Australian Government

Productivity Commission

Trade & Assistance Review 2005-06 and 2006-07

Methodological Annex

The '2001-02' series of assistance estimates

Contents

Abbreviations

ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ACIS	Automotive Competitiveness and Investment Scheme
ANZSIC	Australian and New Zealand Standard Industrial Classification
AVO	assisted value of output
CER	(Australian and New Zealand) Closer Economic Relations
CGT	capital gains tax
cif	cost, insurance and freight
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DFA	direct financial assistance
DIAP	Dairy Industry Adjustment Package
ERA	effective rate of assistance
FI	funding of intermediaries
fob	free on board
GDP	gross domestic product
GSE	gross subsidy equivalent
IAC	Industries Assistance Commission
IBI	initial benefiting industry
IC	Industry Commission
IOIG	Input-Output Industry Group
IOPC	Input-Output Product Classification
IT	Information Technology
MFN	most favoured nation

MVP	motor vehicles and parts
NRM	nominal rate of assistance on materials
NSE	net subsidy equivalent
NSW	New South Wales
PC	Productivity Commission
PMV	passenger motor vehicles
PTAs	preferential trade agreements
R&D	Research and Development
TCF	textiles, clothing and footwear
TCFL	textiles, clothing, footwear and leather
TCS	Tariff Concession System
TE	tax expenditures
TEM	tax equivalent on materials
TES	Tax Expenditure Statement
TIDES	Tariff and Import Database and Estimating System
UVA	unassisted value added
UVO	unassisted value of output

A INTRODUCTION & OVERVIEW

1 About this annex

Under its establishing Act, the Productivity Commission is required to report annually on industry assistance and its effects on the economy. As part of fulfilling this function, the Commission publishes quantitative estimates of assistance to Australian industry each year in its *Trade & Assistance Review* publication. Quantifying industry assistance helps to show who is advantaged and who is disadvantaged by the assistance structure and can enable governments to make better informed policy decisions, potentially allowing them to improve the allocation of a community's scarce resources and, through this, improve community welfare.

The Commission commenced publishing assistance estimates in the early 1970s. The estimates initially focussed on the main forms of import protection for the manufacturing sector and domestic marketing arrangements for agriculture. Over time, the coverage has been expanded to include a broader range of measures (most notably budgetary outlays and tax concessions) touching most sectors of the economy.

The estimates have been derived in several 'series', each spanning a number of consecutive years. Each series retains a common methodology, coverage of measures and data sources across those years.

In *Trade & Assistance Review 2005-06*, the Commission published the first of a new series of assistance estimates. The new series — called the '2001-02 series' to reflect the underlying input-output data used — incorporates revisions to the coverage of assistance programs as well as to data sources and methodologies. The estimates published in the 2005-06 Review covered the years 2001-02 to 2005-06. In *Trade & Assistance Review 2006-07*, the series was extended to cover 2006-07.

This Methodological Annex describes the new series, providing guidance on the changes made and the interpretation of the resultant estimates. It is structured as follows:

- Section A provides an overview on the Commission's assistance measurement system, and is intended for readers seeking a general grasp of the system.
- Section B discusses the elements of the system in more detail, explaining how the various estimates are derived and elaborating on their interpretation. It covers

some similar ground to part A, but in greater detail. Chapter 5 in this part also explains methodological changes in moving from the previous series of estimates to the 2001-02 series.

- Section C provides updated assistance estimates for 2001-02 to 2006-07, based on the methodologies and revisions discussed in the annex.

The annex is the latest in a series of publications providing information and updates on the Commission's assistance estimates and methodologies. Other relevant annexes, published since 2000, are listed in the following table.

Table 1.1 **Previous methodological annexes to Trade & Assistance Review**

Date	*Title*	*Details*
December 2000	Allocating Budgetary Assistance by 27 ANZSIC-based Industry Groupings	Methodological Annex: Trade & Assistance Review 1999-2000
December 2002	The Commission's Assistance Measurement System	Methodological Annex A: Trade & Assistance Review 2001-02
December 2002	Allocating Budgetary Assistance to Primary Production by 10 ANZSIC-based Industry Groupings	Methodological Annex B: Trade & Assistance Review 2001-02
June 2006	Allocating Budgetary Assistance by Industry Groupings: Recent Revisions	Methodological Annex: Trade & Assistance Review 2004-05

2 Overview of the Commission's assistance measurement system

2.1 Coverage of assistance instruments

The *Productivity Commission Act 1998* defines government assistance to industry as:

> … any act that, directly or indirectly: (a) assists a person to carry on a business or activity, or confers a pecuniary benefit on; or (b) results in a pecuniary benefit accruing to, a person in respect of carrying on a business or activity.

Reflecting this broad definition, an array of different instruments can provide assistance to industry. These include:

- tariffs, quotas, anti-dumping duties and regulatory restrictions on imported goods and services, such as local design rules and quarantine laws
- grants and subsidies for domestic producers
- tax concessions and offsets for domestic producers
- 'in-kind' assistance provided by publicly-funded intermediaries, such as certain research undertaken by CSIRO
- regulatory restrictions on domestic competition, such as those provided by some statutory marketing arrangements and legislation that reserves markets for particular groups (as in pharmacy service provision)
- the provision of services by government agencies at concessional prices
- government procurement policies.

For its annual estimates of industry assistance as published in *Trade & Assistance Review*, the Commission does not cover all forms of government support to industry. Rather, it focuses on the main forms of support that *selectively* assist firms, activities or industries and that can be quantified on an annual basis given practical constraints in measurement and data availability.

The key classes of assistance covered in the annual estimates are Australian Government budgetary assistance (including grants, subsidies and tax concessions) and tariff assistance (including tariff concessions). The estimates also include some agricultural pricing and regulatory assistance, although the number and impact of individual assistance instruments in this category has declined in recent years. The coverage of assistance under each of these categories, including changes made for the 2001-02 series, is described in detail in chapters 2 and 4 of this annex.

Assistance instruments that are not covered in the annual estimates include:

- *Restrictions on trade in services* — the nature of these restrictions and the difficulties in establishing a 'benchmark price' for services means it is difficult to determine the level of assistance associated with these restrictions. The Commission has published specific studies of barriers to services trade, and their price impacts, but does not incorporate these into its annual estimates.
- *Anti-dumping and countervailing measures* — the Commission does not include the assistance effect of these duties in its national estimates, but monitors year-to-year usage.
- *State government assistance* — apart from nationally-significant agricultural pricing and regulatory assistance provided by State arrangements, the Commission does not include State government assistance as part of its annual estimates. However, from time-to-time, the Commission has published broad estimates of the level of State government budgetary assistance to industry.[1]
- Various other assistance instruments, including government purchasing preferences, the underpricing of infrastructure, the impact of tariffs on the cost of capital use, any assistance effect that may be associated with quarantine restrictions, and government programs affecting a range of service industries relating mainly to the provision of health and welfare, where funding predominantly benefits consumers and individual citizens.

1 The Industry Commission published such estimates for the years 1994-95, 1995-96 and 1996-97 as part of its 1996 public inquiry into *State, Territory and Local Government Assistance to Industry* (IC 1996). The Productivity Commission also published similar estimates for the years 2000-01 and 2001-02 in *Trade & Assistance Review 2001-02.*

2.2 Classification of assistance

Industry groupings

As well as estimating the assistance provided by various instruments, *Trade & Assistance Review* also estimates the incidence of that assistance by industry.

The level of industry detail at which the Commission reports on assistance, and the focus of its estimates, have changed over time. The initial focus was on assistance within the traded goods sectors — particularly manufacturing and agriculture — where levels of assistance were found to be high. Over time, assistance to these sectors has been reduced while services activities have increased in relative importance and now account for around four-fifths of employment and GDP in Australia.

Reflecting these changes, the Commission has begun focussing more on the services sector, and has rationalised its estimates in relation to manufacturing and agriculture. This rationalisation has also allowed it to combine more forms of assistance into the one estimate — while tariff assistance can be disaggregated to a fine level of commodity detail, this is not possible for much budgetary assistance, which tends to be provided more at a broad industry or sectoral level than at the commodity level.

In *Trade & Assistance Review 2005-06* and *2006-07*, estimates of combined assistance were presented for 35 'industry groupings', plus 4 'unallocated' groupings (table 2.1). The industry groupings are based on the classification of industries in the 1993 edition of the Australia and New Zealand Standard Industrial Classification (ANZSIC).[2] The 35 published industry groupings comprise 9 in the primary production sector, 11 in the manufacturing sector, 14 in the services sector, and mining. Even with recent rationalisations, the Commission reports assistance in more detail for industries in the manufacturing and primary production sectors than for those in other sectors.

Under the delineation of economic activities under ANZSIC (1993), there are no separate categories for functional groupings such *Information Technology* and *Tourism*. Rather, IT and tourism-related activities fall within several ANZSIC industry categories. While the Commission does not report assistance to these functional groupings in its annual estimates, from time to time it undertakes studies that cover assistance to functional groupings.[3]

2 A revised version of the ANZSIC was released in 2006.

3 The Commission published estimates of assistance to tourism, from Commonwealth and State Governments, for the three years from 2000-01 to 2002-03, in its 2005 Research Paper *Assistance To Tourism: Exploratory Estimates* (PC 2005).

Table 2.1 **Industry groupings used for reporting assistance in *Trade & Assistance Review 2005-06* and *2006-07***

Industry grouping	*ANZSIC 1993 codes*
Primary production	**A**
Horticulture and fruit growing	011
Grain, sheep and beef cattle farming	012
Dairy cattle farming	013
Poultry	014
Other livestock farming	015
Other crop growing	016
Services to agriculture (inc. hunting and trapping)	02
Forestry and logging	03
Commercial fishing	04
Unallocated primary production	-
Mining	**B**
Manufacturing	**C**
Food, beverages & tobacco	21
Textiles, clothing, footwear & leather	22
Wood & paper products	23
Printing, publishing & media	24
Petroleum, coal, chemical & assoc. products	25
Non-metallic mineral products	26
Metal products	27
Motor vehicles & parts	281
Other transport equipment	282
Other machinery & equipment	283-286
Other manufacturing	29
Unallocated manufacturing	-
Services	**D-Q**
Electricity, gas & water supply	D
Construction	E
Wholesale trade	F
Retail trade	G
Accommodation, cafes & restaurants	H
Transport & storage	I
Communication services	J
Finance & insurance	K
Property & business services	L
Government administration & defence	M
Education	N
Health & community services	O
Cultural & recreational services	P
Personal & other services	Q
Unallocated services	-
Unallocated other	-

Other categorisations

As well as estimating the incidence of assistance by industry groupings, *Trade & Assistance Review* categorises the assistance provided by different instruments:

- by one of three mains forms — tariffs, budgetary, and agricultural marketing and regulatory arrangements
- by one of six targeted activities — R&D, exports, investment, industry-specific, sector-specific and a residual ‘other’ category.

These categorisations are explained further in chapter 3.

2.3 Estimation procedures

The approach adopted by the Commission to estimating the value of assistance varies depending upon the instruments used to provide the support:

- Where governments provide grants and subsidies directly to firms, the program costs of the subsidy are recorded as assistance. The annual estimates generally exclude the policy advice and general administration costs of government agencies that administer grants and other assistance programs.
- Where governments fund services that indirectly assist an industry, such as funding of CSIRO to conduct research activities, the full funding (excluding any industry contributions) is deemed to be assistance.
- Where governments provide tax concessions — exemptions, deductions, offsets, rebates, lower tax rates or tax liability deferrals — on a selective basis, the value of the assistance provided is estimated as the amount of tax revenue forgone by the government, at current industry activity levels.
- Where governments impose tariffs on imports, the assistance to competing Australian producers is determined as the subsidy equivalent inferred from the price increase allowed (in principle) by the tariff on Australian producers’ domestic sales; not by the amount of tariff revenue collected on imports.
- Where the protected goods are used by other industries as inputs, the negative assistance caused by tariffs on inputs is assessed as the tax equivalent imposed by tariffs on inputs (whether locally produced or imported) used in production.

In quantifying the assistance provided each year by various measures, the Commission draws on a range of data sources, including:

- the Customs tariff schedule
- the ABS, for data on foreign trade flows, agricultural production, producer prices, the national accounts and input-output ratios

- government budget papers
- annual reports of government departments and agencies
- the Treasury Tax Expenditure Statement
- Australian Taxation Office taxation statistics
- other government department and agency publications and communications.

The estimation procedures, and associated qualifications, are explained in more detail in chapters 3 and 4 of this paper.

2.4 Types of assistance measures

In reporting on assistance, the Commission uses several types of measures that highlight different aspects of assistance and its effects on the economy, and that facilitate comparisons of the effects of the diverse assistance arrangements which affect businesses in the different sectors of the economy.

The basic indicators are:

- the *gross subsidy equivalent (GSE)*, which is the dollar value of assistance to an industry's or activity's *outputs*
- the *tax equivalent on materials (TEM)*, which is the dollar value of the penalty on an industry's or activity's *inputs* due to the price-raising effects of that assistance on those inputs
- the *net subsidy equivalent (NSE)*, which is a measure of the dollar *value of net assistance to* an industry's or activity's value added (and is equal to the GSE *plus* any assistance to value-adding factors, *less* the TEM).

