
4 Budgetary assistance

Budgetary assistance to industry comprises government spending and tax concessions that selectively benefit industries or firms. In the past, the major forms of assistance in Australia have been border protection measures, such as tariffs and quotas, and statutory marketing arrangements. While many of these measures are being unwound, the Government continues to provide a wide range of budgetary assistance measures and, in some cases, is providing budgetary assistance in place of other forms of assistance.

Like other forms of assistance (such as tariffs on imports), budgetary assistance favours recipients at the expense of others, and their combined impact can result in high levels of assistance to particular industries or firms. A feature of budgetary assistance is the frequent changes of individual schemes from year to year as funding levels vary and new schemes are created, and as existing programs are modified by the Government. Many of the budgetary assistance schemes are not transparent, making it difficult to monitor their benefits and costs, and their net effect on the direction of economic development in Australia.

In this chapter, the Commission:

- outlines the scope of the Commission's budgetary assistance estimates;
- presents the main trends in budgetary assistance; and
- discusses recent policy developments affecting budgetary assistance.

4.1 Scope of the Commission's estimates

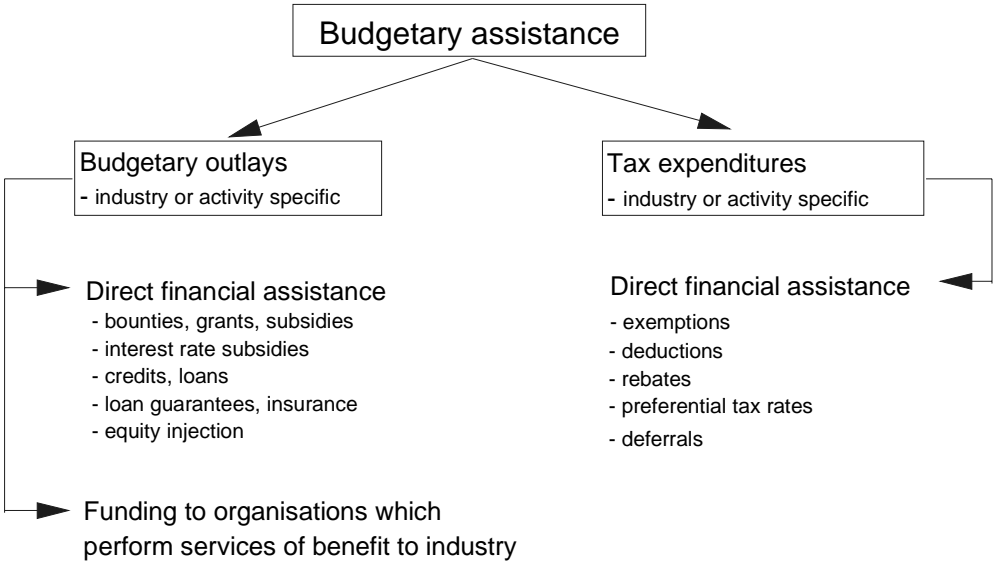
Budgetary assistance comprises:

- outlays, which include funding to organisations which perform activities and services of benefit to industry (such as CSIRO research), as well as grants, bounties, interest rate subsidies, subsidised loans, loan guarantees and equity injections which afford direct financial assistance to businesses; and
- tax expenditures, which are provisions of the tax system that reduce the tax burden of businesses. Tax 'expenditures' include tax exemptions, deductions, rebates, preferential tax rates and tax deferrals which involve the Commonwealth forgoing revenue it would otherwise collect (see figure 4.1).

Recipients can be individual firms, including those undertaking or utilising particular activities such as R&D, as well as particular industries or sectors. As well as reporting budgetary assistance by form, this year's *Trade & Assistance Review* also reports on:

- the activities — R&D, export, industry-specific support etc — to which budgetary assistance is directed; and
- the incidence of assistance across different sectors and industry groupings within the economy.

Figure 4.1 **Forms of budgetary assistance**



The Commission's estimates of budgetary assistance cover those budgetary measures that can be quantified given practical constraints in measurement and data availability. They cover the budgetary assistance provided by the Commonwealth Government, but not that provided by State, Territory and local governments (although where information is available, recent developments in State, Territory and local government assistance are also outlined (section 4.3)).¹ The estimates exclude outlays on defence, health, education and the labour market. They also exclude measures which are generally available to all firms, such as changes in road funding.

¹ In a previous inquiry (IC 1996a), the Commission estimated that budgetary assistance afforded by State and Territory governments totalled \$5.7 billion in 1994-95. This consisted of \$2.5 billion in budgetary outlays and \$3.2 billion in payroll tax exemptions.

Assistance estimates in this chapter are derived from a number of information sources, including Commonwealth Budget Papers and Treasury's Tax Expenditure Statement. This year, the Commission has provided data on budgetary assistance for the four years up to 2001-02. The outlay figures for 2000-01 are estimates, and those for 2001-02 are projections (based on budget appropriations). The tax expenditure figures for 1997-98 are estimates, and the figures for 1998-99 to 2001-02 are projections. The estimates also incorporate the Government's revisions of outlays and tax expenditures for previous years.

The Commission's approach to measuring budgetary assistance was explained in more detail in appendix A of the *Trade & Assistance Review 1998-99* (PC 1999).

4.2 Commonwealth budgetary assistance

The Commission's estimates of budgetary assistance are set out in tables 4.1 and 4.3 to 4.8 which, apart from table 4.1 (below), appear at the end of the chapter. The key estimates, together with the allocation of assistance across industries, are described and discussed below.

Aggregate estimates

Estimates and projections of budgetary assistance and its main components for the ten years to 2001-02 are shown in figure 4.2.

Despite some fluctuations, budgetary assistance in recent years has remained broadly at the level of the early 1990s. There was some increase in budgetary assistance in the early 1990s to a peak of \$4 billion in 1994-95. It then declined slightly in the following three years and, since 1998-99, has risen slightly. The broad stability in budgetary assistance contrasts with the general trend to lower assistance through border protection measures and marketing arrangements (see chapter 2).

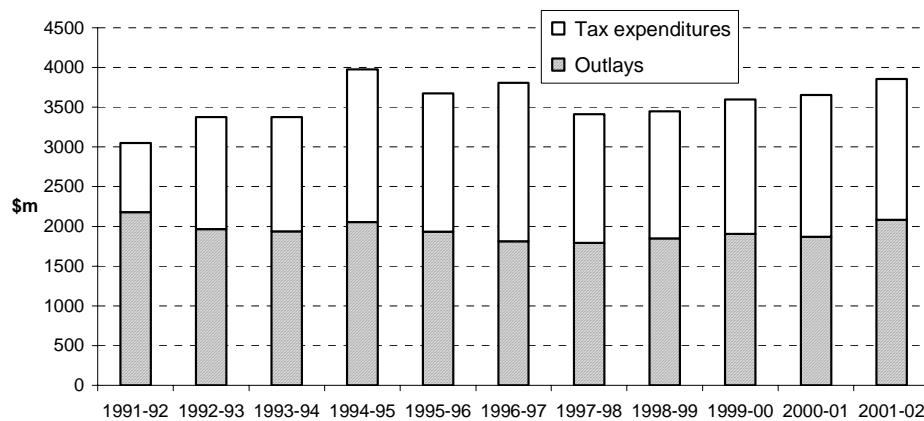
Total budgetary assistance was around \$3.7 billion in 2000-01. This comprised \$1.9 billion in program outlays and \$1.8 billion in tax expenditures.

The main determinant of year-to-year changes in budgetary assistance is the impact of major tax expenditures. A feature of tax concessions is that they can be open-ended, involving no cap on revenue forgone, and thereby lead to a rise in revenue forgone in response to growth in applications for assistance. The relatively high levels of budgetary assistance between 1994-95 and 1996-97 reflect the

changes in revenue forgone from the R&D tax concession, and the investment and development allowances.

While the assistance impact of major tax concessions has been reduced in recent years, this has been offset by the increase in tariff concessions for passenger motor vehicles (PMV) under the Automotive Competitiveness Investment Scheme and Tradex. Estimates and projections provided by the Department of Industry, Science and Resources indicate that these PMV arrangements provided over \$500 million in tariff duty forgone in 2000-01 and 2001-02.

Figure 4.2 Commonwealth budgetary assistance to industry, 1991-92 to 2001-02



Data sources: Commonwealth Budget Papers; Treasury (2001); ACS (2001); PC estimates.

In contrast to the fluctuations in tax expenditures, the outlay category has been more stable. This was particularly so between 1992-93 and 1995-96, and between 1996-97 and 2000-01. The projected rise in outlays in 2001-02 reflects the introduction of new measures and expansion of existing programs foreshadowed recently (see section 4.3).

Major assistance schemes

Total budgetary assistance was provided through around 100 separate government programs and tax expenditures in 2000-01. However, the bulk of total budgetary assistance (77 percent) was accounted for by 20 programs and tax expenditures, as shown in figure 4.3.

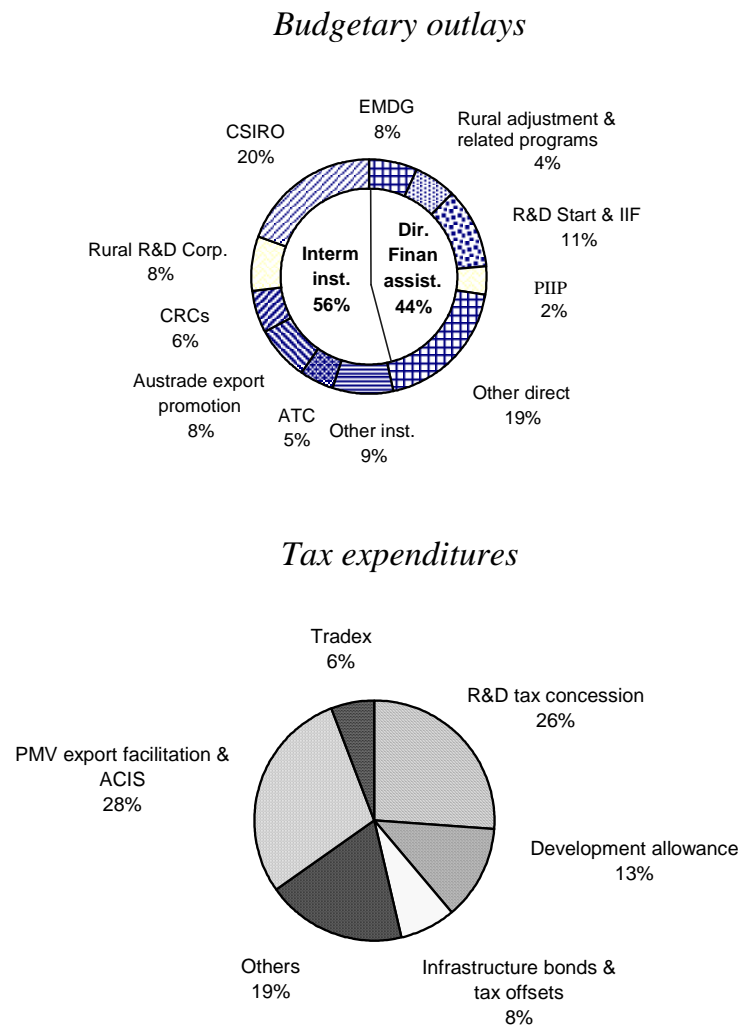
Of total budgetary outlays, 44 percent was provided as direct financial assistance. The remaining share is accounted for by the funding of institutions, such as the

Australian Tourist Commission (ATC), which perform activities and provide services of benefit to producers.

