A$ billion)	**5.7**	**1.5**	**–1.1**	**1.0**	**2.1**	**2.1**	**3.7**	**4.9**	**4.6**	**4.2**	**7.1**	**5.4**
(*per cent of* GDP)	0.9	0.2	–0.2	0.1	0.3	0.3	0.5	0.6	0.6	0.5	0.8	0.6

1. On a Government Finance Statistics (GFS) consistent basis.
2. Excluding GST collections and equivalent payments to the States.
3. *Mid-Year Economic and Fiscal Outlook* estimates.
4. Other withholding tax is also included.

Source: Commonwealth Treasury of Australia.

accrual effects; and the additional funding provided for the First Home Owners Scheme (FHOS).[41] Total Commonwealth expenditure in 2001-02 exceeded the budgeted target by A$ 5.6 billion (or 3.5 per cent), compared with a smaller over-performance of total revenue by A$ 3.6 billion (or 2.3 per cent).

The Commonwealth Budget for 2002-03 and medium-term fiscal strategy

The 2002-03 Budget projects an underlying cash surplus of 0.3 per cent of GDP.[42] This implies a contractionary impact of around ½ per cent of GDP in 2002-03, in line with the expected strong continuing growth of domestic demand and recovery in international activity. In addition to the primary objective of maintaining budget balance, on average, over the course of the economic cycle, the supplementary objectives of the medium-term fiscal strategy as set out in the 2002-03 Budget[43] are:

– maintaining surpluses over the forward estimates period while economic growth prospects remain sound;

– no increase in the overall tax burden from its 1996-97 level; and

– improving the Commonwealth's net asset position over the medium to longer-term.

The Commonwealth budget projected a rise in the surplus (in both accrual and cash terms) in the outer years, reaching about 1 per cent of GDP by 2005-06. The projected surpluses represent a neutral to mildly contractionary fiscal policy over the period 2003-04 to 2005-06.

At the time of the 2002-03 Budget (May 2002), prospective budget surpluses for 2002-03 and the outer years were revised upward relative to the October 2001 MYEFO estimates, largely because of stronger output forecasts which have increased Commonwealth revenue estimates[44] and lower unemployment benefit outlays. These variations are partly offset by additional spending on:[45] domestic security; border protection and defence; assistance to families through the introduction of the Baby Bonus; and the improvement of residential and community care for older Australians. On the other hand, the increase in user charges in the Pharmaceutical Benefits Scheme (PBS) and the tightening of the eligibility criteria for the Disability Support Pension (DSP), envisaged by the 2002-03 Budget, provide some offsetting expenditure reductions.[46] Moreover, the budget foresees a decline in housing expenses, largely reflecting the end of the additional First Home Owners Scheme grants.[47]

At the time of the 2002-03 *Mid-Year Economic and Fiscal Outlook* (MYEFO) estimates in November 2002, the growth outlook was revised downwards for 2002-03 (to 3 per cent from 3¾ at the May 2002-03 Budget time), largely because of the expected impact of the drought on the economy.[48] Nevertheless, the forecast for the underlying cash balance for 2002-03 remained unchanged, at 0.3 per cent of GDP

(A$ 2.1 billion).[49] Higher expected company and other individual tax revenue; an upward revision in forecast GST revenue; and lower spending on unemployment benefits have together offset the effect of new policy decisions that involve higher expenditure taken since the budget.[50] The impact of the new initiatives on expenditure was amplified by a legislative delay by the Senate in passing the Pharmaceutical Benefits Scheme co-payment increases announced in the 2002-03 Budget. The Government has reintroduced the legislation into the Senate but it has not yet been debated. The fiscal surplus (in both accrual and cash terms) is projected to rise over the medium term to around 0.7 per cent of GDP in 2005-06.

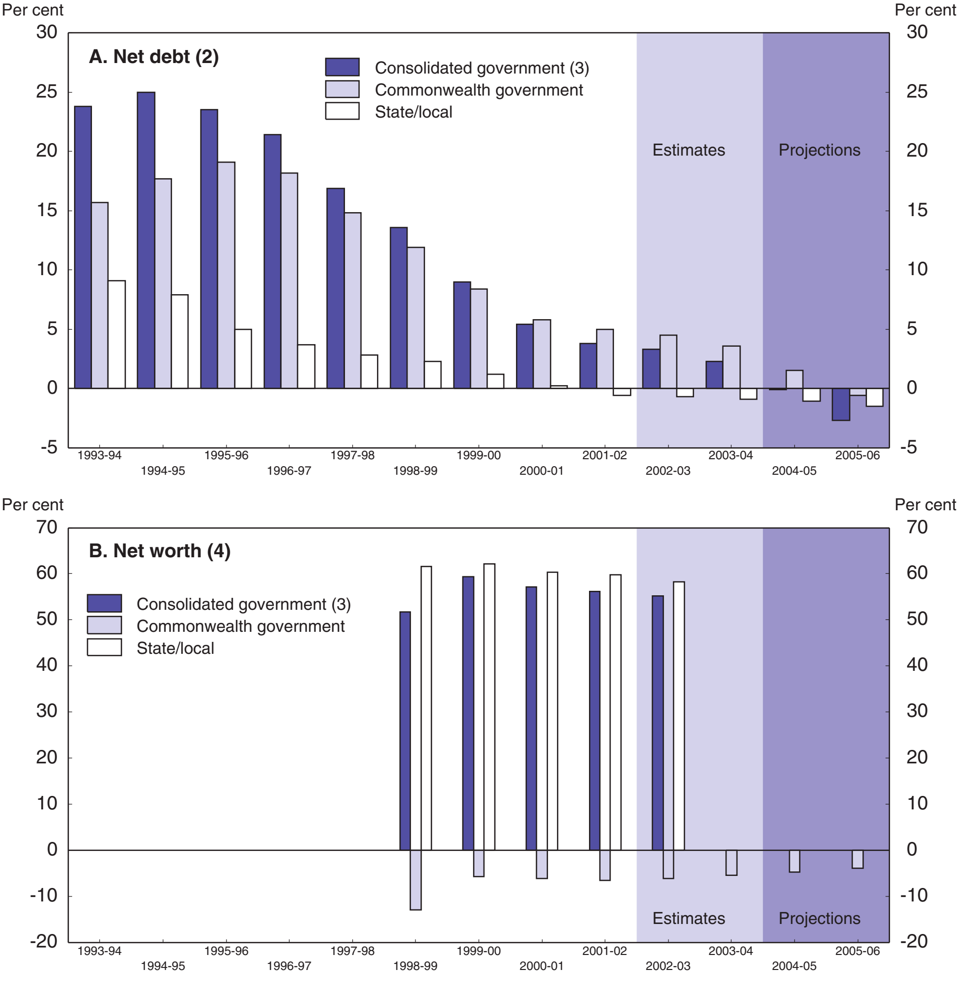
The prospects for States/local government and general government finances

Apart from a brief hiccup in 1998-99, reflecting initiatives by the governments of New South Wales and Victoria to fund unfunded superannuation liabilities, the State/local sector registered a sustained improvement from the early 1990s (Figure 20). The local government sector has been relatively stable in recent fiscal years and is forecast to remain so. In aggregate, the State/local sector's cash surplus is forecast, on the basis of official estimates, to decline to 0.3 per cent of GDP in 2002-03, from 0.6 per cent of GDP in 2001-02, with slightly larger surpluses envisaged in the outer years.[51] Taking all levels of government together, the underlying cash surplus of the general government is projected to remain around 0.6 per cent of GDP in 2002-03, rising to 1.1 per cent of GDP in 2005-06.

Debt developments and medium-term issues

Commonwealth government net debt peaked at 19.1 per cent of GDP in 1995-96, declining since then to an expected 4½ per cent of GDP in 2002-03. Around two-thirds of this reduction results from asset sales, which have in general been used to retire debt, with the remaining third reflecting a continuous series of significant primary surpluses. The downward path in Commonwealth net debt is expected to continue in the forward estimates period (until 2005-06) because of the underlying cash surpluses and further sales of the Commonwealth shareholding in the telecommunications company Telstra. The 2002-03 Budget projected an elimination of the Commonwealth net debt by 2005-06, which was also confirmed by the MYEFO of November 2002.[52] The net worth position of the Commonwealth government is also envisaged to improve over the projection period, consistent with the projected increase in cash and accrual surpluses from 2002-03.[53] Similarly, the net debt of the State/local government has fallen markedly, from a high of 10.3 per cent of GDP in 1992-93 to an estimated –0.7 per cent in 2002-03. Net assets are forecast to grow to 1.5 per cent of GDP by 2005-06. Reflecting these developments, the general government net debt has declined as a percentage of GDP from a peak of 25 per cent in 1994-95 to an estimated 3.3 per cent of GDP in 2002-03, swinging into a net asset position by 2004-05 (Figure 21).

Figure 21. **Commonwealth general government net debt and net worth position**[1]
As a percentage of GDP



1. As at the end of financial year.
2. Includes the impact of the further sale of the government's shareholdings in Telstra.
3. Consolidated general government includes Commonwealth, and State/local governments and universities.
4. Net worth is calculated as assets minus liabilities. There is a break in the asset series in 1999-2000 as a result of the revaluation of Telstra at market value and the reclassification of expenditure on defence weapons platforms in that year.

Source: Commonwealth Treasury of Australia.

The reduction of net debt since the mid-1990s has been managed while maintaining depth and liquidity in the Commonwealth Government Securities (CGS) market.[54] This has involved lagging the decline in CGS on issue behind that in the net debt, mainly by holding surplus budget proceeds not used to retire debt as financial assets. Mechanisms used by the government to support CGS liquidity include:

– maintaining a modest gross debt issuance programme in the form of gross Treasury Bonds;
– undertaking bond conversion tenders to ensure that CGS outstanding are concentrated in liquid maturities; and
– holding some surplus funds as deposits with the Reserve Bank of Australia rather than repurchasing outstanding CGS.

Notwithstanding the government actions, the decline in Commonwealth net debt has been accompanied by a decline in gross debt, with the level of CGS on issue falling from around 18 per cent of GDP in 1996-97 to 9 per cent of GDP in 2001-02.

The significant reduction of the net debt, along with the prospect of its elimination in a few years time, has raised concerns among some market participants about the future viability of the CGS market and the likely effects on the broader financial markets and the functioning of the overall economy. Such concerns are based, to a large extent, on the reasoning that the private securities cannot easily replicate the core functions performed by the government bond market. A recently released discussion paper by the Commonwealth government[55] – in acknowledgement of these concerns –outlines the costs and benefits of maintaining such a market, identifying three possible options available to the government: *i)* winding down the CGS market, either by re-purchasing all debt over a short period as budget surpluses and asset sales proceeds are realised, or by allowing all outstanding debt to mature; *ii)* consolidating the CGS market with the state government markets; and *iii)* maintaining the CGS market and funding the Commonwealth's unfunded superannuation liabilities to its employees (estimated at A$ 84 billion in 2002-03)[56] (see Box 1). The government's decision on the issue of the CGS market is expected to be taken prior to the May 2003-04 Budget, after consultation with the interested parties.

The Commonwealth discussion paper recognises the important roles that the government debt securities may play in financial markets including: providing a benchmark for the pricing and referencing of other financial products; facilitating management for financial risks; providing a low-risk, long term, investment vehicle; assisting the implementation of monetary policy; and acting as a "safe haven" during periods of financial instability. It argues, however, that some of these roles could be undertaken by the private sector, outlining potential private sector substitutes. The bond markets' traditional role as a price base for other debt-market instruments, for example, could be replaced over time by corporate bonds or interest rate swaps. The paper also highlights the 'significant risks' associated with the option of

Box 1. Options available to the Commonwealth government for the CGS market: An overview*

The withdrawal of the government from the CGS market by repaying the outstanding debt over time – as implied by the first option considered by the Commonwealth discussion paper *Review of the Commonwealth Government Securities Market* – would effectively result in an elimination of all risks currently related to the debt portfolio. This needs to be assessed, however, against the re-issuance risks and possible costs of having to re-build the GCS market. As it is pointed out by the paper, while it is not in the government's intention to proceed to significant borrowing in the future, it would still need to consider the likely cost of re-entering the market, as a range of unforeseen events may affect significantly the budget and increase financing requirements. However, the potential costs (including adverse returns from asset positions) of the alternative case – *i.e.* maintaining the market in the absence of a debt requirement – should also be taken into account. Transition issues also seem to be important in assessing the option of winding down the CGS market. The discussion paper considers that a quick withdrawal of the government from the market, by repurchasing all debt as budget proceeds materialise, could involve the risk of unsettling financial markets by bidding up the price of the debt and creating substantial repurchase premiums. In addition, this approach may not provide enough time for private sector to develop the necessary financial instruments and undertake some of the functions currently operated by the CSG market. These shortcomings could be avoided by allowing all outstanding debt to mature which would maintain the Treasury bond portfolio until at least the middle of next decade. The additional interest cost involved in this approach would be largely offset by the accumulation of financial holdings over the period, given the ongoing, and expected, budget surpluses and asset sale proceeds.