These dollar measures are accompanied by a 'rate of assistance' measure, namely:

- the *nominal rate of assistance on outputs* is the GSE divided by the industry's value of production (measured in unassisted prices)
- the *nominal rate of assistance on inputs* is the TEM divided by the industry's value of materials (measured in unassisted prices)
- the *effective rate of assistance (ERA)* is the NSE divided by the industry's net output (measured in unassisted prices) or, more formally, its 'unassisted value added'.

These and other measures used by the Commission are explained in more detail in chapters 3 and 4.

2.5 Interpretation

Estimates of industry assistance are intended to aid transparency and facilitate analysis of public policies. Such estimates can help to reveal which activities benefit and which are penalised in the first instance from relevant government policies. Interpreted carefully, assistance estimates also provide an indication of the resource allocation effects of the assistance structure. By highlighting which policies afford the greatest assistance or which industries receive the most assistance, they can aid in the prioritisation of policy reviews. Assistance estimates can also be of use as an input into broader evaluations of the merits of particular policies.

However, care is required when using the estimates, particularly to draw inferences about the impact of assistance on the allocation of resources between different industries or activities and the merits of policies. Key qualifications are that:

- the estimates do not cover all government measures that may assist industries
- the measurement methodology uses a 'static' framework, so the estimates do not take account of the responses of producers and consumers to the incentives created by the provision of assistance
- rates of assistance reported at the sectoral or industry level may hide variations in assistance to industries and/or firms, respectively, within those categories
- while measures such as the net subsidy equivalent provide an indication of the transfers of income to producers from consumers, taxpayers and intermediate suppliers, they do not indicate the 'welfare' costs to the community of assistance
- while the measures quantify the assistance provided by various instruments, they do not indicate how much, if any, of that assistance is unjustified. This turns on considerations such as the prevalence of any market failure that the instrument may address, and the design and cost-effectiveness of the instrument.

Further discussion on the interpretation of the annual estimates of government assistance to industry is provided in chapter 4.

B ASSISTANCE MEASUREMENT IN DETAIL

3 The main forms of assistance: coverage and estimation

The key forms of assistance covered in the Commission's annual estimates are:

- budgetary assistance provided by the Australian Government
- tariff assistance
- agricultural pricing and regulatory assistance.

This chapter explains what is covered under each category and how the Commission classifies and quantifies the assistance provided.

3.1 Budgetary assistance

Coverage

The annual estimates include a wide range of budgetary measures. The specific measures included in the first batch of estimates in the 2001-02 series (as published in *Trade & Assistance Review 2005-06*) are listed in table 3.1, at the end of this section. Measures that commenced in 2006-07 (and were added in *Trade & Assistance Review 2006-07*) are listed in table 3.2. The coverage of measures included in the budgetary estimates is revised regularly to reflect the expiration of programs or the introduction of new programs.

While the estimates cover a wide range of Australian Government budgetary measures, they do not incorporate all budgetary measures which provide support for industry, for a range of practical as well as conceptual reasons. Among the exclusions are:

- budgetary measures which are generally available to all firms – for example, reductions in company tax rates applying to all firms
- various outlays focussed on public administration, defence, health, education, the environment and the labour market
- budgetary assistance provided by State, Territory and local governments[4]
- spending on infrastructure, except where it clearly applies to specific activities.

[4] The Industry Commission published such estimates for the years 1994-95, 1995-96 and 1996-97 as part of its 1996 public inquiry into *State, Territory and Local Government Assistance to Industry* (IC 1996). The Productivity Commission published similar estimates, for the years 2000-01 and 2001-02, in *Trade & Assistance Review 2001-02.*

Classifications

To provide some indication of the nature of Australian Government budgetary assistance, the Commission classifies budgetary assistance according to:

- the *form* of budgetary assistance
- the *activity* it predominantly assists
- the *sector* and *industry grouping* to which it applies.

Forms of budgetary assistance

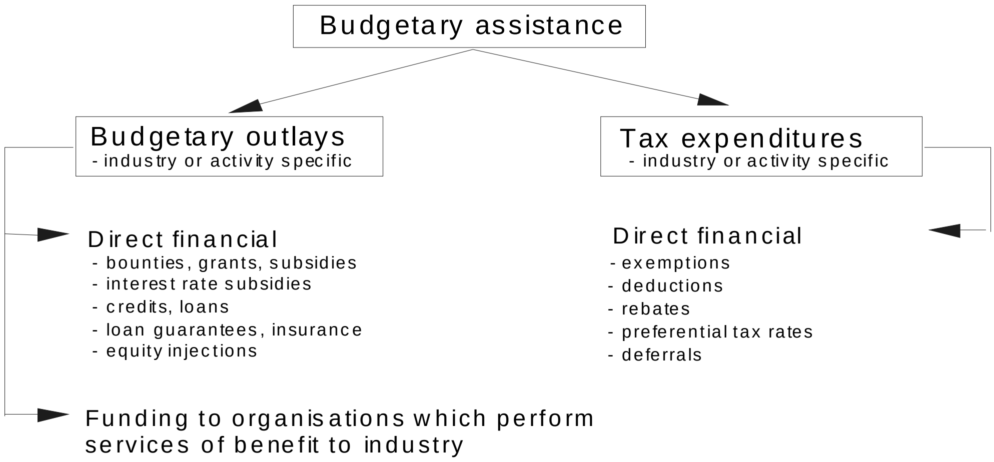
Budgetary measures are categorised as either *budgetary outlays* or *tax expenditures* (or *'concessions'),* which are further distinguished by the type of benefits provided (figure 3.1).

In relation to budgetary outlays, a distinction is made between:

- *direct financial assistance (DFA)* — such as bounties, grants and subsidies; interest rate subsidies, loans, credits and guarantees; and government equity participation
- *funding of intermediaries (FI) which perform activities of benefit to industry* — for example, funding of CSIRO and CRC research programs, Austrade's International Business Services and Tourism Australia. In contrast to DFA, the provision of services raise producers' returns indirectly (for example, where research improves crop yields or manufacturing processes, or, as in the case of tourism assistance, through the provision of generic marketing).

Tax expenditures (TE) provide financial benefits to industry in the form of tax exemptions, deductions, rebates, preferential tax rates and tax deferrals. For example, tax exemptions allow income to be excluded from the tax base. Tax deductions, such as the R&D tax concession, allow certain expenditures to be eligible for deductions which normally would not be allowed in the tax system. Preferential tax rates involve the application of a lower tax rate for particular industries. The deferral of tax over a number of years also constitutes a form of assistance.

Figure 3.1 **Forms of budgetary assistance**



Activities assisted

Budgetary assistance is often designed to encourage particular activities undertaken by firms across various industries and/or sectors. To provide an indication of the distribution of assistance among activities, the Commission classifies its estimates of Australian Government budgetary assistance into one of six categories:

- industry-specific assistance — schemes which are designed to encourage production in particular industries, such as the Automotive Competitiveness Investment Scheme and the TCF Strategic Investment Program
- general export measures — programs which target particular stages of exporting activities, such as the Export Market Development Grants scheme[5]
- general investment measures — schemes which encourage certain types of investment, such as the development allowance
- R&D measures — schemes which support business research, such as the R&D tax concession and funding of rural R&D corporations
- sectoral assistance — programs which are specific to a particular sector, such as agriculture, to facilitate adjustment or provide income support
- other measures — schemes, such as regional assistance programs, that do not fall within any of the above categories.

5 The Commission altered the basis on which it classifies assistance by activity for *Trade & Assistance Review 2001-02*. Among other things, previously industry-specific export facilitation schemes had been included in the Commission's estimates of 'export' assistance, whereas now they would be classified as industry-specific assistance. The category general export measures refers to measures that apply to exporting activity across a number of industries.

Some caution is required in interpreting these estimates because 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.

Sectoral and industry incidence

As well as classifying assistance by form and activities, the Commission also estimates the incidence of budgetary assistance by initial benefiting industries, which may differ from the ultimate beneficiary (box 3.1).

Box 3.1 The 'initial benefiting industry' allocation method

Under the 'initial benefiting industry' (IBI) methodology for estimating the incidence of assistance, assistance is allocated to the industry hosting the firm that initially benefits from a program or measure. Where a number of firms, in different industries, initially benefit from a particular program or measure, the Commission seeks to apportion the assistance between those industries. In cases where assistance benefits firms indirectly via an intermediate organisation, such as Austrade or the CSIRO, the beneficiaries are identified as the firms that utilise the services that these organisations provide; not the organisations that receive the assistance and deliver the services. For example, funding for CSIRO is allocated to beneficiary industries principally in the *Primary production* and *Manufacturing* sectors; not to *Government administration & defence*. Where the Commission cannot identify the initial beneficiary of a program, it does not allocate the assistance to a particular industry or activity.

The IBI approach does not attempt to identify all of the beneficiaries of assistance. For example, budgetary assistance to the Australian film industry is allocated to the ANZSIC industry category of *Cultural & recreational services*. However, the benefits of this assistance could extend beyond this particular industry, say to *Construction services* in the case where film production requires these services as inputs. Further, an increase in demand for construction services may increase demand in the *Wood & paper products* industry, and so on.

Even so, identifying the incidence of assistance by the initial benefiting industry provides a useful basis for analysing the effects of government assistance measures on the allocation of economic resources amongst different industries and uses.

Prior to 1999, the incidence of assistance was reported using a four-sector classification of the economy. Over time, the Commission has disaggregated the agriculture, manufacturing and services categories and now reports assistance at 35 industry groupings, plus 4 unallocated groupings (table 2.1).[6]

In allocating assistance to industry groupings, the Commission examines each program individually. Programs that assist only a single industry, such as the TCF Strategic Investment Program or the Grape and Wine R&D Corporation, are allocated directly to that industry (*textiles, clothing, footwear & leather* (TCFL) and *horticulture*, respectively). However, many programs assist multiple industries — for example, income tax averaging provisions. The Commission uses a variety of methods in determining to what extent each industry benefits from these programs.

- Where the Commission can obtain sufficiently detailed data for a program, it has used this data to distribute the program's funding among the benefiting industries. For example, it obtains four digit ANZSIC claims data for the Export Market Development Grants scheme which is sufficiently detailed to determine the degree to which each industry grouping benefits from the program.
- For programs that provide grants to industry and where the Commission has details on the individual grants, it uses this information to assign each grant to a particular industry. For example, the Department of Agriculture, Fisheries and Forestry publishes details for grant recipients under the Farm Innovation Program. These details are used to determine which industries benefit from the program.
- Where data to indicate which industries benefit from a particular program cannot be obtained, the assistance given under that program has been recorded as 'unallocated'.[7]

In most cases, the Commission has obtained sufficient data to allocate assistance across the 35 industry groupings. However, for the estimates published in the 2005-06 and 2006-07 editions of the Review, around one quarter of budgetary assistance has been placed in an 'unallocated' category.

---

6 In 2000, the industry classification was broadened to include 27 industry groupings. Under this system, primary production and mining remained as single categories, while manufacturing and services were subdivided into 11 and 14 industry groupings, respectively. This disaggregation was first completed for the *Trade & Assistance Review 1999-2000* and a detailed description of the methodology used was included in a *Methodological Annex* (PC 2000). For *Trade & Assistance Review 2001-02*, the Commission expanded its industry classification to include 10 new primary production groupings. The new allocation provided significantly more detail than the previous classification. The methodology used to disaggregate the estimates for primary production was included in *Methodological Annex B* of the 2001-02 Review (PC 2002).

7 'Unallocated' funding forms part of the Commission's estimates of assistance, but is not identified by industry. There are four 'unallocated' categories: one each for primary production, manufacturing and the services sector (used when the initial benefitting sector can be identified but not the initial benefitting industry or industries within it), and an 'Unallocated other' category for assistance that cannot be assigned to particular sectors.