As shown in figure 4.3, important outlay schemes include Austrade's programs, R&D Start and the Innovation Investment Fund (IIF), and research by CSIRO, rural R&D corporations and cooperative research centres (CRCs).

The major tax expenditures are the PMV Export Facilitation Scheme and its successor, the Automotive Competitiveness Investment Scheme (ACIS), the R&D tax concession and the development allowance (figure 4.3).

Figure 4.3 Major programs and tax expenditures, 2000-01



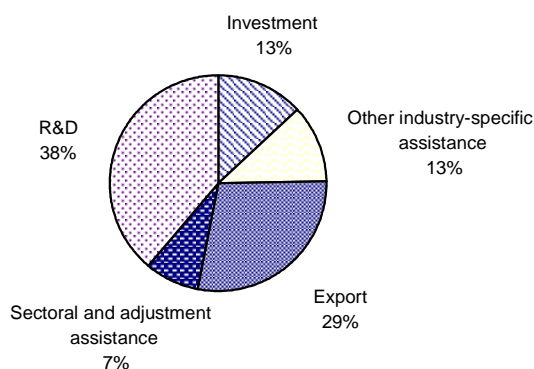
Data source: PC estimates.

Activities targeted

Budgetary assistance is often designed to encourage particular activities undertaken by firms across various industries and/or sectors. To provide an indication of distribution of assistance amongst activities, the Commission further classifies budgetary assistance into R&D, export, investment, and sectoral and adjustment measures (figure 4.4).

Caution is required in interpreting these estimates because, firstly, particular programs may be designed to encourage more than one type of activity. In such cases, the Commission has allocated the program's total funding to the activity deemed to be the main target of the assistance. A further qualification is that the extent to which an activity that appears to be targeted by a program actually benefits from the assistance is not always clear. This is because there is often a lack of information on the operation of certain schemes and their economic effects.

Figure 4.4 **Budgetary assistance, by activities, 2000-01**
percent



Note: The assistance categories include general as well as specific schemes targeting an activity within an industry. For example, the *export assistance* category includes broad-based export measures (such as the Export Market Development Grants scheme) as well as industry-specific measures (such as the TCF Import Credits Scheme) which also facilitate export. The *sectoral and adjustment assistance* category covers programs specifically benefiting producers in a sector or facilitating adjustment. The other industry-specific assistance category covers measures (such as bounties) not already included in the above categories.

Data source: Commission estimates.

As shown in figure 4.4, the largest shares of budgetary assistance involve R&D support (38 percent), followed by export assistance (29 percent) and investment measures (13 percent). Sectoral and adjustment assistance and other industry-specific measures accounted for 7 percent and 13 percent, respectively.

While there is considerable change over time in the particular budgetary assistance measures, the above forms of support have long been a feature of the assistance

provided to Australian industries. Section 4.3 discusses recent developments affecting budgetary assistance in those areas.

Sectoral and industry distribution of budgetary assistance

As well as reporting assistance by program, the Commission also estimates the incidence of budgetary assistance by benefiting industries. The incidence of assistance is reported using a four sector classification of the Australian economy and a more detailed 27 industry classification. Under this system, the primary production and mining sectors remain as single categories. However, the manufacturing and services sectors are subdivided into 11 and 14 ‘industry groupings’, respectively.

The methodology for allocating budgetary assistance among the 27 industry groupings is discussed in appendix B of the *Trade & Assistance Review 1999-2000* (PC 2000e). While the Commission has used detailed information to allocate assistance among the industry groupings, the need for judgment means that there remains some scope for imprecision.

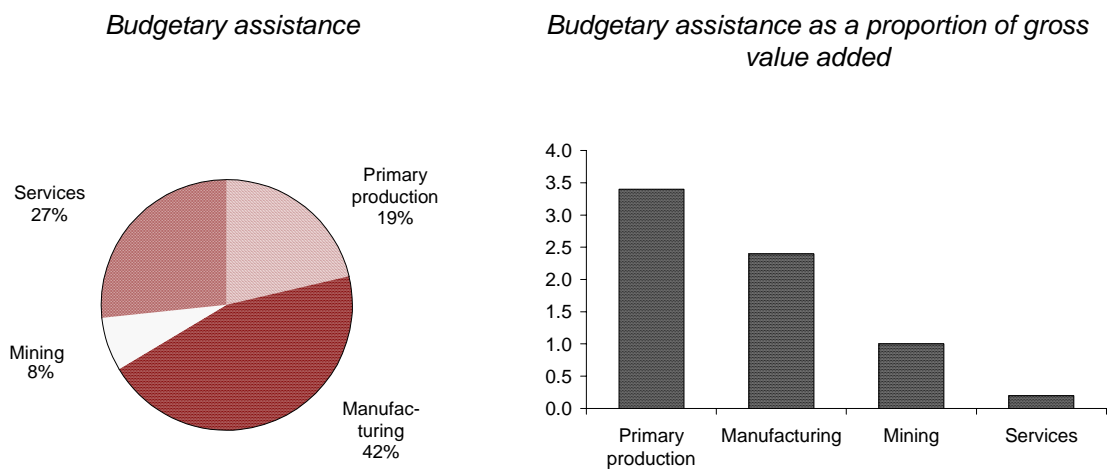
This allocation method provides significantly more detail on the incidence of assistance than the four sector split. That said, although the reporting of budgetary assistance by broad sectors and industries facilitates data collection and measurement, it may conceal significant variations in assistance between firms and industries, and within industry groupings. Indeed, many firms do not make any use of government programs. A recent paper by Commission staff (Revesz and Lattimore 2001) revealed that use of R&D and certain export programs between 1994 and 1998 ranged from 2 to 23 percent of firms in the targeted activities. Similarly, a previous survey of 6000 firms found that around 90 percent of them used no government programs in 1993-94 and 1994-95 (IC/DIST 1997).

Sectors

Budgetary assistance varies markedly between sectors. The largest proportion of budgetary assistance goes to the manufacturing sector (42 percent). Services account for 27 percent, and primary production 19 percent. The mining sector receives the smallest share (figure 4.5).

As a proportion of gross value added — that is, relative to industry size — budgetary assistance was highest for the primary production sector (3.4 percent), followed by the manufacturing sector (2.3 percent). The proportion was 1.1 percent for the mining sector and 0.2 percent for the services sector.

Figure 4.5 **Budgetary assistance by sector, 2000-01**



Data source: Commission estimates.

Industry groupings

Table 4.1 below details the incidence of budgetary assistance by industry grouping.

There is significant variation in budgetary assistance at this level. The four industry groupings that accounted for the largest shares of total budgetary assistance in 2000-01 were:

- *primary production* — assisted mainly through R&D support (CSIRO research and rural R&D corporations), adjustment assistance and income tax averaging provisions;
- *motor vehicles & parts* — assisted almost entirely through the PMV Export Facilitation Scheme and its successor, the Automotive Competitiveness Investment Scheme;
- *petroleum, coal, chemical & associated products* — assisted mainly through R&D support and specific assistance to the pharmaceutical industry through the Pharmaceutical Industry Investment Program; and
- *mining* — assisted mainly through the development allowance and the R&D tax concession.

These four industry groupings each separately accounted for at least 6 percent of total budgetary assistance in 2000-01. In contrast, around half of the remaining groupings each received 1 percent or less of total budgetary assistance.

Table 4.1 Budgetary assistance by industry grouping, 2000-01

<i>ANZSIC Industry</i>	<i>\$m</i>	<i>% of total</i>	<i>% of gross value added</i>
Primary production	690	19	3.4
Mining	284	8	1.1
Manufacturing	1 552	42	2.3
Food, beverages & tobacco	79	2	0.6
Textiles, clothing, footwear & leather	113	3	3.7
Wood & paper products	27	1	0.6
Printing, publishing & media	22	1	0.3
Petroleum, coal, chemical & associated products	203	6	2.1
Non-metallic mineral products	16	<1	0.4
Metal product manufacturing	95	3	0.9
Motor vehicles & parts	640	18	16.5
Other transport equipment	52	1	2.6
Other machinery & equipment	155	4	2.2
Other manufacturing	45	1	2.0
Unallocated manufacturing ^a	106	3	na
Services	970	27	0.2
Electricity, gas & water supply	97	3	0.6
Construction	63	2	0.2
Wholesale trade	51	1	0.2
Retail trade	39	1	0.1
Accommodation, cafes & restaurants	37	1	0.3
Transport & storage	102	3	0.3
Communication services	140	4	0.8
Finance & insurance	76	2	0.2
Property & business services	126	3	0.2
Government administration & defence	3	<1	<0.1
Education	28	1	0.1
Health & community services	35	1	0.1
Cultural & recreational services	127	3	1.2
Personal & other services	6	<1	<0.1
Unallocated services ^a	42	1	na
Unallocated other ^a	158	4	na
TOTAL^b	3 655	100	0.6

^a Unallocated includes general programs where details of claimants and/or beneficiaries is unknown. ^b Totals may not add due to rounding.

Sources: ABS (2001b) and Commission estimates.

The industry incidence of budgetary assistance becomes more concentrated when it is measured as a percentage of industry gross value added (GVA). Of all industry groupings, *motor vehicles & parts* is by far the most assisted (16.5 percent). The

textile, clothing, footwear & leather and the *primary production* industry groupings also receive high rates of budgetary assistance, both at around 3.5 percent. In contrast, most other industries recorded budgetary assistance well below 2.5 percent, with many less 1 percent.

The two manufacturing groupings which receive high budgetary assistance — *motor vehicles & parts* and *textiles, clothing, footwear & leather* — also rank highly in terms of tariff assistance (although, in the case of motor vehicles & parts, a substantial proportion of budgetary assistance to the industry is also counted in the Commission's estimates of tariff assistance (see chapter 2).)

4.3 Recent developments

During 2000-01, a number of significant budgetary schemes were introduced or modified by the Commonwealth and State Governments.

Budgetary assistance which provides benefits to the firms and industries that receive it comes at a cost to other sections of the community or economy. For example, direct business subsidies increase returns to recipient firms and industries, but come at a cost to the public purse. To meet this cost, governments must increase taxes and charges, cut back on other spending, or borrow additional funds. This adversely affects other parts of the economy.

While certain forms of budgetary support for industry — most notably some forms of R&D funding — can deliver net community benefits, others are likely to entail net costs and the efficacy of any particular budgetary assistance program is often unclear. It is beyond the scope of *Trade & Assistance Review* to assess the merits of changes in budgetary assistance schemes. Rather, this section restricts itself to documenting recent developments.

The assistance schemes reported in this section are:

- research and development (R&D) schemes, provided recently in the Commonwealth's Innovation Plan;
- industry-specific assistance to films and food products; and
- firm-specific assistance, including Commonwealth and State investment incentives.

Recent developments in relation to budgetary assistance for the *passenger motor vehicles* industry and the *textiles, clothing & footwear* industry are documented in chapter 2. More recent developments, including the rescue support of the Ansett airline and related industries, are not reported in this year's *Trade & Assistance*

Review. Similarly, assistance measures foreshadowed by the Government during the Federal Election campaign are not covered.

Research and development

In January 2001, the Government announced an Innovation Plan, *Backing Australia's Ability*, which committed significant support for R&D in Australia. Total funding and revenue forgone under the Plan is \$2.9 billion over the five years to 2005-06, consisting of new incentives and additional funding for existing schemes in three areas: business R&D, commercialisation, and university research and education (table 4.2).

Of these measures, R&D support of direct benefit to industry (schemes assisting business R&D and commercialisation) accounts for \$1.4 billion.

