

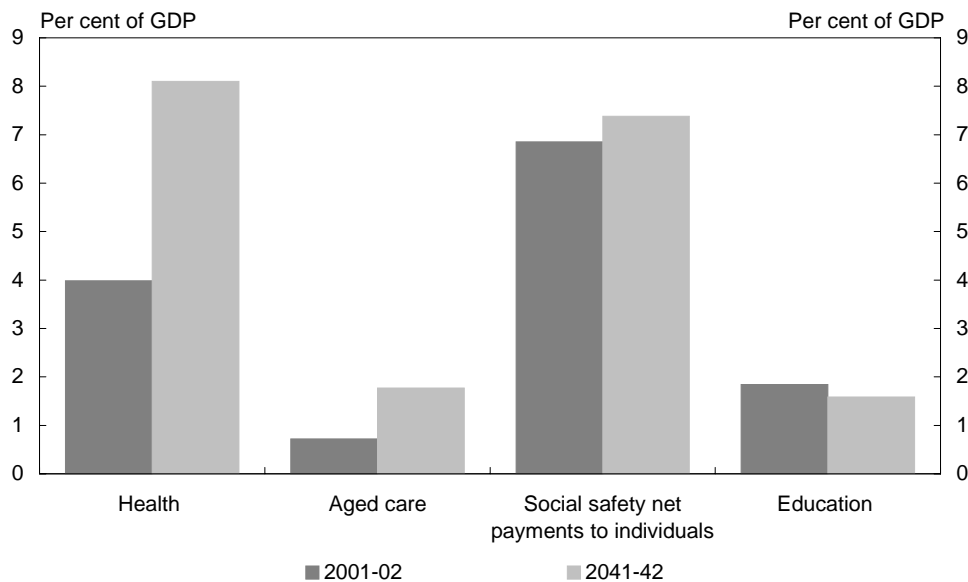
PART III: PROJECTIONS FOR SPENDING AND REVENUE

The central projections for government spending and revenue over the next four decades take into account, where possible, the demographic changes and economic factors discussed in Part II, and also consider the impact of other factors which may drive change.

The projections cannot be considered to be forecasts of the future: the factors underlying the projections are reasonable assumptions rather than forecasts. An additional source of uncertainty is that the interaction between the factors and government spending and revenue could vary over time, leading to significantly different results from those expected now.

Over half of Commonwealth government spending is directed to health and aged care, social safety net payments to individuals and education. This spending is sensitive to demographic changes. The projections in this report show that spending in health and aged care and social safety net payments to individuals are likely to grow relative to GDP. However, education spending as a proportion of GDP is likely to fall (Chart 19). Revenue and areas of Commonwealth spending that are less demographically sensitive, such as defence and the environment, are assumed to remain constant as a proportion of GDP.

Chart 19: Projected spending by category



Source: Treasury projections.

Spending

HEALTH AND AGED CARE

Australians' life expectancies are among the highest in the world. In relative terms, Australia's health outcomes are achieved at a moderate cost, with total health spending around 8.5 per cent of GDP, which is about average for OECD countries.

Health and aged care services are funded and provided by both the public and private sectors. The Commonwealth is responsible for almost half of the total health spending for Australia, and is the major public funder, although State, Territory and Local governments also fund health services.

Health

The Commonwealth spends around 4 per cent of GDP on health in 2001-02. Less than 20 per cent of this is funded through the Medicare levy. The Commonwealth funds the Medical Benefits Scheme (MBS) to provide patient subsidies for medical practitioner services, optometry, diagnostic imaging and pathology. The MBS forms the core of Medicare — the Commonwealth's universal health programme. Under the Pharmaceutical Benefits Scheme (PBS), the Commonwealth subsidises a select list of pharmaceuticals to provide patients with timely, reliable and affordable access to necessary and cost-effective medicines. New procedures, tests and pharmaceuticals are added to the list of those which receive subsidies under the MBS and PBS following Government approval of the recommendations of the relevant advisory bodies.

In addition to the MBS and PBS, the Commonwealth:

- makes a major contribution to the funding of public hospital services provided by State governments;
- provides a 30 per cent rebate to subsidise the cost of private health insurance; and
- provides financial support in other areas, including medical research, public health, indigenous health services, health information management and access, health safety and quality, and medical workforce development and infrastructure.

Aged care

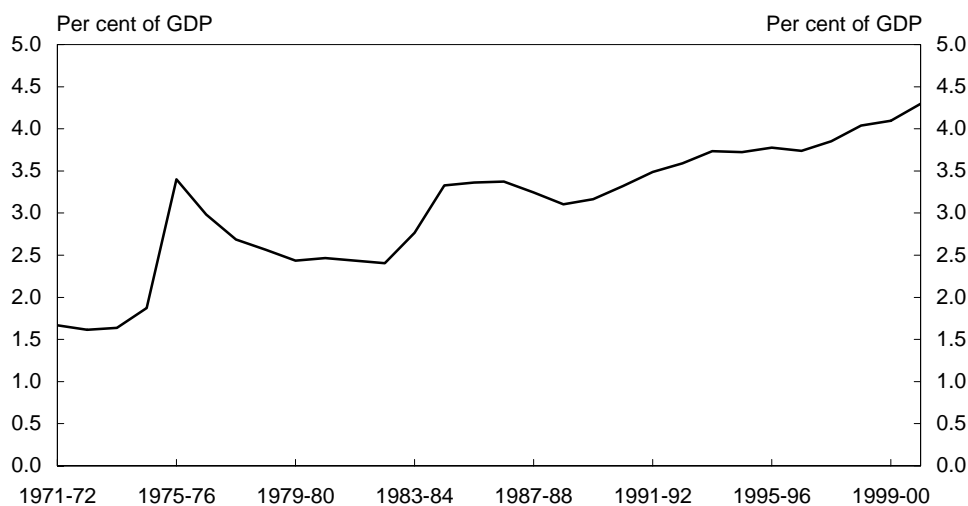
The Commonwealth provides funding for residential aged care and a range of community care services equivalent to 0.7 per cent of GDP in 2001-02. For residential aged care, the majority of funding is provided directly to non-government organisations. The Commonwealth also contributes significant funding towards community care services which are delivered by the States and Territories.

Key trends and assumptions

Over the 30 years to 2000-01, Commonwealth spending on health and nursing homes increased from 1.7 per cent of GDP to 4.3 per cent of GDP (Chart 20). While Commonwealth health spending fluctuated markedly during the 1970s, reflecting various policy changes (including the introduction and subsequent abolition of Medibank), growth steadied in the 1980s and 1990s following the introduction of Medicare.