Table 3.1 **Australian Government budgetary assistance measures by activity, form and initial benefiting industry, 2005-06** [a]

	Form[b]	*Initial benefiting industry*
Industry-specific measures		
Food Processing in Regional Australia	DFA	Food, beverages and tobacco
National food industry strategy	DFA	Food, beverages and tobacco
National Livestock Identification System	FI	Grain, sheep and beef cattle farming
Citrus Canker Eradication Programme	FI	Horticulture and fruit growing
Ovine Johnes Disease Control Programme	FI	Grain, sheep and beef cattle farming
Tuberculosis Freedom Assurance Programme	FI	Grain, sheep and beef cattle farming
Australian animal health laboratory	FI	Unallocated primary production
Exotic Disease Preparedness program	FI	Unallocated primary production
Aquaculture Industry Action Agenda	FI	Commercial fishing
Fisheries Structural Adjustment Package	DFA	Commercial fishing
Australian Seafood Industry Council	FI	Unallocated other
Forest Industry Structural Adjustment	DFA	Forestry and logging
12-month prepayment rule	TE	Forestry and logging
Pigmeat processing grants program	DFA	Other livestock farming
Lamb industry development program	DFA	Grain, sheep and beef cattle farming
Sugar Industry Reform Program	DFA	Other crop growing
Sugar Industries Package	FI	Other crop growing
Sugar Industry Infrastructure Program	FI	Other crop growing
Beef Expo + Gracemere Saleyards	FI	Grain, sheep and beef cattle farming
Citrus industry market diversification subsidy	DFA	Horticulture and fruit growing
Australian Film Commission	DFA	Cultural and recreational services
Australian Film Finance Corporation	DFA	Cultural and recreational services
Building IT strengths	DFA	Unallocated services
Film Australia	FI	Cultural and recreational services
Software engineering centres	FI	Communication services
Investment incentives to SITA	DFA	Communication services
The Advanced Networks Program	DFA	Communication services
Refundable tax off-set for large scale film production	TE	Cultural and recreational services
Exemption of film tax offset payments	TE	Cultural and recreational services
Film industry tax incentives - 10B & 10BA	TE	Cultural and recreational services
Greenhouse gas abatement program	DFA	Mining; Petroleum, coal, chemical and associated products; Metal products; Electricity, gas and water supply; and Retail trade
Great Barrier Reef Structural Adjustment	DFA	Commercial fishing
Low emission technology development fund	DFA	Electricity, gas and water supply
Product Stewardship (Oil) program	DFA	Petroleum, coal, chemical and associated products
Renewable energy commercialisation	DFA	Electricity, gas and water supply
Remote renewable power generation program	DFA	Electricity, gas and water supply
Solar cities initiative	DFA	Property and business services

Table 3.1 (continued)

	Form[b]	*Initial benefiting industry*
High Costs Claims scheme	DFA	Finance and insurance
Premium Support scheme[c]	DFA	Health and community services
United Medical Protection support	DFA	Finance and insurance
Automotive competitiveness and investment scheme	TE	Motor vehicles and parts
Automotive market access and development	FI	Motor vehicles and parts
Automotive incentives – Ford	DFA	Motor vehicles and parts
Biofuels Infrastructure Grants	DFA	Petroleum, coal, chemical and associated products
Ethanol production subsidy	DFA	Petroleum, coal, chemical and associated products
Howe leather - loan repayment	DFA	Textile, clothing, footwear and leather
Renewable Energy Development Initiative	DFA	Other machinery and equipment; Electricity, gas and water supply; and Property and business services
Renewable Energy Equity Fund	DFA	Services to agriculture, hunting and trapping; Petroleum, coal, chemical and associated products; Other machinery and equipment; Electricity, gas and water supply; and Finance and insurance
Aerospace incentives - Hawker de Havilland	DFA	Other transport equipment
Australian Magnesium Corporation	DFA	Metal products
Regional minerals program	FI	Mining
Pharmaceutical industry investment program	DFA	Petroleum, coal, chemical and associated products
Pharmaceuticals partnerships program	DFA	Petroleum, coal, chemical and associated products
Printing Industry Competitiveness Scheme	DFA	Printing, publishing and recorded media
Enhanced printing industry competiveness	DFA	Printing, publishing and recorded media
Extended printing industry competitiveness	DFA	Printing, publishing and recorded media
Shipbuilding bounty	DFA	Other transport equipment
Shipbuilding innovation scheme	DFA	Other transport equipment
Investment incentives to Visy Industries	DFA	Wood and paper products
Investment incentive to Syntroleum	DFA	Petroleum, coal, chemical and associated products
Investment incentive to IBM	DFA	Communication services
Investment incentives to Asia Pacific Space Centre	DFA	Transport and storage
Investment incentive for Holden	DFA	Motor vehicles and parts
Investment Incentives to Hismelt - grant	DFA	Metal products
Investment Incentives to Hismelt - loan	DFA	Metal products
TCF Strategic Investment Program – Post 2005	DFA	Textile, clothing, footwear and leather
TCF Supply Chain Program	DFA	Textile, clothing, footwear and leather
TCF Strategic Investment Program	DFA	Textile, clothing, footwear and leather
TCF Corporate Wear Program[d]	TE	Textile, clothing, footwear and leather
TCF Import Credits Scheme	TE	Textile, clothing, footwear and leather

Table 3.1 (continued)

	Form[b]	Initial benefiting industry
TCF Development	FI	Textile, clothing, footwear and leather
TCF Structural Adjustment Scheme	DFA	Textile, clothing, footwear and leather
TCF Small Business Program	DFA	Textile, clothing, footwear and leather
TCF Project Diversification Scheme	TE	Textile, clothing, footwear and leather
Travel compensation fund	DFA	Unallocated services
Tasmanian wheat freight subsidy[e]	DFA	Grain, sheep and beef cattle farming; and Food, beverages and tobacco
Bass Straight Passenger Vehicle Equalisation	DFA	Transport and storage
Tax Deduction for horticultural plantations	TE	Horticulture and fruit growing
Tax deductions for grape vines	TE	Horticulture and fruit growing
Brandy preferential excise rate	TE	Food, beverages and tobacco
Sector-specific measures		
Farm Help	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Commercial fishing; and Unallocated primary production
Farm Management Deposits Scheme	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Forestry and logging; and Commercial fishing
Farm Bis Program	FI	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; Commercial fishing; and Unallocated primary production
Skilling farmers for the future	FI	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; Commercial fishing; and Unallocated primary production
Industry partnerships program	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Poultry farming; Other livestock farming; Commercial fishing; and Unallocated primary production
Agricultural development partnership	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; and Unallocated primary production
National landcare program	FI	Unallocated primary production

Table 3.1 (continued)

	Form[b]	*Initial benefiting industry*
Rural Financial Counselling Service	FI	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Forestry and logging; Commercial fishing; Unallocated primary production; and Food, beverages and tobacco
Exceptional circumstances - interest rate subsidies	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; and Unallocated primary production
Drought Relief Package	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; and Unallocated primary production
Exceptional circumstances - relief payments	DFA	Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; and Other crop growing
Interim Income Support	DFA	Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; and Other crop growing
Regional assistance	DFA	Unallocated primary production
Rural adjustment scheme	DFA	Unallocated primary production
Income tax averaging provisions	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; Forestry and logging; and Commercial fishing
Tax deduction for conserving or conveying water	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; and Forestry and logging
Capital expenditure deduction for mining	TE	Mining
Tax allowance on drought preparedness assets	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; and Commercial fishing

Table 3.1 (continued)

	Form[b]	Initial benefiting industry
General export measures		
International Food and Agricultural Service	FI	Unallocated other
Duty Drawback	TE	Unallocated manufacturing
Austrade	FI	Unallocated other
EFIC national interest business	DFA	Grain, sheep and beef cattle farming; and Unallocated other
Export access	FI	Unallocated other
Tourism Australia	FI	Unallocated services
TRADEX	TE	Dairy cattle farming; Services to agriculture, hunting and trapping; Commercial fishing; Mining; Food, beverages and tobacco; Textile, clothing, footwear and leather; Wood and paper products; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Transport & storage; Finance and insurance; Property & business services; Government administration and defence; and Health and community services
Export Market Development Grants Scheme	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; Forestry and logging; Commercial fishing; Mining; Food, beverages and tobacco; Textile, clothing, footwear and leather; Wood and paper products; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Accommodation, cafes and restaurants; Transport and storage; Communication services; Finance and insurance; Property & business services; Education; Health & community services; Cultural and recreational services; and Personal and other services

Table 3.1 (continued)

	Form[b]	Initial benefiting industry
General investment measures		
Invest Australia	FI	Unallocated other
Offshore banking unit tax concession	TE	Finance and insurance
Regional headquarters program	TE	Unallocated other
Development allowance	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Commercial fishing; Mining; Food, beverages and tobacco; Wood and paper products; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Transport and storage; Communication services; Finance and insurance; Property and business services; Education; Health and community services; Cultural and recreational services; and Unallocated other
Infrastructure borrowing's tax offsets scheme	TE	Electricity, gas and water supply; Transport and storage; and Finance and insurance
Infrastructure bonds scheme	TE	Electricity, gas and water supply; and Transport and storage
R&D measures		
New Industries Development Program	FI	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Commercial fishing; Mining; Food, beverages and tobacco; Petroleum, coal, chemical and associated products; and Other machinery and equipment
ICT centre of excellence	FI	Communication services
Major national research facilities	FI	Horticulture and fruit growing; Unallocated primary production; Mining; Other transport equipment; Other machinery and equipment; and Unallocated other
Biotechnology Australia	FI	Petroleum, coal, chemical and associated products
National Stem Cell Centre	FI	Petroleum, coal, chemical and associated products

Table 3.1 (continued)

	Form[b]	Initial benefiting industry
Cooperative Research Centres	FI	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Poultry farming; Other livestock farming; Other crop growing; Forestry and logging; Commercial fishing; Unallocated primary production; Mining; Food, beverages and tobacco; Wood and paper products; Petroleum, coal, chemical and associated products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Unallocated manufacturing; Electricity, gas and water supply; Construction; Communication services; Property and business services; Health and community services; and Cultural and recreational services
CSIRO	FI	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Forestry and logging; Commercial fishing; Mining; Food, beverages and tobacco; Textile, clothing, footwear and leather; Petroleum, coal, chemical and associated products; Other manufacturing; and Communication services
Commercial Ready Program	DFA	Horticulture and fruit growing; Other crop growing; Services to agriculture, hunting and trapping; Forestry and logging; Commercial fishing; Mining; Food, beverages and tobacco; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Wholesale trade; Transport and storage; Communication services; Finance and insurance; Property and business services; Health and community services; Cultural and recreational services; Personal and other services; and Unallocated other

Table 3.1 (continued)

	Form[b]	*Initial benefiting industry*
R&D tax concession	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; Forestry and logging; Commercial fishing; Mining; Food, beverages and tobacco; Textile, clothing, footwear and leather; Wood and paper products; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Transport and storage; Communication services; Finance and insurance; Property and business services; Education; Health and community services; Cultural and recreational services; Personal and other services; and Unallocated other
Premium R&D tax concession	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Other crop growing; Services to agriculture, hunting and trapping; Forestry and logging; Commercial fishing; Mining; Food, beverages and tobacco; Textile, clothing, footwear and leather; Wood and paper products; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Transport and storage; Communication services; Finance and insurance; Property and business services; Education; Health and community services; Cultural and recreational services; Personal and other services; and Unallocated other

Table 3.1 (continued)

	Form[b]	*Initial benefiting industry*
R&D tax offset payments - exemption	TE	Unallocated other
R&D Start	DFA	Horticulture and fruit growing; Services to agriculture, hunting and trapping; Commercial fishing; Mining; Food, beverages and tobacco; Wood and paper products; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Transport and storage; Communication services; Finance and insurance; Property and business services; Education; Health and community services; and Unallocated other
Biotechnology Innovation Fund	DFA	Horticulture and fruit growing; Other crop growing; Services to agriculture, hunting and trapping; Mining; Petroleum, coal, chemical and associated products; Other machinery and equipment; Other manufacturing; Wholesale trade; Property and business services; Health and community services; and Unallocated other
Innovation Access Program	DFA	Unallocated other
Innovation Investment Fund	DFA	Mining; Other machinery and equipment; Communication services; Finance and insurance; Property and business services; and Health and community services
Preseed fund	FI	Non-metallic mineral products; Motor vehicles and parts; Other machinery and equipment; Electricity, gas and water supply; Communication services; Finance and insurance; Property and business services; and Health and community services

Table 3.1 (continued)

	Form[b]	*Initial benefiting industry*
COMET Program	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Other crop growing; Services to agriculture, hunting and trapping; Commercial fishing; Mining; Food, beverages and tobacco; Textile, clothing, footwear and leather; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Transport and storage; Communication services; Finance and insurance; Property and business services; Education; Health and community services; Cultural and recreational services; and Personal and other services
Commonwealth technology park	FI	Unallocated other
Technology Diffusion program	DFA	Unallocated manufacturing
Egg Research and Development	FI	Poultry farming
Pig Research and Development	FI	Other livestock farming
Wool Research and Development	FI	Grain, sheep and beef cattle farming
Cotton Research and Development	FI	Other crop growing
Dairy Research and Development	FI	Dairy cattle farming
Fisheries Research and Development	FI	Commercial fishing
Forest and Wood Products Research and Development	FI	Forestry and logging; and Wood and paper products
Grains Research and Development	FI	Grain, sheep and beef cattle farming
Grape and Wine Research and Development	FI	Horticulture and fruit growing
Horticulture Research and Development	FI	Horticulture and fruit growing
Land & Water Resources Research and Development	FI	Unallocated primary production
Meat and Livestock Research and Development	FI	Grain, sheep and beef cattle farming
Rural Industries Research and Development	FI	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Poultry farming; Other livestock farming; Other crop growing; Forestry and logging; and Unallocated primary production
Sugar Research and Development	FI	Other crop growing

Table 3.1 (continued)