The Innovation Plan was a response to recent proposals, including the reports of the National Innovation Summit (Miles 2000) and the Chief Scientist (Batterham 2000). These reports generally advocated increased funding to:

- foster an 'innovation culture', via funding on education, awareness and entrepreneurship relating to science and technology;
- support business and public sector research, including raising the 125 percent R&D tax concession (Miles 2000) and doubling of funding for the Australian Research Council (Batterham 2000); and
- assist the commercialisation of R&D.

The Commission examined R&D policy in a public inquiry in 1995 and, in last year's *Trade & Assistance Review*, commented on the debate, including the arguments for extra funding, that preceded the introduction of the Innovation Plan. The following sections outline key features and the early operation of measures assisting business R&D and commercialisation.

Business R&D

The principal arrangements to support business R&D in Australia include the 125 percent R&D tax concession and the R&D Start grant scheme. The 125 percent tax concession is the most significant measure (\$440 million in 1999) and has a broad-based design. The R&D Start program provides firm-specific R&D assistance based on a competitive and discretionary assessment process. In its 1995 inquiry (IC 1995), the Commission found a clear economic rationale for certain government support of R&D. It endorsed some of the existing arrangements at that time, and

recommended several proposals to improve the design of R&D policy. In particular, the Commission recommended retention of the (then) 150 percent tax concession, but also identified several detailed deficiencies which warranted attention.

Table 4.2 **Backing Australia's Ability initiatives**
\$ million

	2001-02	2002-03	2003-04	2004-05	2005-06	Total (5 years)
Business research						
- Streamlining the 125 percent R&D tax concession ^a	-5	-45	-85	-115	-95	-345
- Premium R&D tax concession ^b	30	90	105	110	125	460
- Rebate for small companies ^b	0	6	3	2	2	13
- R&D Start ^c	0	42	118	175	201	535
- Major Research Facilities program ^c	5	20	30	50	50	155
Commercialisation						
- Cooperative Research Centres ^c	0	0	55	57	115	227
- Pre-seed Fund ^b	6	17	22	22	12	79
- Innovation Access program ^b	1	22	24	26	27	100
- Commercialising Emerging Technologies program ^c	10	10	10	10	0	40
- Centres of Excellence for Biotechnology, Information & Communications Technology ^b	6	13	17	24	32	91
- Biotechnology Innovation Fund ^c	5	5	10	0	0	20
- New Industries Development program ^c	5	5	5	5	1	22
Total funding for business R&D and commercialisation	64	185	314	366	469	1396
University research and education						
- Australian Research Council Competitive Grants ^c	19	93	143	205	277	736
- Research Infrastructure Block Grants ^c	27	48	69	89	105	337
- University infrastructure ^c	26	53	54	56	57	246
- Additional 2000 University Places ^c	14	25	33	40	40	151
- Postgraduate Education Loans ^c	1	-2	-8	-12	-16	-37
- Online Curriculum Content	5	7	7	8	8	34
- National innovation Awareness	5	7	7	7	9	35
- Attracting IT&T Workers	-1	-1	-1	-1	-1	-3
Total funding for university research and education	96	230	305	392	478	1500
Total Backing Australia's Ability	159	414	619	758	947	2896

^a Revenue gain from the proposed changes to the 125 percent concession ^b New measure. ^c Additional funding for existing programs.

Source: Costello and Fahey (2001) and Howard (2001a).

First, while the R&D tax concession avoids the problem of selective assistance to particular projects, most of the funds go to R&D expenditure that would have gone ahead anyway. These subsidies generate budget costs and often represent an economic loss to Australia, since much eligible R&D in Australia is undertaken by foreign multinational businesses. Further, since making a sufficient taxable profit is required to claim the concession, the scheme is of little benefit to companies in a tax loss position, which usually are ‘high-tech’ start-up firms.

Second, while competitive grants schemes (such as the R&D Start program) are a partial response to the problems of the R&D tax concession, their discretionary and selective provision of support involves significant risks.

In the *Telecommunications Equipment, Systems and Services* report (IC 1998), the Commission examined ways to improve the design of the scheme, including a proposal to provide an incremental tax concession to target additional R&D.

The Innovation Plan contains measures which address some problems under existing arrangements (including those raised by the Commission), by:

- proposing changes to the design of the existing 125 percent R&D tax concession to improve the integrity of the scheme;
- introducing the new 175 percent tax concession to target additional or incremental R&D; and
- introducing a new tax rebate for tax loss companies.

These measures (except some aspects of the proposed changes to streamline the 125 percent R&D tax concession (see below)) were given effect with the passage of the *Taxation Laws Amendment Bill 2001* in Parliament in September 2001.

Streamlining the 125 percent R&D tax concession

For several years, there have been a number of concerns about the eligibility criteria of the R&D tax concession. Among other things, the scheme has allowed tax claims on expenditure that go beyond normal R&D activities, such as interest payments on debts to finance R&D, expenditure on feedstock in pilot plants and a range of other expense items. The previous syndicated arrangements, which allowed structured finance deals on ‘core technology’, led to concerns about possible abuses of the concession and their subsequent closure (Costello and Moore 1996).

The Innovation Plan retained the existing 125 percent R&D tax concession for business R&D, but proposed several changes to the design of the scheme.

First, the definition of R&D activities was to be tightened to include both innovation (novelty) *and* high levels of technical risks (uncertainty of the research outcome). The Government noted that past court interpretations of the R&D definition have created low thresholds for these criteria and that the scheme may give assistance beyond the original policy intent of supporting only R&D activities.

Second, the list of excluded activities was to be extended from ‘core activities’ to also include ‘supporting activities’. Various activities, such as market research, quality control, and making of donations, would no longer be eligible R&D activities.

Third, companies were to be required to have a ‘business plan’ for the R&D activities claimed under the R&D tax concession.

Fourth, the scheme’s ‘exclusive use’ test was to be removed to allow plant not used exclusively for R&D purposes (ie also used for normal production activities) to qualify for the R&D tax concession (on a pro rata basis). The Government considered that the ‘exclusive use’ test has penalised small companies, which do not have plant used solely for R&D purposes.

Fifth, ‘effective life’ depreciation deductions (at 125 percent) were to apply to plant used for R&D, in order to be consistent with the Uniform Capital Allowances regime proposed by the Business Tax Reforms.

Sixth, changes to the treatment of feedstock and trading stock were proposed to prevent claims of the concession in situations where the plant is already generating commercial returns and, hence, does not have a strong justification for government support. The Government has noted its concerns about situations where the eligible plants are generating saleable outputs and large commercial returns, and the full production costs have been claimed as R&D expenses (DISR 2001a, p. 8).

Only some of the above proposed changes were finally adopted. In September 2001, the passage of the *Taxation Laws Amendment Bill 2001* introduced only the requirement for a business plan, the removal of the ‘exclusive use’ test and effective life depreciation for R&D plant (ie the third, fourth and fifth provisions). The limited changes adopted to improve the integrity of the R&D concession reflected concerns raised by industry and a Senate inquiry into the proposed changes (Senate Economics Legislation Committee 2001).

Premium 175 percent R&D tax concession

The premium concession has features similar to overseas incremental tax schemes which are designed to encourage additional R&D. While overseas countries have

adopted only an incremental scheme, Australia now has both broad-based (125 percent concession) and incremental R&D tax arrangements.

The scheme applies to increases in, rather than all types of, R&D expenditure. Eligible R&D activities must be those in excess of a base — defined to be the (moving) average of R&D expenditure in the previous three years. When the Innovation Plan was first announced, the base was defined as R&D intensity (the ratio of R&D expenditure to turnover) — similar to that of the US tax credit scheme. This change was announced in April 2001, following representations from industry.

A much higher rate of assistance is available under the premium concession. Its nominal subsidy is 22.5 cents in the dollar — triple the subsidy of 7.5 cents in the dollar currently provided under the 125 percent R&D tax concession.² Indeed, the premium subsidy approaches the level when the R&D tax concession was first introduced in 1985-86.

The revenue forgone under the premium concession is estimated to be \$460 million over five years.

The premium scheme has other features:

- only current and labour-related R&D expenditures are eligible for the concession.³ The Government considered that those expenditure have the greatest (spillover) benefits to the economy. However, the excluded expenditures can be claimed under the existing 125 percent tax concession if they satisfy the latter's requirements.⁴
- companies must have a three-year registration history of eligible expenditure to determine the base. An 'adjustment' mechanism operates to reduce the scope for companies to understate previous R&D expenditure to influence current claims.
- the scheme applies to expenditure commencing after 30 June 2001.
- grouping and anti-manipulation rules apply to prevent abuses of the scheme.

² The Government estimated the concessional elements of the R&D tax concession as the extra 25 percent, not the total 125 percent (Treasury 2001). On this basis, the subsidy under the 125 percent tax concession can be calculated as 7.5 cents in the dollar (that is, 25 percent of the 30 cents 'normal' deduction under the existing company tax rate). The subsidy of the 175 percent concession operates in the same way. While this calculation method may be appropriate for current expenditure, it tends to underestimate the true subsidy in the case of capital expenditure, since the bringing forward of R&D plant (rather than effective life depreciations) provides another subsidy in the form of accelerated depreciation.

³ Excluded expenditures are those on plant, pilot plant, plant leasing, contracted plant, core technology and R&D related interest.

⁴ Interest and core technologies are exceptions, which are claimable at 100 percent.

The R&D tax concession legislation has introduced changes to the registration requirement. R&D Start recipients (see below), who are not registered for the R&D tax concession, can now have their R&D expenditure under R&D Start counted for the three-year history of the premium.

The premium concession is in its early stage of operation. Its effectiveness in targeting additional R&D would need to be reviewed and evaluated. Overseas experience suggests that the efficacy of incremental R&D tax arrangements (including its ability to generate additional R&D) is unclear (Hall 1995).

R&D tax rebate

The R&D tax rebate (also called the tax offset) is intended to provide support to R&D undertaken by small companies, particularly those that are in the start-up phase or in a tax loss position. According to the Explanatory Memorandum:

The tax offset gives eligible small companies, in cases where the company is not yet profitable, the benefit of the R&D tax concession earlier. It could provide a cash flow when they most need it (Costello 2001b).

The rebate is a cash equivalent of the R&D tax concessions. In addition, a company can claim both the premium concession and the tax rebate, if the requirements of both schemes are met.

Among other things, the eligibility conditions require that the company must have an annual R&D expenditure of over \$20 000, a company group turnover of less than \$5 million, and a group R&D expenditure of less than \$1 million.

Grouping rules will also apply to prevent large companies from dividing their operation (into smaller units) to receive the tax rebate.

The Government estimated that the scheme will have a revenue cost of \$13 million and that up to 1500 companies will get access to \$30 million.

R&D Start

The R&D Start program provides grants and loans to Australian companies for undertaking R&D and commercialisation. Assessment of program eligibility is determined on a competitive basis by the Industrial Research and Development (IR&D) Board.

The assistance under R&D Start is discretionary and firm-specific. Eligible projects can receive subsidies of up to 50 percent of the project's costs. Around 300 companies are eligible for R&D Start per year.

Last year, the Department of Industry, Sciences and Resources and the Allen Consulting Group jointly conducted an evaluation of the effectiveness of the R&D Start program. The evaluation was conducted on the basis of a survey of R&D Start recipients, rather than through a public inquiry process. In November 2000, the evaluation report concluded that:

While appreciating that the survey responses may be biased, the evidence is that the R&D *Start* program is meeting its objectives of fostering R&D activity and commercialisation (Allen Consulting Group 2000, p. 5).