In addition to this health spending, Commonwealth spending on hostels and community care in 2000-01 was around 0.4 per cent of GDP. However, due to the recent shift in focus in aged care from residential care to community care, it is not yet possible to identify the underlying trend.

Chart 20: Historical Commonwealth health spending



Note: The sharp increase in 1975-76 reflects the introduction of Medibank and the increase in 1983-84 reflects the introduction of Medicare.

Source: Australian Institute of Health and Welfare health spending data base, Australian Institute of Health and Welfare 2000, ABS AusStats Cat. No. 5204.0 and Treasury. Data may differ from the functional data in the Budget Papers.

Non-demographic growth¹, rather than population growth or changes in the age structure of the population, has been the key driver of real health spending over the past decade (Table 7). Non-demographic factors (such as listing new medications on the PBS and greater use of diagnostic procedures) are likely to generate the greatest cost pressure in the future.

¹ Non-demographic growth refers to real per person age-adjusted compound growth (Appendix C).

Table 7: Real growth rates for Commonwealth health spending (per cent)

	1984-85 to 2000-01	1989-90 to 2000-01
Non-demographic (population and age structure removed)	2.1	3.2
Population	1.2	1.2
Age structure	0.5	0.5
Total	3.8	4.9

Note: Growth trends of health spending are very sensitive to the start and end dates chosen and the inclusion or exclusion of policy changes. Both growth rates exclude the introduction of Medicare, the largest policy change over the last two decades, and the introduction of the Private Health Insurance Rebate (introduced on 1 January 1999). The start date of 1989-90 excludes several years following the introduction of Medicare, allowing a more stable trend to appear.

Source: Australian Institute of Health and Welfare and Treasury estimates.

Technological change accounts for a significant proportion of non-demographic growth in health spending per person. As the Commonwealth exercises significant controls over whether to adopt new technology in the health system, past increases in spending partly reflect the Commonwealth's choice to fund new technologies.

This growth has occurred even though policies aimed to constrain costs while improving the quality of health care and introducing new treatments or services. For example, in 1998, the Government introduced the Therapeutic Group Premium policy to constrain spending on the PBS. Under the arrangements, the Government subsidises up to the price of the lowest priced product in the therapeutic group. Consumers make up the difference where the price charged is greater than the PBS subsidy.

Over the past decade, Commonwealth spending on health has grown at a faster rate than total national health spending. This indicates Commonwealth health spending increased faster than State government or private sector spending.² The Commonwealth's share in financing the nation's health spending grew from 42 per cent in 1989-90 to 48 per cent in 1999-2000. Over the same period the States' share fell from 26 per cent to 23 per cent and the private sector's share fell from 31 per cent to 28 per cent.

Different components of the health system have grown at different rates. Over the past decade, real non-demographic growth in Commonwealth spending on public hospitals has been 1.6 per cent per year. Real non-demographic growth for MBS subsidies has been about 2 per cent per year since the introduction of Medicare in 1984.

By contrast, spending growth on the PBS has been rapid. Real non-demographic growth for the PBS has averaged 6.1 per cent per year over the last 20 years. When the impact of the budget changes through to the end of the forward estimates period (2005-06) is included, the growth rate is 5.6 per cent. The increased availability and use

² The number of people with private health insurance has increased significantly since the introduction of Lifetime Health Cover in July 2000, so the contribution of the private sector is likely to have increased since then.

of newer and more expensive drugs, leading to increases in the total volume of prescriptions and the government cost per prescription, drives this rapid growth.

This year's Budget includes initiatives to address the rapid growth in the PBS and reduce spending on the PBS by \$1.9 billion over the next four years. These initiatives include increases in patient co-payments and safety net thresholds under the PBS, a review of controls on the prescription of certain drugs, better information for doctors on the restrictions that apply to PBS drugs and measures to facilitate the use of less expensive generic drugs.

Spending on older people is growing faster than for the total population. For the MBS, the highest growth rates have been for those aged 55 and over.

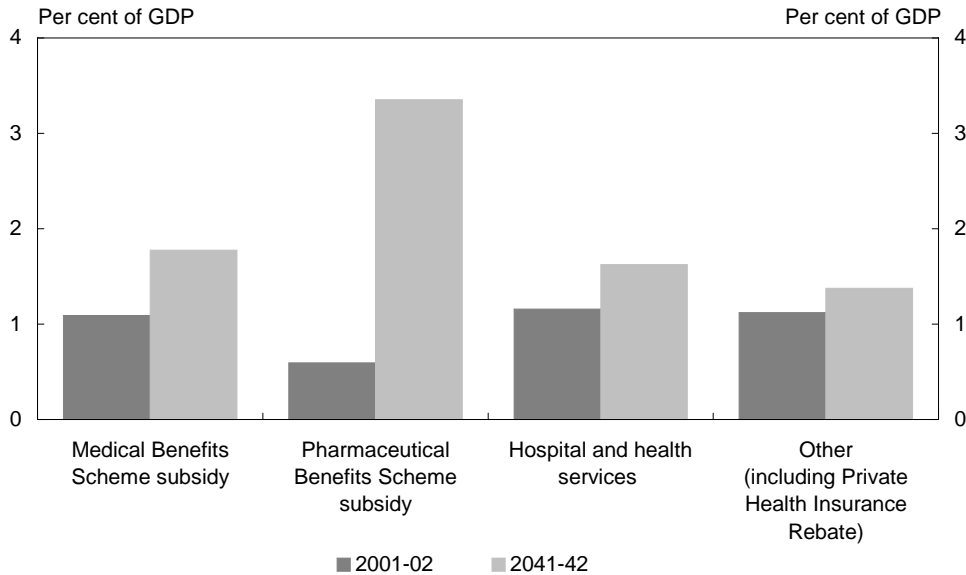
Health and aged care projections

Health and aged care spending is projected using trends in cost per head of population by age and gender. This is then combined with the projected population changes. The main model used in this report separately projects the main components of health spending to allow for different growth rates for hospitals, Medicare and the PBS (Appendix C).

Commonwealth spending on health is projected to increase to 4.3 per cent of GDP by 2011-12 and to 8.1 per cent of GDP by 2041-42 (Table 8). This is roughly equivalent to a real non-demographic growth rate for all of Commonwealth health spending of about 2.6 per cent per year over the next four decades.