	Form[b]	Initial benefiting industry
Other measures		
Farm Innovation Program	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Dairy cattle farming; Poultry farming; Other livestock farming; Other crop growing; Services to agriculture, hunting and trapping; Forestry and logging; Commercial fishing; and Petroleum, coal, chemical and associated products
Australian HomeGrown Campaign	FI	Food, beverages and tobacco
Eden Structural Adjustment	DFA	Horticulture and fruit growing; Forestry and logging; Commercial fishing; Food, beverages and tobacco; Retail trade; Accommodation, cafes and restaurants; Property and business services; and Cultural and recreational services
R&D tax offset for small companies	DFA	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Other crop growing; Services to agriculture, hunting and trapping; Forestry and logging; Commercial fishing; Mining; Food, beverages and tobacco; Textile, clothing, footwear and leather; Wood and paper products; Printing, publishing and recorded media; Petroleum, coal, chemical and associated products; Non-metallic mineral products; Metal products; Motor vehicles and parts; Other transport equipment; Other machinery and equipment; Other manufacturing; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Transport and storage; Communication services; Finance and insurance; Property and business services; Education; Health and community services; Cultural and recreational services; Personal and other services; and Unallocated other
Industry Cooperative Innovation Program	DFA	Commercial fishing; Petroleum, coal, chemical and associated products; Other machinery and equipment; Other manufacturing; Construction; Communication services; and Property and business services
Australian Made Campaign - export strategy	FI	Unallocated other
Tropical Cyclone Larry – Business Assistance	DFA	Unallocated other
Enterprise Development program	FI	Unallocated manufacturing
Structural Adjustment Fund for South Australia[f]	DFA	Unallocated other

Table 3.1 (continued)

	Form[b]	*Initial benefiting industry*
Industry Capability Network Limited	FI	Unallocated other
Techfast	FI	Property and business services
Pooled development funds	TE	Finance and insurance
Venture capital limited partnerships	TE	Finance and insurance
Small business interest rate subsidy	DFA	Unallocated other
Small business programs	DFA	Services to agriculture, hunting and trapping; Food, beverages and tobacco; Construction; Accommodation, cafes and restaurants; Property & business services; Government administration and defence; Education; Health and community services; and Personal and other services
Small business participation in major projects	FI	Unallocated other
Back of Bourke Exhibition Centre	DFA	Unallocated services
Cairns Foreshore Promenade Development	DFA	Unallocated services
Cairns Esplanade Development	DFA	Unallocated services
Fairbridge Village Redevelopment	DFA	Unallocated services
Fishing Hall of Fame	DFA	Unallocated services
The Great Green Way - Tourism Initiative	DFA	Unallocated services
Kimberley Cultural Tourism Promotion	DFA	Unallocated services
Lancefield Visitor Centre & Reserve	DFA	Unallocated services
North East Chinese Heritage Trail	DFA	Unallocated services
Oatlands Callington Mill upgrade	DFA	Unallocated services
Stockman's Hall of Fame	DFA	Unallocated services
Tourism in Protected Areas	FI	Unallocated services
Willow Court Restoration of 'The Barracks'	DFA	Unallocated services
Woodend Bike Trail	FI	Unallocated services
See Australia Domestic Tourism Initiative	FI	Unallocated services
Further Tourism Promotion	DFA	Unallocated services
Regional Online Tourism Program	DFA	Unallocated services
Regional Tourism Program	DFA	Unallocated services
Small business assistance - Tourism	FI	Unallocated services
Tasmanian Infrastructure Initiative	DFA	Unallocated services
Tasmanian Regional Tourism	DFA	Unallocated services
Tourism Assistance Package	FI	Unallocated services
Tourism Operations	FI	Unallocated services
Australian Tourism Development Program	FI	Unallocated services
Indigenous Tourism Business Ready Program	FI	Unallocated services
National Tourism Accreditation Framework	FI	Unallocated services
Regional partnerships program	DFA	Unallocated other
Regional assistance program	DFA	Unallocated other
South West Forests Structural Adjustment	DFA	Horticulture and fruit growing; Services to agriculture, hunting & trapping; Commercial fishing; Other machinery & equipment; Retail trade; Accommodation, cafes and restaurants; and Cultural and recreational services

Table 3.1 (continued)

	Form[b]	*Initial benefiting industry*
Wide Bay Burnett Structural Adjustment	DFA	Horticulture and fruit growing; Services to agriculture, hunting and trapping; Food, beverages and tobacco; Wood and paper products; Motor vehicles and parts; Other machinery and equipment; Other manufacturing; Wholesale trade; Retail trade; Accommodation, cafes and restaurants; Property and business services; Health and community services; and Cultural and recreational services
Sustainable regions program	DFA	Unallocated other
Tasmanian Freight Equalisation Scheme	DFA	Unallocated primary production; Food, beverages and tobacco; Textile, clothing, footwear and leather; Wood and paper products; Metal products; Other manufacturing; Unallocated manufacturing; and Unallocated other
Small business capital gains tax exemption	TE	Horticulture and fruit growing; Grain, sheep and beef cattle farming; Poultry farming; Services to agriculture, hunting and trapping; Commercial fishing; Food, beverages and tobacco; Textile, clothing, footwear and leather; Non-metallic mineral products; Metal products; Other transport equipment; Other machinery and equipment; Electricity, gas and water supply; Construction; Wholesale trade; Retail trade; Accommodation, cafes and restaurants; Transport and storage; Communication services; Finance and insurance; Property and business services; Education; Health and community services; Cultural and recreational services; Personal and other services; and Unallocated other
Small business CG tax 50 per cent reduction	TE	Unallocated other
Small business CG tax retirement exemption	TE	Unallocated other
Small business CG tax asset exemption	TE	Unallocated other

a Programs included in the budgetary assistance estimates published in *Trade & Assistance Review 2005-06*. **b** DFA: direct financial assistance; FI: funding to institutions; TE: tax expenditures. **c** Industry allocation revised from *Finance and insurance* in *Trade & Assistance 2005-06* to *Health and community services* in *Trade & Assistance 2006-07*. **d** Industry allocation to be revised for the 2007-08 edition of *Trade & Assistance Review*. **e** Industry allocation revised from *Grain, sheep and beef cattle farming*, and *Food, beverages and tobacco* in *Trade & Assistance 2005-06* to *Unallocated other* in *Trade & Assistance 2006-07*. **f** Industry allocation revised from *Petroleum, coal, chemical and associated products* in *Trade & Assistance 2005-06* to *Unallocated other* in *Trade & Assistance 2006-07*.

Table 3.2 **New Australian Government budgetary assistance measures, by activity, form and initial benefiting industry, 2006-07** [a]

	Form[b]	*Initial benefiting industry*
Industry-specific measures		
Assistance to the vegetable industry	DFA	Horticulture and fruit growing
Australian Wool Innovation grant	FI	Grain, sheep and beef cattle farming
Tobacco Grower Adjustment Assistance	DFA	Other crop growing
Advanced electricity storage	DFA	Unallocated manufacturing
LPG Vehicle Scheme	DFA	Retail trade
Wind turbine industry assistance	DFA	Other machinery and equipment
Other measures		
Beaconsfield Community Fund	DFA	Mining; Unallocated other
Home Based Business Seminars	FI	Unallocated other
Intermediary Access Program	DFA	Unallocated manufacturing
Port Kembla Industry Facilitation Fund	DFA	Unallocated other
Business assistance fund for disasters	TE	Unallocated other
Tropical Cyclone Larry - fuel excise relief	TE	Unallocated other
Capital gains tax relief for statutory licenses	TE	Unallocated other
Film Licensed Investment Company Scheme	TE	Unallocated services
25 per cent entrepreneurs' tax offset	TE	Unallocated other

[a] Programs newly included in the budgetary assistance estimates, published in *Trade & Assistance Review* 2006-07.
[b] DFA: direct financial assistance; FI: funding to institutions; TE: tax expenditures.

Quantification

In quantifying the assistance provided each year by various budgetary measures, the Commission draws on the following sources:

- government budget papers
- annual reports of government departments and agencies
- the Treasury Tax Expenditure Statement
- Australian Taxation Office taxation statistics
- other government department and agency publications and communications.

For programs which are funded jointly by industry and governments (such as rural R&D corporations), the estimates incorporate only the government contribution to programs' funds. To simplify measurement, industries are generally assumed to benefit from assistance in the year that it is reported in the budget papers, TES or other source documents.

Different levels of confidence are attached to the estimates of different forms of budgetary assistance:

- High confidence attaches to estimates of financial assistance provided directly to firms (DFA), which are reported in budget papers and other audited government documents.
- While there is equally high confidence in estimates of the size outlays provided to intermediary institutions (FI), there is some uncertainty about the extent to which such assistance ultimately benefits industry. In counting the full outlay as assistance to the benefitting industry, it is assumed that the funded body operates efficiently and/or that the industry obtains benefits from the services equal to their cost of provision. To the extent that this is not the case, the estimates will either overstate or understate assistance to recipient industries.
- Estimates of assistance from tax expenditure estimates (TE) are subject to more uncertainty than estimates of budget outlays, reflecting methodological and data issues entailed in the modelling that underpins the estimates (see Treasury 2008).

3.2 Tariff assistance

Tariffs have a number of direct effects on the returns received by Australian producers. Tariffs on imported goods increase the price at which those goods can be sold on the Australian market. This potentially allows domestic producers of competing products to increase their prices. On the other hand, tariffs also potentially increase the price of goods that are used as inputs by Australian producers and thus penalise some Australian producers. This ‘penalty’ is reduced if tariff concessions are available to Australian users or there is sufficient competition in the domestic market to drive the local price below the tariff inflated price of imports.

Australia’s tariffs on imported goods are set by the Australian Government and a record of individual tariff levels is maintained in the Australia Customs Tariff Schedule. Australian tariffs are levied on the value of imports in the foreign port (that is, the ‘free on board’ (fob) value), as opposed to the landed value of imports (that is, the ‘cost, insurance and freight’ (cif) value).

Tariffs (and quotas) on imports have been reduced significantly since the early 1970s. As a result, with the exception of goods within the TCFL and *motor vehicles & parts* (MVP) industries, and of some cheeses,[8] all general tariffs applied to imports are now 5 per cent or less.

For some tariff items and some categories of trade, concessional entry or duty exemptions are afforded imports. The main forms of tariff concessions and duty exemptions include the following:

- *Duty exemptions or preferences for selected countries.* Imports from certain sources, such as qualifying goods from Papua New Guinea, the Forum Islands and some other developing countries, are given duty free status. Australia is also a party to a number of bilateral agreements, including with New Zealand, Canada, Singapore, Thailand and the United States, under which imports enter at preferential rates (generally as a zero tariff).
- *Tariff concessional arrangements*. Imports entering under the Tariff Concession System (TCS), Project and other policy by-laws, the Automotive Competitiveness and Investment Scheme (ACIS), the Duty Drawback Scheme and TRADEX typically enter at a zero or concessional rate.
- *Duty exemptions for government imports*. Certain government imports enter duty free, such imports are for defence purposes and general government use.

Quantification

Estimates of tariff assistance — which are derived for goods both as outputs and inputs[9] — are derived in two main stages. These involve:

- using the Commission's Tariff and Import Database and Estimating System (TIDES) model to provide estimates of the 'price impacts' of tariffs for both output and input goods
- combining these results with ABS Input-Output data to derive NSE estimates of tariff assistance.

8 The importation of cheese and curd in Australia is subject to a tariff-quota arrangement. The quota allows for the importation of 11 500 tonnes of cheese per annum at a 'specific' tariff rate of $0.096 per kilogram. If the quota is exceeded (in a financial year), imports are subject to a much higher 'out-of-quota' tariff rate of $1.220 per kilogram. For the Commission's assistance estimates, it is assumed that the full effects of the out-of-quota tariff are passed on to domestic consumers in the form of higher prices.

9 For assistance measurement purposes, goods are classified as output or input goods according to their relationship to the industry to which assistance is being measured. For example, when measuring assistance to the steel industry, steel is treated as an output good, whereas it is treated as an input good for the measurement of assistance to the motor vehicles and parts industry.

Calculating price impacts using TIDES

TIDES uses information from the Australian Customs tariff schedules and ABS merchandise trade imports to estimate the price impacts of tariffs and quotas for both domestic and imported goods.

As a first step, it derives an estimate of 'imputed duty' for each import item — that is, the duty payable for each tariff item, given its value of imports and operative tariff rate. The calculations are made at the 8 digit tariff line item level.

To take into account the effects of relevant tariff concessions and duty exemptions on imported goods, TIDES separates the import data into three distinct groups and then estimates imputed duty separately for each group. These groups, and estimation conventions applied to each, are:

- *general* entry items. General entry items comprise imported goods that are subject to the general (MFN) tariff rate and do not receive any form of tariff concession or duty exemption. For this group, imputed duty is calculated as the 'free-on-board' (fob) value of imports for duty multiplied by the annual tariff rate for each tariff item[10]
- *government* entry items. Government entry items comprise goods imported by the government such as defence goods and goods for general government use. Goods subject to government entry enter duty free. Imputed duty for this group is set equal to zero
- *concessional* entry items. Concessional entry items comprise imported goods whose general tariff rate is amended to reflect concessional entry (for example, commercial tariff concessions). For this group, the calculation of imputed duty is similar to that for *general* entry items except that the tariff rate has been adjusted to reflect the tariff concession.

In calculating these imputed duty estimates, the Commission abstracts from the effects of the duty exemptions or preferences for selected countries, outlined above. The effects of the preferential tariff rates in preferential trade agreements (PTAs) depends on various matters, including the extent to which producers in partner countries undercut the price of rival imports in Australia, rather than simply 'pocketing' the concession provided (see box 3.2). While an empirical matter, it is likely that the effects of current agreements on assistance afforded Australian industries is minor.