An alternative option that the paper considers is to issue CGS to maintain the market and use the proceeds to fund the Commonwealth's unfunded superannuation (pension) liabilities. This option, however, is seen as increasing the government's exposure to financial risks and possibly distorting the asset markets. Moreover it could raise governance concerns related to the costs of shifting scarce public sector management resources or public scrutiny from core government functions. The discussion paper further suggests that using proceeds from issuing CGS to fund Commonwealth's superannuation liability is likely to be intergenerationally neutral. This is because the costs to future generations of the debt that must be incurred to acquire the assets used to capitalise the fund are in principle equivalent to remuneration of the fund's assets accruing to these future generations. Finally, regarding the option of merging Commonwealth and State government debt markets, this would increase the liquidity of the Commonwealth bond market, at the expense of the States. The significant reduction of transparency and incentives for jurisdictions to maintain sound financial positions are key problems of consolidation. In any case, such an option may not provide a long-term solution to the future of the CGS market if the fiscal discipline exhibited at all levels of government in recent years continues. The Commonwealth and State governments rejected this alternative in August 2001.

* The Box draws on Commonwealth of Australia (2002d), *Review of the Commonwealth Government Securities Market*, Discussion Paper, Canberra, November.

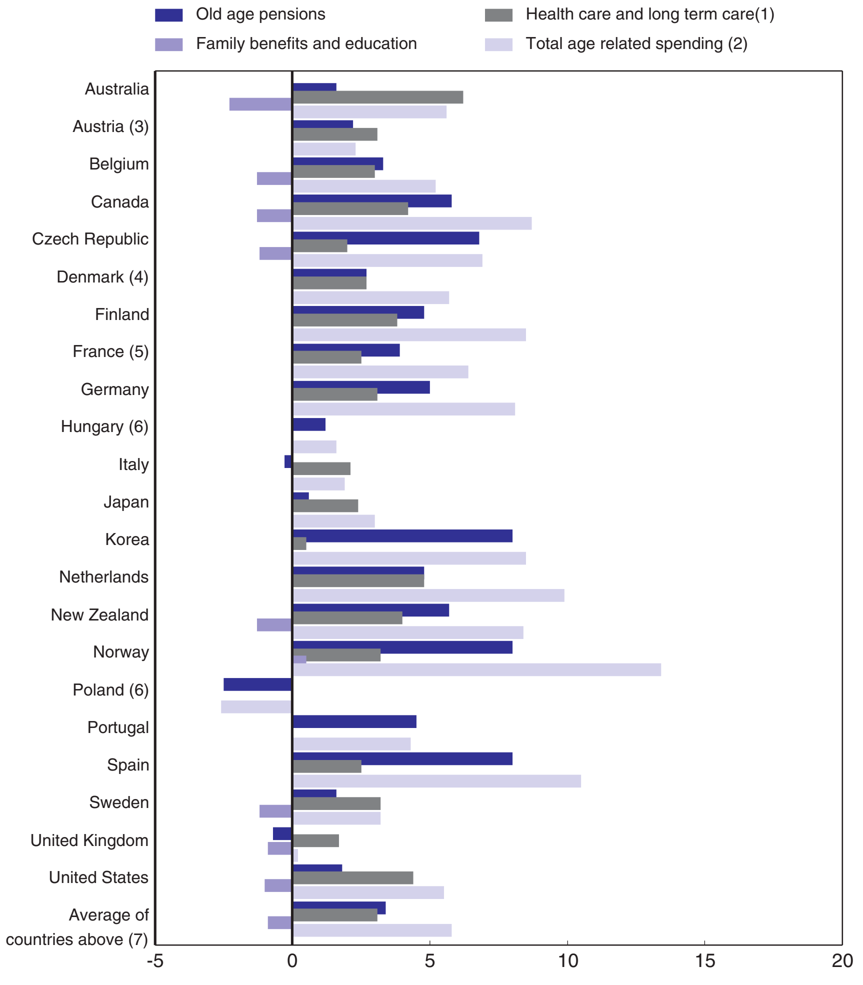
maintaining the CGS market, pointing to the financial risks that the government may be exposed to, the potential distortion in asset markets, as well as to governance concerns arising from the accumulation of a sizeable portfolio of financial assets.

Internationally, opinions are divided with regard to the benefits and costs of fully paying down public debt, and as to whether private debt can fulfil all the desirable functions of public debt (see Annex I). The lack of international precedent for winding down the government bond market makes it difficult to assess such an option.[57] Driven to a large extent by inter-generational equity considerations, the common practice of OECD countries with budget surpluses, even those that have moved to a net asset position, such as Norway and Sweden, is to acquire financial assets and retain a government debt market. The established portfolios differ across countries in size, as well as regulation and administration across countries, raising a number of relevant issues.[58] The main challenge for governments with budgetary surpluses is to manage the envisaged decline in debt in such a way as to maintain, to as large an extent possible, the benefits of the public debt markets that currently exist, provided that by so doing, they do not incur costs or create an unacceptably high level of distortions and vulnerabilities elsewhere. The need for government debt would be less compelling if other financial securities could either achieve the same risk status, or fulfil similar functions despite a different risk status.[59] Otherwise, maintaining a minimum level of gross debt, despite the reduction of the net debt, might be advisable, for example by moving to a "golden rule" for fiscal policy. This would result in balance on the recurrent budget and an overall budget deficit reflecting the financing of capital expenditure such as infrastructure investment (with social returns higher than estimated long-term real interest rates) *via* issuance of debt.

Issues of fiscal sustainability

An ageing population and technology driven advances in health care are two key elements which will affect the government's financial position over the longer term. Compared with most OECD countries, Australia seems to be well placed to cope with the challenges of an ageing population as it faces a relatively lower potential pension burden and has low levels of public debt (Figure 22).[60] However, the predicted budgetary pressures are not negligible. Based on the baseline projections of the first official I*ntergenerational* R*eport* (IGR),[61] incorporated in the May 2002-03 Budget, Commonwealth spending is expected to exceed revenue in about 15 years, under unchanged policies and likely developments in productivity and participation rates, with the gap growing to around 5 per cent of GDP by 2041-42[62] (Figure 23). This mainly reflects rising outlays on health, aged care services, and age pensions, while unemployment allowances, payments to families with children, and to a lesser extent, education spending,[63] are all projected to decline as a proportion of GDP (Table 10). The emerging strains in public

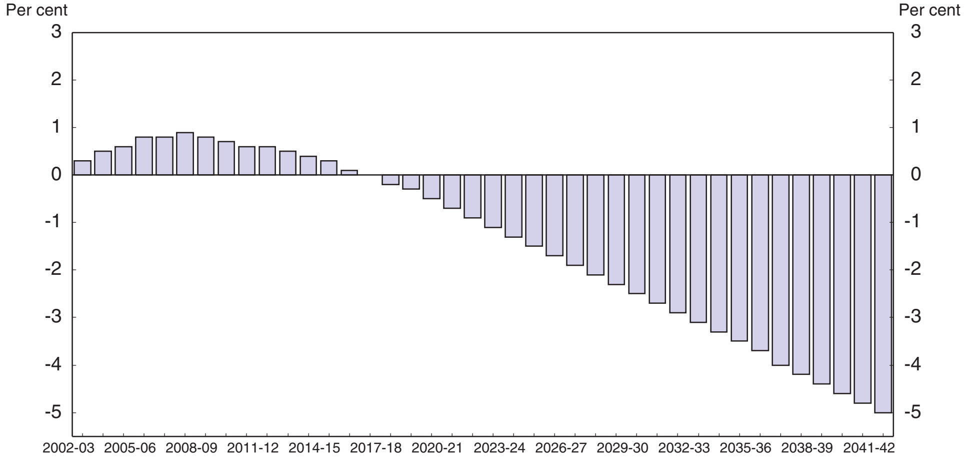
Figure 22. **Age-related spending in selected OECD countries**
Changes in percentage points over 2000-50



1. Health care and long term care, for Austria, France, Germany, Italy and Spain are estimations from Economic Policy Comittee of the European Union (2001).
2. Total also includes early retirement programmes.
3. Total pension spending includes other age-related spending which does not fall within the identified sub components, represents 0.9 per cent of GDP in 2000 and rises by 0.1 percentage point in the period to 2050.
4. Total includes other age-related spending not classifiable under the other headings, which represents 0.6 per cent of GDP in 2000 and increase by 0.2 percentage point from 2000 to 2050.
5. The latest available year is 2040.
6. Total includes old-age pension spending and early retirement programmes only.
7. Average excludes countries where information is not available and Portugal.

Source: Dang *et al.* (2001); Economic Policy Committee of the European Union (2001).

Figure 23. **Commonwealth fiscal balance position in the longer term**
Percentage of GDP



Source: Commonwealth Treasury of Australia (2002), Intergenerational Report 2002-2003, Budget 2002-03, Budget Paper No. 5.

Table 10. **Commonwealth demographic spending in the longer term**
Per cent of GDP

	2001-02	2006-07	2011-12	2021-22	2031-32	2041-42
Total health and age care	4.7	4.8	5.1	6.2	7.9	9.9
Total health	4.0	4.0	4.3	5.2	6.5	8.1
of which:						
Pharmaceutical benefits scheme	0.6	0.6	0.8	1.3	2.1	3.4
Total aged care	0.7	0.8	0.8	1.0	1.4	1.8
of which:						
Residential care	0.6	0.6	0.7	0.8	1.1	1.4
Total payments to individuals	6.8	6.3	6.2	6.8	7.2	7.4
of which:						
Age and Service Pension	2.9	2.8	2.9	3.6	4.3	4.6
Unemployment allowances	0.8	0.8	0.7	0.6	0.5	0.4
Family Tax benefit	1.6	1.3	1.2	1.1	1.0	0.9
Total Education	1.8	1.8	1.7	1.6	1.6	1.6
Unfunded government superannuation	0.6	0.5	0.5	0.5	0.4	0.3
Total demographic spending	**13.9**	**13.3**	**13.6**	**15.1**	**17.1**	**19.2**

Source: Commonwealth Treasury of Australia (2002), *Intergenerational Report* 2002-03, *Budget* 2002-03, *Budget Paper* No. 5.

finances reinforce the need for continued prudent fiscal management to ensure that the government will be well prepared to meet the emerging structural challenges promptly and effectively, in order to avoid the need to significantly increase the tax burden on future generations.

Pension outlays[64]

Public pension outlays in Australia are projected to increase by around 1.6 percentage points of GDP by the middle of this century, reaching around 4.6 per cent of GDP. This is both a lower level and lower increase than in most OECD countries, reflecting the fact that the tax-funded public pension (the "Age Pension") in Australia covers only the first pillar of retirement income arrangements and is means tested, while the compulsory private pension scheme (known as the Superannuation Guarantee), is slowly maturing, thereby reducing average entitlements to the Age Pension. The projected rise in pension outlays could be moderated – or even avoided altogether – through policy initiatives to increase labour force participation of older workers and encourage private savings for retirement so as to reduce future demand for the Age Pension. Both policy options are considered by the government as key priorities for ensuring fiscal sustainability. A further option would be to reduce average Age Pension entitlements through an increase in compulsory superannuation contributions – given the government's commitment to maintain the single rate of Age Pension at 25 per cent of Male Total Average Weekly Earnings.[65] Alternatively, the budgetary impact of increased pension outlays could be offset if high enough surpluses could be sustained through the remainder period. There is also an upside risk to pension outlays if a greater proportion of superannuation assets were taken earlier and dissipated in order to maximise Age Pension entitlements (*i.e.* increase in "double dipping"). As discussed in previous OECD *Surveys*, such risk could be reduced by raising the preservation age for superannuation benefits to that required for access to the Age Pension entitlements.[66] In addition, individuals should be encouraged to take at least the bulk their superannuation benefits as an income stream, rather than lump-sum, maximising self-reliance.Whether this could be done without making annuation compulsory is, however, problematic given the asymmetric information problems that bedevil a voluntary annuity market.[67]

Health care expenditure

The greatest challenge to public finances from ageing populations is expected to come from public health and long-term care spending, which could rise by as much as 5 to 6 percentage points of GDP by the middle of the century. These estimates are significantly higher than those reported by other OECD countries that have official projections. Projections of health care spending are surrounded by far larger margins of error than the pension ones, as health and long-term care costs will be affected by a range of factors in addition to ageing, in particular technology, increases in supply (hospitals and medical personnel) and incentives facing suppliers and patients (Dang 2001 *et al.*). These additional factors, especially demand for new technology and treatments, have explained the bulk of the real growth (of around 5 per cent per annum) in health spending in Australia over the last decade, with population growth and changes in the age structure accounting for only the one-third (Commonwealth 2002a). The Australian authorities prudently assume that similar trends will continue impacting on health spending over the next 40 years. One of the pressures highlighted by the Intergenerational Report is the continuing high rates of growth in the Pharmaceutical Benefits Scheme (PBS), reflecting the increased availability of new and more expensive drugs, which increase the total volume of prescriptions and cost to the government per prescription. PBS spending is projected to rise by around 3 percentage points by 2041-42, to around 3½ per cent of GDP, although such projections are subjected to a high degree of uncertainty.[68]

Another issue arising in the context of population ageing concerns the prospective increases in aged care expenditure and the potential budgetary costs of such a development. The government plays the leading role in planning and funding residential aged care and a range of community care services. The Commonwealth spending on the aged care was equivalent to around 0.7 per cent of GDP in 2001-02, and is expected to rise to 1.8 per cent of GDP by 2041-42, mainly as a result of an increase in residential care spending. Such a development by itself would not contribute an unmanageable load on public finances. However, as pointed out in the previous *Survey*, it would take place in the context of other increased social expenditure and would add to already increased costs of health care services.[69]

Health care reforms

A range of reform initiatives have been introduced over the years to contain expenditure on health care and ensure the viability and efficiency of Medicare – Australia's universal public health system – in the long-term.[70] Recent reform efforts have aimed at fostering participation in private health insurance, in order to ease the financial burden on Medicare, while providing consumers with more choices and universal access to high quality health care. Two major initiatives[71] to pursue this objective, discussed in detail in the 2001 *Survey*, included the introduction, in January 1999, of a 30 per cent non-means-tested rebate on the full costs of private insurance premiums, to improve the affordability of private health insurance; and the implementation, from July 2000, of the "Lifetime Health Cover" scheme,[72] which changes the way private insurance operates. The scheme enables health care funds to charge different premiums, depending on the age at which individuals first buy health insurance. As such, it encourages people to join a health fund early in life and maintain their membership, addressing, to an extent, the intergenerational problem of an ageing population. The incentive schemes introduced by the government have increased participation in private health insurance to 44 per cent at end-June 2002, from a low of 30 per cent in December 1998.[73] Subsequently, the growth in the use of public hospitals has slowed.