Of all the components of Commonwealth health expenditure, spending on PBS subsidies is projected to grow the fastest, even after the current budget changes. As a proportion of GDP, the PBS is projected to grow by more than five fold, from 0.6 per cent of GDP currently to 3.4 per cent of GDP in 2041-42. Spending on MBS subsidies as a proportion of GDP is expected to grow by 60 per cent, with hospital and health services spending growing by 40 per cent (Chart 21).

Chart 21: Projected growth in components of Commonwealth health spending



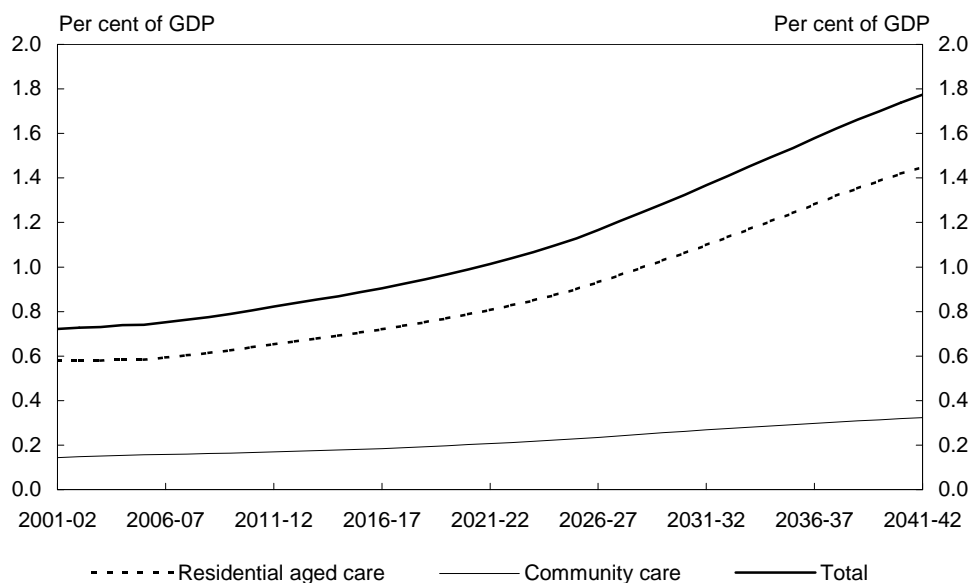
Source: Treasury projections.

Most of the projected growth in health spending reflects the increasing cost and availability of new high technology procedures and medicines, and an increase in the use and cost of existing services. Consumers have a high demand for more effective treatments, and expect these treatments will be provided to them soon after the technology first becomes available.

The ageing of the population also is projected to require increased health spending, as older people tend to have a greater need for health services. However, this is projected to have a much smaller effect on spending than the growing cost of new health care technology, increasing use of services and strong consumer demand and expectations.

Reflecting the ageing of the population, Commonwealth spending on aged care as a proportion of GDP is projected to more than double as a share of GDP, rising from 0.7 per cent of GDP in 2001-02 to almost 1.8 per cent of GDP in 2041-42 (Chart 22).

Chart 22: Projected growth in Commonwealth aged care spending



Source: Treasury projections.

Table 8: Projected Commonwealth health and aged care spending, by components (per cent of GDP)

	2001-02	2006-07	2011-12	2021-22	2031-32	2041-42
MBS subsidy	1.09	1.10	1.15	1.33	1.56	1.78
PBS subsidy	0.60	0.63	0.79	1.31	2.15	3.35
Hospital and health services	1.16	1.16	1.20	1.34	1.51	1.63
Other	1.12	1.14	1.16	1.22	1.29	1.37
All health	3.96	4.02	4.30	5.20	6.51	8.13
Residential aged care	0.58	0.59	0.65	0.81	1.10	1.45
Community care	0.14	0.16	0.17	0.21	0.27	0.32
All aged care	0.72	0.75	0.82	1.01	1.37	1.77

Source: Treasury projections.

Alternative modelling

The projections for health spending are very sensitive to the non-demographic growth rate used. The growth rate, in turn, is quite sensitive to the starting point chosen and whether major policy changes are included or excluded.

A model of aggregate health spending was used to determine the sensitivity of health spending to varying the assumed non-demographic growth rate. The main data for this model are the real growth rate in health spending (per person age-adjusted) and a distribution of Commonwealth health spending per person of a given age. Two cases were used to test the impact of varying the non-demographic rate.

For case A a non-demographic growth rate of 3.0 per cent was used, which is in line with growth experienced over the last 12 years if the impact of the Private Health Insurance Rebate on Commonwealth spending is excluded. In this case, health spending is projected to rise to 9.7 per cent of GDP (Table 9). This is higher than the result of the main model, largely because the growth rate does not account for the changes to the PBS in this Budget. It was estimated that 82 per cent of projected growth, after compounding, is due to non-demographic factors, 9 per cent to population ageing and 9 per cent to population growth.

Case B used an average real per person age-adjusted growth rate of 2.5 per cent. This is an average of growth rates to 2000-01, from starting points in each year from 1984-85 to 1989-90, inclusive. These growth rates ranged from 2.1 per cent to 3.2 per cent and their averaging produces a representative rate. The growth rates differ because the spike of expenditure when Medicare was introduced in 1984 was followed by five years of around zero real growth. Case B is consistent with no further major upwards policy changes to Commonwealth health spending (such as occurred with Medicare or the Private Health Insurance Rebate) over the next four decades.

This case projects Commonwealth total health spending as a proportion of GDP to almost double by 2041-42 compared with spending in 2001-02. The relative impact of population growth and ageing is slightly greater than in case A.

The crucial implication of these projections is that while population change is expected to be a significant driver of future health spending, new technology and increased use and costs of services are projected to have an even more significant influence. Changing the real non-demographic growth by 0.5 percentage points (from 2.5 to 3.0) changes the projected value of Commonwealth health spending in 2041-42 by 2.0 percentage points of GDP (Table 9). Thus plausible changes in the assumed level of real non-demographic growth in health spending affect the projections far more than plausible changes in the demographic assumptions. (See for example, the mortality scenario in the sensitivity analysis in Part IV.)

Table 9: Projected Commonwealth health spending, aggregate model (per cent of GDP)

Underlying growth rate	2001-02	2006-07	2011-12	2021-22	2031-32	2041-42
Case A 3.0 per cent	3.96	4.26	4.84	5.99	7.69	9.65
Case B 2.5 per cent	3.96	4.14	4.55	5.36	6.49	7.67

Source: Treasury projections.