---

10 Where a tariff rate changes during the year, a simple average of the old and new tariff rates is derived for that year. For example, when PMV tariff rates declined from 15 per cent to 10 per cent on 1 January 2005, an average tariff rate of 12.5 per cent was used to represent PMV tariffs during the 2004-05 financial year.

Box 3.2 **Assistance effects of Preferential Trade Agreements**

The tariff preferences provided under PTAs need not result in any significant impact on prices in the domestic market and, thus, on assistance to Australian industry provided by the general (MFN) tariff regime. This would be the case if producers in the partner country effectively 'pocketed' the tariff concessions, rather than reduced their prices below the prevailing (tariff-inflated) price of rival imports.

However, to the extent that tariff concessions provided by PTAs result in a reduction in the prices of imported products in the Australian market, assistance to the relevant industry's outputs will be lower than that implied by the MFN rate. Equally though, to the extent that the price of imported inputs falls as a result of PTA preferences, the penalties (or negative assistance) on the industry's inputs will also be lower than implied by the MFN rate. Whether this leads to a net overstatement or understatement of assistance to the Australian industry in question would depend on trade patterns with the PTA partner countries, which products are subject to price reductions, and their relative magnitudes.

On the other hand, to the extent that PTAs afford Australian producers preferential market access in partner countries, assistance to those producers could be increased. In effect, Australian producers would obtain the benefit of assistance provided by a partner country's general tariff regime for their exports to that market. The actual assistance effects would depend on the extent of trade between partner countries and the margin of preference afforded by the PTA.

(The Commission published, as a supplement to its Research Report on the CER Agreement between Australia and New Zealand, estimates of assistance provided by CER tariff preferences (PC 2004). A further discussion of these effects is provided in that document.)

The second step is to recode the imputed duty estimates at the 8-digit tariff schedule level (about 6000 items) to the Input-Output Product Classification (IOPC) (2001-02) level (about 1400 items). TIDES does this using a concordance provided by the ABS. (The same procedure is used to recode the landed value of imports, which is also necessary for determining price impacts (see below), to the IOPC level.)

In the third step, TIDES derives estimates at the IOPC classification level of the price impacts of tariffs and quotas on domestic producer prices — both for particular goods as outputs and the same goods when used as inputs. The impacts of tariffs are defined as the imputed duty divided by the landed value of imports (that is, the cif value for each category of good):

- for goods as outputs, only data from the *general* entry group is used to estimate the domestic price impacts of tariffs and quotas. *Government* and *concessional* entry items are excluded

- for goods when used as inputs, only data from the *general* and *concessional* entry groups are used to calculate the domestic price impacts of tariffs and quotas. Goods subject to *government* entry are excluded. The use of *general* and *concessional* entry items is deemed to represent the average mix of goods used as inputs by industry.

Estimating subsidy and tax equivalents using ABS Input-Output data

The price impacts of tariffs and quotas are then combined with ABS Input-Output data to derive estimates of border assistance for both output and input goods.

For goods as outputs, the price impacts of tariffs are multiplied with ABS Input-Output domestic production data to estimate the dollar value of output tariff assistance — the Gross Subsidy Equivalent (GSE).

For goods when used as inputs, the price impact of tariffs (and quotas) are multiplied with ABS Input-Output intermediate usage data to derive estimates of input tariff assistance — the Tax Equivalent on Materials (TEM). The TEM imposes a penalty, or negative assistance, on producers that use imported inputs, or their domestic equivalent, that are subject to the price rising effects of tariffs.

These estimates are derived by the ABS, on request from the Productivity Commission, using detailed unpublished Input-Output data, together with data from the TIDES model provided by the Commission. The GSE and TEM estimates are derived at the detailed IOPC classification level (about 1400 items) by the ABS and then aggregated to the 109 industry ABS Input-Output Industry Group (IOIG) classification. The ABS then returns these aggregated, non-confidential results to the Commission for further analysis.

The GSE and TEM estimates are then combined by the Commission to derive an estimate of net tariff assistance, or the Net Subsidy Equivalent (NSE). The NSE is calculated as the GSE less the TEM. The NSE estimates are calculated at the 109 industry ABS IOIG classification and then further aggregated to the Commission's ANZSIC-based 'industry grouping' classification system used to present assistance estimates in the *Trade & Assistance Review*.

3.3 Agricultural pricing and regulatory arrangements

The Commission's estimates of assistance afforded by agricultural pricing and regulatory arrangements historically have dominated total measured assistance to the agricultural sector. While many assistance schemes have been discontinued since the 1980s, as recently as 1997, the estimates incorporated statutory marketing arrangements for dairy, sugar, rice, and eggs, a local content scheme for tobacco leaf, and loan guarantees for the borrowing by the wheat and wool boards. More recently, pricing and regulatory support has essentially been the preserve of the dairy and rice industries, although some recent assistance to the sugar industry, financed through levies on sugar consumers, has also been included in the estimates of agricultural pricing and regulatory assistance.

Dairy

Prior to 2000-01, the dairy industry received assistance largely from a combination of State government price and regulatory controls, which maintained high prices for drinking milk, and Commonwealth Market Support Payments for milk used in manufacturing — for processing into products such as butter, cheese, milk powder and ice cream. These arrangements provided dairy farmers with assistance of around $450 million in 1999-2000.

These arrangements were terminated as part of the deregulation of the dairy industry in July 2000. As part of the deregulation process, the Australian Government introduced new arrangements to provide payments to dairy farmers — the Dairy Industry Adjustment Package (DIAP). These payments, which commenced on 1 July 2000, were to amount to around $1.8 billion over the 8 year life of the package.

The cost of the package is funded by an 11 cents per litre levy on retail sales of drinking milk. The levy remained in place as at August 2008. Further details of the adjustment package and milk levy were provided in *Trade & Assistance Review 2001-02.*

The methodology for attributing assistance to the dairy industry from these new arrangements was set out in the Methodological Annex to the 2001-02 Review. This methodology has been retained for the estimates of assistance to the dairy industry contained in the 2005-06 and 2006-07 editions of the Review.

Rice

The rice industry is centred in the Riverina in New South Wales and, prior to July 2006, was assisted through statutory marketing arrangements which allowed the NSW Rice Growers Co-operative to vest and market all rice grown in the state. This enabled the domestic price of rice to be maintained at higher levels than would prevail without the statutory marketing arrangement.

For the estimates of assistance to the rice industry for 2001-02 to 2005-06 (as contained in the 2005-06 Review), the NSW Rice Growers Co-operative was assumed to increase domestic prices to import parity levels. Information on import parity price levels for the rice industry was derived from ABS merchandise trade import data. An estimate of assistance was then derived by multiplying the amount by which domestic prices increase (import parity less export parity) by the value of domestic rice production consumed domestically. In 2005-06, assistance provided from the rice industry's statutory marketing arrangements was estimated to be $5.7 million.

Arrangements to deregulate the domestic rice market, through an 'authorised seller scheme', commenced on 1 July 2006. Reflecting this deregulation, the Commission's estimates for 2006-07 (as contained in the 2006-07 Review) did not include any assistance to the rice industry from domestic marketing arrangements. While a 'single desk' for rice exports has to be retained, the rice industry is not assumed to gain any assistance from these arrangements as it is unlikely to have sufficient market power in global rice markets to achieve a price advantage or influence the price of rice on the export markets.

Sugar

In September 2002, the Australian Government announced a Sugar Industry Reform Package. The main elements of the package included a regional projects program, an interest rate subsidy scheme, an exit payment and short term income support. The package was funded by a levy of 3 cents per kilogram on domestic sugar sales, including sales of imported sugar and sugar for retail sale, food services and food processing. Assistance derived from the package was around $18 million and $9 million in 2002-03 and 2003-04, respectively. These amounts have been included in the 'agricultural pricing and regulatory support' estimates, for those years, in the 2005-06 and 2006-07 editions of the Review.

In April 2004, the Australian Government introduced an additional Sugar Industry Reform Program replacing the previous package announced in 2002. This program, however, is only partly funded by the levy and has therefore been included in the 'budgetary assistance' estimates, rather than in the 'agricultural pricing and regulatory support' estimates.

4 Combined assistance estimates: derivation and interpretation

As well as publishing separate estimates of assistance from tariffs, budgetary and other measures, the Commission also publishes 'combined' estimates of these different categories of assistance to Australian industries. A range of measures is used to represent this assistance, each highlighting different aspects of the assistance structure and its effects (chapter 2).

The calculation of these measures is based on a number of simplifying assumptions, which are outlined in box 4.1 and discussed in detail in the Commission's 1995 paper: *Assistance to agricultural and manufacturing industries* (IC 1995a).[11] This chapter explains how the key measures are derived and their interpretation.

Box 4.1 **Assistance framework: key simplifying assumptions**

- Perfect substitution between domestic and foreign goods of the same description.
- The 'small country' assumption, whereby Australia does not influence the world price of its imports or exports (ie the terms of trade are assumed to be exogenous).
- No substitution between nominally different goods.
- Infinite elasticities of export demand and import supply.
- The prices of goods, services, and resources represent their opportunity cost to the community in the absence of assistance.
- The direction of trade in the absence of assistance can be assessed, with import parity prices forming the benchmark for goods assessed to be import-competing and export-parity prices for export goods.
- Production relationships between inputs are unaltered by the assistance structure.
- Constant returns to scale.

11 Some modifications to the Commission's long-standing approach to estimating assistance as reflected in that paper, relating among other things to the definition of value added, were discussed in the methodological annex to *Trade & Assistance Review 2001-02* (PC 2002). More recent changes are discussed in chapter 5 of the current paper.

4.1 Deriving the estimates

GSE, TEM and NSE estimates

The Commission first separates its dollar value estimates of assistance from budgetary measures, tariffs and agricultural pricing and regulatory arrangements (as described in chapter 3) into three categories:

- output assistance
- input assistance
- assistance to value-adding factors.

These are aggregated to provide dollar estimates of the combined 'gross subsidy equivalent' (GSE), 'tax equivalent on materials' (TEM) and 'net subsidy equivalent' (NSE), respectively. The Commission also adjusts these items to reflect overlap in its different estimates — in particular, the inclusion of some tariff concessions in both its tariff and budgetary assistance estimates.

Because the budgetary assistance estimates are calculated in current dollars while estimates of tariff assistance are based on ABS input-output data for 2001-02, the latter are revalued to current dollars using ABS data on Gross Value Added at current prices. Periodic revisions to ABS data can affect the assistance estimates, although such revisions typically do not affect year-to-year comparisons.

Nominal and effective rates

The combined GSE, TEM and NSE estimates are used, together with ABS input-output data, to estimate nominal and effective rates of assistance.

The *nominal rate of assistance on outputs* is calculated as output assistance, or the GSE, divided by *the 'unassisted' value of output* (UVO). The UVO is equal to the *'assisted' value of output* (AVO) less the GSE. Some forms of assistance (such as tariffs, import quotas and, in some years, domestic pricing arrangements) increase producers' returns by raising prices (called the price distortion) while other forms of assistance (such as production bounties) raise producers' returns without increasing prices paid by user industries. The nominal rate of assistance on outputs, therefore, measures the extent to which consumers pay higher prices and taxpayers pay subsidies and bounties in support of local output.

The *nominal rate of assistance on 'materials'* (NRM) is a measure of the extent to which prices paid for materials (intermediate inputs) used in the production process change due to government intervention. For example, tariffs on intermediate inputs penalise user industries by raising prices, while consumption subsidies benefit user industries through lowering prices. Unlike the nominal rate of assistance on outputs, the nominal rate on inputs excludes those forms of assistance (eg production bounties) which benefit the production of intermediate inputs without affecting prices paid by user industries. The NRM is defined as input assistance, or the TEM, divided by the *'unassisted' value of materials* — which is derived in a similar manner to the AVO.

The *effective rate of assistance* (ERA) measures net assistance to an activity's value-adding activities, by taking into account not only output assistance and direct assistance to value-adding factors (eg subsidised interest charges and income tax concessions), but also the penalties (eg from tariffs and excise taxes) and benefits (eg from input subsidies) of government intervention on inputs. The ERA is calculated as the NSE divided by the UVA, expressed as a percentage.

4.2 Interpreting the estimates

The Commission's estimates of government assistance to industry are intended to aid transparency and facilitate analysis of various matters related to the assistance structure, including:

- the transfers to different groups within the community consequent upon relevant government interventions
- the effects of assistance on resource allocation within the economy
- the merits of the relevant government interventions.

However, the estimates themselves only provide a partial guide to these matters and must be interpreted carefully. Guidance on the interpretation of the estimates, including the key qualifications, is set out below.

Transfers

Assistance estimates help to reveal who gains and who loses from industry assistance, and the extent of those gains and losses. The NSE, in particular, is a dollar estimate of the net effects of the assistance measures covered by the estimates on returns to an industry — that is, it provides an indication of the transfers of income to producers from consumers, taxpayers and intermediate suppliers consequent upon the assistance structure.

However, as noted, the assistance estimates are based on a ‘static’ model. Thus, they focus on the *initial* impact of assistance on different industries. They do not explicitly take account of:

- changes in production and consumption patterns in response to the changes in incentives caused by assistance
- any flow-on changes to broader economic variables, such as exchange rates, interest rates, inflation and so on.