As a step towards addressing pressures on public finances arising from health care spending, the May 2002-03 Budget announced initiatives to control the rapid growth of the Pharmaceutical Benefit Scheme (PBS), which constitutes a key part of Medicare. These included an increase in the patient co-payments for prescriptions, with budgeted expenditure savings of A$ 1.1 billion over four years. However, as mentioned earlier, the necessary legislation has not yet approved by the Senate.[74] The budget also included a package of initiatives to improve the quality of use of PBS medicines – new and existing – and to ensure that these medicines are prescribed appropriately. These initiatives covered issues such as doctor shopping and pharmacy fraud.

Managing the costs of health care and aged care services remains a challenge, even if current and prospective public finances seem comparatively healthy. Essential for safeguarding health spending are further improvements in the efficiency and effectiveness of the health care system. Government initiatives – as has already been acknowledged by the Intergenerational Report – should aim at containing growth in the pharmaceutical spending and developing a more affordable and better targeted aged care system. Policy makers also need to find ways to monitor health care spending more closely, better balance the private/public mix of the financing and delivery of health and aged care, and improving the match between health care needs and the supply of services. Steps towards allowing private insurance to cover a more comprehensive range of mainstream health services, including out-of-hospital goods and services, might be advisable in this regard. Over the longer term, a wider range of policies and reforms will be required in order to meet the budgetary pressures arising from further technological advances in the health care area. In this context, the main policy challenge is how to manage the costs in health and aged care programmes without compromising the principal goal of providing access to affordable, high-quality, health care services. Recent steps towards this goal include: financial incentives for General Practitioners (GPs) by increasing patient rebates for GP services, with a focus on longer consultation times; the implementation of a national health information network; improved access to health services for rural and regional communities; and initiatives to address medical workforce shortages, with the longer term goal of ensuring a sufficient number of appropriately trained professionals to sustain health and aged care services in the future.

Progress towards reforming the tax system

There has been a comprehensive overhaul of the taxation system in recent years,[75] the first major step of which came into effect in July 2000, with the implementation of *A New Tax System* (ANTS). The key feature of ANTS was the introduction of the broad-based 10 per cent goods and services tax (GST), imposed on a value added basis, to replace the former wholesale sales tax and a range of inefficient State taxes (Annex II). In addition to harmonising the tax treatment for different goods and services, the shift under ANTS from specific indirect taxes to a general indirect tax broadened the tax base and increases the efficiency of the taxation system. The GST also eliminates distortions in consumer choice between imported and domestically-produced goods and services that would otherwise arise from international tax rate differentials. The accrual of the GST revenue to the State governments provides them with a more secure and buoyant source of revenue.[76]

As noted in previous *Surveys*, the gains from reforms could have been greater if – in the compromise required to get the Senate's approval – the basic food sector had not been exempted from the GST, and the abolition of some harmful State indirect taxes, especially the tax on bank account debits, had not been delayed. Debits tax will now be abolished by 1 July 2005, subject to review by the Ministerial Council. In addition, the Ministerial Council will by 2005 review the need for a range of other inefficient State taxes. If these taxes are abolished, Australia's indirect tax system will be much improved. Efforts towards reforming the narrowly-based and exemption-ridden payroll tax, which is under the jurisdiction of the States, would also be helpful.[77] In addition to its focus on indirect tax system, ANTS also incorporated income tax cuts, to compensate for the introduction of the GST, and measures to reduce high marginal effective tax rates, improving the incentives for work. The tax reform package also entailed a simplification of tax administration, which should enhance the flexibility of business tax payments and reduce the scope for tax avoidance by making easier the cross-matching between GST and income tax information. Overall, ANTS has the potential of boosting growth over the longer term, as a result of the lower effective income tax rates and less distorting indirect and business income taxes although, as also noted by the government, such benefits are difficult to quantify. The new tax system needs also to be assessed in terms of its potential for lower administration and compliance costs.

While it is still early to fully analyse and evaluate the long-term economic benefits of ANTS, some direct benefits of the tax reform can be easily observed. These include a growing revenue base for the States, and a fall in the prices of most investment goods and services faced by business due to the removal of the cost on business inputs entailed in the previous indirect tax system. Such benefits need to be assessed against the overshooting in the initial administration costs of GST, compared with the official estimates,[78] reflecting a larger than expected number of registered business, although the amount of time spent by companies on GST administration seems to have fallen. The government has not provided revised estimates (in comparison with the regulation impact statement that accompanied the GST legislation), in the case of the compliance costs of the GST. Nevertheless, the significant changes to streamline the GST payment and reporting arrangements for small business, introduced in February 2001,[79] provide some evidence on concerns raised by such business with regards to compliance costs. Recent findings suggest that compliance costs have eased, as anticipated, in line with increasing familiarity of business with the new tax system.[80]

Significant progress has also been achieved towards implementing the business tax reform, in response to the recommendations of the Ralph Committee.[81] As discussed in previous *Surveys*, the main problem with the pre-existing arrangements was the inconsistent treatment of business entities and the investment they conduct. It was proposed to address these issues by: *i*) applying company tax consistently to certain companies and trusts; and *ii*) possibly, by reconsidering the tax treatment of certain forms of business investment. The additional revenue from these base-broadening initiatives would be available to finance a reduction in the company tax rate and provide relief from capital gains tax. The *New Business Tax System* introduced a phased reduction of the company tax rate from 36 per cent in 1999-2000 to 30 per cent in 2001-02 and subsequent income years; the counterpart to this is the removal (except for small business) of accelerated depreciation arrangements and adoption of an effective life system (Annex III). The new system also introduced a simpler and internationally competitive capital gains tax (CGT) regime, which should remove impediments to efficient management and improve capital mobility. The main provisions of the *New Business Tax System* which came in effect since 1st July 2001 include a simplified tax system for small firms; a uniform capital allowances system; new thin capitalisation rules to prevent an excessive allocation of debt to Australian operations of multinational firms; and a new test of debt and equity. These measures are expected to reduce the compliance burden for the overwhelming majority of business and improve the quality of investment and economic efficiency. Moreover, the new thin capitalisation arrangements should ensure that the country raises its fair share of tax. The business tax system will be improved further with the implementation of a consolidated income treatment for groups of wholly-owned companies,[82] which is expected to simplify the corporate tax code, delivering significant savings in tax administration and compliance costs incurred by corporate groups (Commonwealth of Australia 2000).

A major review in the pipeline is that of the international tax system.[83] The objective of the review is to examine whether current international tax arrangements impede Australian companies expanding offshore, whether they impede the attraction of domestic and foreign equity, and how they affect holding companies and conduit holdings being located in Australia. A Treasury paper, released in August 2002,[84] sets out a number of reform options available. The paper provides a basis for public consultation, to be conducted by the Board of Taxation.[85] Other envisaged reforms include a continuing redesign of the taxation of financial arrangements, and further changes in tax exempt leasing.

Although there has thus been quite some progress in reforming business taxation, the government decided, however, in agreement with the Board of Taxation, not to proceed with the radical recommendation of the Ralph Review to introduce the "tax value method" (TVM) for determining taxable income.[86] This was because after consultation with business and tax practitioners it was concluded that the benefits of TVM could not be reliably determined.[87] Nevertheless, the government remains committed to developing, in consultation with the business community, a systematic treatment of rights and so called "black hole" expenditure (business expenditure which currently does not qualify for deduction over an appropriate period of time) with a view to implementing the changes by July 2005. It is regrettable that the expected costs of adopting the TVM outweighed the expected benefits. Ideally, such a reform would have provided greater structural integrity to the income tax law, reducing avoidance opportunities and the need for long-term amendments in the law. Moreover, the implementation of the TVM could have significantly reduced the length and complexity of the law, implying lower compliance costs and greater transparency and certainty for taxpayers. As noted in the previous *Survey*, the government has also decided, following the advice of the Board of Taxation and considerations of submissions received, not to proceed with the draft legislation on entity taxation legislation – another important recommendation of the Ralph Review.[88] Instead, the Board of Taxation was tasked in February 2001 to conduct consultations on the principles which can protect legitimate small business and farming arrangements, whilst addressing any tax abuse that exists in the trust area. The enquiry focussed on the potential tax abuse in the discretionary trust area, which consists the main area of concern on the issue.[89] The Board's report considered that there are no "compelling arguments" for a broad based reform to the taxation of discretionary trusts[90] and a move towards a company tax model.[91] It further concluded that, in view of the changes to the taxation of trusts in recent years, concern about the use of trusts for tax planning does not justify by itself fundamental reform.[92]

While the introduction of ANTS and the ongoing reform in the business tax system represents a substantial improvement over the previous system, some important policy issues remain unresolved. One of these is the large gap between the top personal marginal income tax rate and the company tax rate,[93] which risks increasing the incentives for tax deferral and avoidance, through the redefinition of personal income as company income.In addition, the top marginal income tax rates come into effect at relatively low income levels, raising concerns about equity, as well as work and savings incentives, with potential adverse effects on output growth. Moreover, marginal effective tax rates remain high for many low-income earners, which tends to create poverty traps. The ongoing reform of the welfare system (discussed in Chapter III), along with recent measures to address tax avoidance opportunities arising in part as a result of the difference between the company tax rate and the top personal marginal rate, go in the right direction.

Notes

1. Similarly high household debt-income ratios prevail in the United States, Canada, the United Kingdom and New Zealand.
2. The transition to GST on 1 July 2000 created a strong financial incentive to bring forward expenditures not taxed at all under the old wholesale sales tax from the second half into the first half of 2000. Such shift was most pronounced for residential investment, which contributed heavily to its strong growth in the first half of 2000. Its subsequent steep fall weakened economic activity substantially in the second half of the year.
3. Under the First Home Owner Scheme (FHOS), A$ 7 000 have been made available to first-time purchasers of new or established homes as from 1 July 2000. An additional grant of A$ 7 000 was given to first-time home buyers purchasing new homes as from 9 March 2001. This additional grant was reduced to A$ 3 000 from 1 January 2002 to 30 June 2002, when it expired. Hence, at present, the grant under the FHOS amounts to A$ 7 000.
4. Housing affordability from the perspective of the average owner-occupier is measured by the ratio of average household disposable income to the ("qualifying") income required to meet payments on a typical dwelling (expressed as an index). In calculating qualifying income, a deposit of 20 per cent with repayments equal to 30 per cent of income is assumed using a conventional 25 year loan. An increase in the index represents an improvement in affordability.
5. There are three separate series for house prices in Australia which survey different samples of dwelling sales. The series used here are those produced by the Commonwealth Bank/Housing Industry Association.
6. Fiscal years begin 1 July.
7. The ANZ Bank (2002) proposes estimates of the "fair value" of housing, based on the housing affordability approach for owner-occupiers and on an earnings discount model for an average residential investor. Both methods suggest that house prices are far from entering a situation of irrational exuberance as they are only now approaching their fair value and have some further scope for appreciation.
8. As indicated by the broad-based NAB (National Australia Bank) quarterly business confidence index.
9. The 13¾ per cent decline in ANZ job vacancies in December was heavily affected by the timing of Christmas.
10. The peak unemployment rate was 10.9 per cent in December 1992 and the previous low was 5.4 per cent in June 1981.
11. This is discussed in Chapter III.

