Australian Government

Productivity Commission

Trade & Assistance Review 2007-08

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The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au) or by contacting Media and Publications on (03) 9653 2244 or email: maps@pc.gov.au

Foreword

The Productivity Commission is required under its Act to report annually on industry assistance and its effects on the economy. *Trade & Assistance Review 2007-08* contains the Commission's latest quantitative estimates of Australian Government assistance to industry. It also examines developments in assistance in different sectors of the economy over the period November 2007 to April 2009, and discusses some recent international policy developments affecting Australia's trade.

Over the last year, a number of major reviews reported to the Australian Government. The Australian Government also released a White Paper and draft legislation on the proposed 'Carbon Pollution Reduction Scheme'. These developments will have significant ramifications for the nature and extent of industry assistance in Australia and are covered in this *Review*.

- Chapter 3 outlines findings of the reviews dealing with export assistance, innovation policy, and assistance to the automotive and the textiles, clothing and footwear sectors.
- Chapter 5 provides a stocktake of government measures introduced to reduce carbon emissions or assist firms in adjusting to a less carbon intensive economy. Over 240 measures are identified with associated budgetary outlays amounting to around $23 billion.

In preparing this document, the Commission has received helpful advice and feedback from officials from the Australian Government as well as the States and Territories. The Commission thanks them all for their assistance.

Gary Banks AO
Chairman

April 2009

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Abbreviations

AAA	Agriculture-Advancing Australia
AANZFTA	ASEAN-Australia-New Zealand Free Trade Agreement
ABARE	Australian Bureau of Agricultural and Resource Economics
ABCB	Australian Building Codes Board
ABIP	Australian Business Investment Partnership
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
ACIS	Automotive Competitiveness and Investment Scheme
ACL	Automotive Components Limited
ACS	Australian Customs Service
ACT	Australian Capital Territory
ACTION	ACT Internal Omnibus Network
ADI	authorised deposit-taking institution
AFF	Australia's Farming Future
AISAP	Automotive Industry Structural Adjustment Program
ANAO	Australian National Audit Office
ANZSIC	Australia and New Zealand Standard Industrial Classification
AOFM	Australian Office of Financial Management
APEC	Asia Pacific Economic Cooperation
AQIS	Australian Quarantine and Inspection Service
ARC	Australian Research Council
ASEAN	Association of South East Asian Nations
ATS	Automotive Transformation Scheme
AUSFTA	Australia-United States Free Trade Agreement
Austrade	Australian Trade Commission
AWB	Australian Wheat Board
BAF	Building Australia Fund
BASIX	Building Sustainability Index

BCA	Building Code of Australia
BCGP	Biofuels Capital Grants Program
CCP	Cities for Climate Protection
CCS	carbon capture and storage
CER	Australia-New Zealand Closer Economic Relations Trade Agreement
CIE	The Centre for International Economics
CMHC	Canada Mortgage and Housing Corporation
CNG	compressed natural gas
COAG	Council of Australian Governments
COMET	Commercialising Emerging Technologies
CPRS	Carbon Pollution Reduction Scheme
CR	Commercial Ready
CRC	Cooperative Research Centres
CRC	COAG Reform Council
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CTC	change in tariff classification
DAFF	Department of Agriculture, Forestry and Fisheries
DCC	Department of Climate Change
DEWHA	Department of Environment, Water, Heritage and the Arts
DFAT	Department of Foreign Affairs and Trade
DIAP	Dairy Industry Adjustment Package
DIE	Deloitte Insight Economics
DITR	Department of Industry, Tourism and Resources
DITRDLG	Department of Infrastructure, Transport, Regional Development and Local Government
DPI	Department of Primary Industries
EC	Exceptional Circumstances
EEC	European Economic Community
EFIC	Export Finance and Insurance Corporation
EIF	Education Investment Fund
EITE	emissions-intensive trade-exposed
ELV/LED	Extra Low Voltage/ Light Emitting Diode Technology