These projections of health spending cannot be directly compared with those for Australia published recently by the OECD,³ because of different coverage, use of more recent data and some revisions of methodology. The OECD placed Australia in the high health spending growth group (along with Canada, the Netherlands, New Zealand and the United States). However, the OECD study noted that the projection methodologies for health vary considerably by country, including the extent to which they take into account non-demographic growth factors.

3 Dang, Antolin and Oxley 2001.

PAYMENTS TO INDIVIDUALS

Around 35 per cent of Commonwealth spending consists of social safety net payments to individuals requiring support or supplementary assistance. About 90 per cent of these payments are linked to changes in population levels and structure (for example, pension payments). In this report, these payments are grouped according to the age group most directly affected so the impact of demographic changes is clear.

A number of smaller social safety net payments to individuals are not explicitly projected in this report. They include Sickness Allowance, widows' pension, Special Benefit and Partner Allowance.

Pension age

The largest group of payments is to people older than usual workforce age (termed 'pension age'). These include the Age Pension and similar payments to veterans and war widows, and in total, represent 2.9 per cent of GDP in 2001-02.

The largest single payment category is the Age Pension which currently provides income support to men aged 65 and older and women aged 62 and older. The entitlement age for women is being increased gradually so by 2013 it will align with that for men. The Age Pension is means tested and does not depend on previous labour force experience or individual contributions.

The Service Pension provides a similar income support payment to veterans, and is available five years earlier than the Age Pension. As with the Age Pension, the entitlement ages for women are being aligned with those for men. War Widows Pensioners of Service Pension age also are included in the projections.

Workforce age

The main payments to people of workforce age are unemployment allowances (including Newstart Allowance, Youth Allowance and Mature Age Allowance), the Disability Support Pension (DSP) and the Parenting Payment (Single), formerly known as the Sole Parent Pension. These payments are means tested by both income and assets, and total around 2.4 per cent of GDP in 2001-02. Unemployment allowances are also tested for activity undertaken in search of employment.

Children

Family payments provide assistance to families with children, with higher assistance targeted to families with lower incomes and single incomes. Under *The New Tax System* a range of family payments were comprehensively redesigned and simplified. In 2001-02 payments to families amount to 1.6 per cent of GDP.

Trends and drivers

Commonwealth spending on social safety net payments to individuals depends on the population in the various age groups, the proportion of the population receiving a payment, the growth in pensions and allowances over time and the current policy framework. The key drivers differ for each payment.

Pension age

Between 1980 and 2001, the total number of Age Pensioners increased from 1.3 million to 1.8 million (Chart 23). This was mainly due to growth in the eligible population, partly offset by a decline in the proportion of the population in the eligible age group receiving a pension (the 'coverage rate'). The number of Service Pension and War Widows Pensioners has been stable around 300,000 for some time and is expected to decline as veterans from the Second World War age.

In the future, the key driver of Age Pension spending is likely to continue to be the increase in the population in the eligible age range, which, expressed as a proportion of the total population, is projected to about double by 2041-42. This rise is expected to be partly offset by a projected further decline in the coverage rate. In addition, the proportion of pensioners receiving a full Age Pension is also projected to decline, while the proportion with a part Age Pension will increase significantly. These restraining factors reflect the impact of the maturing superannuation system, which both encourages and requires greater self provision for retirement.

Workforce age

A key driver affecting the number of people receiving unemployment allowances is the stage of the economic cycle. Over the five years to June 2001, a period of steady economic growth, the proportion of people of workforce age receiving unemployment allowances fell from 7.0 per cent to 5.1 per cent.

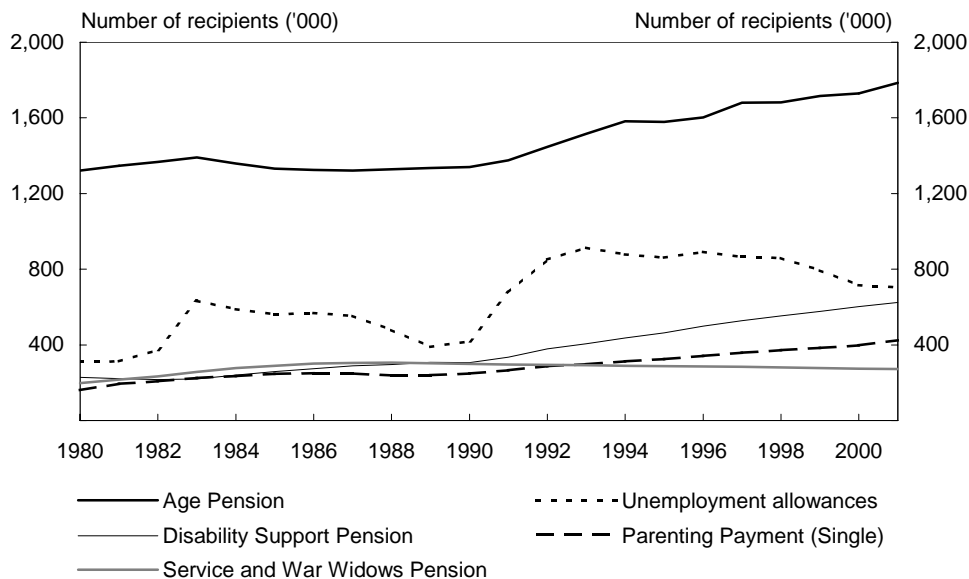
For both DSP and Parenting Payment (Single), recent strong growth in Commonwealth spending reflects the significant increase in the proportion of the population in this age group receiving a pension (the 'coverage rate') rather than population growth (Chart 23).

In many age groups this increase has been significant. For example, the proportion of people aged 50 to 64 receiving DSP increased from 5.7 per cent in 1983 to 10.8 per cent in 2001. No single explanation accounts for this growth. Some studies link the growth in disability pensions to economic cycles (with take up increasing as a result of recession), the regional availability of jobs and a lower proportion of middle-aged men being eligible for the Service Pension.

In this Budget the Government has introduced changes to eligibility and support to encourage people receiving DSP who have significant work capacity to seek employment. People with the capacity to work at least 15 hours a week will be expected to look for work, and assistance will be provided to increase the employment

participation of this group as well as of those who do not currently have that capacity. This assistance includes additional places in disability employment services, rehabilitation, education and training and the Job Network.

Chart 23: Numbers of recipients of major payments to individuals 1980 to 2001



Source: Department of Social Security annual reports (various) and Department of Family and Community Services *Income Support Customers - a Statistical Overview* (various). Results for 2000 and 2001 are unpublished.