12. Persons unemployed for 52 weeks or more.
13. However, in mid-1992, when the economy had completed the first year of the current upswing, the youth unemployment rate was more than 33 per cent.
14. This supports estimates that CPI inflation remained within the 2 to 3 per cent range from mid-2000 to mid-2001 if adjusted for the price-level effect of GST.
15. The trimmed mean inflation is calculated as the (weighted) mean of the central 70 per cent of the quarterly price change distribution of all CPI components. The weighted median inflation is the inflation rate for that item which is in the middle of the total distribution of price changes. For more details see Box D: Underlying Inflation in Reserve Bank of Australia (2002), Bulletin, "Statement on Monetary Policy", May.
16. The wage cost index measures the change in the hourly rate of pay for a fixed basket of "constant quality" jobs. It is thus a more reliable indicator of wage pressures than the widely used average weekly earnings which are also shown in Table 5. The latter are measures of the wage bill, which is likely to have been boosted by a shift in the composition of wage earners covered by the index from lower skilled to higher skilled jobs, which are typically better paid.
17. Most notably the NAB Quarterly Business Survey and the ACCI-Westpac Survey of Industrial Trends.
18. As shown in Figure 10, lower Panel, this inflation expectation measure tends on average to exceed actual inflation by a large margin. At a twelve-monthly rate of 4.1 per cent in the September quarter of 2002, it broadly equalled its ten-year average of 4.2 per cent.
19. However, trade union officials surveyed by the Australian Centre for Industrial Relations Research and Training expect inflation to be at 3½ per cent in the year to June 2003.
20. Econometric research by Gruen, D., J. Romalis and N. Chandra (1997) suggests a mean lag of about 1½ years between changes in the cash rate and its impact on economic growth.
21. Korea, New Zealand, the Unites States and China in particular, with Japan being the notable exception.
22. They found that an increase in the structural budget deficit by one per cent of GDP would raise the Australia-US ten-year real bond rate differential by about 30 basis points. If true, this would substantially reduce the efficacy of activist fiscal stabilisation policy is Australia. However, the authors also note that 'size' of the impact of fiscal policy on the interest margin is likely to be smaller in the current era of low public debt.
23. Headline CPI inflation jumped to 6 per cent around mid-2000, reflecting the transition from the old wholesale tax to the goods and services value-added tax (GST). Underlying inflation remained low, however.
24. The calculation is based on average nominal cash rates for the periods 1992 to 2002 and 1997 to 2002, when output growth averaged around 4 per cent. Neutral real cash rates are then calculated using as deflators alternative measures of inflation expectations (*e.g.* indexed bond rate differentials, measures of "underlying" inflation) over these periods. Adding to the such-derived alternative real cash rates the mid-point of the RBA's inflation target band (hence 2½ per cent) leads to about 5½ per cent for the nominal neutral cash rate. This has been laid out in more detail in the Reserve Bank of Australia Bulletin (2002), "Statement on Monetary Policy", August.

25. At one point in October 2002, the Australia-US ten-year bond spread reached almost 200 basis points.
26. This ended a period of marked divergences in the growth of credit and monetary aggregates, which had resulted from the substitution by banks of certificates of deposit by bank bills and offshore borrowing, with the latter two liabilities not being counted in monetary aggregates.
27. Broad money comprises the monetary aggregate M3 (currency plus bank deposits of the private non-bank sector) plus borrowings from the private sector by non-bank financial institutions, less the latter's holdings of currency and bank deposits.
28. The normative short-term interest rate r' ("Taylor rule") is defined as $r' = r^* + p + (p-p^*)/2 + GAP/2$. This makes r' the sum of the long-term (Hodrick-Prescott) trend value r^* of the real short-term interest rate, the actual (tax-adjusted) inflation rate p, one-half of the difference between actual inflation p and the inflation objective p^* and one-half of the output gap, defined as the difference between actual and potential output as a percentage of the latter. Accordingly, the usefulness of the Taylor rule depends crucially on the choice of the weights used, the assumed value of r^*, and the accuracy of the measurement of the output gap.
29. The actual and structural net lending position of the general government improved by, respectively, 7.1 and 5.4 percentage points of GDP over the period 1993-1999, compared with outcomes of 5.1 and 3.3 percentage points for the OECD area as a whole over the period 1994-2000.
30. The Australian budget year runs from 1 July to 30 June.
31. For a detailed discussion of the reforms see OECD 2000a and 2001a.
32. These principles include: achieving adequate national saving; moderating national fluctuations; maintaining Commonwealth general government net debt at prudent levels; pursuing spending and taxing policies that are consistent with a reasonable degree of stability and predictability in the tax burden; maintaining the integrity of the tax system; and ensuring that policy decisions have regard to their financial effects on future generations (OECD 2000a and 2001a).
33. As pointed out by the paper, such a conclusion needs to be qualified by the observation that the findings of the study are based on aggregate data and therefore may not capture the demand effects of specific policies that may have in practice a larger demand impact (Comley *et al.*, 2002).
34. The benefits arising from the Commonwealth's medium-term fiscal strategy are discussed in detail in Budget Paper No. 1 of the 2000-01 Budget (May 2000).
35. Net worth is defined as financial and non-financial assets, less liabilities.
36. Based on estimates included in the 2002-03 Budget (May 2002).
37. Important initiatives include a further reduction in company tax as part of the implementation of the 2000 tax reform; a reduction in excise on petroleum fuels and draught beer; as well as initiatives in high priority areas, including support for older Australians, welfare reform, health, environment and measures strengthening telecommunication services – particularly in rural and regional Australia. For more details, see 2001-02 Budget (May 2001).
38. The May 2001-02 Budget projected a fiscal deficit in accrual terms of 0.1 per cent of GDP for the fiscal year, compared with a surplus of 0.5 per cent of GDP expected at the *Mid-Year Economic and Fiscal Outlook* (MYEFO) in November 2000. The underlying cash balance was expected to record a small surplus of 0.2 per cent compared with a mid-

year estimate of 0.7 per cent of GDP. The MYEFO estimates did not incorporate the discretionary tax cuts and additional spending, together amounting to A$ 3.7 billion, that featured in the May, 2001 Budget.

39. Economic growth forecasts for 2001-02 were revised upward from 3¼ per cent in the May 2001-02 Budget and 3 per cent in the MYEFO 2001-02 of October 2001, to 3¾ per cent by the time of May 2002-03 Budget.
40. On an accruals basis, the outturn was a deficit of 0.5 per cent of GDP.
41. An additional A$ 7 000 First Home Owners Scheme grant, funded by the Commonwealth, was made available in March 2001 to eligible recipients who bought or built a new dwelling, bringing the total to A$ 14 000. The additional grant payment was to cease at end-2001 but was extended to end-June 2002 at a reduced rate of $A 3 000 per eligible recipient (Budget 2002-03 Paper No. 1, May 2002).
42. Broad balance is projected on an accruals basis.
43. The 2002-03 Budget is the seventh Commonwealth budget presented under this fiscal strategy.
44. Changes in economic assumptions and new policy initiatives, have resulted in an upward revision of Commonwealth revenue of around A$ 3.4 billion in 2002-03 since the October 2001 MYEFO. This reflects higher projected income tax revenue from small unincorporated business, higher revenue from indirect taxes, additional funding to the Australian Taxation Office, and a deferral of several measures of the next phase of the business tax reform.
45. New policy decisions are estimated to reduce the fiscal balance by around A$ 0.7 billion in 2002-03, rising to around A$ 0.9 billion in 2004-05.
46. Initiatives to support the PBS are estimated to result in a decrease in the relevant expenses for the scheme of A$ 384 million in 2002-03, rising to A$ 510 million in 2005-06. The package of measures to develop and improve the work capacity of people with disabilities involves a rise in expenditure in 2002-03 and 2003-04, but is estimated to result in net savings of A$ 337 million over the period 2002-03 to 2005-06 (Budget 2002-03 Paper No. 1, May 2002).
47. The additional First Home Owners Scheme ended on 30 June 2002. The projected decline in housing expenses from 2003-04 is largely due to the halting in 2002-03 of the Goods and Services Tax (GST) transitional funding provided under the Commonwealth-State Housing Agreement.
48. A strong rebound to 4 per cent is projected for 2003-04.
49. On an accruals basis, a deficit of A$ 0.5 billion is now projected, compared with a previously estimated surplus of A$ 0.2 billion. The divergence between the cash and the fiscal balance measures mainly reflects timing differences between when revenues and expenses are recognised and recorded.
50. Major initiatives include: increased spending since the Bali terrorist attacks to support the victims and their immediate families, and for enhanced security arrangements; an immunisation programme against the Meningococcal C virus; a medical indemnity insurance package; and assistance to the sugar industry to facilitate structural adjustment (Commonwealth of Australia 2002-03 *Mid-Year Economic and Fiscal Outlook*).
51. According to the State and Territory estimates, the sector's receipts and payments are forecast to return to more moderate growth over the period 2002-03 to 2005-06, after strong growth in the previous two fiscal years. New South Wales and Victoria forecast lower property revenue in 2002-03, reflecting to a large extent, the end of the down-

ward cycle in interest rates. Moreover, the New South Wales cites significant declines in payroll tax and the abolition of debits from 1 January 2002 as factors contributing to lower receipts.

52. The 2002-03 Budget embodied the assumption of a further sale of a part of the government's shareholding in Telstra in late 2003, one year before that is currently assumed in MYEFO, subject to the government being satisfied with improvements in the telecommunication services, particularly in rural and regional Australia. The government attempts to promote a greater range and quality of services in such areas including through its response to the Telecommunications Services Inquiry and appropriate regulatory safeguards. Moreover, in November 2002 the government received the report of the Regional Telecommunications Inquiry into the adequacy of services in regional areas. The Government is considering the report's recommendations.
53. On the basis of the 2002-03 MYEFO estimates, the Commonwealth government net worth in the fiscal year is expected to decline to around A$ 46 billion, compared to a budgeted A$ 44 billion, mainly due to recent declines in the Telstra share prices which led to a downward revision to the market value of the Commonwealth's shareholding in the company.
54. In line with the objective of managing the reduction in net debt, the government envisages continuing the issuance of a new benchmark Treasury Bond with a 2015 maturity, in 2002-03, which will assist in maintaining the length of the yield curve and ensure, in the longer term, a smooth progression of available stocks into the 10 year bond futures contract (2002-03 Budget Paper No. 1, May 2002).
55. The government released in October 2002 a discussion paper of the *Review of the Commonwealth Government Securities Market*, inviting submissions from interested stakeholders by 6 December 2002. To further facilitate the consultation process, a reference committee has been formulated by the Treasurer, consisting of representatives from several key stakeholder associations. The purpose of the committee is to provide assistance on issues of detail emerging from the process.
56. As it is pointed out by the Commonwealth discussion paper, the majority of State and Territory government has proceeded to the funding of a part or all of the superannuation liabilities, mainly through the allocation of an asset portfolio to the superannuation fund.
57. Submissions on the Commonwealth discussion paper support, in general, the maintenance of a market for CGS, highlighting the potential efficiency costs from its elimination. As an exception, the submission by the finance house TD Securities supports the option of widening down the CGS market arguing that the maintenance of such a market is "inappropriate" given the government's commitment for balanced budget on average over the cycle and further sales of assets. Instead, the paper highlights the "ample opportunities" for expansion and development, for both market participants and the overall economy arising from deeper and more sophisticated financial markets under such option. For public submissions on the issue see at *http://debtreview.treasury.gov.au/public_sub.asp*.
58. Norway's Government Petroleum Fund, for example, managed by the Norwegian Central Bank, is restricted to invest only in foreign financial markets so as to reduce the risk for distorting the domestic financial markets. See Mylonas *et al.* (2002) and Commonwealth of Australia (2002d), *Review of the Commonwealth Government Securities Market*.
59. Mylonas *et al.* (2000); OECD (2002a, b).
60. See OECD (1999b, 2001a) and Dang *et al.* (2001).

61. The IGR provides a framework to assess the long-term budgetary implications of current policy settings, as required by the Charter of Budget Honesty Act 1998 (2002-03 Budget Paper No. 5, May 2002).
62. The IGR projections assume current trends in government expenditure and a constant ratio of revenues to GDP. The GDP share of non-demographic spending is also assumed to remain constant over time. As a result, the projections are subject to a high degree of uncertainty. However, sensitivity analysis of the projections, with respect to changes in underlying assumptions and trends, indicates that the broad policy conclusions of the central scenario still hold (2002-03 Budget Paper No. 5, May 2002).
63. The IGR projections assume that real average costs per student and post-secondary education participation rates will increase.
64. See also Chapter III.
65. The compulsory contribution rate stands currently at 9 per cent. The effect of the SG scheme depends on the extent that compulsory contributions substitute for voluntary saving. The savings offset for compulsory superannuation impacting on low income earners is uncertain, however a study by Morling and Subbaraman (1995) of the 35 years before 1995 estimated the offset to the voluntary superannuation of higher income earners of this period at three-quarters.
66. Double dippers are estimated to be a small percentage of the retired population and there is only little evidence of a significant non-investment use of the superannuation lump-sums. To ensure that superannuation benefits are used to finance retirement income, the government has legislated a phased increase in the preservation age from 55 in 2015 to 60 by 2025. Morever, the 2001-02 Budget removed the requirement for unemployed persons between 55 and the pensionable age to draw upon superannuation while unemployed for lengthy period (OECD 2001a).
67. A simplification of the arrangements for the taxation on superannuation benefits and their treatment in the Age Pension means test could encourage individuals to take such benefits as an income stream. Limiting the value of owner-occupied housing that is exempt from the Age Pension means test, would also be beneficial in this regards. The government is considering to change the rules on superannuation benefits in order to ensure that the effective rate of tax on an excessive component of eligible termination payment is not above 48.5 per cent. This results, under current arrangements, by the combination of tax on fund earnings (including contributions), the contributions surcharge and the taxation of benefits above the Reasonable Benefit Limit.
68. See Dowrick and McDonald (2002).
69. See Madge (2000).
70. These were discussed in detail in the 1995 and 1998, see OECD (1995) and OECD (1999b) *Economic Surveys of Australia*.
71. Other initiatives included: the introduction of measures to reduce or eliminate out-of-pocket expenses of patients – known as “no gaps” or “known gaps” options. The “gap” is paid by members and is the difference between the fees charged by doctors for in-hospital medical services and the combined health insurance benefit and Medicare Benefit Schedule fee which is covered by Medicare; the exploration of cost-effective payment models for day hospital and after care facilities; treatment of chronic and complex conditions; and rehabilitation.