EMDG	Export Market Development Grants
EPCs	Energy Performance Contracts
EPG	Ethanol Production Grants
ERA	effective rate of assistance
ESC	Essential Services Commission
ESD	ecologically sustainable development
ESS	Energy Savings Scheme
ETIS	Energy Technology Innovation Strategy
ETS	emissions trading scheme
EU	European Union
FIG	Food Innovation Grants
FTA	free trade agreement
G-20	Group of Twenty
GATS	Global Automotive Transition Scheme
GATT	General Agreement on Tariffs and Trade
GBRRP	Great Barrier Reef Rescue Plan
GCC	Gulf Cooperation Council
GCIF	Green Car Innovation Fund
GDP	Gross Domestic Product
GE	General Electric
GGAP	Greenhouse Gas Abatement Program
GGAS	Greenhouse Gas Abatement Schemes
GHG	greenhouse gas
GLS	general lighting service
GMAC	General Motors Acceptance Corporation
GST	Goods and Services Tax
GWh	gigawatt-hours
HHF	Health and Hospital Fund
HIH	Heath International Holdings
HS	Harmonized System
IAC	Industries Assistance Commission
IBM	International Business Machines Corporation
IC	Industry Commission

ICTSD	International Centre for Trade and Sustainable Development
IIA	International Investment Agreements
IPART	Independent Pricing and Regulatory Tribunal
IT	information technology
ITAA	*Income Tax Assessment Act 1997*
kWh	kilowatt-hours
LGA	Local Greenhouse Action
LNG	liquefied natural gas
LPG	liquefied petroleum gas
MCE	Ministerial Council of Energy
MEPS	Minimum Energy Performance Standards
MFN	most favoured nation
MOU	Memorandum of Understanding
MWh	megawatt-hours
MRET	Mandatory Renewable Energy Target
MVP	motor vehicles and parts
NABERS	National Australian Built Environment Rating System
NAFTA	North American Free Trade Agreement
NatHERS	Nation-wide House Energy Rating Scheme
NCP	National Competition Policy
NCRIS	National Collaborative Research Infrastructure Scheme
NFIS	National Food Industry Strategy
NIS	National Innovation System
NRA	National Reform Agenda
NRETAS	The Northern Territory Department of Natural Resources, Environment, the Arts and Sport
NSE	net subsidy equivalent
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-operation and Development
PACER	Pacific Agreement on Closer Economic Relations
PAYG	pay-as-you-go
PC	Productivity Commission

PIRs	Parallel Import Restrictions
PPP	Pharmaceuticals Partnerships Program
PTA	Preferential Trade Agreement
PV	photovoltaic
Qld	Queensland
R&D	research and development
RAHS	Royal Agricultural and Horticultural Society
RECs	renewable energy certificates
REDI	Renewable Energy Development Initiative
RET	Renewable Energy Target
RFP	Request for Proposals
RFPIP	Regional Food Producers Innovation and Productivity
RIDF	Regional Infrastructure Development Fund
RIS	regulatory impact statement
RMBS	Residential Mortgage Backed Securities
RoO	rules of origin
RRPGP	Renewable Remote Power Generation Program
RVC	regional value content
SA	South Australia
SAFTA	Singapore-Australia Free Trade Agreement
SARDI	South Australian Research and Development Institute
SEDO	Sustainable Energy Development Office
SELC	Senate Economics Legislation Committee
SITA	Société Internationale de Telecommunications Aeronautiques
SMEs	small and medium size enterprises
SPS	sanitary and phytosanitary
SPV	special purpose vehicle
SSM	special safeguard mechanism
STCRC	Sustainable Tourism CRC
TAFE	Technical and Further Education
Tas	Tasmania
TCF	textiles, clothing and footwear

TCF EOAPS	TCF Expanded Overseas Assembly Provisions Scheme
TCF ICP	TCF Innovation Capability Program
TCF PDS	TCF Product Diversification Scheme
TCF SAP	TCF Structural Adjustment Program
TCF SIP	TCF Strategic Investment Program
TCF SBP	TCF Small Business Program
TCF SOP	TCF Supply Chain Opportunities Program
TES	Tax Expenditures Statements
TESP	Tourism Electricity Support Program
TPPA	Trans-Pacific Partnership Agreement
UAE	United Arab Emirates
UNCTAD	United Nations Conference on Trade and Development
USTR	United States Trade Representative
VARRI	Victorian Advanced Resource Recovery Initiative
Vic	Victoria
VRET	Victorian Renewable Energy Target
WA	Western Australia
WEA	Wheat Exports Australia
WERS	Windows Energy Rating Scheme
WTO	World Trade Organization