In practice, the provision of assistance is likely to induce a range of responses from consumers and producers, as well as having flow-on effects. These effects will in general reduce the value of assistance to the initial benefiting industry (see box 4.2).

It should also be noted that estimates of transfers do not indicate the overall ‘welfare’ costs to the community arising from those transfers. The welfare costs will often be less than the size of the transfers.

Resource allocation

The estimates also provide a broad indication of the resource allocation effects of the assistance measures covered. The ERA is particularly useful as it provides a single indicator of the net incentive effect of the many different forms of assistance. Benefits of ERA as an indicator are that it can:

- include most forms of barrier and non-barrier assistance to industries
- include both the benefits and costs of assistance to individual industries
- provide an indicator of the extent to which the overall structure of assistance advantages or disadvantages an industry relative to other industries
- provide a consistent measure across the traded-goods sectors of the economy, and over time.

Notwithstanding the estimates’ value as indicators of the distortionary effects of government intervention, particular care is required in drawing inferences for resource allocation given the ‘static’ nature of the underlying model. As noted above, this aspect of the model means that only the initial effects of assistance are captured; the responses of producers and consumers to the incentives created by the provision of assistance (see box 4.2) are not. An evaluation of the impact of such variations in the incentives environment, on the allocation of the community’s resources, goes well beyond the scope of the effective rate measure. Impact analyses require account to be taken of the manner in which assistance alters production and consumption decisions. (These effects would more properly be

Box 4.2 **Production and consumption responses to assistance: an illustration of grapes and oranges**

To understand how assistance can change production and consumption patterns, consider a *highly simplified* situation in which some farmers in an area grow grapes and some grow oranges, and returns in these two industries are about the same – say around a 6 per cent return on investment. All grapes and oranges grown in this economy are consumed in it too, with no imports or exports.

If a subsidy is provided to producers of oranges such that returns on investment increase, say to 12 per cent, existing orange farmers will receive the full value of this windfall gain in the short-run. (It is this 'first round' effect that is captured in the Commission's assistance estimates.)

However, over time, some grape farmers are likely to start switching to growing oranges (and existing orange farmers, or other investors, may bring more land into production). This will cause the supply of oranges to increase and, to clear their stock, producers will need to cut the price. As the price falls, consumers will start buying more oranges, but returns to the orange industry will fall.

Meanwhile, in the grape industry, supply is declining putting upward pressure on the price. As the price increases, consumers cut back their purchases of grapes, but the returns to grape growing increase.

However, as long as the returns to orange production exceed the returns to grape growing, farmers have a continuing incentive to switch from grapes into oranges. This will go on until the returns in both industries are around the same – say at 9 per cent return on investment.

Another factor though is that, to finance the subsidy for orange producers, the government needs to raise extra revenue (through higher taxes or higher charges for services it provides), cut its spending, or incur a higher budget deficit or lower surplus. Say it raised more revenue through a tax on fuel (although either of the other options would have similar ultimate effects). This would increase orange and grape growers' fuel bills and further reduce, although only slightly, the returns in those industries. It would also reduce the returns to other industries which rely on fuel to produce their output, particularly energy-intensive industries. And because householders would have to pay slightly higher fuel bills, they would have slightly less left to spend on other goods and services.

With other industries facing slightly higher fuel bills and slightly lower demand for their products, some 'borderline' businesses in these industries may need to close or reduce their production (unless they are able to make offsetting gains in productivity).

Overall, the effect of providing assistance in this illustration is to cause more oranges to be produced, mainly at the expense of a cut in the production of grapes, and for production in other industries to fall slightly (without productivity improvements). Consumers finish up eating more fruit (but a different mix thereof) and consuming less of other products.

While in practice the world is far more complex than this highly simplified illustration, it nevertheless provides an indication of the nature of some of the effects that can flow from the provision of assistance to industry.

taken into account using computable general equilibrium models, such as the MONASH model developed by the Centre for Policy Studies). For example, some forms of assistance involve limitations on levels of output and/or entry to particular activities. In these cases, regulation and control of an activity may mean that, although there are substantial income transfers to incumbent producers, the extent to which assistance enables the activity to expand is limited.

In drawing inferences about resource allocation consequent upon the assistance structure, care is also required to reflect the incomplete coverage of the estimates. In particular:

- ERAs are calculated only for industries in the traded goods sectors — primary production, manufacturing and mining. ERAs are not published for services.[12]
- The forms of assistance covered in the 'combined' estimates for the mining, fisheries and forestry industries play a relatively minor role in these industries relative to other government measures. Specifically, for the mining industry, environmental regulation, prescribed royalty levels and accelerated depreciation provisions are important, and native title legislation can also affect land access and tenure. The key government measures affecting forestry and fisheries include those relating to resource management issues, such as the pricing of forests and the use of measures such as quotas and licenses to control harvesting rates to protect the resource stock. The assistance implications of these measures, whether positive or negative, are not captured in the estimates.
- While the Commission's measures of assistance to agriculture and manufacturing are more comprehensive, they do not incorporate all forms of intervention which discriminate between these industries and sectors (for example, quarantine restrictions). While assessments of the resource allocation effects of a subset of government interventions may be of interest — for instance, where the subset is deemed to not address market failure (see below) — the implications of the incomplete coverage of the estimates should be considered.

Further, both agriculture and manufacturing now have a large proportion of output which is relatively lightly assisted and a small proportion of output which is highly assisted, although assistance to these areas (for example, TCF, MVP and dairy) is declining and/or is scheduled to decline. Consequently, in making comparisons of sectoral levels of assistance, it should be recognised that such comparisons may conceal substantial differences in assistance levels between activities in each sector.

12 This reflects, among other things, the treatment of services in transportable goods sectors. Because of this treatment, ERA for services would involve double-counting of services value added in the formation of economy-wide ERA measures.

There can also be significant variations in assistance between firms within a sector or industry grouping. Indeed, many firms do not make any use of government programs. For example, a study by Commission staff (Revesz and Lattimore 2001) found that the use of R&D and certain export programs between 1994 and 1998 ranged from 2 to 23 per cent of firms in the targeted activities.

Policy evaluation

As noted earlier, industry assistance has a range of benefits and costs:

- Assistance generally benefits the firms and workers in industries that receive it. For example, firms protected by tariffs levied on competing imports are generally able to sustain higher prices on the domestic market than they otherwise could. Also, direct business subsidies increase returns to recipient firms and industries. Thus, assistance can allow the targeted firms to earn higher profits, pay higher wages and/or expand output and employment (although sometimes assistance can lead to inefficiency in the targeted firms over the longer term).
- Assistance often comes at a cost to firms and workers in other sectors of the economy, and/or to taxpayers. For example, to fund business subsidies, governments must increase taxes and charges, cut back on other spending, or borrow additional funds. Similarly, while tariffs provide some price support to domestic producers, they result in higher costs to local businesses (for their inputs) and higher prices for consumers, who then have less money to spend on other goods and services.

Whether the benefits from particular assistance measures are sufficient to outweigh the costs depends in particular on whether the measure in question addresses a ‘market failure’ (such as spillovers or information gaps) or other distortions and is efficient in doing so. Where this is not the case, and an industry or activity is found to receive more assistance than other industries or activities, particularly those with which it competes for economic resources, there is potential to improve overall economic efficiency through reductions in assistance to the more highly assisted industry or activity.

Traditionally, much of the industry assistance captured in the Commission’s assistance estimates derived from instruments, such as tariffs and agricultural market arrangements that restricted competition, were difficult to justify on economic efficiency grounds. Thus, the finding that a particular industry received significantly more assistance from these arrangements than other industries or activities provided a strong prima facie case for reducing that assistance.

Over time, however, measured assistance to manufacturing and agriculture from tariffs, and from restrictive marketing arrangements, has declined significantly, while there has been an increase in other forms of assistance, particularly budgetary assistance, reflected in the Commission’s assistance estimates.

Some of these other forms of assistance apply to activities, such as R&D and activities with environmental effects, in which market failure is more apparent. In turn, this suggests that some forms of this assistance *may* be economically justified. For example, up to some point, support for R&D may counteract the ‘free-rider’ problem which might otherwise cause insufficient R&D to be undertaken (see IC 1995b, PC 2007a). Likewise, subsidising the adoption of clean fuel technologies is one way of reducing externalities associated with airborne pollution. While analysis would be needed to ensure that these policies represent the most efficient way of dealing with R&D and air pollution issues, government assistance measures of this nature can potentially deliver net community benefits.

Accordingly, while the finding that a particular measure generates high levels of assistance, or that a particular industry or activity receives high levels of assistance relative to competing industries or activities, may suggest that the merits of the assistance warrant careful consideration, it does not necessarily establish a prima facie case for reducing or removing that assistance.

5 Recent changes to the Commission's assistance measurement system

For the 2001-02 series of estimates as published in *Trade & Assistance Review 2005-06* and *2006-07*, the Commission has made a number of adjustments to the coverage, data sources and methodology used in calculating assistance estimates. This section outlines the changes made.

5.1 Industry classifications

As noted in section 2.2, the Commission reports on the incidence of assistance using an 'industry grouping' classification. The classification was introduced in *Trade & Assistance Review 2001-02*. At that time, assistance was reported for 36 industry groupings (and 4 'unallocated' groupings).

While this classification has been broadly retained since then, there have been two modifications in recent years.

First, commencing with *Trade & Assistance Review 2004-05*, the separate industry groupings *Aquaculture* and *Marine fishing* were combined to form the one industry grouping — *Commercial fishing*. This was done primarily to facilitate the allocation of assistance to this area. Previously, some assistance to commercial fishing was placed in *Unallocated primary production*, due to difficulties in determining whether it assisted aquaculture or marine fishing, and to what extent.

For presentational purposes, for the estimates reported in chapter 2 of *Trade & Assistance Review 2005-06* and *2006-07*, the industry groupings *Poultry* and *Services to agriculture (including hunting and trapping)* were combined, with their assistance reported under the heading *Other primary production*. However, the more detailed estimates of budgetary assistance, contained in appendix A of the reviews, retained the disaggregated treatment of *Poultry* and *Services to agriculture*.

5.2 Coverage of budgetary assistance estimates

For the new series of estimates introduced in *Trade & Assistance Review 2005-06*, the Commission broadened the coverage of budgetary measures to reflect the introduction of new programs by the government, the inclusion of some previously unidentified or omitted assistance measures, and improvements in data availability. The measures that were newly included in *Trade & Assistance Review 2005-06*, and the industry groupings to which their assistance was allocated, are set out in table 5.1.

Table 5.1 Budgetary assistance measures newly included in *Trade & Assistance Review 2005-06*, by initial benefitting industry

Program	*Industry grouping allocation*
Fisheries Structural Adjustment Package	Commercial fishing
Great Barrier Reef Structural Adjustment	Commercial fishing
Sustainable regions program	Unallocated other
Small business interest rate subsidy	Unallocated other
Woodend Bike Trail	Unallocated services
Tourism in protected areas	Unallocated services
Tropical Cyclone Larry – Business Assistance	Unallocated other
Exceptional circumstances – interest rate subsidies	Horticulture and fruit growing, Grain, sheep and beef cattle farming, Dairy cattle farming, Poultry farming, Other livestock farming, Other crop growing, Services to agriculture (including hunting and trapping), and Unallocated primary production
Exceptional circumstances – relief payments	Grain, sheep and beef cattle farming, Dairy cattle farming, Poultry farming, Other livestock farming, and Other crop growing
Interim Income Support	Grain, sheep and beef cattle farming, Dairy cattle farming, Poultry farming, Other livestock farming, and Other crop growing
Drought Relief Package	Horticulture and fruit growing, Grain, sheep and beef cattle farming, Dairy cattle farming, Poultry farming, Other livestock farming, Other crop growing, Services to agriculture (including hunting and trapping), and Unallocated primary production
Australian HomeGrown Campaign	Food, beverages and tobacco
Food Processing in Regional Australia	Food, beverages and tobacco
National Livestock Identification System	Grain, sheep and beef cattle farming
12-month prepayment rule	Forestry and logging
Film Australia	Cultural and recreational services
Capital expenditure deduction for mining	Mining
TCF Development	Textile, clothing, footwear and leather
TCF Structural Adjustment Scheme	Textile, clothing, footwear and leather
Bass Straight Passenger Vehicle Equalisation	Transport and storage

Table 5.1 (continued)

Program	*Industry grouping allocation*
Small business CGT 50 percent reduction	Unallocated other
Small business CGT retirement exemption	Unallocated other
Small business CGT exemption	Unallocated other
The Advanced Networks Program	Communication services
Low emission technology development fund	Electricity, gas and water supply
Renewable Energy Development Initiative	Property and business services
Solar cities initiative	Property and business services
Remote renewable power generation program	Electricity, gas and water supply
United Medical Protection support	Finance and insurance
High Costs Claims scheme	Finance and insurance
Premium Support scheme	Finance and insurance
International Food and Agricultural Service	Unallocated other
Aerospace incentives – Hawker de Havilland	Other transport equipment
Automotive incentives – Ford	Motor vehicles and parts
Industry Cooperative Innovation Program	Commercial fishing and Petroleum, coal, chemical and associated products
Product Stewardship (Oil) program	Petroleum, coal, chemical and associated products

5.3 Rebasing to 2001-02 input-output data

The calculation of effective rates of assistance requires data on industry inputs, or 'cost structures', to assess the impact of interventions on industries and to determine a 'materials to output' ratio.