The number of people receiving Parenting Payment (Single) has increased by 263,000 (or 163 per cent) between 1980 to 2001, which is largely due to the growing prevalence of divorce. ABS projections of one-parent families indicate that the current growth in sole parent payments will continue.⁴

Children

As family payments were redesigned from July 2000 no time series data exists on the coverage of Family Tax Benefit. Therefore, it is assumed the key driver for projections of coverage is the number of children aged 15 and under.

⁴ Australian Bureau of Statistics (Cat. No. 3236.0) projects the number of one-parent families to rise from 742,000 in 1996 to between 966,200 and 1,231,000 in 2021, with the middle projection being 1,066,400 one-parent families by 2021.

Methodology and projections

All the projections of payments to individuals except Age and Service Pensions use recent trends in coverage by age and gender for that payment and project the average cost per person receiving the benefit using the indexation arrangement specified by current government policy.

The Age and Service Pensions projection uses a more comprehensive methodology which incorporates the higher retirement incomes of Australian retirees as the superannuation system matures. This restrains Commonwealth spending on Age Pensions over time. More detail of the projection approaches is in Appendix C.

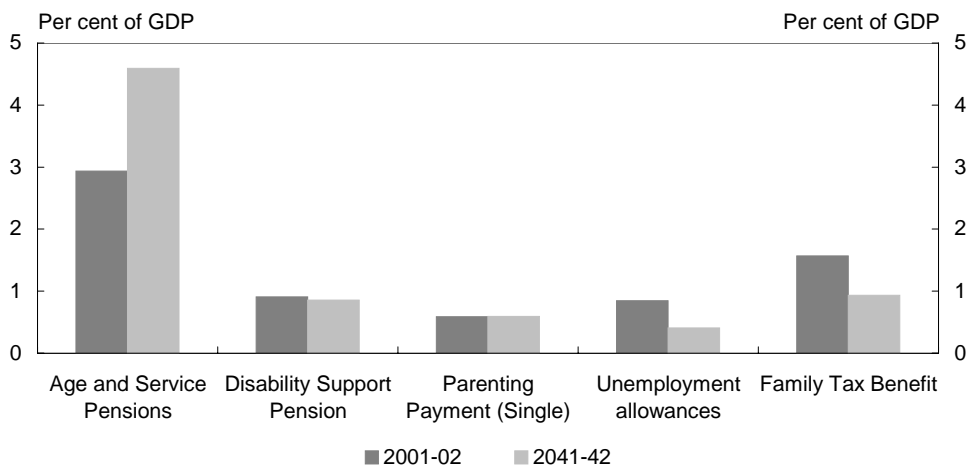
Over the next decade, Commonwealth social safety net payments to individuals are projected to decrease as a percentage of GDP. However, by 2041-42 it will rise to be 0.5 per cent of GDP more than now (Table 10). The proportion of the population of Age Pension age is projected to increase significantly, leading to a much greater increase in spending on Age Pensions. Spending on payments to children is expected to fall, together with payments to the unemployed (Chart 24). This principally reflects relatively lower proportions of the populations in the relevant age groups, lower projected unemployment and the policy of indexing unemployment payments and some components of family payments to the CPI, which grows at a slower rate than GDP.

Table 10: Projected spending on payments to individuals (per cent of GDP)

	2001-02	2006-07	2011-12	2021-22	2031-32	2041-42
Age and Service Pension	2.93	2.83	2.90	3.64	4.28	4.59
Disability Support Pension	0.91	0.72	0.79	0.84	0.85	0.86
Parenting Payment (Single)	0.59	0.60	0.61	0.61	0.61	0.60
Unemployment allowances	0.85	0.78	0.71	0.59	0.49	0.41
Family Tax Benefit	1.57	1.34	1.22	1.08	1.01	0.93
Total	6.85	6.26	6.23	6.76	7.24	7.38

Source: Treasury projections.

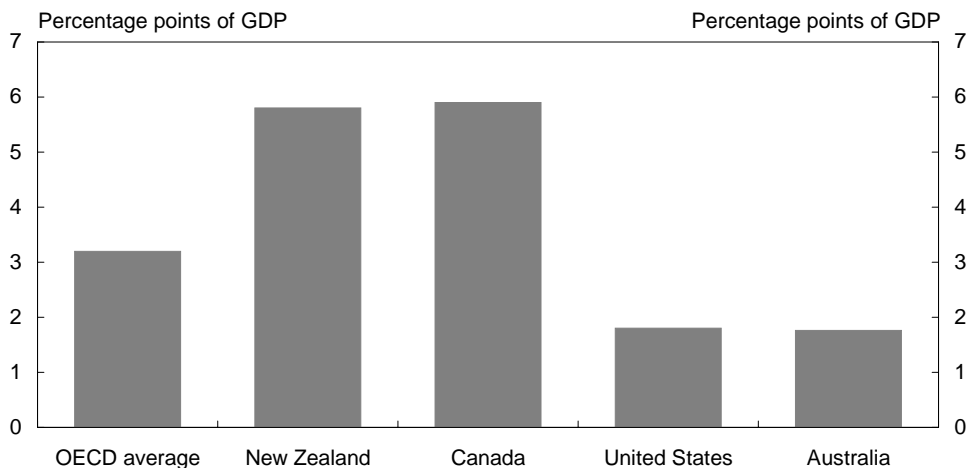
Chart 24: Projected Commonwealth payments to individuals by type



Source: Treasury projections.

The strongest growth is in payments to those of pension age. While the projected increase in Commonwealth spending on those of pension age as a proportion of GDP is substantial, it is relatively low compared with most other OECD countries (Chart 25). Australia is well placed in relation to age pension spending because the pension is means tested and targets poverty alleviation. By comparison, many OECD countries pay age pensions according to previous individual earnings, resulting in greater fiscal pressure as populations age.

Chart 25: International comparisons of projected increases in spending on age pensions 2000 to 2050



Source: Dang, Antolin and Oxley 2001 and Treasury.

EDUCATION AND TRAINING

Education and training is likely to result in higher living standards for individuals, by increasing labour productivity. In recent years, the demands for a more skilled labour force and people's desire for education have increased. These trends are likely to continue in line with the requirements of the 'knowledge economy' and pressure for greater lifelong learning.

Commonwealth spending on education is 1.84 per cent of GDP in 2001-02. Around half of this spending is on government and non-government schools delivered as specific purpose payments to the States. The Commonwealth is the main government provider of funds for higher education institutions (largely, universities), and allocates around a third of its education spending to universities. Commonwealth education spending also includes funding for vocational education and training providers (including technical and further education institutions), funding for very specific targeted initiatives and some student assistance payments and general administration costs.