OVERVIEW

Key points

- Government assistance to industry is provided by tariffs, budgetary outlays, taxation concessions, regulatory restrictions and other measures.
  - Assistance generally benefits the industry receiving it, but it can come at a cost to other industries, taxpayers and consumers.
  - Some assistance, such as R&D funding and measures with environmental objectives, can deliver net community benefits if well designed and targeted.
- In 2007-08, Australian Government assistance to industry amounted to $9.4 billion in *net* terms (that is, after allowing for the cost impost of import tariffs).
- The mix of industry assistance has changed over the five years to 2007-08.
  - Net tariff assistance has declined in real and nominal terms, and is scheduled to decline further with the phasing down of automotive and TCF tariffs.
  - In contrast, budgetary assistance increased by more than one third in real terms.
- Budgetary assistance to industry will increase further.
  - The Australian Government has announced outlays of around $20 billion associated with 'traditional' industry support, including assistance to the rural sector, automotive and TCF activities and R&D.
  - Concurrently, it announced more than $15 billion associated with infrastructure provision and regional development commitments, potentially providing some assistance to selected service providers or benefits to service users.
  - An additional $40 billion is directed to measures announced in response to the global financial crisis, much of which will benefit selected industries.
- Other recently announced responses to the global financial crisis, including the guarantee of bank deposits and wholesale funding and assistance to commercial property projects, will also confer assistance to industry.
- Policies that aim to reduce greenhouse gas emissions, apart from their environmental effects, also have a substantial impact on the assistance landscape.
  - The Commission has identified over 240 measures, involving an estimated $23 billion in government outlays.
  - By 2011-12, proposed Australian Government spending would amount to some $8 billion. In that year, the estimated cost to industry of proposed emission permits will be around $12 billion.
- The global financial crisis has increased pressures on governments to protect local industries. Although they have collectively committed to resist such pressures, trade restricting measures have been introduced in many countries.
  - To help maintain progress, international commitments and surveillance need strengthening. Over time, institutional arrangements that expose the domestic costs of each countries' own protection also have an important role to play.
- Governments are pursuing preferential trade agreements as a means of achieving trade liberalisation. More research on the effects of such agreements is needed.

Overview

The industry assistance landscape in Australia has been significantly reshaped over the last 30 years. Since the 1970s, large general reductions in tariff rates, removal of import quotas and reform of agricultural marketing arrangements have led to significant declines in *measured* levels of assistance. On the other hand, there has been an increasing trend, particularly over the last decade, towards greater budgetary assistance to industry.

Such trends are likely to continue with the announcement of numerous budgetary assistance measures in the past year, some involving an expansion of existing programs, such as for the automotive industry. Proposed responses to climate change concerns will also provide substantial new budgetary assistance to affected industries. The global financial crisis and subsequent recession have added a further dimension, increasing pressures to protect domestic industry. Although governments have collectively committed to resist such pressures, additional trade restricting measures in many countries have been introduced — posing a further threat to the world economy.

Trade & Assistance Review reports the Commission's estimates of Australian Government assistance to industry and recent policy developments with ramifications for Australia's assistance structure. However, assessing whether the benefits of any particular support program exceed the costs requires detailed case-by-case consideration — a task beyond the scope of the *Review.*

Estimates of assistance to industry

In 2007-08, total measured assistance to industry by the Australian Government was \$17.5 billion in gross terms or \$9.4 billion in net terms (that is, after allowing for the cost impost of import tariffs). The value of tariff assistance alone was \$9.2 billion, predominantly to manufacturing industries. At the same time, tariffs imposed a cost penalty on inputs throughout the whole economy estimated at \$8.1 billion. Budgetary outlays provided around \$4.7 billion in industry assistance while tax concessions conferred further assistance of \$3.6 billion.

In real terms, measured net assistance to Australian industries increased by 20 per cent over the five year period to 2007-08, with the mix of industry assistance changing considerably. Net tariff assistance declined in real terms. Agricultural pricing and regulatory assistance also declined and is likely to fall to negligible levels with the completion of the Dairy Structural Adjustment Program in April 2008. In contrast, budgetary assistance increased by 36 per cent in real terms to 2007-08.