Over the years, the Commission has obtained data on cost structures from the following sources:

- For the manufacturing estimates, prior to 2000 ABS manufacturing census data was used to derive measures of inputs and outputs. ABS input-output cost-structure data, for 1994-95, was adopted for the manufacturing estimates published in *Trade & Assistance Review 1999-2000* and *Trade & Assistance Review 2000-01*. Commencing with *Trade & Assistance Review 2001-02*, ABS input-output data for 1996-97 was used (although the ABS data were adjusted to incorporate the Commission's preferred treatment of transport margins — see Methodological Annex A to that Review).
- In the case of agriculture, prior to 2001 a combination of ABARE farm survey and ABS agricultural finance survey and commodities data was used to derive measures of inputs and outputs by agricultural commodity. For the '1996-97 series' introduced in *Trade & Assistance Review 2001-02,* the Commission

adopted a cost-structure for agriculture based on the average of four years input-output data: 1992-93, 1993-94, 1994-95 and 1996-97.

Thus, both the agriculture and manufacturing estimates are now based on ABS input-output data.

The ABS produces new input-output tables every few years,[13] and provided its latest table, for 2001-02, to the Commission in 2006. This has been used for the effective rate estimates in *Trade & Assistance Review 2005-06*. However, in preparing the new tables, the ABS reclassified certain wholesaling activity from that sector to the manufacturing sector. The Commission re-adjusted the table to maintain comparability with previous series of estimates.[14]

In addition, as discussed in section 2.2, ABS input-output data is used in the calculation of tariff assistance GSEs and TEMs. The latest estimates of tariff assistance have also been based on 2001-02 input-output data (as well as ABS trade data for the same year).

5.4 Tariff assistance methodology

For *Trade & Assistance Review 2005-06*, the Commission introduced two modifications to the estimation of the effects of tariffs and tariff concessions.

Reformulation of tariff price wedge estimates

As discussed in section 2.2, the Commission uses TIDES to estimate tariff price wedges, from which estimates of tariff output and input assistance are derived.

Tariffs in Australia are levied on the free-on-board (fob) import price in overseas ports. As the fob prices of imports exclude insurance, freight and related importing costs, the schedule tariff rates do not indicate the extent to which the tariff has raised the landed price of imports. Thus, the schedule tariff rates need to be deflated to represent a rate

13 The first ABS IO table was prepared for 1962-63. Since the mid-1980s, the ABS has prepared IO tables for 1986-97, 1989-90, 1992-93, 1993-94, 1994-95, 1996-97 and 2001-02. In April 2008, it released preliminary IO tables for 2004-05 (with a revised version released in August 2008).

14 Wholesale trade activity attributed to non-wholesale trade industries (including certain manufacturing industries, construction services and retail trade) in the IO tables published by the ABS was deleted from the production of these industries and added to the production of the wholesale trade industry. This adjustment resulted in around a 15 per cent increase in the value of wholesale trade production.

which applies on the cost, insurance and freight (cif) value. This ad-valorem tariff rate is derived by multiplying the fob/cif ratio by the schedule tariff rate.

However, the formula previously used from the TIDES model deflates the fob tariff into cif import prices in a slightly different manner; specifically, the duty payment is expressed as a proportion of the cif imports plus the duty paid. This price measure is often used in economic analyses to measure a potential price reduction from the existing price (inclusive of tariffs), but does not indicate the price increase from an unassisted benchmark price. Consequently, the formula used for the estimation of tariff price wedges has been recalibrated for assistance measurement purposes.

Treatment of transferable tariff concessions

Under the Automotive Competitiveness and Investment Scheme (ACIS), automotive producers receive tariff concessions, in the form of transferable duty credits, contingent mainly on their levels of production, investment and R&D.

Automotive producers sometimes sell their ACIS credits to entities outside the MVP production sector, such as vehicle importers. These importers, having effectively paid for the reduction in duty on their imports, gain no significant net benefit from the scheme. In the TIDES/Tariff Assistance model, however, they are modelled as incurring a lower TEM as a result of use of ACIS credits (because they import goods at a discounted rate of duty). As the cost of buying those ACIS credits is not captured in the TIDES/Tariff Assistance model, without adjustment the model may *overstate* net assistance to these downstream industries.

Equally, the cash payments to the automotive producers for their credits are not directly reflected in TIDES. Thus, the TIDES/Tariff Assistance model, without adjustment, is likely to *understate* the benefits of the scheme for automotive component producers.

To address this problem, the Commission modified the TIDES/Tariff Assistance model to calculate MVP tariff price wedges without ACIS concessions, separately adjusting the MVP gross subsidy equivalent to reflect the estimated value of concessions to automotive producers.

C UPDATED ASSISTANCE ESTIMATES

6 Supplementary assistance estimates, 2001-02 to 2006-07

As noted, the Commission publishes a selection of assistance estimates each year in Trade & Assistance Review. The selection includes separate estimates for tariff, budgetary and agricultural pricing and marketing assistance as well as 'combined' assistance estimates. In relation to the latter, in the 2005-06 and 2006-07 editions of the Review, the Commissions published only NSE and ERA estimates. The tables in this chapter supplement these estimates, with estimates of the dollar value, and rate, of combined assistance on inputs and outputs. For completeness, the combined NSE and ERA estimates from *Trade & Assistance Review 2006-07* are also replicated here.

Table 6.1 **Combined[a] assistance to outputs by industry grouping, 2001-02 to 2006-07**
$ million

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*
Primary production[b]	**97.2**	**85.3**	**87.4**	**87.9**	**87.2**	**90.5**
Dairy cattle farming	0.1	0.0	0.0	0.0	0.0	0.0
Grain, sheep and beef cattle farming	15.4	13.0	11.2	9.5	8.0	4.6
Horticulture and fruit growing	41.3	33.9	37.5	38.5	39.2	38.6
Other crop growing	1.4	0.5	0.2	0.1	0.2	0.2
Other livestock farming	0.7	0.7	0.5	0.5	0.5	0.6
Fisheries	1.0	0.5	0.5	0.4	0.5	0.5
Forestry and logging	32.1	30.7	30.7	29.5	29.5	36.4
Other primary production[c]	0.8	0.5	0.7	0.2	0.9	0.4
Mining	**4.0**	**3.3**	**3.1**	**3.7**	**4.5**	**5.1**
Manufacturing[b]	**8062.0**	**8749.8**	**9373.3**	**8986.9**	**8701.5**	**9392.1**
Food, beverages & tobacco	1258.1	1361.0	1402.5	1422.2	1474.3	1589.2
Textiles, clothing, footwear & leather	728.2	755.2	848.9	701.5	522.5	555.0
Wood & paper products	519.5	604.3	641.3	627.6	694.6	716.1
Printing, publishing & media	339.4	363.0	396.5	385.0	403.0	417.6
Petroleum, coal, chemical & associated products	880.2	1002.7	1059.2	1045.4	1083.1	1136.2
Non-metallic mineral products	195.5	230.8	260.7	238.3	249.3	271.2
Metal product manufacturing	1021.9	1092.4	1179.4	1191.5	1170.4	1432.3
Motor vehicles & parts	1977.2	2090.4	2249.0	2068.0	1795.8	1897.2
Other transport equipment	98.0	115.5	119.2	116.3	119.2	123.3
Other machinery & equipment	570.4	645.0	685.9	680.2	696.0	742.6
Other manufacturing	443.4	453.1	492.6	472.2	453.0	471.9
Services[b]	**517.6**	**560.8**	**585.8**	**632.4**	**644.6**	**771.2**
Electricity, gas & water supply	17.4	17.3	15.9	8.0	8.6	8.2
Construction	0.9	1.8	1.5	1.1	1.2	1.3
Wholesale trade	120.0	132.5	140.6	139.1	139.5	148.0
Retail trade	151.7	162.4	175.9	172.2	168.8	298.6
Accommodation, cafes & restaurants	9.1	8.0	7.5	4.7	4.8	5.1
Transport & storage	9.3	8.6	7.6	5.4	5.2	5.5
Communication services	1.2	1.1	1.5	1.7	2.4	2.5
Finance & insurance	1.0	0.8	0.9	1.3	1.8	1.7
Property & business services	25.7	27.1	27.6	24.9	30.3	32.7
Govt. administration & defence	0.0	0.0	0.0	0.0	0.0	0.0
Education	8.4	7.8	8.0	6.6	7.0	7.4
Health & community services	0.5	1.4	0.8	1.6	2.0	2.1
Cultural & recreational services	73.5	91.3	98.2	124.4	132.5	122.8
Personal & other services	1.2	0.7	0.7	0.9	1.2	1.3
Unallocated other	**190.0**	**177.8**	**172.4**	**197.2**	**207.6**	**214.2**

a 'Combined assistance' comprises budgetary, tariff and agricultural pricing and regulatory assistance. **b** Sectoral totals include assistance to the sector that has not been allocated to specific industry groupings. **c** Other primary production includes *Services to agriculture* (including *Hunting & trapping*) and *Poultry farming*.

Source: Commission estimates.

Table 6.2 **Combined [a] assistance to inputs by industry grouping, 2001-02 to 2006-07**
$ million

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*
Primary production[b]	**-82.7**	**-68.0**	**-72.2**	**-64.5**	**-46.5**	**-59.6**
Dairy cattle farming	-4.1	-2.8	-3.0	-3.0	-2.6	-2.5
Grain, sheep and beef cattle farming	-24.6	-17.4	-20.6	-19.3	-16.7	-16.6
Horticulture and fruit growing	-9.2	-8.0	-9.1	-5.4	2.3	-6.7
Other crop growing	-6.4	-5.5	-6.0	-5.6	-4.6	-4.4
Other livestock farming	-3.2	-2.9	-2.9	-3.0	-2.6	-2.5
Fisheries	-22.2	-21.3	-21.3	-18.8	-14.9	-18.4
Forestry and logging	-8.9	-8.5	-8.5	-7.7	-6.7	-8.2
Other primary production[c]	-11.1	-8.9	-10.2	-9.9	-8.3	-8.2
Mining	**-148.1**	**-146.9**	**-139.0**	**-178.8**	**-222.4**	**-256.2**
Manufacturing[b]	**-2476.1**	**-2724.4**	**-2987.1**	**-2840.4**	**-2531.1**	**-2718.3**
Food, beverages & tobacco	-326.1	-352.4	-363.1	-361.5	-358.3	-386.4
Textiles, clothing, footwear & leather	-157.5	-162.4	-188.3	-163.8	-121.5	-126.9
Wood & paper products	-142.0	-167.4	-177.4	-170.7	-176.7	-182.9
Printing, publishing & media	-123.2	-135.2	-147.3	-144.8	-136.3	-141.2
Petroleum, coal, chemical & associated products	-258.4	-283.0	-307.7	-318.6	-289.5	-299.5
Non-metallic mineral products	-51.5	-60.9	-69.0	-61.2	-59.3	-64.5
Metal product manufacturing	-331.5	-353.3	-382.8	-377.3	-324.7	-397.4
Motor vehicles & parts	-653.9	-756.1	-832.6	-760.0	-662.6	-677.6
Other transport equipment	-61.3	-67.6	-74.1	-74.3	-69.7	-72.0
Other machinery & equipment	-272.6	-312.6	-334.2	-318.0	-261.8	-278.6
Other manufacturing	-191.9	-194.5	-216.6	-211.4	-187.8	-195.2
Services[b]	**-3467.7**	**-3754.1**	**-4153.8**	**-4211.9**	**-4069.3**	**-4431.8**
Electricity, gas & water supply	-75.3	-81.6	-85.4	-85.1	-79.5	-80.0
Construction	-910.7	-1021.0	-1187.2	-1279.2	-1288.2	-1469.7
Wholesale trade	-253.1	-287.6	-307.7	-299.7	-279.2	-295.6
Retail trade	-681.0	-729.8	-791.1	-743.9	-674.1	-705.3
Accommodation, cafes & restaurants	-306.3	-315.6	-355.9	-366.6	-369.9	-386.5
Transport & storage	-208.8	-221.6	-243.0	-241.1	-215.8	-246.9
Communication services	-146.8	-155.9	-162.9	-160.3	-141.0	-146.6
Finance & insurance	-21.6	-22.7	-24.9	-26.8	-28.5	-31.1
Property & business services	-255.9	-269.0	-287.7	-295.8	-290.9	-322.9
Govt. administration & defence	-265.7	-278.1	-302.6	-304.1	-303.9	-326.5
Education	-65.3	-70.1	-73.9	-76.9	-77.4	-82.9
Health & community services	-85.9	-92.6	-100.9	-99.6	-97.9	-105.2
Cultural & recreational services	-114.1	-129.6	-146.1	-145.6	-140.6	-146.6
Personal & other services	-77.3	-78.9	-84.4	-87.2	-82.3	-85.8
Unallocated other	**0.5**	**0.5**	**0.5**	**1.9**	**0.5**	**2.1**

a 'Combined assistance' comprises budgetary, tariff and agricultural pricing and regulatory assistance. **b** Sectoral totals include assistance to the sector that has not been allocated to specific industry groupings. **c** Other primary production includes *Services to agriculture* (including *Hunting & trapping*) and *Poultry farming*.