State governments primarily fund school education, as well as vocational education and training providers (including technical and further education institutions). The trend towards privately funded education, both for schools and for tertiary education, is growing.

Key trends and drivers

A key driver of changes in education spending is the number of students. The rate of increase in student numbers is slowing due to declining fertility, with the proportion of the population in the principal age group for education (5 to 24 year olds) decreasing from 36 per cent in 1972 to 28 per cent in 2002.

However, participation rates for most age groups in post-secondary education generally have increased since the early 1990s. School participation rates have been largely constant since the mid-1990s after increasing from the mid-1980s.

While school participation rates are projected to remain around current levels, university and vocational education and training participation rates are projected to rise, both for the traditional tertiary education age group (17 to 24 year olds) and those aged over 24.

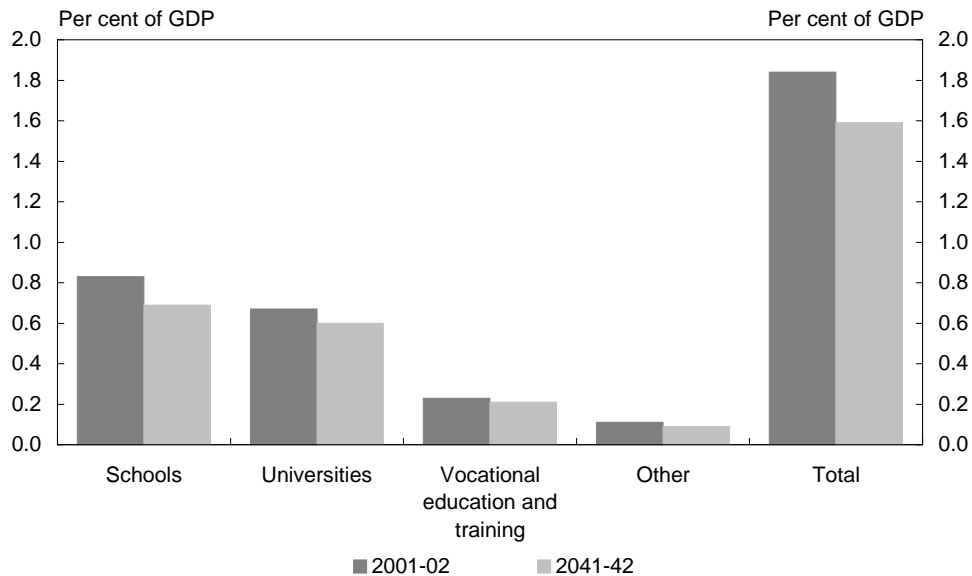
By 2042 the proportion of the population in the principal age group for education is projected to fall to 21 per cent. On that basis, and assuming increased university and vocational education and training participation rates, the overall growth in the total number of all students is projected to generally slow for the next two decades. Projected total numbers remain steady from 2021 until 2035, and then begin to decline.

Methodology and projections

The education projections in this report are based on current Commonwealth spending combined with projections based on demographic change and economy-wide cost growth, rather than assuming the continuation of current funding arrangements. The coverage trend model is described in Appendix C.

While Commonwealth spending per student is projected to rise over the next four decades, total Commonwealth education spending is projected to decline as a proportion of GDP (as GDP grows faster) to 1.59 per cent by 2041-42 (Chart 26). This also reflects the slower growth and, in some cases, decline in the principal age group for education. The fall occurs despite projected increases in real average costs per student, which have been indexed by wages, and projected higher participation rates for post-secondary education.

Chart 26: Projected Commonwealth education spending



Source: Treasury projections.

The rate of decline in Commonwealth education spending is expected to be highest in the second half of this decade (Table 11). This reflects the more rapid decline in the proportion of the school age population over the next decade, compared with later decades. If the proportion of the population participating in education is held constant, rather than assumed to grow, the results remain essentially the same, with spending projected to decline by only an additional 0.09 per cent of GDP by 2041-42.

Table 11: Projected Commonwealth education spending (per cent of GDP)

	2001-02	2006-07	2011-12	2021-22	2031-32	2041-42
Schools	0.83	0.84	0.77	0.72	0.71	0.69
Universities	0.67	0.63	0.63	0.62	0.60	0.60
Vocational education and training	0.23	0.22	0.22	0.21	0.21	0.21
Other	0.11	0.10	0.09	0.09	0.09	0.09
Total	1.84	1.79	1.71	1.64	1.61	1.59

Source: Treasury projections.

GOVERNMENT SUPERANNUATION

The Commonwealth sponsors a number of superannuation arrangements for its current and former employees. These arrangements affect future government spending because only a small proportion of the cost of benefits is funded at the time employees accrue the benefits. Typically, most benefits are funded as they become payable. Furthermore, most benefits are paid as pensions, so payments for a current contributor may continue for more than 60 years after the employment which gave rise to the benefit.

The most significant arrangements, in terms of future spending, are the schemes for Commonwealth civilian and defence employees (Box 2). Superannuation arrangements also are in place for federal politicians, judges, magistrates and the Governor-General, and the Commonwealth has commitments for many current and former tertiary education sector employees.

Box 2: Principal Commonwealth superannuation schemes

The most significant of the Commonwealth's superannuation obligations, in terms of spending, are the two schemes for civilian employees (the Commonwealth Superannuation Scheme — the CSS, and the Public Sector Superannuation Scheme — the PSS) and the corresponding schemes for military personnel (the Defence Force Retirement and Death Benefits Scheme — the DFRDB, and the Military Superannuation and Benefits Scheme — the MSBS).

The CSS and the DFRDB have been closed to new members since 1990 and 1991 respectively.

The four big schemes for civilian and military employees represent over 95 per cent of total Commonwealth superannuation unfunded liabilities so the projections relate to only these schemes.

New superannuation arrangements were put in place for civilian and defence employees at the beginning of the 1990s when the CSS and DFRDB were closed. The new schemes — the PSS and MSBS — have a higher level of advance funding.

The Government is seeking to close the PSS and provide choice to civilian public servants, from 1 July 2003. Legislation has been passed by the House of Representatives, but has been rejected by the Senate. The Government has not announced when it will reintroduce the legislation. The projections make no allowance for this proposed future policy change, but should it proceed it would be likely to increase the extent of advance funding.