The Innovation Plan provides a further \$535 million over five years, in addition to the existing funding of \$419 million already committed over that period. Consequently, R&D Start subsidies will reach \$180 million per year.

Apart from the increase in funding, the Government further noted that it will redesign the R&D Start program so that it is administered flexibly to meet the needs of innovative firms:

This includes the ability to apply at any time, streamlined decision making which will result in reduced turnover times, simplified processes to ensure rapid payment and a simplified agreement which minimises reporting and obligations for companies (Howard 2001a).

Major National Research Facilities program

‘Major National Research Facilities’ (MNRF) refer to large equipment items and highly specialised laboratories that are used to conduct major research projects. Examples of facilities supported under the MNRF program include the Bandwidth Foundry for the provision of Photonic Integrated Circuits, and the Australian Synchrotron Research Program.

The Innovation Plan committed \$155 million over five years to continue the MNRF program and provided for a significant increase in funding.

Under the MNRF program, a committee has been established to assess eligibility on a competitive basis. The MNRF Committee receives assistance from AusIndustry and reports to the Minister for Industry, Science and Resources who will make the final decision on proposals to be supported.

The eligibility criteria include:

- the proposal provides access to a new or existing resource for research in the ‘national interest’.
- total eligible costs of a facility must be greater than \$5 million and the capital costs must not be greater than \$60 million; and

-
- the Government grant can be up to 50 percent of the costs of the facility with matching contributions from industry, State governments and/or research institutions. The Minister may consider funding of up to 75 percent in exceptional circumstances.

Of the 86 applications for the MNRF program, 15 proposals have been selected for assistance. The successful proposals cover research facilities on biotechnology, information technology, manufacturing, agriculture, mining, medicine, marine research and astronomy.

Commercialisation

Commercialisation refers broadly to the process of taking a new product or process beyond the R&D phase and introducing it into the market place. While it can be a risky and expensive process, commercialisation activities are also similar to other aspects of the firm's operation and production. Unlike R&D, virtually all of the benefits arising from commercialisation activities are captured by the firms which undertake it.

In reviewing the economic rationale for support of R&D, the Commission's *Research and Development* report (IC 1995) considered that the arguments for supporting commercialisation activities are not well-justified. In the *Telecommunications Equipment, Systems and Services* report (IC 1998), the Commission proposed examining regulatory and taxation arrangements that may directly affect capital markets' financing of risky projects, rather than providing subsidies to support commercialisation activities.

Cooperative Research Centres

Cooperative Research Centres (CRCs) undertake collaborative research projects with joint participation of universities, public sector agencies and industry.

The Innovation Plan expands the CRC program by an additional funding of \$227 million over the next five years — an increase of 80 percent over existing level. Total CRC funding over five years will amount to \$947 million.

The additional funding will be used to develop larger CRCs and lift funding for existing centres. The selection guidelines have been revised so that existing CRCs can receive supplementary funding for new research programs and commercialisation.

World Class Centres of Excellence

The Innovation Plan provides \$91 million over five years to establish Centres of Excellence for biotechnology, and information and communications technology. Industry funding of the centres will vary, but is expected to be around 25 percent of total funding.

The centres will be established as stand alone institutes (separate from universities) to undertake research activities and commercialisation of new technologies. The centres are to be managed by a Board of Directors, which comprises both academic industry representatives. The operator of the centre will be selected through a competitive assessment process.

Pre-seed Fund program

The Pre-seed Fund program makes available venture capital finance for university and public sector research companies that are seeking to commercialise their technologies. The scheme is modelled on existing venture capital programs, such as the Innovation Investment Fund (see PC 2000e). Under the scheme:

- \$72 million in funding over five years will be used to establish ‘fund companies’, which invests in university and public sector agencies to commercialise research;
- fund companies are to make a maximum investment of \$1 million per project and/or research company;
- institutions eligible for support include universities and Commonwealth public sector research agencies;
- the government equity contribution into fund companies is 75 percent of total equity (on a 3:1 basis with private capital contribution);
- if a fund company makes a profit from its investments, the Government will retrieve only its original capital contribution, and not the profit; and
- the capital retrieved by the Government will be kept in a ‘revolving fund’ to continue the Pre-seed Fund program, instead of being returned to the Consolidated Revenue Fund (AusIndustry 2001);

The IR&D Board undertakes the selection of fund companies under ministerial guidelines and a competitive tender process.

Commercialising Emerging Technologies

In last year's *Trade & Assistance Review* (PC 2000e), the Commission reported on the Commercialising Emerging Technologies (COMET) program, which has been allocated \$30 million over three years to 2002. COMET funds individuals and small firms for the costs of acquiring commercialisation skills, such as developing a business plan, undertaking market research or going to management educational courses.

In response to the high number of applications for COMET, the Innovation Plan provides an additional funding of \$40 million to meet the 'demand'.

Information Technology Online (ITOL) program

The ITOL program is aimed at encouraging firms, especially small and medium-sized businesses, to adopt 'electronic commercial solutions'. A grant of up to \$150 000 (50 percent of project costs) is made available to consortia of firms, industry associations and universities. The types of project undertaken so far relate to aspects of supply chain management, data warehousing, security solutions and industry networks.

The Government noted that the demand for the program is strong and requests for assistance have exceeded the existing funding allocation. In response, the Innovation Plan extends the ITOL program to 2005-06, with additional funding of \$13 million.

Innovation Access program

The Innovation Access program has the objective of increasing the access of Australian researchers and firms to overseas research and technology:

By gaining increased and faster access to technologies developed offshore, a large number of Australian firms, particularly small and medium firms, will be able to innovate more readily (Howard 2001a).

Total funding under the program will be \$100 million over five years. While the forms and the assistance will vary, the subsidy rate can be up to 50 percent of the costs of eligible projects. Assessment of eligibility is on a competitive basis.

The support covers research projects involving collaboration with overseas researchers, funding to Australian firms to bring overseas specialists to Australia or to go overseas research 'missions'. Demonstrations of Australian science and technologies overseas are also eligible.

Biotechnology

Last year, the Government announced funding of \$20 million to establish a Biotechnology Innovation Fund, as part of the National Biotechnology Strategy to support the development and commercialisation of biotechnology. It has also noted that the biotechnology industry currently receives some \$250 million a year from various research institutions and a range of programs (DISR 1999).

Under the Innovation Plan, the Biotechnology Innovation Fund is to receive an additional funding of \$20 million, over three years to 2003-04.

New Industries Development program

Under the Innovation Plan, the Government has expanded the existing New Industries Development program to assist the commercialisation of technologies specific to agribusiness products. The program will receive new funding of \$22 million over five years to fund 'pilot commercialisation' ventures and provide skills in business management to agribusiness firms.

Industry-specific assistance

Films

Film and television program production has long been assisted by a range of Commonwealth and State government arrangements.

Commonwealth budgetary assistance to the film industry involves the provision of direct production subsidies (delivered via the Australian Film Finance Corporation), the funding of film development and promotion activities (delivered via the Australian Film Commission) and the granting of tax incentives to encourage investment in films (under division 10B and 10BA of the *Income Tax Assessment Act 1936*). The cost of these measures — in terms of funding and revenue forgone — is in the order of \$90 million per year.

In its recent inquiry into broadcasting services (PC 2000a), the Commission noted that the Australian content quotas for commercial broadcasting also have production and industry assistance effects on the film industry. The *Broadcasting* report also documented various financial and non-financial assistance schemes provided by State governments to film production. At times, investment incentives have also been granted. For example, in 1995, the Commonwealth and NSW Governments

provided an estimated \$70 million incentive to Fox Studios to locate its film studios in Sydney (IC 1996, p. 18).

In the *Broadcasting* report, the Commission noted concerns about the efficiency (including administration costs) and effectiveness of subsidies in bringing about cultural and social benefits of Australian programming. While efficiency and effectiveness vary, incorrectly targeted subsidies or those not tied to broadcasting requirements may result in the production of films that audiences do not demand. Alternatively, the subsidies could go to films which businesses would have provided anyway.

The Gonski (1997) review of Commonwealth assistance to the film industry recommended several changes to the design of government programs. Among other things, the review expressed concerns on the effectiveness of the existing tax concessions (division 10B and 10BA), as ‘a number of films are never released while others appear to have inflated budgets’ (AFC 1998, p. 87). It recommended replacing both schemes with an alternative scheme.⁵ Division 10B and 10BA have also been used as ‘mass marketed’ tax shelter schemes and have attracted attention from the Australian Taxation Office.

In September 2001, the Government announced a film industry package of increased funding of \$93 million, including:

- additional funding to the Australian Film Finance Corporation, increasing from \$8 million in 2002-03 to \$11 million in future years, to support ‘quality’ Australian television drama;
- additional funding to the Australian Film Commission, increasing from \$3 million in 2002-03 to \$5 million in future years, to support the development of, and partnership between script writers, directors and producers;
- around \$3 million per year of additional funding to Film Australia;
- additional funding for SBS Independent, increasing from \$2 million in 2002-03 to \$4 million in future years; and
- \$2 million funding of a Broadband Content Fund, which is to provide grants to producers with high Australian digital content and broadband applications.

The Government also decided to retain the existing tax concessions for film production, stating:

⁵ Under this scheme, Film Licensed Investment Companies (FLICs) were established to invest in eligible firms, and the purchase of FLICs shares receives a 100 percent tax deduction. A pilot scheme operated from 1998-99 to 1999-2000.

Division 10B has been of significant value to local producers and will continue to offer a generous concession to film investors using legitimate financial arrangements consistent with Australian tax law (Alston 2001).

The Government also announced a new 'tax offset' to attract foreign film makers to locate their productions in Australia. The tax offset will provide a subsidy at the rate of 12.5 percent for eligible expenditure on a film project. To be eligible, the expenditure must exceed \$15 million and the Australian expenditure constitutes at least 70 percent of the total expenditure. This condition is waived for Australian expenditure of \$50 million or more. The elements which will make up 'Australian expenditure' are to be determined after consultations with the industry.

The tax offset provides an alternative assistance arrangement to existing tax concessions and funding. Companies eligible for the tax offset are not able to use division 10B and 10BA or seek funding from Australian Film Finance Corporation. However, this requirement does not apply to film production which is not completed before 4 September 2001.

Food processing

Food processing industries are the largest industry grouping in the Australian manufacturing sector and are also a substantial net exporter. Over the last decade or so, Government initiatives to improve the efficiency and competitiveness of the industry have placed an emphasis on microeconomic reform, such as improving food regulations, rather than the use of assistance measures.

In September 2001, the Government announced the National Food Industry Strategy with funding of \$102 million over five years. The assistance package forms a five year plan to sustain the competitiveness and profitability of the food processing industries, as a response to perceived changes in the global supply market:

The industry is faced with major change as the effects of trade liberalisation, e-commerce, [the emergence of] global supply chains ..., changing consumer demand and growing environmental concerns impact on the international food chain (Truss and Minchin 2001).

The new assistance package comprises several measures assisting commercialisation of research, development of export markets and supply management issues specific to food products.

- \$12 million will be used to establish centres of excellence to conduct research of benefit to Australian food products.

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- \$35 million will be used to fund a Food Innovation Grants program. The scheme provides matching funds for R&D projects undertaken in collaboration with the new centres of excellence.
 - \$25 million of funding will be allocated to develop new export markets for Australian food products, such as China.
 - \$16 million will be used to fund business networks and training to improve the efficiency of supply chain management and to reduce the costs associated with the food safety and quality assurance system.
 - \$15 million has been allocated to establish the National Food Industry Council, which replaces the Supermarket to Asia Council and, with a broader role, oversees the implementation of the National Food Industry Strategy.