Source: Commission estimates.

Table 6.3 **Combined[a] net assistance by industry grouping, 2001-02 to 2006-07**
$ million

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*
Primary production[b]	**1261.1**	**1584.5**	**1507.7**	**1433.2**	**1595.2**	**1924.4**
Dairy cattle farming	327.9	303.7	289.4	256.9	285.6	336.6
Grain, sheep and beef cattle farming	456.3	711.1	648.8	467.5	585.4	743.7
Horticulture and fruit growing	138.9	180.8	162.8	164.1	174.0	165.0
Other crop growing	84.6	89.5	151.6	185.9	209.0	164.3
Other livestock farming	25.4	37.5	28.7	20.1	24.4	25.2
Fisheries	59.4	49.6	52.0	110.4	96.6	286.3
Forestry and logging	64.5	117.2	57.8	115.5	107.3	86.2
Other primary production[c]	13.1	13.3	14.9	13.7	17.1	18.0
Mining	**91.7**	**50.5**	**61.5**	**59.6**	**33.8**	**17.5**
Manufacturing[b]	**6489.5**	**6771.8**	**7231.9**	**6952.4**	**7072.3**	**7526.3**
Food, beverages & tobacco	985.7	1057.7	1111.8	1134.3	1202.3	1293.4
Textiles, clothing, footwear & leather	796.7	778.7	844.3	724.4	600.2	599.5
Wood & paper products	399.1	460.4	484.0	484.3	547.9	565.9
Printing, publishing & media	219.7	239.6	264.8	256.6	286.6	296.9
Petroleum, coal, chemical & associated products	741.4	828.2	844.1	836.0	920.4	958.2
Non-metallic mineral products	163.6	177.8	199.7	184.6	199.4	218.8
Metal product manufacturing	802.5	867.4	973.2	945.9	935.9	1132.3
Motor vehicles & parts	1375.1	1371.8	1452.4	1329.4	1195.5	1255.0
Other transport equipment	131.8	74.3	71.2	59.1	75.0	68.4
Other machinery & equipment	457.0	467.1	461.2	466.9	556.8	589.1
Other manufacturing	277.1	285.0	377.3	366.5	391.1	400.5
Services[b]	**-2304.8**	**-2563.6**	**-2781.0**	**-2583.7**	**-2387.3**	**-2529.4**
Electricity, gas & water supply	-15.4	-23.1	-27.4	-41.0	-6.2	-16.6
Construction	-893.8	-1003.3	-1167.0	-1259.2	-1266.2	-1443.3
Wholesale trade	-99.7	-123.6	-127.1	-113.8	-85.1	-88.6
Retail trade	-520.7	-548.1	-593.8	-545.0	-476.6	-374.3
Accommodation, cafes & restaurants	-291.4	-290.7	-331.8	-344.2	-347.4	-360.3
Transport & storage	-142.2	-150.3	-172.3	-172.8	-151.6	-189.7
Communication services	-69.8	-66.6	-39.3	-27.0	-3.7	-1.1
Finance & insurance	82.9	72.2	128.7	180.0	193.5	256.8
Property & business services	-96.4	-75.6	-51.0	-19.6	18.0	0.8
Govt. administration & defence	-264.5	-273.3	-298.1	-300.6	-302.4	-322.1
Education	-53.0	-58.9	-61.5	-65.7	-61.3	-67.7
Health & community services	-51.8	-63.5	-58.3	-30.3	-36.2	-10.2
Cultural & recreational services	-21.6	-18.3	-17.9	67.1	42.8	9.7
Personal & other services	-71.9	-73.9	-79.1	-79.8	-73.1	-74.9
Unallocated other	**557.3**	**600.7**	**689.4**	**846.9**	**1057.4**	**1087.8**

a 'Combined assistance' comprises budgetary, tariff and agricultural pricing and regulatory assistance. **b** Sectoral totals include assistance to the sector that has not been allocated to specific industry groupings. **c** Other primary production includes *Services to agriculture* (including *Hunting & trapping*) and *Poultry farming*.

Source: Commission estimates.

Table 6.4 **Nominal rate of combined[a] assistance on outputs by industry grouping, 2001-02 to 2006-07**
per cent

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*
Primary production[b]	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
Dairy cattle farming	0.0	0.0	0.0	0.0	0.0	0.0
Grain, sheep and beef cattle farming	0.1	0.1	0.1	0.0	0.0	0.0
Horticulture and fruit growing	0.7	0.6	0.6	0.6	0.6	0.6
Other crop growing	0.0	0.0	0.0	0.0	0.0	0.0
Other livestock farming	0.0	0.0	0.0	0.0	0.0	0.0
Fisheries	0.0	0.0	0.0	0.0	0.0	0.0
Forestry and logging	1.8	1.8	1.8	1.8	1.8	1.8
Other primary production[c]	0.0	0.0	0.0	0.0	0.0	0.0
Mining	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Manufacturing[b]	**3.1**	**3.1**	**3.1**	**2.9**	**2.7**	**2.7**
Food, beverages & tobacco	2.1	2.1	2.1	2.1	2.1	2.1
Textiles, clothing, footwear & leather	8.1	8.1	8.0	6.9	5.8	5.8
Wood & paper products	3.8	3.7	3.8	3.8	3.8	3.7
Printing, publishing & media	1.8	1.8	1.8	1.7	1.7	1.7
Petroleum, coal, chemical & associated products	2.2	2.3	2.2	2.0	2.0	2.1
Non-metallic mineral products	2.0	2.0	2.0	2.0	1.9	1.9
Metal product manufacturing	2.0	2.0	2.0	2.0	1.9	1.9
Motor vehicles & parts	11.4	10.9	10.8	9.6	8.1	8.2
Other transport equipment	1.7	1.8	1.7	1.6	1.6	1.6
Other machinery & equipment	2.6	2.6	2.6	2.5	2.5	2.5
Other manufacturing	4.0	4.0	4.0	4.0	3.9	3.9

a 'Combined assistance' comprises budgetary, tariff and agricultural pricing and regulatory assistance. **b** Sectoral estimates include assistance to the sector that has not been allocated to specific industry groupings. **c** Other primary production includes *Services to agriculture* (including *Hunting & trapping*) and *Poultry farming*.

Source: Commission estimates.

Table 6.5 **Nominal rate of combined[a] assistance on materials by industry grouping, 2001-02 to 2006-07**
per cent

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*
Primary production[b]	**-0.5**	**-0.5**	**-0.5**	**-0.4**	**-0.3**	**-0.4**
Dairy cattle farming	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Grain, sheep and beef cattle farming	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3
Horticulture and fruit growing	-0.4	-0.5	-0.5	-0.3	0.1	-0.3
Other crop growing	-0.5	-0.5	-0.5	-0.4	-0.3	-0.3
Other livestock farming	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4
Fisheries	-2.3	-2.3	-2.3	-2.1	-1.6	-1.6
Forestry and logging	-1.7	-1.7	-1.7	-1.6	-1.4	-1.4
Other primary production[c]	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3
Mining	**-1.1**	**-1.1**	**-1.1**	**-1.1**	**-0.9**	**-0.9**
Manufacturing[b]	**-1.9**	**-1.9**	**-1.9**	**-1.8**	**-1.6**	**-1.5**
Food, beverages & tobacco	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9
Textiles, clothing, footwear & leather	-3.3	-3.3	-3.4	-3.0	-2.5	-2.5
Wood & paper products	-2.6	-2.6	-2.6	-2.6	-2.4	-2.4
Printing, publishing & media	-1.9	-1.9	-1.9	-1.9	-1.7	-1.7
Petroleum, coal, chemical & associated products	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0
Non-metallic mineral products	-1.2	-1.2	-1.2	-1.2	-1.1	-1.1
Metal product manufacturing	-1.1	-1.1	-1.1	-1.1	-1.0	-1.0
Motor vehicles & parts	-6.8	-7.2	-7.2	-6.4	-5.4	-5.3
Other transport equipment	-2.3	-2.3	-2.3	-2.3	-2.1	-2.1
Other machinery & equipment	-2.8	-2.8	-2.8	-2.7	-2.1	-2.1
Other manufacturing	-3.5	-3.5	-3.6	-3.6	-3.2	-3.2

a 'Combined assistance' comprises budgetary, tariff and agricultural pricing and regulatory assistance. **b** Sectoral estimates include assistance to the sector that has not been allocated to specific industry groupings. **c** Other primary production includes *Services to agriculture* (including *Hunting & trapping*) and *Poultry farming*.

Source: Commission estimates.

Table 6.6 **Effective rate of combined[a] assistance by industry grouping, 2001-02 to 2006-07**

per cent

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*
Primary production[b]	**3.6**	**5.7**	**4.8**	**4.5**	**4.9**	**5.9**
Dairy cattle farming	13.2	17.8	16.3	12.0	12.8	15.1
Grain, sheep and beef cattle farming	2.6	5.7	4.3	3.2	3.9	5.0
Horticulture and fruit growing	3.3	5.0	4.0	3.9	4.0	3.8
Other crop growing	2.9	3.6	5.6	6.9	7.7	6.3
Other livestock farming	2.0	3.4	2.6	1.6	1.9	2.1
Fisheries	3.0	2.6	2.7	6.0	5.3	12.7
Forestry and logging	5.1	9.7	4.8	10.0	9.3	6.0
Other primary production[c]	0.3	0.4	0.4	0.4	0.4	0.5
Mining	**0.2**	**0.1**	**0.1**	**0.1**	**0.0**	**0.0**
Manufacturing[b]	**5.1**	**4.9**	**4.8**	**4.6**	**4.5**	**4.5**
Food, beverages & tobacco	3.5	3.5	3.6	3.6	3.7	3.7
Textiles, clothing, footwear & leather	18.7	17.6	17.0	15.1	14.1	13.3
Wood & paper products	4.8	4.7	4.7	4.8	4.9	4.9
Printing, publishing & media	1.8	1.7	1.8	1.7	1.8	1.8
Petroleum, coal, chemical & associated products	4.2	4.3	4.0	3.7	4.0	4.0
Non-metallic mineral products	3.0	2.7	2.7	2.7	2.7	2.8
Metal product manufacturing	3.5	3.6	3.7	3.6	3.6	3.5
Motor vehicles & parts	17.8	16.1	15.5	13.7	12.0	12.2
Other transport equipment	4.2	2.1	1.9	1.5	1.8	1.6
Other machinery & equipment	3.8	3.4	3.2	3.2	3.6	3.6
Other manufacturing	5.0	5.0	6.1	6.1	6.7	6.6

a 'Combined assistance' comprises budgetary, tariff and agricultural pricing and regulatory assistance. **b** Sectoral estimates include assistance to the sector that has not been allocated to specific industry groupings. **c** Other primary production includes *Services to agriculture* (including *Hunting & trapping*) and *Poultry farming*.

Source: Commission estimates.

References

Cordon, W. M. 1966, 'The effective rate of protection, the uniform tariff equivalent and the average tariff', *The Economic Record*, vol. 43, pp. 200-217.

IC (Industry Commission) 1995a, *Assistance to agricultural and manufacturing industries*, Information Paper, March.

—— 1995b, *Research and Development*, Inquiry Report no. 44, AGPS, Canberra, May.

—— 1996, *State, Territory and Local Government Assistance to Industry*, Report no. 55, AGPS, Canberra, 29 October.

PC (Productivity Commission) 2000, *Allocating Budgetary Assistance by 27 ANZSIC-based industry groupings*, Methodological Annex to Trade & Assistance Review 1999-2000, December.

—— 2002, *Allocating Budgetary Assistance to Primary Production by 10 ANZSIC-based Industry Groupings*, Methodological Annex B to the Trade & Assistance Review 2001-02, December.

—— 2005, *Assistance to Tourism: Exploratory Estimates*, Productivity Commission Research Paper, AusInfo, Canberra, April.

—— 2004, 'Industry assistance in Australia and New Zealand under the CER Agreement', Supplement to Productivity Commission Research Report, *Rules of Origin under the Australia—New Zealand Closer Economic Relations Trade Agreement*, Canberra, June.

—— 2006, *Allocating Budgetary Assistance by Industry Groupings: Recent Revisions*, Methodological Annex to the Trade & Assistance Review 2004-05, June.

—— 2007a, *Public Support for Science and Innovation*, research Report, Canberra, March.

—— 2007b, *Trade & Assistance Review 2005-06*, Annual Report Series 2005-06, AusInfo, Canberra, April.

—— 2008, *Trade & Assistance Review 2006-07*, Annual Report Series 2005-06, AusInfo, Canberra, March.

Revesz, J. and Lattimore, R. 2001, *Statistical Analysis of the Use and Impact of Government Business Programs*, Productivity Commission Staff Research Paper, Ausinfo, Canberra.

Treasury (Commonwealth Department of Treasury) 2008, *Tax Expenditures Statement 2007*, AusInfo, Canberra, January.