Key trends and drivers

Three main factors drive future spending on Commonwealth superannuation:

- the move towards a greater degree of advance funding of superannuation liabilities increases current spending, but reduces the burden future governments will need to meet;
- membership of the closed schemes for civilian and defence employees is declining. These schemes are more expensive on a gross basis for the Commonwealth than their replacements. Consequently, as membership in the old schemes falls, aggregate costs fall; and
- the overall number of Commonwealth employees is declining. Numbers have fallen in absolute terms in recent years, and it is assumed for costing purposes that they will remain at the current level over the next four decades. This represents a decline in membership relative to the Australian population, and results in declining costs relative to GDP.

Methodology and projections

The projections are based on official actuarial valuations undertaken in 1999-2000 using data to 30 June 1999.

Commonwealth spending on superannuation is projected to decline fairly steadily over the next four decades, from around 0.56 per cent of GDP in 2001-02 to 0.32 per cent of GDP in 2041-42 (Table 12). The greater degree of advance funding, the closure of old schemes and the declining overall numbers of Commonwealth employees as a proportion of the Australian population all will work in the same direction to drive down this spending.

Table 12: Projected Commonwealth spending on superannuation for members of the CSS, PSS, DFRDB and MSBS (per cent of GDP)

	2001-02	2006-07	2011-12	2021-22	2031-32	2041-42
Civilian schemes	0.38	0.36	0.35	0.32	0.28	0.22
Military schemes	0.18	0.17	0.15	0.13	0.12	0.10
Total	0.56	0.52	0.50	0.45	0.39	0.32

Sources: All figures are from Towers Perrin 2000 and Australian Government Actuary 2000.

DEFENCE

The defence of Australia and its national interests is a core Commonwealth Government responsibility. In recent times, the role of the Australian armed forces has expanded from a focus on conventional war fighting to other military operations, including humanitarian relief and peace keeping. In 2001-02, defence accounts for around 8 per cent of Commonwealth spending.

Key trends and drivers

Key drivers in defence costs include the rising cost of employing military personnel and maintaining and replacing capital equipment, and the need to have defence forces at a higher state of readiness.

A major review of Australia's defence requirements in 2000 produced the Defence White Paper, *Defence 2000: Our Future Defence Force*. The White Paper foreshadowed capability enhancements and an increase in defence spending of an average of around 3 per cent per year in real terms over the decade to 2010.

By 2010, defence spending is expected to reach around \$20 billion. Over the decade to 2010, cumulative defence spending is estimated to be over \$160 billion.

The cost of defence beyond this decade is more difficult to ascertain, as factors such as changes to the strategic outlook, capability priorities and the state of military technology will influence it. Further, the strategic environment is difficult to predict. Changes to the strategic environment may affect the type of capabilities the Government pursues and the cost of defence.

ENVIRONMENT

Australia's environment provides natural capital, offering many essential services. It provides ecosystems that regenerate natural resources and assimilate the waste of people and industry, recreational benefits and inputs to industry. In addition, it has important cultural significance. Deterioration of our natural capital would be likely to affect the wellbeing of current and future generations, reduce the economic base and consequently affect intergenerational equity.

In 2001-02 the Commonwealth is spending around \$1.8 billion to conserve Australia's natural capital. Key areas of Commonwealth involvement include conserving and sustainably managing ecosystems and natural resources including land, coastal and marine environments, preserving air and water quality, and addressing climate change. These issues are explored in the recent Government report *Australia State of the Environment 2001*. Policy initiatives include regulatory measures, allocation of funding to address specific problems and institutional reforms.

Key trends and drivers

Australia currently faces a number of significant environmental problems, which may have ongoing implications for Commonwealth spending. These include land and inland water quality degradation, loss of biodiversity, air quality, climate change and pressure on coastal, marine and wetland ecosystems. These environmental problems often occur when people do not face the full costs of or receive the full benefits from their actions. Problems also arise when biophysical processes are not well understood, leading to unintended impacts.

The value Australians place on their natural environment is likely to rise, resulting in increasing demand for environmental quality. Also, as knowledge and understanding of ecosystems and human impacts on the environment improve, calls for environmental protection may increase. However, this need not translate into more Commonwealth spending on the environment.

While some Commonwealth spending may be necessary, the approach and level of intervention chosen will determine final costs. For example, adopting voluntary, regulatory, and market-based approaches would lead to polluters meeting many costs. Also, the States have wide responsibilities for environmental matters, so often State or Local governments can intervene most appropriately. In addition, increased demand for environmental quality is likely to provide new market opportunities for the private sector, leading to more environmentally friendly production.

Governments also could reduce future economic and budgetary costs by integrating policy approaches to economic development to minimise environmental damage. This should increasingly occur as Australia's understanding of environmental problems improves over time. Early action to prevent environmental damage, rather than later action to remedy it, is likely to reduce long-term costs.

Revenue

Commonwealth total revenue is derived from taxation and non-taxation sources. Like international long-term budget reports,⁵ this report projects revenue to be a constant proportion of GDP. This is because both taxation revenue growth and GDP growth have the same major drivers (for example, wages and profits). Commonwealth total revenues are projected to be 22.4 per cent of GDP from 2005-06, the final year of the forward estimates period, to 2041-42.

TAXATION REVENUE

Taxation revenue includes income taxes and indirect taxes. Income taxes on individuals and companies are the largest source of Commonwealth revenue. In 2001-02, taxation revenue is expected to account for 91 per cent of total Commonwealth revenue. Of this, income taxes are expected to account for 73 per cent of total Commonwealth revenue, indirect taxes are expected to account for 15 per cent and other taxes are expected to account for 3 per cent.

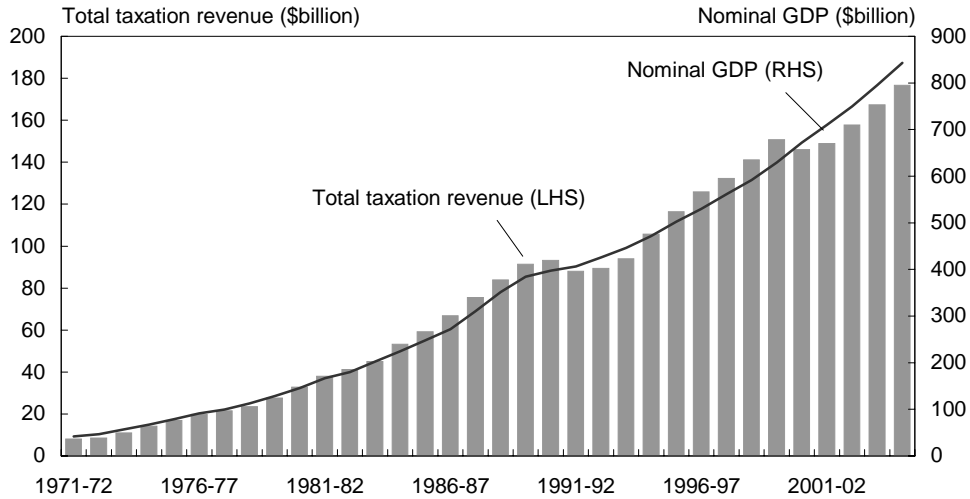
Key trends and drivers

The key drivers of trends in total Commonwealth revenue are economic variables, such as wages, employment, profits and imports, which influence income tax revenue and indirect tax revenue (Appendix D).