72. The Lifetime Health Cover scheme, introduced in the 1999-2000 Budget, operates with a threshold age of 30 years. Members who join by the age of 30 and maintain their membership are rewarded with lower premiums while those who join after the age of 30 attract a penalty of 2 per cent of their premium for every year they delay taking out hospital cover.
73. The proportion of population under private insurance increased to 44.7 per cent by end-June 2001, compared with 42.8 per cent a year ago and only 30.1 per cent in December 1998. The decline in the corresponding proportion in 2002 reflects updated population estimates released by the Australian Bureau of Statistics during 2001-02, although the number covered by private health insurance remained unchanged from the previous years, at 8.7 million people.
74. The original Bill to enact this measure was rejected by the Senate and the government reintroduced it into Parliament in November 2002. The legislation was passed by the House of Representatives on 4 December 2002.
75. The main problems of the previous tax system in Australia, the government's 1998 tax package and the modifications to the original package to get the Senate's approval were discussed in detail in the 2001 OECD *Economic Survey of Australia*.
76. The efficiency effects of the Horizontal Fiscal Equalisation (HFE), the principle upon which the GST revenue is provided and distributed to the States, remain a controversial issue. The most recent contribution has been provided by the Report of Garnaut and FitzGerald (2002), commissioned by the New South Wales, Victorian and Western Australia governments. The report estimates an increase in national welfare of A$ 169 million from a move to a system of equal per capita distribution, pointing that this amount could represent an underestimate of the potential effects. On the other hand, a national forum conducted for the study, has criticised the Garnaut-FitzGerald findings on the grounds that they rely on a number of critical simplifying assumptions. The government would be open to considering any alternative method of allocation of GST revenue agreed among the States.
77. An important case is that of "small firm exemption" the thresholds of which ranges significantly across States and Territories ("the States"). In recent years, the States have introduced adjustments to the base, thresholds and rates on which payroll tax is applied.
78. Estimates on administration and compliance costs of GST were presented in the regulation impact statement that accompanied the GST legislation. There has been an agreement between the Commonwealth and States governments on an ongoing increase in the administrative costs of the GST aiming to manage the larger than anticipated GST workloads and to increase field services and compliance capabilities. The increase amounts to A$ 184.5 million in 2002-03 rising to A$ 235.8 million by 2005-06.
79. . The simpler GST reporting options introduced in 2001 have been used only by a relative small number of taxpayers, while around 90 per cent of business that submit quarterly returns have chosen to stay with the full calculation and reporting for the year 2001-02.
80. This is reflected in the November 2001 Dun and Bradstreet National Business Expectation Survey, according to which more than 90 per cent of executives stated that they were 'comfortable' with TNTS after 16 months and that there was a decline in the amount of time companies are spending on GST administration. The May 2002 survey results of the Yellow Pages and Business Index – Small and Medium Enterprises, confirmed such sentiment with only 6 per cent of respondents citing the GST as a concern.

81. In August 1998, the government established a Review of Business Taxation under the Chairmanship of Mr. Ralph to consult with the interested parties on the broad lines of business tax reform outlined in the government's tax package, Tax Reform: Not A New Tax, A New Tax System (Commonwealth Treasury 1998). The government announced on 21 September 1999 and 11 November 1999 its response the Ralph Review of Business Taxation (OECD 2001a).

82. The previous regime resulted in a number of problems for the taxation of wholly-owned groups of companies, including tax impediments to business organisation, high compliance costs, tax-avoidance through intra-group dealings, value shifting, double deductions and double taxation (Commonwealth of Australia 2000).

83. A protocol to amend the Australia/US Double Taxation Convention was signed on 27 September 2001 (negotiations with the United Kingdom and Germany are currently under way). Legislation to give effect to the protocol has subsequently been passed by the Australian Parliament but it has yet to receive the required approval from the US Senate. The protocol will remove withholding tax on certain dividends, enabling major Australian public companies to bring profits made by their US subsidiaries back to Australia without any further tax being payable. Other amendments include an updated list of taxes covered, and a new provision dealing with interposed trusts in relation to permanent establishments (Treasure's Press Release Number 074 of 2001).

84. See Review of International Taxation Arrangements: Consultation Paper (available at *http://www.taxboard.gov.au/int_tax/index.htm*.

85. The provisions of franking credits for foreign dividend withholding tax and the introduction of foreign income accounts have been deferred pending the outcome of the review of international tax arrangements.

86. The TVM calculates taxable income on the basis of cash flows and changing assets and liabilities, with adjustments to reflect tax policy effects. Hence, the method allows tax liabilities to be based on fluctuations of a company's balance sheet, compared with the traditional method of working out assessable income, and then substracting allowable deductions.

87. The government had announced its in principle support to the recommendation of the Ralph Review of Business Taxation to introduce the TVM and associated high level rules, subject to an extensive consultation process with representatives of the business community. The Board of Taxation was requested in August 2000 to undertake this consultation process for the evaluation of TVM. The Board reported that *i)* there was no appreciable community support for the TVM concept; *ii)* there was a widespread perception that, while the TVM may offer benefits in some areas, it would generate greater complexity in others; and *iii)* adopting the TVM would result in substantial transitional costs for tax advisers and business generally.

88. A discretionary, or non-fixed, trust is one in which not all the entitlement to its income and capital are fixed. The government announced in its August 1998 statement A New Tax System its intention to tax trusts as companies. This proposal was then restricted to the discretionary trusts only, and the government released in October 2000 exposure draft legislation (Board of Taxation 2002).

89. On the basis of the Board's report, there were about 340 000 discretionary trusts used in the 1998-99 tax year, and about 1.9 million individuals (or 20 per cent of the total number of individual taxpayers) received a distribution from partnership or trust. By comparison, in the same tax year there were about 600 000 companies, 500 000 partnerships and

90 000 fixed trusts. The report notes that the use of trusts in the recent past grew at the same rate as the use of companies.

90. The Treasurer announced, on 12 December 2002, changes to law to correct deficiencies in the provisions dealing with loans from trusts, in line with the recommendations from the Board of Taxation's report Taxation of Discretionary Trusts.
91. Under the current tax regime, income amounts of discretionary trusts that are not assessable to the trustee or beneficiaries (for example, due to a tax concession) may be distributed to beneficiaries tax-free.
92. Since the early 1990s, the government has introduced a number of changes to the tax treatment of trusts, which are discussed in detail in the report of the Board of Taxation for Discretionary Trusts. Integrity provisions (the alienation of personal services income measures) were introduced, for example, in July 2000 to prevent individuals from avoiding tax by diverting income gain from their personal efforts or skills to an entity such as a company, partnership, or trust. Such measures impose restrictions on the ability of an individual to retain personal services income in an entity and on deductions which can be claimed.
93. The top marginal rate of personal income is 47 per cent (or 48.5 per cent with medical levy) compared with a top corporate income tax rate at 30 per cent.
94. An international comparison of real GDP growth is provided by Annex Table 1 of the OECD *Economic Outlook* No. 72.
95. Prima facie, the East-Asian crisis should have hit Australia particularly hard, given its greater trade exposure to the crisis-affected region than most other OECD countries. The 2000 OECD *Economic Survey of Australia*, Chapter II, attributes the Australian economy's resilience to the Asian economic crisis and the subsequent global slowdown of economic activity to the judicious mix of sound macroeconomic and structural policies. This view is supported by simulations with the OECD INTERLINK model which suggest that a major contribution to the favourable performance over the 1998 to 1999 period owes to the particular combination of expansionary monetary policy and fiscal retrenchment adopted by the authorities at the time. Its resilience to the Asian crisis gave rise to Australia being labelled as a "miracle economy" by some observers, for example Krugman (1998) and Bean (2000).
96. Focussing on potential as opposed to actual output eliminates the effects of the business cycle from the analysis.
97. Of course, the results of growth decompositions have to be taken with a degree of caution as they can be quite sensitive to the model specification underlying the exercise. However, a purely mechanical decomposition of the actual growth of real per-capita GDP into the components working-age population, participation rate, employment rate and labour productivity also leads to the conclusion that improved labour productivity was the main source of higher economic growth in the 1990s. This is illustrated in OECD (2001), The New Economy: Beyond the Hype, Figure 3.
98. Productivity cycles are defined as the intervals between productivity peaks, as identified by the Australian Bureau of Statistics (ABS). Average growth rates over peak-to-peak productivity cycles are used as indicators of underlying rates of productivity growth, hence adjusted for the effect of the business cycle. The latest productivity cycle dates from fiscal year FY 1993-94 to FY 1999-2000 and the proceeding cycle from FY 1988-89 to FY 1993-94.
99. Multifactor productivity is defined as the difference between the growth of output and those of the growth of inputs of capital and labour, suitably weighted. The capital/

labour ratio is interpreted as an indicator for the "capital deepening" of the production process. Assuming a Cobb-Douglas specification of an aggregate production function and constant returns to scale, labour productivity growth can be represented as the sum of the growth of multifactor productivity and the change in the capital/labour ratio.

100. This implies that the acceleration of average annual labour productivity growth from the 1988-89 to 1993-94 cycle to the 1993-94 to 1999-2000 period by an extra 1 percentage point – the difference between average growth rates over the two respective periods – was entirely due to the pick up in the growth of multifactor productivity, with the capital deepening component to the acceleration even being slightly negative (–0.1 percentage point).

101. This issue was already taken up in the 2001 OECD *Economic Survey of Australia*. Reference to a growth accounting exercise led to the attribution of a comparatively low share in the overall productivity gain to the heavy use of ICT in Australia in the 1990s. This left over a substantial residual in the analysis of the productivity pick up which could not be readily explained by the "new economy".

102. In Australia (like in the United States and Finland), ICT investment accounted for over 50 per cent of the increase in non-residential investment in the late 1990s.

103. See OECD (2001d), Figure 6.

104. Nicoletti, Scarpetta and Boylaud (1999) found that countries with a high price level of ICT investment tend to have a lower degree of competition, as measured by indicators of economic regulation.

105. Countries such as the US and Finland which have large ICT-producing sectors experienced a significant increase in their multifactor productivity (MFP) growth at the macro level, in part because of very large increases in MFP levels in that sector, as well as because of increased use of ICT equipment in all sectors.

106. With trade-exposed parts of the farming sector and mining being notable exceptions.

107. A brief illustration of the interaction of the use of ICT and structural reforms in the wholesale trade sector – where productivity gains were most notable in recent years – can be found in Box 3 of the 2001 OECD *Economic Survey of Australia*. It draws on the thorough analysis of Johnston, Porter, Cobbold and Dolamore (2000). Another study by the Productivity Commission (2002b) on the Australian motor vehicle industry reports on the improvements in the flexibility and productiveness of automotive workplaces through industrial relations reform which allowed less restrictive work practices, *inter alia* facilitating team-based work and multi-skilling of employees.

108. In Australia, industrial awards generally specify minimum wages and conditions of work for most categories of labour. It is, thus, illegal to employ a worker at a wage or on terms which are less favourable than the relevant award, irrespective of whether a worker is a union member or not. Awards are oriented towards occupations and industries rather than individual workplaces, and many firms are still covered by multiple awards. The terms of awards may be reached by a settlement imposed by the Australian Industrial Relations Commission or similar industrial tribunals by the states, by a combination of conciliation and arbitration, or by conciliation alone. The central role played in the past by industrial tribunals in determining wages and employment conditions was based on the premise that it was in the public interest that the state intervened on an ongoing basis in the employer-employee relationship. See Wooden (2000).

109. For more details on industrial relations reforms, including the different types of collective (certified) and individual enterprise agreements employees (Australian Work-

place Agreements) provided by the WRA, see both the 2000 and 2001 OECD E*conomic Surveys of* Australia, Chapters III.