Firm-specific assistance

As well as providing broad-based assistance for industries and activities, Australian governments also assist specific projects or specific firms. This assistance is generally provided on an ad hoc basis and is often aimed at attracting foreign multinationals to locate facilities locally. At the Commonwealth level, the Strategic Investment Incentives Program (SIIP) provides an administrative umbrella and guidelines under which such funding is distributed. State governments also provide firm- and project-specific assistance, often in competition against other State governments to attract a target firm to invest or locate in their particular State.

The Commission has examined issues surrounding the provision of firm- and project-specific assistance in several inquiries, including *State and Local Government Assistance to Industry* (IC 1996a) and *Telecommunications Equipment, Systems and Services* (IC 1998). It has also commented on some aspects of this assistance in the last two years' *Trade & Assistance Review* (PC 1999, 2000e).

The Commission has noted that, if new investment can be induced through selective incentives, certain benefits to the local economy can in theory arise through the capture of 'externalities' from new technology and skill transfer, from agglomeration economies, or from the use of unemployed resources.

It is not clear, however, that selective assistance is a particularly important factor in firms' locational decisions — at least in terms of the country in which they locate. The economic literature suggests that other factors, such as the size and growth of market, are the main drivers of investment.

Further, the provision of selective incentives entails several economic risks. In particular:

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- there is a risk that incentives will be provided to firms which would have chosen to locate where they do anyway — hence, Australia as a whole, or the particular State offering incentives, may incur economic costs for no additional benefits;
 - where incentives do attract new projects from elsewhere, these projects may still draw resources, such as skilled labour, away from more productive uses in other local industries and firms — with little or no net impact of net investment and employment;
 - similarly, competition from firms, which have been attracted or sustained by government incentives, may render other firms or projects in the same industry less viable (or unviable), and can potentially prompt ‘me too’ claims for assistance; and
 - even if incentives successfully attract ‘footloose’ firms in the short term, without ongoing assistance a State faces the risk of adjustment costs if these firms choose to relocate at a later date.

Unless applications for selective assistance are vetted carefully and transparently, a proportion of assistance provided under such programs could entail net costs to the community. Indeed, the Commission considers that it is better to fund specific improvements of Australian facilities (such as economically warranted transport infrastructure and R&D) that are also of benefit to Australian firms and consumers generally, than to provide subsidies directly to shareholders of specific firms, including foreign companies.

Where governments nevertheless decide to provide firm- and project-specific assistance, several design features can reduce the risks. Among other things, the Commission has argued that government provision of incentives should be subject to rigorous assessment criteria and cost-benefit analyses to ensure that the benefits outweigh the costs. Governments should also use a transparent decision-making process. The Commission has also advocated an agreement between Australian governments to deal with problems caused by competition between state governments for particular projects.

Several developments over the last year have highlighted these issues and concerns.

- Incentives provided to firms and projects such as Motorola in South Australia have raised concerns about transparency and the robustness of the assessment process. A recent Tasmanian Auditor General’s report (TAG 2000) also emphasised the desirability of transparency and robust analysis in the delivery of industry assistance in that State.

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- In the case of Motorola, the firm relocated away from the State after earlier receiving assistance, highlighting one of the problems of providing assistance to footloose firms.
 - Issues of competition between State governments have been highlighted by the debate about the location of a Holden engine plant (discussed in chapter 2).
 - State and Commonwealth Government assistance for a magnesium project in Queensland has drawn criticism from a rival project in South Australia, and a subsequent application for funding under the Commonwealth's SIIP (discussed below).
 - A decision of the Victorian Government to fund a Synchrotron research facility, in parallel with a Commonwealth Government investigation of the same issue, also raised questions about the coordination of such assistance.
 - In response to such matters, the NSW and Victorian Governments have called for an intergovernmental agreement, sponsored by the Commonwealth, to constrain competition between State governments (see below).

In the following sections, the Commission documents key developments in firm- and project-specific assistance, particularly over the last year. While cognisant of the risks inherent in such assistance generally (noted below), the evaluation of individual developments is beyond the scope of the *Trade & Assistance Review*.

The Commonwealth Strategic Investment Incentive Program

The Commonwealth Government's Strategic Investment Incentive Program (SIIP) is designed to attract direct investment to Australia by providing assistance to selected projects. While the SIIP is a separate scheme designed to attract additional investment to Australia, it has origins in the Government's long-term industry policy of developing certain industries, such as passenger motor vehicles, information technology, space launch and light metals.

Under the program, applications for investment incentives are assessed on a case-by-case basis against 'indicative' selection criteria. However, details of the assessments of selected projects have not been made publicly released. The Commission examined aspects of the early operation of the SIIP and the program's design in the *Trade & Assistance Review 1998-99* (PC 1999).

Projects assisted under the SIIP

To date, several projects have been awarded incentives or received an offer for assistance under the SIIP. These are:

- a \$40 million package for Visy Industries to establish a pulp and paper mill in Tumut, New South Wales (Minchin 1998);
- an offer of assistance exceeding \$100 million to Comalco to expand an alumina refinery in Gladstone (Howard 1999);
- a \$70 million package for the US based Syntroleum Corporation for access to, and development of, gas-to-liquid (GTL) technology in Australia (Minchin 2000a).⁶
- a \$3.2 million grant to the IBM e-Business Centre for Innovation in Sydney (Alston 2000);
- \$100 million of funding to develop a space launch facility on Christmas Island (Minchin and MacDonald 2001);
- \$50 million of CSIRO funding to develop a Queensland magnesium project (Minchin 2001i); and
- a \$12.5 million SIIP grant to Holden to complement the other assistance it has attracted to establish an engine plant in Victoria (Minchin 2001a).

The Commission discussed aspects of the first three incentives in previous *Trade & Assistance Reviews* (PC 1999, 2000e). Assistance for the Holden engine plant was discussed in chapter 2. The other SIIP and related grants, and recent developments with the Comalco project, are discussed below.

IBM e-Business Centre

In the *Industry 2000* statement on industry policy priorities, the Government indicated that it is evaluating a range of measures to attract investment in R&D activities and knowledge-based industries:

⁶ In addition to Commonwealth investment incentives and other program funding, the SIIP's selected projects also receive assistance from State governments, usually in the form of infrastructure funding. For example, Syntroleum has stated that a \$30 million funding package is to be provided by the Western Australian Government for construction of a desalinisation plant, access roads and site improvements where its plant is located (Syntroleum 2000).

Strategic initiatives are also being developed to attract investment into the information technology, telecommunication and biotechnology sectors ... As part of this work, Invest Australia is developing an R&D investment strategy that will contribute to the proposed Innovation Action Plan. (Minchin 2000d)

In December 2000, the Government provided a \$3.2 million grant to IBM Global Services Australia to establish a \$30 million IBM e-business Centre for Innovation, in Sydney. The grant is used to fund training on information and communications technology.

While the SIIP is a separate assistance scheme, other policy measures have also been used to attract investment in the information technology sector. For example, under the existing the Commonwealth Government's IT Outsourcing Initiative, industry development plans are considered to have attracted several foreign investments in information technology, including the establishment of e-business centres (DCITA 2001).

Space launch

In recent years, the Government has introduced several measures designed to facilitate the development of a commercial space industry in Australia.

In June 1998, it announced a sales tax exemption, estimated at \$60 million in revenue forgone, for space and satellites to be launched in Australia. At the time, the Government also entered an agreement with the Kistler Aerospace Corporation to develop space launch facilities at Woomera. The (then) sales tax exemption was intended to:

- facilitate the establishment of a viable commercial space industry; and
- establish access to the expanding world demand for satellite launch facilities (Costello 1998).

However, Kistler's proposal to launch rockets from Woomera has not proceeded because of the company's problems in raising finance (Minchin 2001f).

In June 2001, the Government announced that it will provide an investment incentive of \$100 million to the Asia Pacific Space Centre (APSC) to establish commercial space launch facilities on Christmas Island. In return, APSC agreed to establish a space research centre in Australia (Minchin and MacDonald 2001). Around \$60 million of this funding will be used to develop infrastructure benefiting the development of the project, such as weather bureaus, telemetry and a space research centre (Macdonald 2001).

The Government took the view that the incentive was necessary to outbid Brazil, which was also seeking to attract the APSC investment (Minchin 2001g).

In addition to the \$100 million incentive, the Government has also entered a bilateral treaty with the Russian Government. The bilateral arrangement, which will be in effect for ten years, provides for duty free imports of space-related goods and equipment. The Government expected that the duty-free exemption will benefit all companies currently proposing to establish space launch facilities in Australia, including APSC.

Alumina

Alumina refining involves the processing of bauxite to produce alumina, the key ingredient used in the production of aluminium metal. Since 1985, alumina refining capacity in Australia has increased significantly (by 50 percent) as a number of projects has been expanded and new ones added. Further projects are under consideration (ABARE 1999).

In January 1999, the Commonwealth Government made an offer of over \$100 million in SIIP funding to Comalco for establishment of an alumina refinery in Gladstone (Howard 1999). The Government considered that its incentive package was necessary to ensure that Comalco located its investment in Australia:

For some time now we have been competing with an alternative site at Bintulu in Malaysia ... (Minchin 2000b).

The Government also stated that the Gladstone alumina refinery project will bring benefits to Australia, in terms of a capital investment of \$1.4 billion and the creation of up to 1300 jobs in the first stage (Minchin 2000b). However, details of the cost-benefit analysis which underpins the grant of the Comalco incentives have not been released publicly.

In October 2001, Rio Tinto (Comalco's parent company) announced that it would proceed with the refinery, stating:

The Comalco Aluminium Refinery continues Rio Tinto's substantial investment in Australia. This includes Comalco's purchase of the Gladstone Power Station in 1994, the addition of a new potline to the Boyne Island smelter in 1997, and Comalco's increased holding in Queensland Alumina Limited...earlier this year (Rio Tinto 2001).

At the same time, the Commonwealth Government announced that its incentive package will be provided as a \$137 million interest-free loan. The package will be used primarily to develop Comalco's energy facility (\$102 million). The remainder (\$35 million) will fund a R&D partnership between the Commonwealth Government and Rio Tinto. The partnership will undertake research on energy

efficiency and greenhouse gas abatement. In addition, the Queensland Government is to provide \$150 million to assist the Gladstone alumina refinery. Construction of the refinery commences in late 2001 (Schwarten 2001).

Magnesium

The Commonwealth and Queensland Governments have long been involved in the funding of research and the development of magnesium and downstream processing technology.

In the early 1990s, these Governments agreed to provide \$25 million to a consortium including the Queensland Metals Corporation and CSIRO. The consortium was to attract funds to develop the Kunwarra magnesite deposit in central Queensland. The Commonwealth funding formed part of the Light Metals Industry Development Strategy formulated at the time with the stated aim of ensuring that local producers are equipped to meet any increased demand for light weight automotive components.

The Australian Magnesium Corporation (AMC — previously Queensland Metals Corporation) is now seeking to develop a \$1.2 billion magnesium smelter in Queensland. The new smelter is to use a new process developed jointly by AMC and the CSIRO and would be capable of producing 92 000 tons of magnesium per year, or one quarter of present world demand.