Various taxes are levied on the components of GDP and each component has generally grown at around the same rate as nominal GDP. As a result, total taxation revenue also tends to grow in line with nominal GDP (Chart 27).

5 For example, see Dang, Antolin and Oxley 2001, Congressional Budget Office (US Congress) 2001, Her Majesty's Treasury 2001 and The Treasury (New Zealand) 2001.

Chart 27: Total Commonwealth taxation revenue and GDP

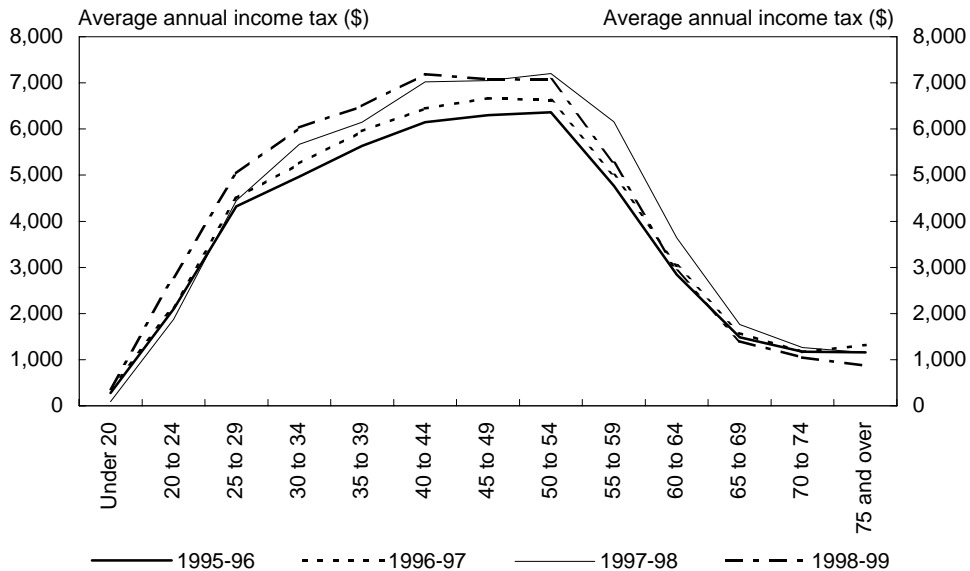


Source: ABS Cat. No. 5206.0 and Commonwealth of Australia Budget Paper No.1 (various).

Taxation revenue risks

In 1996, the *Report of the National Commission of Audit* noted that the ageing of the population would affect personal income tax revenue, as the average tax paid per person declines for older age groups (Chart 28).

Chart 28: Average annual income tax per person by age, various years



Source: Treasury.

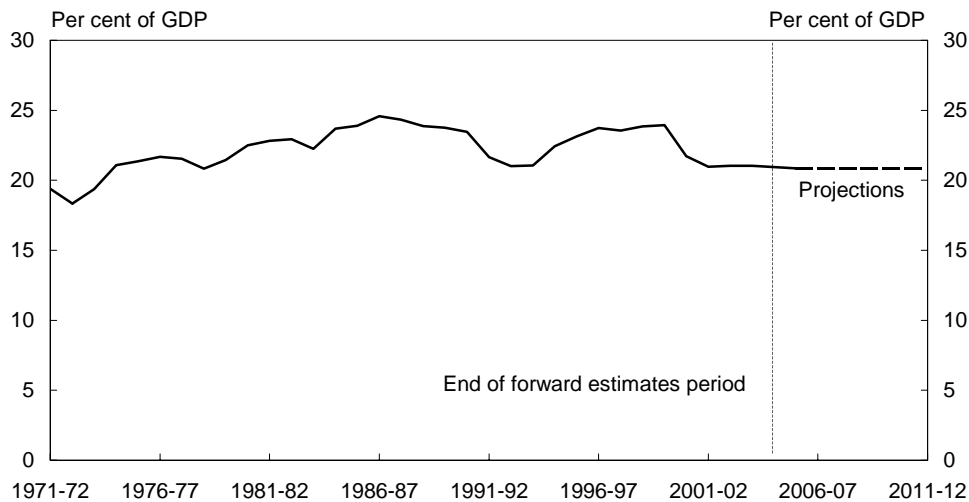
However, personal income tax revenue does not fall as a percentage of GDP as the population ages, because labour force and wages growth trends affect income tax and GDP growth more or less equally. These trends include rising female labour force participation in each age group and the slowing in aggregate wages growth resulting in slower GDP growth.

The National Commission of Audit also noted that an ageing population could affect the wholesale sales tax base. However, *The New Tax System* replaced the wholesale sales tax with the GST, which is less at risk from population ageing because its broader base includes services. Furthermore, the Intergovernmental Agreement allocates the GST revenue to the States and Territories.

Methodology and projections

Over the last three decades, Commonwealth taxation revenue has remained relatively steady as a proportion of GDP (Chart 29). Major components of taxation revenue have grown in line with GDP. Therefore, Commonwealth taxation revenue is assumed to remain constant at 20.8 per cent of GDP from 2005-06, the final year of the forward estimates period, to 2041-42.

Chart 29: Total Commonwealth taxation revenue



Source: ABS Cat. No. 5206.0 and Commonwealth of Australia Budget Paper No.1 (various).

NON-TAXATION REVENUE

Non-taxation revenue includes sales of goods and services, interest, dividends and petroleum royalties. In 2001-02, non-taxation revenue is expected to account for 9 per cent of total Commonwealth revenue. These revenues are difficult to relate to economic parameters, so Commonwealth non-taxation revenues are assumed to remain at 1.6 per cent of GDP from 2005-06, the final year of the forward estimates period, to 2041-42.