Reviews of industry policy

In 2008, the Australian Government initiated four major industry policy reviews covering:

- export policies and programs (the 'Mortimer' review);
- national innovation system (the 'Cutler' review);
- automotive industry (the 'Bracks' review); and
- textile, clothing and footwear industries (the 'Green' review).

The reviews collectively made over 200 recommendations. These not only addressed industry assistance matters such as tariffs, subsidies and trade agreements, but also touched on broader issues pertaining to industry performance, including environmental regulation, industrial relations, government procurement and education and training.

Each review found a potential role for government in overcoming market failures and made recommendations for the continuation, or increased resourcing, of existing R&D, innovation and export development programs. The creation of several new programs was recommended.

The reviews also favoured a role for government in 'strategic priority setting' — for example, in identifying prospective export markets or goods and services on which to concentrate government efforts, setting national innovation priorities, ensuring long-term manufacturing of certain products and the establishment of industry councils to identify priorities.

A general problem confronting the reviews was a lack of information on activities or industries receiving assistance and consequent outcomes. Moreover, some of the claimed benefits of government support in inducing additional activity and the extent of alleged public benefit presented in the reviews appeared optimistic.

To enhance program assessment, there would be merit in improving information about industry assistance program participation and how economic outcomes have been changed by that participation.

Recent industry-related announcements

Since November 2007, the Australian Government has announced substantial new spending with potential implications for assistance to Australian industry. Most proposed outlays are to occur within the next five years, though some will extend beyond this.

Around $20 billion is associated with traditional forms of assistance to industry as normally reported in the *Trade & Assistance Review*. Most of this amount relates to support for business R&D, exports, agricultural and related activities and the motor vehicle and parts industry. Around $5 billion (of the $20 billion) is associated with ongoing programs.

A further $15 billion was committed by the Australian Government for infrastructure and support of regional development. In addition, the Government has made a commitment to support the development of a national broadband network. These various commitments will have a range of impacts on industry, some of which would confer assistance either to recipients or user industries. The level of assistance and its incidence, however, is often difficult to determine and would depend on factors such as: the level of government contributions and the risks transferred to the private sector; user charges relative to the costs of service provision; and the public good nature of the infrastructure.

Measures announced in response to the global financial crisis — the Economic Security Strategy, 'Nation Building' package, and 'Nation Building and Jobs Plan' include some $40 billion that is 'industry related'. As in the case of infrastructure provision and regional development commitments, the parts of these programs that affect investment returns or service costs and prices have potential implications for industry assistance. However, the packages also include components that are not industry-related, totalling $20 billion, such as one-off cash payments to pensioners, carers, students and eligible families.

In addition to budgetary outlays, the Australian Government has announced other measures that may directly or indirectly benefit industry, including the guarantee of bank deposits and wholesale term funding, the purchase of residential mortgage backed securities and assistance to car dealer financiers.

Carbon emission reduction programs

Governments are increasingly introducing measures that aim to reduce carbon emissions or assist industry in transitioning to a lower carbon economy. In this *Trade & Assistance Review*, the Commission has compiled a list of existing or prospective Australian Government and State and Territory measures of this kind.

This initial stocktake has identified over 240 assistance measures involving around $23 billion of actual or proposed outlays over the five years to 2011-12. Australian Government measures account for 94 per cent of the total *value* of outlays identified, although only 34 per cent of the *number* of budgetary measures. Assistance to industry is also provided through quotas on the use of renewable or low-emission energy and higher prices for electricity sourced from small-scale, low-emission generators.

Australian Government annual spending is scheduled to increase from around $300 million in 2007-08 to some $8 billion in 2011-12, mainly as a result of the proposed Carbon Pollution Reduction Scheme (CPRS) — the largest component of the measures identified.

- The CPRS would account for $6 billion of projected total assistance in 2011-12 alone (largely made up of permit allocations to affected industries).
- At the same time, the proposed requirement to buy emission permits will impose additional costs on industry of around $12 billion in that year.

Apart from their environmental effects, these policies will significantly alter the industry assistance landscape and impact on the economy. Some assistance to affected industries is likely to impose costs on the broader economy, including through higher carbon permit prices. Further, the effects of the carbon emission reduction measures are inter-related, including with other national policy measures, such as energy efficiency, road congestion and transport pricing.