110. These figures only refer to the role of awards in setting wage and salary increases and must not be taken as indicator for their role in influencing employment conditions in general. If agreements which are "add-ons" to awards are included, then award coverage is much higher, possibly over 80 per cent of the labour force.
111. There are uncertainties as to the beneficial effects of formalised individual bargaining on performance at the workplace level, especially if individual arrangements promote competitive behaviour within workplaces which could foster non-co-operative relationships.
112. Wooden, Loundes and Tseng (2002).
113. The Commonwealth government assumes in the projections of its Intergenerational Report 2002-03 (Budget paper No. 5) that, in response to labour market reforms, the NAIRU will decline to 5 per cent within a few years.
114. See the OECD (2001), Growth Project Background Papers, Vol. I-III, a summary of the main conclusions from this study in OECD (2001), and a summary of the analytical studies in OECD (2003), The Sources of Economic Growth in the OECD Countries.
115. Details on the estimation technique and the variables used are laid out in OECD (2003), The Sources of Economic Growth in the OECD Countries. Supplementary estimates and details on the model selection process for different specifications and sensitivity analysis can be found in Bassanini, Scarpetta and Hemmings (2001).
116. Only the coefficients for the United States, Canada and Switzerland turned out slightly higher.
117. The regressions also show that Australia outperformed the predicted per capita growth by a substantial margin (the residual country-specific effect), which may be attributable to the effects of structural reforms since the mid-1980s.
118. See also the discussion in Parham (2002a).
119. The "allowable matters" set out in the Workplace Relations Act are the following: classifications of employees and skill-based career paths; ordinary time hours of work, rest breaks, notice periods and variations to working hours; rates of pay (such as hourly rates and annual salaries), rates of pay for juniors, trainees or apprentices, and rates of pay for employees under the supported wage system; piece rates, tallies and bonuses; annual leave and leave loadings; long service leave; personal/carer's leave, including sick leave, family leave, bereavement leave, compassionate leave, cultural leave and other like forms of leave; cover parental leave, including maternity and adoption leave; public holidays; allowances; loadings for working overtime or for casual or shift work; penalty rates; redundancy pay and notice of termination; stand-down provisions; dispute settling procedures; jury service; type of employment, such as full-time employment, casual employment, regular part-time employment and shift work; superannuation; pay and conditions for outworkers; provisions incidental to the allowable matters and necessary for the effective operation of the award.
120. For examples of the practice of pattern bargaining in the construction industry and its potential productivity-reducing effects see Productivity Commission (1999c).
121. For example, in the 2000-2001 period, more than 5 160 agreements with identical wage and wage-related provisions, covering more than 68 000 employees, were identified, and 5 280 pattern agreements with identical employment condition, covering nearly 72 000 employees.

122. Protected action means that it is exempt from civil liability. Unprotected industrial action is any action which occurs outside of a bargaining period.
123. Workplace Relations Amendment (Secret Ballots for Protected Action) Bill 2002 [No.2].
124. Workplace Relations Amendment (Improved Remedies for Unprotected Action) Bill 2002.
125. See the OECD *Jobs Study* (1994), Part II, Chapter II, and OECD (1999), *Employment Outlook*, Chapter 2, and OECD (2001), Innovations in Labour Market Policies – The Australian Way.
126. The minimum severance pay standard in most awards provides for 8 weeks pay for individuals retrenched after 4 year's service (lesser payments apply for shorter periods of service). Some awards and many agreements provide more. There is also a facility for orders for severance pay pursuant to the ILO's Termination of Employment Convention (C158).
127. The ABS (Small Business in Australia, 1999, ABS Cat. No. 1321.0) defines small businesses as businesses employing less than 20 people; they account for about half of total employment.
128. In July 1999, in the Survey of Investor Confidence of the Australian Chamber of Commerce and Industry (ACCI) about 54 per cent of small businesses indicated that they might have hired more staff had it not been for the unfair dismissal laws. ACCI's Pre-Election Business Survey of November 2001 found that small businesses ranked unfair dismissal laws as the fifth most important problem facing them. Concern about unfair dismissal legislation was also expressed in the Small Business Survey Programme on Employment Issues by the Certified Practising Accountants Australia, although only 5 per cent of the respondents considered the law a major impediment to hiring new staff. The results of this survey also revealed a high degree of false perceptions of the unfair dismissal legislation among small businesses, in spite of the Government's various educational initiatives on the subject.
129. See Wooden, Loundes and Tseng (2002).
130. OECD (2003), The Sources of Economic Growth in the OECD Countries.
131. Some public employment service functions continue to be run by the government.
132. The Work for the Dole labour market initiative was announced in the 1997-98 Budget. It aims to involve young job seekers in a work environment and give them the chance to engage with the community rather than being isolated from it. Participation in a Work for the Dole project involves a six month commitment of up to 30 hours per week. Work for the Dole services are managed by Community Work Co-ordinators, who are contracted by the Department of Employment and Workplace Relations to arrange projects with community groups or local government agencies.
133. See the evaluations by the OECD (2001e), the Department of Employment, Workplace Relations and Small Business (2000, 2001) and the Department of Employment and Workplace Relations (2002a), and the references to various other studies given there.
134. The Government Response to the Productivity Commission Independent Review of Job Network (2002a) is available on *http://parlsec.treasurer.gov.au/parlsec/content/publications/2002/JobNetwork.asp*
135. Poverty traps can be avoided by providing 'in-work-benefits'. For a discussion of possible options, such as easing income tests, or introducing an Earned Income Tax Credit scheme or a negative income tax, see for example, OECD (1999a), OECD (2001a), Disney (2000), and Ingles (2001).

136. An Interim Report was issued in March 2000 (RGWR, 2000b).
137. Over the period 1969 to 1999, the proportion of working-age population receiving income support has approximately quintupled, rising from 4 per cent to 21 per cent. The expenditure on income support, (excluding age pensions) as a per cent of GDP, increased from 1.3 per cent to 4.7 per cent over the period.
138. Another important initiative includes the reduction of the maximum rate of taper from 100 per cent to 70 per cent, as part of the "Working Nation" reforms to Newstart allowance in 1995.
139. A way of illustrating the disincentive effects of high METRs is considering increments to net income from a A$ 100-a-week increase in private income. In June 2001, for example, a single allowee (with no children) would face an METR of 80 per cent on incomes between A$ 100 and A$ 200 a week, and 78 per cent on incomes between A$ 200 and A$ 300 a week. The METRs can reach 93 per cent for families with four children, and over 100 per cent in case that there are dependant students, as means tests for different benefits sometimes overlap (Whiteford and Angenent (2001).
140. Department of Family and Community Services (2000).
141. Training credits of up A$ 800 will be granted to people who undertake Work for the Dole or Community Work. Training Credits form a comprehensive programme of work experience and training for unemployed people that can be used to cover the cost for a wide range of competency and accredited courses.
142. Specific measures to improve employment opportunities include extra Job Search Training places, more Work for the Dole places, new opportunities for community work, and enhancements to Intensive Assistance. In addition, Training Accounts for participating eligible indigenous and mature-age job seekers are available to help them paying for training. The new initiatives further include a new Transition to Work programme aiming to assist parents, carers and mature age people who move into work.
143. From July 2002, job seekers aged 18 to 39 years are required after six months of unemployment, and at least annually thereafter, to undertake an activity (community work, part-time work or study), with the Work for Dole being the default for those not having chosen an activity by themselves. Job-seekers aged 40 to 49 years are not required to undertake Work for Dole. For this group, the default is referral to a Community Work Co-ordinator. No changes to activity requirements apply to job seekers aged 50 and over (Budget 2001-02 Paper No. 2, May 2001).
144. To further improve participation, the AWT reform package incorporated a simplification of income test rules for working age pensioners and Parenting Payment recipients. Changes will also make it easier for people to get back onto welfare payments after taking up short-term work or whose job ends soon after they have stop receiving the payment. Also, a Literacy and Numeracy Training Supplement was introduced to help meet such costs as travel to courses (Budget 2001-02 Paper No. 2, May 2001). The changes to participation requirements for people receiving parenting payments and the introduction of the working credit will require legislative change.
145. Income recipients will accumulate credits (up to a maximum of A$ 1 000) in fortnights in which they have their income falls short of the A$ 48 threshold. In any fortnight that earned income exceeds the current test free area (A$ 62 per fortnight for Newstart recipients, and A$ 106 per fortnight for single working age pensioners, without children), this credit can be drawn down allowing earnings to be retained in full until the credit is exhausted (OECD 2001e). The implementation of the initiative has been

deferred to April 2003, from September 2002, as part of a wider strategy to ensure people understand the measure and take full advantage of it.

146. The government will provide funding of A$ 3.3 billion over three years beginning on July 2003 for arrangements associated with the Third Employment Services Contract.

147. Job seekers will receive Intensive Support after 3 months of unemployment, including job search training and lodgement of vocational profiles on the Australian Job Search Site allowing for automatic job matching. Intensive support is a professional employment service, under the AWT package, that provides individualised assistance to job seekers who have had, or are likely to, experience difficulty in getting a job.

148. The 2002-03 Budget envisaged a phased implementation of the new measure. Specifically, the new eligibility criteria would apply to all new DSP applicants from 1 July 2003. People who are currently receiving DSP (apart from those who are severely disabled or are within five years of Age pension age) would also be subject to the new criteria within five years of implementation (Budget 2002-03 Paper No. 2, May 2002).

149. Moreover, the bill provided for those who are not subject to new arrangements and do try out work of 30 hours or more a week, but find they cannot maintain this, to move back onto DSP under the current rules within a two year period.

150. This estimate is based on revised Disability Reform Bill (No. 2)

151. The government released in December 2002 a consultation paper on the next steps of welfare reform, inviting for submissions until 20 June 2003. An important issue in the paper is a possible reform of the structure of the current income support payments system for working age people ("Building a Simple System to Help Jobless Families and Individuals", available at *www.facs.gov.au*).

152. State and Territory governments have much of the responsibility for running schools and vocation and training programmes, and have often taken the initiative for reforms in their jurisdictions. One change in recent decades has been stronger emphasis on national approaches to assessing performance and qualifications, and the programmes discussed below are at Commonwealth level.

153. The survey was conducted in the framework of the OECD-sponsored Programme for International Student Assessment (PISA) for 2000. PISA assesses the performance of 15-year old students in three domains: reading literacy, mathematical literacy, and scientific literacy. The major focus for the 2000 study was reading literacy, with the other two domains planned to be the focus in 2003 and 2006, respectively. Australian students, on average, performed consistently well in all of the three assessment domains. In "combined reading literacy" only one country had a mean achievement significantly higher than Australia's. PISA defines as "combined reading literacy" the ability to understand, use, and reflect on texts in order to participate effectively in life (OECD, 2001c).

154. The findings of PISA (2000) suggest a relatively high overall variation in "combined reading literacy" performance (with 112 per cent of the OECD average between-student variation), with differences between schools accounting for a comparatively small proportion (21 per cent of the OECD average of student variation).

155. See Sweet (2001).

156. An additional important initiative includes the introduction in 1998 of the National Training Framework ensuring the quality and national consistency of the VET system, enhancing the industry-relevance of training assessment and removing the rigidity of previous curriculum approaches. See OECD (2001), *Economic Survey of Australia*; OECD

(2001), Innovations in Labour Market Policies: The Australian Way, and NCVER (2001a), Facts, Fiction and Future.

157. The New Apprenticeships programme was set out in 1998 to create a unified framework for the traditional four-year apprenticeships (in areas such as manufacturing, construction and public utilities), and the shorter- duration traineeships. The traineeship-type training, introduced in 1985, was originally mainly for 15 to 19 year-olds in services and white-collar areas, but was subsequently expanded to older workers and most industries. For a discussion see OECD *Economic Survey of Australia* 1999 and 2001, OECD (2001) Innovations in Labour Market Policies, and OECD (2002) *Employment Outlook*.

158. Another difference between Australian and European apprentices is that most of the growth in Australia in recent years has been concentrated in the 20+ age group. Only 6 per cent of 15-19 year old Australians were in apprenticeship/trainee schemes, compared with 70 per cent in Germany and Switzerland, and 40 per cent in Austria (NCVER, 2001b).

159. Trade and related occupations make up 38 per cent of New Apprentices in training but represent 15 per cent of all jobs in Australia.

160. The non-completion rate for trainees has averaged about 40 percent since 1985, rising to 45 per cent in recent years. Apprenticeship no completion rates are lower, at the order of 23 to 30 per cent (NCVER, 2001a). Research indicates that non-completion of New Apprenticeships in Australia is at a level similar to workplace mobility generally.

161. See EWRSBE (2000); and OECD (2001e, 2002*c*).

162. These contracts require that the employer agrees to provide facilities and expertise to assist the training of the New Apprentice in an agreed qualification. This may include specific on-the-job training, mentoring or time off to attend formal training. The Commonwealth commencement incentive is only granted after three months upon evidence that a training plan is in place and that the training has started. Moreover, the New Apprenticehips are encompassed by the Australian Quality Training Framework, which establishes audible standards both for training providers and for registration of the courses.

163. Of those participating in the New Apprenticeship scheme, 45 per cent are in low-skill service or labouring occupations.

164. In 2001, around 81.5 per cent of New Apprentices undertook an AQFIII programme (which is of equivalent level as traditional apprentices were in the past).

165. Over 94 per cent of Australia's secondary schools are currently offering VET programmes to their senior students, though a 1998 survey indicated that only 10 per cent of 15-19 year olds were enrolled in VET programmes. In 2001 over 169 000 school students undertook programmes that could lead to Certificate I, II, or III qualifications, as well as a senior secondary certificate. Over 10 000 school students undertook New Apprenticeships in 2001, of whom 5 755 were new commencements (ANTA, 2001).

166. ECEF replaced the former Australian Student Traineeship Foundation (ASTF) in February 2001. Building upon ASTF, it assists students to acquire vocational, enterprise, and career education and experience before they leave school.

167. Complementary measures to help young people make successful transitions to working life or further education include an online career exploration and information service, as well as The Real Game, an experimental career game.