In November 2000, the Commonwealth and Queensland Governments announced that they would assist the project. The Commonwealth Government granted \$50 million under the SIIP to the CSIRO for further research into the magnesium smelting process. This grant is to be paid back by AMC in the form of higher royalties to the CSIRO. The Queensland Government committed \$50 million for 'multi-user infrastructure' at the Stanwell Industrial Estate, where the smelter would be located. The infrastructure includes a \$9 million railway siding and a pipeline to transport gas from PNG.

However, in July 2001, AMC announced that it had been unable to raise sufficient funds from investors to develop the project, and that the company was pursuing 'other financing options' (AMC 2001).

The Commonwealth and Queensland Governments subsequently offered further support to allow the project to continue. The Commonwealth Government announced that it would act as a guarantor for a \$100 million loan. The State Government announced that it would 'fund an attractive yield enhancement on new shares for the first three years at a cost of around \$100 million. That \$100 million

will be acknowledged by AMC as a subordinated debt obligation⁷ to the Queensland Government' (Beattie 2001). At present, a revised share offer is being offered to potential investors.

In August 2001, SAMAG — a South Australian Company which was also considering building a magnesium smelter — expressed concern about the government assistance to AMC. SAMAG said that it expects the Commonwealth Government to support its project too, and has applied for \$100 million of assistance under the SIIP (AFR 2001). The money is required for upgrading infrastructure to facilitate a better supply of gas power to their Port Pirie site. SAMAG's application is still being considered (Minchin 2001i).

In November 2001, the Government announced that the project has secured a contract to supply magnesium to the Ford Motor Company and its equity raising was successful. Production at the magnesium plant is expected to commence in 2004 (Minchin 2001k).

The Tarcoola-Darwin Railway

Construction of the Tarcoola-Darwin Railway began recently. The railway is being built and operated by a private consortium, but its commercial viability was judged to require substantial Commonwealth and State Government assistance.

In November 1996, the South Australian and Northern Territory Governments signed an inter-governmental agreement and committed public funding to the building of an Alice Springs to Darwin Railway. The Commonwealth Government announced in August 1997 that it would be providing \$100 million of assistance to the Project. After the announcement of the preferred consortium to construct and run the railway, the Commonwealth Government held detailed discussions with the State and Territory governments. This led to the announcement in October 1999 that the Commonwealth Government had agreed to increase its funding commitment to \$165 million. Together with \$165 million from the Northern Territory Government and \$150 million from the South Australian Government, this brought total government funding to \$480 million.

In February 2001, the Commonwealth Government announced that it was contributing a further \$26 million in the form a 'stand-by' loan to the consortium. This was part of a \$79 million package of additional funding put forward by the three governments, which followed the withdrawal of backing for the railway by a major US institutional investor. The Northern Territory Chief Minister stated that

⁷ This is essentially a loan to AMC. Subordination means that, in the case of the company failing, all other creditors (loans) are paid out by the company before this loan.

the funding was necessary to provide certainty and to allow the project to begin on time, and that “It has been emphasised to the consortium that all commercial options must be exhausted before the Governments provide the stand-by funding” (AustraliAsia 2001a).

Governments have identified several benefits from backing this project. The AustraliAsia Railway Corporation⁸ includes as benefits the increased commercial opportunities from reduced transport costs and reduced transportation times, increased job opportunities, road maintenance cost savings, reduced traffic congestion and environmental and defence benefits. The Prime Minister stated that it is a ‘nation building’ project (Howard 2001b). A cost-benefit analysis conducted in 1999 (Booz Allan & Hamilton 1999) concluded that the project would confer net significant benefits, in contrast to earlier assessments.⁹

⁸ The AustraliAsia Railway Corporation is a statutory corporation jointly established by the Northern Territory and South Australian Governments and is charged with facilitating the Tarcoola-Darwin railway project (AustraliAsia 2001b).

⁹ Several studies have assessed the project’s economic viability. An inquiry in the mid-1980s (Hill 1984) found that the line would not be economically viable: it had a benefit-cost ratio of between 0.28 and 0.31 (ie, each dollar invested would return 28 to 31 cents). A mid-1990s study (Wran 1995) reported that the project had a benefit-cost ratio of 0.88 and was not viable at that time, but that it may become viable in the future. In 1999, a consultant’s report to the Northern Territory Government (Booz Allan & Hamilton 1999) found that the line would be economically viable, with a benefit-cost ratio of 1.88.

The Hill report differs from the Wran and Booz-Allan reports for two main reasons. Firstly, the latter reports contain lower estimates for construction costs and significantly lower estimates for the operating costs for the railway. Secondly, they assume markedly greater benefits from reduced road maintenance and accident costs. In the Booz-Allan report, reductions in road maintenance costs account for one third of the total benefits from the railway and reductions in accident costs account for a further 10 percent. The Booz-Allan report also uses a lower discount rate than the earlier reports. (A discount rate is used in economic analysis to estimate the current value of expected future cash flows.) The Booz-Allan report’s benefit-cost ratio of 1.88 was obtained by using a discount rate of 5 percent. Sensitivity analysis revealed that, with a discount rate of 7 percent, the benefit-cost ratio would fall to 1.35. This reflects the long-term nature of the benefits from the project (Booz-Allan & Hamilton 1999). In obtaining its benefit-cost ratio of 0.88, the Wran report used a discount rate of 8 percent (Wran 1995)). This accounts for much of the difference between the benefit-cost ratios recorded in the Booz-Allan and Wran reports.

Commonwealth, State and Territory cooperation

In its inquiry on *State, Territory and Local Government Assistance to Industry* (IC 1996), the Commission examined several options to develop an intergovernmental agreement on industry assistance provided by the States. Such an agreement could involve a transparency and monitoring mechanism, limits on some assistance, or a comprehensive arrangement to limit all assistance. The Commission also saw a legitimate role for the Commonwealth to encourage the states to limit their selective industry assistance.

In February 2000, the Commonwealth Government indicated that it has reached a non-prescriptive agreement with State and Territory governments to cooperate on investment attraction activities (Minchin 2000d). The Commonwealth, State and Territory governments are signatories to the *Operating Guidelines for Commonwealth, States and Territories on Investment Promotion, Attraction and Facilitation*. Under this agreement, all governments will meet annually to review the efficiency and effectiveness of investment incentives (Costello 2001a).

In March 2001, the NSW and Victorian Governments announced that they had established a joint working party on investment. The governments aim to ‘eliminate unnecessary bidding wars and will work to contain fiscal incentives’. This follows increasing pressure on State governments to give incentives to attract events and investment away from other States.

Through the working party, the NSW and Victorian Governments will:

- establish protocols to share information on investor approaches (having regard to commercially sensitive information) on a case-by-case basis;
- share information on investment evaluation methodologies; and
- examine opportunities to co-locate their overseas business offices and share resources to attract new international investment to Australia.

The NSW and Victorian Governments have called on other State governments to join the agreement and on the Commonwealth Government to establish more effective investment attraction procedures (NSW and Victorian Ministries 2001).

Table 4.3 Budgetary assistance to industry, 1998-99 to 2001-02

\$ million

	1998-99	1999-00	2000-01	2001-02
Total budgetary assistance ^a	3 450	3 598	3 655	3 856
Budgetary outlays	1 851	1 906	1 868	2 082
Tax expenditures	1 600	1 693	1 786	1 774
Assistance categories ^b				
Research and development	1 221	1 360	1 357	1 464
Export	1 074	1 059	1 075	875
Investment	487	462	406	345
Sectoral and adjustment assistance	271	251	258	241
Other industry-specific assistance	397	467	559	932

^a Figures may not add to total due to rounding. ^b The assistance categories include general as well as specific schemes targeting an activity within an industry. For example, the *export assistance* category would include broad-based export measures (such as the Export Market Development Grants scheme) as well as industry measures (such as the TCF Import Credits Scheme) which also facilitate export. The *sectoral and adjustment assistance* category covers programs specifically benefiting producers in a sector or facilitating adjustment. The other industry-assistance category covers measures (such as bounties) not already included in the above categories.

Sources: Commonwealth Budget and Budget related papers (various years); departmental annual reports (various years); Treasury (2001); ACS (2001); PC estimates.

Table 4.4 Commonwealth budgetary outlays on primary production, 1998-99 to 2001-02

\$ million

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
<i>Industry-specific programs</i>					
<i>Horticulture, crops etc</i>					
Australian Plaque Locust Commission	FI	1	-	-	-
Citrus industry market diversification subsidy	DFA	1	2	<1	<1
Deduction of capital expenditure on establishing horticultural plantations	TE	4	5	5	5
Deduction of expenditures over four years on acquiring and establishing grape vines	TE	4	4	4	4
Sugar Industries Package	FI	3	5	30	34
Sugar Industry Program	FI	1	1	2	-
<i>Forestry</i>					
Forest Industry Structural Adjustment	DFA	24	4	3	5
Commonwealth-NSW Forest Industry	FI	3	<1	3	<1
National Forest Policy Program	FI	9	5	2	-

Table 4.4 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
<i>Livestock, poultry etc</i>					
Australian Animal Health Laboratory	FI	6	6	6	6
Exotic Disease Prepared Program	FI	5	16	4	1
Lamb Industry Development Program	DFA	-	9	2	4
Pigmeat Processing Grants Program	DFA	2	4	3	1
Pork Producer Exit Program	DFA	-	5	-	-
Pork Industry Development Group Grant	FI	5	4	<1	-
<i>Total</i>		68	69	65	61
<i>Research and development^c</i>					
<i>General R&D measures</i>					
Cooperative Research Centres	FI	27	24	25	28
CSIRO plant and animal research	FI	133	141	114	115
Farm Innovation	DFA	-	-	4	11
New Industries Development Program	FI	-	1	1	6
R&D Start & related programs	DFA	2	5	7	7
R&D tax concession	TE	6	8	8	8
<i>Rural R&D Corporations</i>					
Fishing industry research	FI	12	13	13	13
Grains (wheat and other ^d)	FI	34	32	34	32
Horticulture	FI	15	16	16	16
Land and Water Resources R&D Corporation	FI	11	11	11	12
Meat & livestock research	FI	21	20	20	20
Other rural research ^e	FI	36	33	33	33
Rural Industries R&D Corporation	FI	11	4	4	4
Wool	FI	10	9	9	8
<i>Total</i>		319	316	300	312
<i>Sectoral and adjustment programs</i>					
<i>Adjustment and income support</i>					
Agribusiness programs	FI	<1	<1	<1	-
Farm Assistance Program	FI	-	-	1	1
Farm Business Programs	FI	6	12	17	-
Farm Help	DFA	-	-	39	40
Farm Family Restart Program					
- Re-establishment	DFA	14	17	-	-
- Income support	DFA	20	18	-	-
Food and Fibre Supply Chain Program	FI	-	7	6	-
Rural Adjustment Scheme	DFA	43	29	18	8
Skilling farmers for the future	FI	-	-	9	26
Supermarket to Asia Strategy	FI	-	4	-	-

Table 4.4 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
<i>Other sectoral measures</i>					
Income Equalisation Deposits Scheme	TE	25	9	-	-
Farms Management Deposits Scheme	TE	-	23	40	30
Income tax averaging provisions	TE	75	65	60	70
National Landcare Program	FI	56	37	37	38
Tax deduction for conveying water & conservation measures	TE	20	20	20	20
Tax rebate for landcare expenditures	TE	-	1	1	1
Tax allowance on drought-prepared assets	TE	15	10	10	6
<i>Total</i>		<i>271</i>	<i>251</i>	<i>258</i>	<i>241</i>
<i>General export measures</i>					
<i>Austrade</i>					
- Export Market Development Grants scheme	DFA	4	5	4	4
- Austrade export promotion ^f	FI	32	36	40	40
EFIC National Interest Business ^g	DFA	17	17	20	16
<i>Total</i>		<i>53</i>	<i>58</i>	<i>63</i>	<i>59</i>
<i>Unallocated primary production</i>					
Agricultural Development Partnership	DFA	-	-	-	3
Biotechnology Innovation Fund	DFA	-	-	-	2
Rural Financial Counselling Service	FI	-	-	-	5
Tasmanian Freight Equalisation Scheme	DFA	3	4	5	4
Total outlays		568	550	542	544
Total tax expenditures		146	147	148	144
Total budgetary assistance		714	697	690	689

^a Nil. ^{ne} Not estimated. Figures may not add to total due to rounding. ^a DFA: direct financial assistance; FI: funding to institutions; TE: tax expenditures. ^b 2000-01 data are Budget estimates and 2001-02 data are Budget appropriations. ^c Estimates are derived in part from the Science and Technology Budget Statement 2000-01. ^d Other includes barley, grain, legumes and oilseeds. ^e Other industries include dairy, chicken meat, pig meat, eggs, cotton, dried vine fruits, grapes and wine, honey, sugar and tobacco. ^f Data for 1999-2000, 2000-01 and 2001-02 are based on the industry allocations for 1998-99, which is the only year Austrade has resembled data on the industries benefiting from its export promotion activities. ^g The estimates reported in this section are net National Interest Business outlays. These payments are insurance pay-outs. Because any difference between the National Interest Business scheme's borrowing and lending rates is underwritten by the Commonwealth, the scheme may provide assistance to agricultural exporters. However, net National Interest Business outlays provide only a weak indication of any assistance provided.

Sources: Commonwealth Budget and Budget related papers (various years); departmental annual reports (various years); Treasury 2001; PC estimates.

Table 4.5 **Commonwealth budgetary assistance to the manufacturing sector, 1998-99 to 2001-02**
\$ million

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
Food, beverages & tobacco					
<i>Industry-specific measures</i>					
Brandy excise preferential rate	TE	5	5	3	3
<i>General investment measures</i>					
Development allowance	TE	6	6	2	2
<i>General export measures</i>					
Export Market Development Grants scheme	DFA	8	8	9	9
<i>General R&D measures</i>					
Cooperative Research Centres	FI	8	6	8	9
CSIRO research	FI	18	18	20	18
R&D Start and related programs	DFA	2	2	2	2
R&D tax concession	TE	16	25	26	27
<i>Other measures</i>					
Tasmanian Freight Equalisation scheme	DFA	1	8	9	9
Total		65	79	79	79
Textiles, clothing, footwear & leather					
<i>Industry-specific measures</i>					
Assistance to Howe Leather					
- Grant	DFA	13	-	-	-
- Loan	DFA	-	14	-	-
TCF Import Credit Scheme	TE	106	83	49	7
TCF Strategic Investment Program and related schemes	DFA		4	12	145
Other TCF programs		8	-	-	-
<i>General export measures</i>					
Austrade export promotion ^c	FI	1	1	1	1
Export Market Development Grants scheme	DFA	6	5	6	6
Tariff Export Concession (TEXCO)	TE	9	9	-	-
TRADEX	TE	-	-	10	10
<i>General R&D measures</i>					
Cooperative Research Centres	FI	3	3	-	-
CSIRO research	FI	15	11	31	31
R&D Start and related programs	DFA	<1	<1	<1	<1
R&D tax concession	TE	1	1	1	1
Total		161	131	113	204

Table 4.5 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
Wood & paper products					
<i>Industry-specific programs</i>					
Investment incentives to Visy Industries	DFA	-	3	3	3
<i>General export measures</i>					
Export Market Development Grants scheme	DFA	1	1	2	2
Tariff Export Concession (TEXCO)	TE	2	2	-	-
TRADEX	TE	-	-	<1	<1
<i>General R&D measures</i>					
Cooperative Research Centres	FI	1	<1	<1	1
CSIRO research	FI	4	5	5	5
R&D Start and related programs	DFA	<1	<1	<1	<1
R&D tax concession	TE	2	1	1	1
<i>Other programs</i>					
Tasmanian Freight Equalisation scheme	DFA	10	18	16	15
<i>Total</i>		21	31	27	28
Printing, publishing & recorded media					
<i>Industry-specific programs</i>					
Book bounty	DFA	<1	-	-	-
Printing Industry Competitiveness scheme	DFA	-	6	4	4
Extended Printing Industry Competitiveness	DFA	-	-	14	12
<i>General investment measures</i>					
Development allowance	TE	<1	<1	<1	<1
<i>General export measures</i>					
Export Market Development Grants scheme	DFA	3	3	3	3
<i>General R&D measures</i>					
R&D Start and related programs	DFA	2	2	1	1
R&D tax concession	TE	1	1	1	1
<i>Total</i>		6	11	22	21
Petroleum, coal, chemical & associated products					
<i>Industry-specific programs</i>					
Investment incentives to Syntroleum	DFA	-	42	50	20
Factor f program	DFA	159	79	-	-
Pharmaceutical Industry Development program	DFA	-	34	38	63
<i>General investment measures</i>					
Development allowance	TE	10	13	1	1

Table 4.5 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
<i>General export measures</i>					
Austrade export promotion ^c	FI	2	3	3	3
Export Market Development Grant scheme	DFA	6	5	6	6
Tariff Export Concession (TEXCO)	TE	2	2	-	-
TRADEX	TE	-	-	2	2
<i>General R&D measures</i>					
Biotechnology Innovation Fund	DFA	-	-	-	6
Cooperative Research Centres	FI	17	19	18	15
CSIRO research	FI	39	40	41	41
R&D Start and related programs	DFA	8	12	9	9
Innovation Investment Fund	DFA	5	8	10	14
R&D tax concession	TE	16	25	26	26
<i>Total</i>		267	281	203	205
Non-metallic mineral products					
<i>General investment measures</i>					
Development allowance	TE	18	17	1	1
<i>General export measures</i>					
Export Market Development Grants scheme	DFA	1	1	1	1
Tariff Export Concession (TEXCO)	TE	1	1	-	-
TRADEX	TE	-	-	<1	<1
<i>General R&D measures</i>					
Innovation Investment Fund	DFA	-	-	1	1
R&D Start and related programs	DFA	3	<1	7	7
R&D tax concession	TE	8	5	5	6
<i>Total</i>		31	24	16	16
Metal product manufacturing					
<i>General investment measures</i>					
Development allowance	TE	71	68	20	18
<i>General export measures</i>					
Export Market Development Grants scheme	DFA	4	4	4	4
Tariff Export Concession (TEXCO)	TE	4	5	-	-
TRADEX	TE	-	-	2	2
<i>General R&D measures</i>					
Cooperative Research Centres	FI	8	9	11	9
CSIRO research	FI	27	28	28	28
R&D Start and related programs	DFA	3	6	5	5
R&D tax concession	TE	44	24	25	25
<i>Total</i>		162	143	95	91

Table 4.5 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
Motor vehicles & parts					
<i>Industry-specific measures</i>					
PMV Export Facilitation Scheme	TE	288	348	363	-
Automotive Competitiveness & Investment Scheme	TE	-	-	148	560
Automotive Market Access & Development Investment incentive to Holden	FI DFA	8 -	5 -	5 5	1 4
<i>General investment measures</i>					
Development allowance	TE	25	24	16	15
<i>General export measures</i>					
Austrade export promotion ^c	FI	5	5	6	6
Export Market Development Grants scheme	DFA	-	-	2	2
Tariff Export Concession (TEXCO)	TE	13	14	-	-
TRADEX	TE	-	-	62	62
<i>General R&D measures</i>					
Innovation Investment Fund	DFA	-	-	2	3
R&D Start and related programs	DFA	1	<1	<1	<1
R&D tax concession	TE	25	29	30	31
<i>Total</i>		365	424	640	684
Other transport equipment					
<i>Industry-specific measures</i>					
Shipbuilding bounty	DFA	24	18	13	12
Shipbuilding Innovation Scheme	DFA	-	6	9	10
<i>General R&D measures</i>					
Cooperative Research Centres	FI	2	1	-	1
R&D Start and related programs	DFA	3	4	5	5
R&D tax concession	TE	6	23	24	24
<i>Total</i>		35	51	52	53
Other machinery & equipment					
<i>Industry-specific measures</i>					
Computer bounty	DFA	59	-	-	-
Machine tools and robots bounty	DFA	<1	-	-	-
<i>General investment measures</i>					
Development allowance	TE	1	1	<1	<1
<i>General export measures</i>					
Export Market Development Grant scheme	DFA	18	17	15	15
Tariff Export Concession (TEXCO)	TE	14	14	-	-

Table 4.5 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
TRADEX	TE	-	-	5	5
<i>General R&D measures</i>					
Cooperative Research Centres	FI	21	20	24	21
CSIRO	FI	33	35	35	35
Innovation Investment Fund	DFA	1	2	<1	<1
R&D Start and related programs	DFA	40	37	36	36
R&D tax concession	TE	35	39	41	42
<i>Total</i>		222	164	155	153
Other manufacturing					
<i>General investment measures</i>					
Development allowance	TE	2	1	<1	<1
<i>General export measures</i>					
Export Market Development Grant scheme	DFA	4	5	9	9
Tariff Export Concession (TEXCO)	TE	9	9	-	-
TRADEX	TE	-	-	12	12
<i>General R&D measures</i>					
R&D Start and related programs	DFA	11	11	14	14
R&D tax concession	TE	6	7	8	8
<i>Other programs</i>					
Tasmanian Freight Equalisation scheme	DFA	5	2	3	3
<i>Total</i>		37	37	45	45
Unallocated manufacturing					
<i>General export measures</i>					
Duty drawback	TE	95	87	50	70
<i>General R&D measures</i>					
Technology Diffusion Program	DFA	15	18	20	17
<i>Other programs</i>					
Enterprise Development Program	FI	14	6	1	1
Tasmanian Freight Equalisation Scheme	DFA	21	28	35	34
<i>Total</i>		145	139	106	122
Total outlays		673	627	617	739
Total tax expenditures		843	887	934	962
Total budgetary assistance		1 516	1 514	1 552	1 701

- Nil. Figures may not add to total due to rounding. ^a DFA: direct financial assistance; FI: funding to institutions; TE: tax expenditures. ^b 2000-01 data are Budget estimates and 2001-02 data are Budget appropriations. ^c Data for 1999-2000, 2000-01 and 2001-02 are based on the industry allocations for 1998-99, the only year Austrade has resembled data on the industries benefiting from its export promotion activities.

Sources: Commonwealth Budget and Budget related papers (various years); departmental annual reports (various years); Treasury 2001; PC estimates.