168. The findings of PISA (2000) suggest that socio-economic background factors account for 16 per cent of within-school variation in Australia, and 64 per cent of between-school

variation, standing in both cases above the OECD average. Other areas of concern, on the basis of the PISA results, include the relatively low performance of boys in reading, particularly in relation to narrative texts. Boys from disadvantaged backgrounds were twice as likely as girls from similar backgrounds to be in the lowest quarter of reading scores. Overall, the findings suggested that boys were much less engaged in reading than girls. The relatively performance of Indigenous students – in all three assessment domains – is another area of concern. Although the above groups' performance was lower than the average, there were many individuals with good to very good results.

169. The rate of private internal return represents a measure of the returns obtained over time, relative to the cost of the initial investment to education. It is expressed as a percentage and is analogous to percentage returns from investing in a savings account. The estimations treat the costs of study, including foregone earnings, as the investment; and the gains in post-tax earnings above those school-leavers as the pay off. The estimates suggest that the comprehensive private internal rate of return to tertiary education ranges from 6.5 per cent in Italy to 17.3 per cent in the United Kingdom. The corresponding social rates of return range from 4.2 per cent in Denmark to 15.2 per cent in the United Kingdom. Australia was not covered by the sample (OECD, 2002d).

170. Similar conclusions apply to the returns to investment to upper secondary education. *Ibid*.

171. See Commonwealth of Australia (1993).

172. Most State and Territory governments maintain competition units and have appointed independent pricing regulators.

173. The National Competition Council is an independent authority, which provides national oversight of the NCP in order to "help raise the living standards of the Australian community by ensuring that conditions for competition prevail throughout the economy which promote growth, innovation and productivity".

174. This Act also formed the Australian Competition and Consumer Commission (ACCC), which is an independent statutory authority whose main tasks are to administer the Trade Practices Act and Prices Surveillance Act.

175. Three agreements signed by Australian governments in 1995 establish the National Competition Policy: the Competition Principles Agreement, the Agreement to Implement the National Competition Policy and Related Reforms, and the Conduct Code Agreement.

176. The National Access Regime has been reviewed by the Productivity Commission (2001b) with the conclusion that retention of it is warranted but that some significant changes to its current arrangements are required. The proposed amendments seek to facilitate efficient investment in essential infrastructure and to ensure that the access regime is better targeted and more workable. The Government's response to the review will be finalised after consultations with jurisdictions. An interim response is at *www.treasurer.gov.au/tsr/content/publications.asp*

177. See the discussion in the 2001 OECD *Economic Survey of Australia*, Chapter III.

178. The study of the professions by the National Competition Council (2000), in particular legal services and health and pharmaceutical services, identified a range of anti-competitive restrictions related to entry-qualifications, registration requirements, reservation of title or practice, disciplinary processes and conduct of business rules.

179. An interim response is at *www.treasurer.gov.au/tsr/content/publications.asp*

180. Short, Swan, Graham and Mackay-Smith (2001).
181. Similarly impressive savings are reported in Victoria's 2001 NCP Annual Report.
182. Electricity prices relative to the CPI.
183. Productivity Commission (2002c).
184. Australian Pipeline Industry Association (2001).
185. This has been discussed in the special chapter on "Enhancing environmentally sustainable growth" in the 2001 OECD *Economic Survey of Australia*, and is discussed below in the "sustainable growth" section of this Chapter.
186. Technical efficiency refers to the ability of railway management to produce outputs with a given set of inputs. It is computed, where possible, by accounting for all factors affecting productivity.
187. Australia's rail system is estimated to have achieved a technical efficiency of 69 per cent of best practice (United States, Canada and Japan, Ireland and Luxembourg).
188. Part XIC of the Trade Practices Act 1974.
189. There are a number of other obligations ensuing from the National Competition Policy that the Commonwealth has not met so far. These relate to restrictions on competition in health insurance arrangements, broadcasting and radio-communications legislation, export marketing arrangements for wheat, and automotive and textile, clothing and footwear tariff arrangements.
190. The Government had proposed measures to reduce Australia Post's reserved service and to open the postal market to increased competition in response to the NCC's review of the Australian Postal Corporation Act (1998). However, draft legislation to this effect was withdrawn from the Parliament in early 2001 as it did not attract the support necessary for passage.
191. Banks (2001).
192. A study of the Industry Commission (1995) suggested that the full implementation of the National Competition Policy alone would raise the level (not growth) of annual real GDP in the long run, once all adjustments have taken place, by 5½ per cent.
193. Empirical evidence for the contribution of financial development to economic growth through its effect on the level of investment – even in the case of countries with relatively high income levels – can be found in Pelgrin, Schich and de Serres (2002). For evidence on the links between financial development and growth over and above the links *via* investment, indicating impacts *via* overall economic efficiency see Leahy *et al.* (2001) and the references therein. Research by Rajan, R. G. and L. Zingales (2000) emphasises the particular importance of efficient financial systems for economic growth in countries which are less open to international trade and capital flows.
194. The reforms are based on the recommendations of the Financial System Inquiry (1997), chaired by Mr. Stan Wallis and widely known as the "Wallis Report". A brief overview is given in the 1999 OECD *Economic Survey of Australia*, Chapter III.
195. "Long-tail" insurance involves considerable lags between a claimable incident and the settlement of the claim, and contains uncertainties over the amount, timing and potential length of pay-outs.
196. Commonwealth of Australia (2002), Compensation for Loss in the Financial Services Sector, Issues and Options, *www.treasury.gov.au/contentitem.asp?pageId=&ContentID=402*

197. Features of CLERP were already discussed in the 1999 OECD *Economic Survey of Australia* in the context of the special chapters on Corporate Governance (Chapter IV) and on Entrepreneurship (Chapter V).

198. Such concerns led the OECD Ministerial Council to suggest that, as from the end of 2001, sustainable development should be integrated into *Economic Surveys* of the OECD.

199. Indeed, the median gross income of elderly couples was only just above one third of the median income of couples aged from 15 to 54, while less than one in four elderly couples had an income above 50 per cent of the median income of younger couples. However, the income level of younger couples needs to be lowered to allow for the fact that they have children.

200. Government benefits provide 90 per cent of the income for 45 per cent of people over 65.

201. This agreement resulted in a national wage award being reduced and the amount of the foregone increase being paid by employers into superannuation funds.

202. The Government announced in 1996 its intention to allow employees earning less than A$ 900 a month to opt out on a voluntary basis. Legislation to implement this policy has not been introduced into Parliament.

203. For a discussion of this regime see Galer (2002) and for its application to Australia, see Bruner (2002).

204. Under an expenditure tax, income from capital is only taxed when it is consumed, rather than when earned, as would be the case with an income tax. In most OECD countries, retirement saving is accorded such an expenditure tax treatment either by taxing contributions or benefits (but not both) as income and by exempting the capital income of the savings vehicle.

205. This is achieved by taxing contributions and benefits at 15 per cent (subject to a large tax-free element), while taxing the income of retirement saving funds at an effective rate of under 10 per cent.

206. Actual income from capital is not taken into account, rather an income is calculated based on an imputed rate of return of 5 per cent, representing a marginal wealth tax of 2 per cent.

207. For a single homeowner the threshold is A$ 145 250 (about three times average annual earnings). This is roughly equivalent to the present value of the age pension at retirement.

208. Whiteford and Stanton (2002).

209. In December 2002, the government announced that the tariff on autos would be lowered to 5 per cent by 2010. Clothing tariffs are already planned to fall to 17.5 per cent by 2005.

210. Simons (1997).

211. Such salinity is markedly different to wetland salinity. Dryland salinity stems from reduced water use while wetland salinity results form increased water use.

212. A sustainable yield for surface water is the amount that can be diverted from a river after taking into account the environmental needs of the river basin.

213. In many areas, water rights account for 70 per cent of land values.

214. Much of this and the following sections is based on DIMIA (2001a).

215. International comparisons are highly imprecise because of different statistical definitions. For example, in the case of Luxembourg (this is also true of Germany and some other European countries) foreigners are recorded as those with foreign citizenship, whereas in Australia many of the foreign-born have taken Australian citizenship and would not show up using the Luxembourg definition. On the other hand, some foreign citizens in Luxembourg were born there.

216. Australia became a self-governing federation in 1901, and in that year about 13 per cent of the total population, and over half the overseas-born, had been born in the United Kingdom or Ireland.

217. The next *Economic Survey of New Zealand* will include a chapter on migration.

218. The gain is not the sum of the two net figures for permanent and long-term temporary, because some people included in figure for permanent arrivals may be "category jumpers" included also in the long-term temporary figure. Thus in 1999-2000 net permanent arrivals were 51 000 and net long-term temporary arrivals were 56 000. An adjustment for the 2001-2002 data is not yet available and no data on flows are available for 2000-2001 due to computer system problems.

219. This "back of the envelope" calculation is based on a population aged 15 of some 250 000.

220. While Australia has better data on migration flows than most countries, problems remain. The numbers in this paragraph mostly refer to those from the arrivals and departures data based on border controls. This is different from the immigration visa data (which cannot, for example, pick up departures). In recent years, for example, visas granted for permanent or long-term (over one year) stay exceeded the number of recorded long-term entries by as much as 20-30 000. The main explanation is thought to be visas granted to people already in Australia recorded as "short-term" entries.

221. See Hugo *et al.* (2001). Data for departures are based on a question on the card for outgoing passengers, enquiring if they are leaving permanently. For 2001-2002 21 per cent, 17 per cent and 16 per cent of around 50 000 departures were for the United Kingdom, United States and New Zealand respectively; Singapore and Hong Kong accounted for 7 per cent and 6 per cent respectively.

222. All non-Australian entrants are required to have a visa. New Zealand citizens are automatically issued a visa upon arrival, which entitles them to settle and work in Australia (though not, in itself, to the full range of social security and other government transfer schemes).

223. The website of the Australian Immigration Service, *www.immi.gov.au*, has complete descriptions.

224. For example, applicants for points based entry must be under 45 years of age and have good ("vocational") English language skills.

225. An immigrant must register for courses within 3 months of being granted a visa and commence tuition within 12 months. The 510 hours must be taken within 3 years of the visa being granted. Humanitarian and other immigrants have the same entitlement to tuition; eligibility depends essentially on the applicant having a low (below "functional") level of ability in English. Tuition includes material on getting jobs, housing etc. Highly-skilled immigrants and those granted visas under the employer nominated scheme should already have sufficient English and are not eligible for the AMEP, their dependants may be eligible but would be required to pay a fee.

226. See Auditor General's Audit Report No. 40 2000-2001 on Management of the AMEP Contracts (Australian National Audit Office (2001)). Only 11 per cent of people exiting from AMEP do so with "functional English" (highest level aimed at under the course). On average only about 80 per cent of the time is used. On average 70 per cent of eligible people enrol (58-90 per cent for humanitarian, 60-65 per cent of family visa holders (1998, 1999 figures). The cost of the programme in 1996-97 was A$ 98.6 million, A$ 2 531 per participant (2000-2001 prices); in 1999-2000 the programme cost A$ 93.9 million, A$ 2 612 per participant, although the programme had by then been contracted out in an effort to reduce costs. Some 14 000 people exited AMEP programmes in 2000-01.

227. The Government also funds language tuition and assistance for school-age immigrants (humanitarian and non-humanitarian) to make the transition into Australian schools. Other programs specifically designed for integration of newly arrived humanitarian and non-humanitarian immigrants provide information about, and referral to other services, support the development of ethnic communities' capacity for self-help and assist other services to be more able to meet the needs of clients who are immigrants.

228. Few recent immigrants report racist sentiment as an element to dislike in Australia. Richardson *et al.* (2002) report that less than 7 per cent of immigrants find the resident population either racist or unfriendly (*i.e.* the two responses taken together), while almost 40 per cent of respondents cite the friendly population as a reason for liking Australia.

229. Vietnamese concentrations in Sydney, and a number of earlier concentrations, are initially due to the location of migrant hostels, perhaps reinforcing a tendency for the low-skilled or low-incomes groups, arriving without jobs, to concentrate more than others. Many migrants in "Vietnamese" areas are of Chinese origin, though having arrived from Vietnam. Other Chinese do not concentrate in these areas. (Jupp, 1995).

230. According to Jupp (1995), this tendency has been less strong in Australia than in other immigration countries, in part due to early opposition of the authorities to such concentrations. The author notes a refusal by the New South Wales government to give public assistance to a group of destitute Italians in 1881 if they attempted to settle together: "the customs of the country and other circumstances render it undesirable, indeed almost impossible, for them to settle down altogether in one locality. Even if this were practicable it would not be for their own good to do so." (Address to the Italian Immigrants, Sydney, 21st April 1881, reported in Jupp, 1995). Nevertheless, in 1991 there were 21 local government areas of 687 Australia-wide (9 in Sydney, 10 in Melbourne and 1 in Brisbane) where over 45 per cent of the population spoke a language other than English at home. None of these areas are dominated by any one language group, however (see Jupp, 1995; Table 5). A quarter of a million people, about 5 per cent of the population, live in these 21 districts.

231. For existing residents, concentrations of immigrants, particularly where incomes are low and unemployment is high, are sometimes viewed as bad in themselves, perhaps through association with crime or cultural hostility. These issues are outside the scope of this chapter.

232. Often interpreted as including future immigrants, although this renders the concept logically unclear.

233. In the past the Immigration Department had a large research section. From 1996 this was largely closed down and its work contracted out to the private sector and academia. Most research work on migration issues in Australia is financed under DIMIA projects, often with tightly-specified terms of reference.

234. By contrast, those whose main motives for migrating to Australia are explicitly economic are in a minority and less than one in six non-humanitarian migrants express dissatisfaction with life in their country of origin. About one quarter of immigrants say they were seeking "better employment opportunities" and about one sixth cite "dislike of economic conditions" in their country of origin. "Joining family", "better future for family" (which might, however, be thought of as including some economic considerations) and "other *e.g.* lifestyle, climate" are each cited by around one half of immigrants (Richardson *et al.*, 2002).

235. The Business Council of Australia (BCA), for example, would like to aim for a trend GDP growth rate of 4 per cent. Anticipating labour productivity growth of 3 per cent, it calculates that net immigration needs to be of the order of 130 000 people per year, rising to 180 000. At around 1 per cent of the population per year this is a much higher figure than in recent years (the current planned Migration Program of between 100 000 and 110 000 and Humanitarian Program of 12 000 of 110 000 are gross targets, to which estimated net inflows of New Zealanders and of long term temporary visa holders need to be added and from which emigration of around 30 000 needs to be deducted to compare with the BCA figure), though comparable with levels for much of the first two post-war decades.

236. The fact that this includes a quite comprehensive set of minimum wage agreements may explain the relative lack of concern expressed about a possible effect on wages.

237. As noted above, recent work shows that Australians leaving to live abroad are somewhat more highly skilled than immigrants (Hugo, 2001).

238. In recent years, the importance of temporary migration has increased considerably. It is likely to be much more sensitive to short-term labour market conditions than is permanent migration. Rapid growth in temporary inflows in the 1990s may have been a consequence of permanent programme not being expanded significantly as unemployment fell, unlike in the second half of the 1980s.

239. For a survey of literature on a number of countries (not including Australia), see Friedberg & Hunt (1995), for some evidence on Australia see Withers and Pope (1985). A recent paper, Borjas (2002), suggests that the "expected" negative impact of immigration on wages can be detected systematically, at least in the United States, provided biases due to the endogenous responses of native-born labour and earlier immigrants (such as their own decisions to migrate internally) can be controlled for.

240. See, for example, Tian and Shan (1999), Pope and Withers (1993).

241. Some studies allow for this endogeneity, but the range of results does not seem to be very different.

242. Other reasons include the relatively small variation in migrant flows compared with the size of national labour markets in most countries and difficulties in taking appropriate account of factors such as the skill level of migrants.

243. The categories identified in the ABS survey *Labour Force Status and Other Characteristics of Migrants* are: New Zealanders; Refugees; Family sponsored; Employer sponsored; Sponsored by other organisations; Unsponsored; all others. Employer sponsored immigrants had a lower unemployment rate than the unsponsored, but it was not statistically significant.

244. Strictly speaking, for immigrants from countries where immigrants to Australia typically have low English language abilities, since census data do not show English-language ability itself.

245. See Birrell and Jupp (2000), Table 4.

246. Econtech (1998) table 3, scenario 3 less scenario 1.

247. The Econtech model has a detailed treatment of labour productivity and activity rates according to skill levels and other characteristics. It uses a skill index based on the link between the qualifications and profession of a migrant and the earnings typically associated with them in Australia. This is unlikely to predict the earnings of an individual very accurately but is perhaps sufficient for looking at large groups.

248. It might be noted that this focus on per capita consumption – adopted because the government asked Econtech to focus on living standards rather than output – might modify the *a priori* conclusion on the effect of the overall migration programme. That is, migration increases per capita consumption by much less than per capita output, because it increases overall investment needs and because the average migrant does not bring as much wealth as already possessed by the average Australian.

249. Per capita consumption in Australia could fall but everyone involved actually have higher consumption than before or, conversely (but less likely), there could be a rise in per capita consumption in Australia even if both immigrants and existing residents were worse off. The first case would arise if immigrants' incomes were very low before arriving in Australia, and then rose while their level remained much lower than the Australian average, while incomes of existing residents rose only a little. The second would occur if immigrant were initially better off than existing residents in Australia but their incomes fell on arriving in Australia (remaining above the average in Australia) while incomes of existing residents fell slightly. The second scenario is obviously very unlikely and the first may be unreasonable too, they are quoted merely to show that a rise in average per capita consumption or GDP in Australia is neither necessary nor sufficient for migration to be "beneficial".

250. This might also be thought to include the resource rent from resource-based industries (which may include tourism as well as the extractive industries). If their long-run output is independent of population, a higher population (whether from immigration or natural increase) reduces per capita incomes. Although this argument is sometimes made, it seems unlikely that it is a very important phenomenon. Extractive industries provide only a small part of Australia's GDP, while the "output" and rent from the tourist industry is likely to increase as more labour is applied rather than being fixed and divided among a larger number of beneficiaries; although one can imagine a limit at some point if population grew so much that the wide open spaces and coastline were seriously diminished or overcrowded with visitors, this limit seems a long way off.

251. Although the image of Australia may be one of wide open spaces and plenty of land to exploit, the population is overwhelmingly urban (and was highly urbanised even at the beginning of the twentieth century) and new immigration goes almost entirely into existing urban centres, so any economies of population scale would have to arise either from the advantages of clustering or market-size considerations.

252. The Secretariat has not conducted econometric investigation in this area, but the conclusion can often depend on the null hypothesis: the null of a homogeneous aggregate production function may not be easily rejected by the data. But if the null hypothesis is that the scale elasticity may differ from unity, then the best estimate may well be that it exceeds unity.

253. Garnaut (2002) argues that the apparent problem of overcrowding in Sydney is less to do with any real overcrowding than with visibly high rates of unemployment and low incomes of certain migrants concentrated in particular parts of Sydney. He argues that

this problem is at least partly due to Australian labour market institutions that generate higher unemployment rather than lower wages when the supply of low skilled labour increases.

254. See Vourc'h and Price (2001) and the Sustainable Development section of this *Economic Survey*.

255. Based on a trade off between positive externalities diminishing with population growth, and negative externalities increasing.

256. One set of theoretical literature discusses a "migration surplus" that arises as new immigrants increase the labour supply, driving down wages of existing residents who compete in the labour market with immigrants, but increasing returns to owners of capital. Such models, which become complicated when capital flows are introduced, are probably of limited application to Australia. Nevertheless, they do suggest that while the gains from immigration generally outweigh the losses, the distributional effects are large relative to the overall gains. See, for example, Borjas (1999).

257. But see Viviani (1996) who notes that, although certain suburbs contain high concentrations of, for example, Vietnamese, this is not the same as saying that this experience is typical for Vietnamese immigrants, two thirds of whom are geographically dispersed and relatively mobile. Many of those who are concentrated in disadvantaged areas are those who are relatively unskilled, older or with poor English abilities, and consequent high unemployment, characteristics shared with other inhabitants of these areas.

258. See Chiswick *et al.* (2002), who find some evidence (though at the margin of statistical significance) for Australia that "living in an immigrant/ethnic concentration area appears to raise the occupational status of immigrants..."

259. High property prices in Sydney are of course a consequence of wealth as much as of population pressure. However, if a disproportionate number of the high-income immigrants increasingly targeted by immigration policy are attracted by Sydney as the business and financial centre of the country, and if concern for the environment restricts the supply of land for new housing, the likely consequence would be property prices rising faster than elsewhere in the country with a resulting tendency for existing property owners in Sydney to "cash in" at some point and move away.

260. The opposite is true in a few countries. Some discussion of this can be found in OECD (2002).

261. And is perhaps the most obvious manifestation of "multicultural Australia".

262. Such migrants are monitored after their arrival. If they are deemed not to have engaged in sufficient business activity within three years, their visas may be withdrawn. In 2000-01 439 such visas were withdrawn, while 7 364 were granted. (McClaughlin and Salt, 2002).

263. See *www.immi.gov.au/facts/27business.htm*. OECD (2001) notes survival rates after four years for startup firms of between 40 and 60 per cent across a number of OECD countries (not including Australia). The data from the Australian survey does not indicate whether migrants have had any business failures and started again but, although it is not clear how much allowance should be made for this, the outcome still seems relatively good.

264. Per capita public debt would nevertheless be affected in general.

265. However, the figures shown for periods longer than 4 years after arrival are estimates and extrapolations since the LSIA data do not extend that far.

266. See, for example, Auerbach and Oreoupoulos (1999), who consider the fiscal impact of immigration on existing residents in the United States using a generational accounting approach. Note that their study shows there is not necessarily a simple answer to the question as to whether immigration is fiscally beneficial or not to existing residents; the answer may depend on assumptions about the existing debt burden and economies of scale in public service provision.
267. Although few immigrants are over 45 compared with the existing population, there are also relatively few immigrant children, and on average, the foreign born have fertility rates very similar to the Australian-born population (see Abbasi-Shavazi, 1998 quoted in Kippen and McDonald, 2000).
268. Rod and Murphy (1997) quoted in Hugo (2002).
269. Both the credits and debits items in the relevant parts of the balance of payments are likely to be underestimates of flows which are likely to continue, at some reduced level, after migrants cease to be treated as migrants in the payments statistics.
270. A 1990 study "Immigration, Trade and Capital Flows" (Bureau of Immigration Research (1990)) entirely ignored these aspects of the issue, concentrating on the potential impact of changes in migration on supply and demand but with no account taken of the possible impact of the geographical origin of immigrants.
271. See Rod and Webster (1995). The authors investigate the use made of the cultural and linguistic skills of persons from East Asia by exporters of food and beverages to Asia. It was found that relatively few successful exporters made use of these skills in their employees, although those that did agreed that this aided export efforts. Kipp, Clyne and Pauwels (1995) also argued that linguistic skills were under-utilised.
272. An informal comparison of changes in Australia's geographical direction of overall trade and changes in the origin of immigrants since the 1970s reveals no clear link between the two patterns.
273. Interview with representative of the Business Council of Australia.
274. See Barrett and O'Connell (2000). They observed a wage premium for returning males of around 10 per cent, controlling for a range of factors; no premium was observed for females.
275. And it should be recalled that although the Australian Council of Social Service reported "terrible hardship" arising from the introduction of the two-year waiting period, a safety net is in place for all immigrants immediately on arrival; many immigrants would no doubt accept this as acceptable treatment, or they would not continue to apply.

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BASIC STATISTICS OF AUSTRALIA

THE LAND

Area (thousand sq. km.)	7 682
Agricultural area , 1986-87, per cent of total	61
Urban population, 1991, per cent of total	85

Population of major cities, 30 June 2001 (1000) :	
Sydney	4 155
Melbourne	3 484
Brisbane	1 653
Perth	1 397
Adelaide	1 111

THE PEOPLE

Population, 31 December 2001 (millions)	19 603
Number of inhabitants per sq. km, 2001	2.5
Natural increase, 2001 (1000)	117
Net migration, 2001 (1000)	110

Civilian employment, 2002 (1000) :	9 311
of which :	
Agriculture	405
Industry *	1 981
Other activities	6 926

PARLIAMENT AND GOVERNMENT

Composition of Parliament :

Party	Senate	House of Representatives
Australian democrats	7	. .
Australian Labor Party	28	64
Independent	3	3
Greens	2	1
Liberal Party of Australia	31	67
National Party of Australia	3	13
Country Liberal Party	1	1
Pauline Hanson's One Nation	1	. .
Total	76	149

Present governement: Liberal/National Party coalition

Next general elections for House of Representatives is expected by the end of 2004

THE PRODUCTION

Gross domestic product, 2001 (A$ million)	691 033
Gross fixed capital formation, 2001 percentage of GDP	21.6

GENERAL GOVERNMENT SECTOR, PER CENT OF GDP, 2001

Current disbursements	35.4
Current transfers	14.1
Current revenue	36.2
of which: Direct taxes	16.5

THE FOREIGN TRADE

Main exports, 2002, per cent of total exports :	
Food, beverages and tobacco	19.5
Raw materials	18.7
Fuels	20.6
Machinery and transport equipment	11.9
Other manufactured products	29.2

Main imports, 2002, per cent of total imports:	
Food, beverages and tobacco	4.5
Raw materials	1.7
Fuels	7.3
Machinery and transport equipment	45.9
Other manufactured products	40.6

THE CURRENCY

Monetary unit: Australian dollar

Currency units per US$, average of daily figures:	
2002	1.841
January 2003	1.717

* Including mining, electricty, gas and water, and construction.

This Survey is published on the responsibility of the Economic and Development Review Committee *of the* OECD, *which is charged with the examination of the economic situation of member countries.*

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The economic situation and policies of Australia *were reviewed by the* Committee *on* 5 *February* 2003. *The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole* Committee *on* 25 *February* 2003.

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The Secretariat's draft report was prepared for the Committee *by* Helmut Ziegelschmidt, Vassiliki Koutsogeorgopoulou, Richard Herd *and* Paul O'Brien *under the supervision of* Nicholas Vanston.

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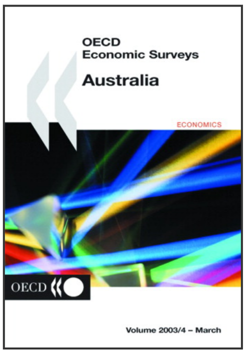

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