Table 4.6 **Commonwealth budgetary assistance to service sectors, 1998-99 to 2001-02**

\$ million

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
Electricity, gas & water supply					
<i>Industry-specific measures</i>					
Renewable Energy Commercialisation ^c	DFA	2	3	7	12
Renewable Energy Equity Fund ^c	DFA	-	<1	3	3
<i>General investment measures</i>					
Development allowance	TE	2	2	4	4
Infrastructure Bonds	TE	55	44	31	13
Infrastructure Borrowing tax offset scheme	TE	25	25	43	43
<i>General export measures</i>					
Export Market Development Grant scheme	DFA	<1	<1	<1	<1
<i>General R&D measures</i>					
Cooperative Research Centres	FI	4	5	5	3
R&D Start and related programs	DFA	1	1	2	2
R&D tax concession	TE	1	1	1	1
<i>Total</i>		91	81	97	82
Construction					
<i>General export measures</i>					
Austrade export promotion ^d	FI	22	25	27	27
Export Market Development Grant scheme	DFA	2	2	2	2
TRADEX	TE	-	-	1	1
<i>General R&D measures</i>					
Cooperative Research Centres	FI	-	-	-	2
CSIRO research	FI	25	25	22	22
Innovation Investment Fund	DFA	-	-	2	3
R&D Start and related programs	DFA	<1	<1	1	1
R&D tax concession	TE	15	8	8	8
<i>Total</i>		64	60	63	65
Wholesale trade					
<i>General investment measures</i>					
Development allowance		-	-	12	11
<i>General export measures</i>					
Export Market Development Grant scheme	DFA	15	12	13	13
TRADEX	TE	-	-	4	4
<i>General R&D measures</i>					
R&D Start and related programs	DFA	<1	2	1	1
R&D tax concession	TE	13	20	21	22

Table 4.6 continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
<i>Total</i>		28	35	51	51
Retail trade					
<i>Industry-specific programs</i>					
Pharmacy Restructuring grants	DFA	11	13	10	-
<i>General investment measures</i>					
Development allowance	TE	<1	<1	<1	<1
<i>General export measures</i>					
Australian Tourist Commission	FI	21	21	21	21
Export Market Development Grants scheme	DFA	4	3	2	2
<i>General R&D measures</i>					
R&D tax concession	TE	3	5	5	5
<i>Total</i>		38	41	39	29
Accommodation, cafes & restaurants					
<i>General investment measures</i>					
Development allowance	TE	1	1	-	-
<i>General export measures</i>					
Australian Tourist Commission	FI	27	28	28	28
Export Market Development Grants Scheme	DFA	5	5	9	9
<i>Total</i>		33	34	37	37
Transport & storage					
<i>Industry-specific measures</i>					
Investment incentive to Asia Pacific Space Centre	DFA	-	-	-	6
<i>General investment measures</i>					
Development allowance	TE	<1	<1	6	5
Infrastructure Bonds	TE	50	41	29	12
Infrastructure Borrowing tax offset scheme	TE	31	31	13	13
<i>General export measures</i>					
Australian Tourist Commission	FI	34	34	35	35
Export Market Development Grant scheme	DFA	18	15	11	11
TRADEX	TE	-	-	2	2
<i>General R&D measures</i>					
R&D Start and related programs	DFA	1	5	2	2
R&D tax concession	TE	12	5	5	6
<i>Total</i>		147	132	102	91

Table 4.6 continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
Communication services					
<i>Industry-specific measures</i>					
Investment incentive to IBM	DFA	-	-	2	1
Software Engineering Centres	FI	2	6	6	6
<i>General investment measures</i>					
Development allowance	TE	18	-	33	30
<i>General export measures</i>					
Export Market Development Grant scheme	DFA	1	1	2	2
Austrade export promotion ^d	FI	18	20	22	22
Australian Tourist Commission	FI	1	1	1	1
<i>General R&D measures</i>					
Cooperative Research Centres	FI	2	2	3	6
CSIRO research	FI	21	21	21	21
Innovation Investment Fund	DFA	12	20	5	6
R&D Start program	DFA	10	12	14	14
R&D tax concession	TE	7	30	31	32
<i>Total</i>		93	114	140	141
Finance & insurance					
<i>General investment measures</i>					
Development allowance	TE	6	6	1	1
Offshore Banking Unit	TE	30	35	35	30
Infrastructure Borrowing tax offset scheme	TE	19	19	19	19
<i>General export measures</i>					
Export Market Development Grant scheme	DFA	<1	<1	<1	<1
<i>General R&D measures</i>					
R&D Start program	DFA	<1	<1	1	1
Innovation Investment Fund	DFA	5	5	<1	<1
R&D tax concession	TE	26	18	19	20
<i>Total</i>		86	83	76	71
Property & business services					
<i>General investment measures</i>					
Development allowance	TE	-	18	2	2
<i>General export measures</i>					
Export Market Development Grants scheme	DFA	23	22	24	24
<i>General R&D measures</i>					
Biotechnology Innovation Fund	DFA	-	-	-	1
Cooperative Research Centres	FI	4	3	4	5

Table 4.6 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
R&D Start & related programs	DFA	14	22	28	28
Innovation Investment Fund	DFA	1	1	<1	<1
R&D tax concession	TE	48	65	68	70
<i>Total</i>		89	131	126	129
Government administration & defence					
<i>General investment measures</i>					
Development allowance	TE	3	3	-	-
<i>General export measures</i>					
Austrade export promotion ^d	FI	2	2	3	3
<i>General R&D measures</i>					
R&D Start & related programs	DFA	<1	<1	<1	<1
<i>Total</i>		6	6	3	3
Education					
<i>General investment measures</i>					
Development allowance	TE	1	1	<1	<1
<i>General export measures</i>					
Australian Tourist Commission	FI	1	1	1	1
Export Market Development Grant scheme	DFA	11	8	9	9
Austrade export promotion ^d	FI	8	9	10	10
<i>General R&D measures</i>					
R&D Start & related programs	DFA	5	7	4	4
R&D tax concession	TE	1	3	3	3
<i>Total</i>		26	29	27	27
Health & community services					
<i>General export measures</i>					
Export Market Development Grants scheme	DFA	<1	<1	<1	<1
<i>General R&D measures</i>					
Cooperative Research Centres	FI	12	13	13	13
R&D Start program	DFA	10	12	18	18
R&D tax concession	TE	2	3	3	3
<i>Total</i>		25	29	35	38
Cultural & recreational services					
<i>Industry-specific measures</i>					
Australian Film Commission	DFA	16	17	17	17
Australian Film Finance Corporation	DFA	48	48	48	48
Film industry division 10B & 10BA	TE	21	21	21	19

Table 4.6 (continued)

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
<i>General export measures</i>					
Australian Tourist Commission	FI	4	4	4	4
Austrade export promotion ^d	FI	17	19	21	21
Export Market Development Grants scheme	DFA	7	6	8	8
<i>General R&D measures</i>					
Biotechnology Innovation Fund	DFA	-	-	-	1
Cooperative Research Centres	FI	2	2	2	2
R&D Start & related programs	DFA	<1	<1	<1	<1
R&D Tax Concession	TE	-	4	4	4
<i>Total</i>		115	122	127	126
Personal & other services					
<i>General export measures</i>					
Export Market Development Grant scheme	DFA	1	1	1	1
<i>General R&D measures</i>					
R&D Start & related programs	DFA	2	2	4	4
R&D tax concession	TE	<1	<1	<1	<1
<i>Total</i>		4	4	6	6
Unallocated services					
<i>General export measures</i>					
Austrade export promotion ^d	FI	20	23	25	25
Australian Tourist Commission	FI	1	1	1	1
<i>General R&D measures</i>					
CSIRO research	FI	9	9	10	10
R&D Start & related programs	DFA	<1	2	<1	<1
<i>Other programs</i>					
Building IT Strengths	DFA	-	42	6	55
<i>Total</i>		31	75	42	91
Total outlays		484	563	544	605
Total tax expenditures		391	409	426	383
Total budgetary assistance		875	973	970	988

- Nil. Figures may not add to total due to rounding. ^a DFA: direct financial assistance; FI: funding to institutions; TE: tax expenditures. ^b 2000-01 data are Budget estimates and 2001-02 data are Budget appropriations. ^c The above industry allocations reflect the availability of recently supplied data. In the *Trade & Assistance Review 1999-2000*, these programs were classified under the unallocated category due to a lack of information. Consequently, the previous classification is no longer appropriate. ^d Estimates for 1999-2000, 2000-01 and 2001-02 are based on Austrade industry allocations for 1998-99. Austrade has not assembled data on the industries benefiting from its export promotion activities for subsequent years.

Sources: Commonwealth Budget and Budget related papers (various years); departmental annual reports (various years); Treasury 2001; PC estimates.

Table 4.7 **Commonwealth budgetary outlays on the mining sector, 1998-99 to 2001-02**
\$ million

	Type ^a	1998-99	1999-00	2000-01 ^b	2001-02 ^b
<i>Industry-specific measures</i>					
Exemption of income from sale, transfer or assignment of rights to mine gold	TE	18	5	-	-
Regional Minerals Program	FI	-	1	1	1
<i>General investment measures</i>					
Development allowance	TE	92	88	121	110
<i>General export measures</i>					
Austrade export promotion ^c	FI	7	8	9	9
Export Market Development Grants scheme	DFA	2	2	2	2
<i>General R&D measures</i>					
Cooperative Research Centres	FI	10	9	6	7
CSIRO minerals research	FI	47	47	53	52
R&D Start and related programs	DFA	8	23	12	12
R&D tax concession	TE	83	77	81	82
Total outlays		74	91	83	83
Total tax expenditures		192	170	202	192
Total budgetary assistance to mining		266	261	284	275

- Nil. Figures may not add to total due to rounding. ^a DFA: direct financial assistance; FI: funding to institutions; TE: tax expenditures. ^b 2000-01 data are Budget estimates and 2001-02 data are Budget appropriations. ^c Estimates for 1999-2000, 2000-01 and 2001-02 are based on Austrade industry allocations for 1998-99. Austrade has not assembled data on the industries benefiting from its export promotion activities for subsequent years.

Sources: Commonwealth Budget and Budget related papers (various years); departmental annual reports (various years); Treasury 2001; PC estimates.

Table 4.8 **Commonwealth budgetary assistance, unallocated other^a
1998-99 to 2001-02**

\$ million

	Type ^b	1998-99	1999-00	2000-01 ^c	2001-02 ^b
<i>Energy programs</i>					
Energy R&D Corporation	FI	2	-	-	-
National Energy Efficiency Program	FI	4	-	-	-
<i>General investment measures</i>					
Development allowance	TE	1	1	<1	<1
Invest Australia	FI	15	15	14	14
Regional Headquarters Program	TE	2	2	2	1
<i>General export measures</i>					
Export Access	FI	4	4	3	3
Tourism programs	FI	3	7	-	2
<i>R&D measures</i>					
Biotechnology Australia	FI	-	4	1	1
Biotechnology Centre of Excellence	FI	-	-	-	1
Commonwealth Technology Park	FI	-	3	8	12
Innovation Investment Fund	DFA	3	5	-	-
ICT Centre of Excellence	FI	-	-	-	3
Preseed Fund	FI	-	-	-	6
Major National Research Facilities	FI	-	-	5	4
R&D tax concession	TE	24	13	13	14
Premium R&D tax concession	TE	-	-	-	30
<i>Other measures</i>					
Enterprise Networking Program	FI	4	-	-	-
Funding for small business during tourism downturn	DFA	-	-	-	15
Pooled Development Funds	TE	1	3	5	8
Regional Assistance Program	DFA	20	42	47	43
Clean Food Production Program	FI	1	1	1	1
Small business capital gains tax exemption	TE	-	60	55	40
Small business participation in major projects	FI	-	-	-	3
Total outlays		52	74	82	110
Total tax expenditures		28	79	76	93
Total budgetary assistance		80	153	158	203

- Nil. Figures may not add to total due to rounding. ^{na} not available. ^a Include programs or amounts of funding where the industry is not stated or recipients are unknown. ^b DFA: direct financial assistance; FI: funding to institutions; TE: tax expenditures. ^c 1999-2000 data are Budget estimates and 2000-01 data are Budget appropriations.

Sources: Commonwealth Budget and Budget related papers (various years); departmental annual reports (various years); Treasury 2001; PC estimates.