For these reasons, carbon emission reduction measures require regular review and evaluation. Governments have committed to undertaking reviews of the national Renewable Energy Target and most other forms of assistance, including assessments of the potential to streamline some measures in light of the CPRS. Given the level of interaction between different measures (many being administered by different governments) there would be merit in giving greater weight to the design of national mechanisms to guide the coordination and review of these measures.

International trade policy developments

Before the global financial crisis, the primary focus of international trade policy was on achieving trade and investment liberalisation through multilateral, regional and bilateral forums. However, the financial crisis and resulting contraction in world trade, has brought a new set of pressures on governments to support domestic businesses and activities, typically at the expense of trading partners.

Although many governments have collectively committed themselves to resisting calls for greater protection, most notably at recent G-20 meetings, the WTO has identified at least 80 new protectionist measures. Moreover, the Doha Round of multilateral trade negotiations, which could strengthen liberalisation and help resist new protection, remains unresolved after eight years of negotiations. Initiatives to clarify the coverage of commitments at international forums and improve transparency through the WTO are needed.

In addition, to underpin enduring reform, there is a need for initiatives to examine and make transparent the *domestic* costs of each country's own protection measures.

A lack of progress in multilateral forums may also result in governments further pursuing preferential trade agreements (also referred to as 'free' trade agreements). Although these agreements may lead to some increase in trade and investment among those involved, unlike multilateral or unilateral reforms they can also divert trade away from least cost sources of production, thereby impairing national and global productivity and economic growth. In addition, the proliferation of product-specific rules of origin that apply in preferential agreements can further inhibit trade and innovation. In light of the complex and two-sided effects of preferential arrangements, more research on how they are operating in practice is needed.

1 Introduction

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

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

Assistance thus takes many forms. It extends beyond direct government subsidies to particular firms or industries, and includes tariffs, quotas, regulatory restrictions on imported goods and services and tax concessions. Assistance can also arise from the provision of services below cost by government agencies and from government procurement policies.

Although assistance generally benefits the firms or industries that receive it, it typically imposes costs on other sectors of the economy. For example, direct business subsidies increase returns to recipient firms and industries, but to fund subsidies governments must increase taxes and charges, cut back on other spending, or borrow additional funds. Similarly, while tariffs provide some price relief to domestic producers, they result in higher input costs for other local businesses and higher prices for consumers, who then have less money to spend on other goods and services.

Governments provide assistance for many different reasons. In some cases, particular types of assistance — notably R&D funding and measures with environmental objectives — can deliver net community benefits. Similarly, some policies which have industry assistance effects may be justified on other grounds, such as the achievement of social or equity objectives.

In view of the costs, as well as the potential benefits, that industry assistance can entail, government measures that provide assistance need to be monitored and regularly reviewed. One of the Productivity Commission's functions is to review industry assistance arrangements. It also has a more general statutory obligation to report annually on assistance and its effects on the economy.

This edition of *Trade & Assistance Review* contains the Commission's latest estimates of Australian Government assistance to industry (chapter 2). These estimates cover the years 2002-03 to 2007-08. They provide a broad indication of the resource allocation effects of selective government industry policies, and highlight some of the costs of industry support. Appendix A provides additional details of the Commission's estimates of assistance.

However, care is required in interpreting the estimates. Among other things, they cover only those government measures that selectively benefit particular firms, industries or activities, and which can be quantified given practical constraints in measurement and data availability. However, because industry assistance is discriminatory and can distort the allocation of economic resources, assessing whether the benefits of any particular industry support program exceed its costs involves case-by-case consideration — a task beyond the scope of the *Trade & Assistance Review*.

This year's *Review* also reports on a number of developments since November 2007 with ramifications for Australia's assistance structure generally or for particular sectors or industries.

- Chapter 3 describes four major industry policy reviews that reported in 2008: a review of export policies and programs (the 'Mortimer' review); a review of the national innovation system (the 'Cutler' review); a review of the automotive sector (the 'Bracks' review) and a review of the textile, clothing and footwear industries (the 'Green' review).
- Chapter 4 catalogues recent policy announcements relating to R&D assistance, sector-specific programs, infrastructure provision and regional development, responses to the global financial crisis and other announcements with ramifications for industry assistance. Appendix B provides information on recent anti-dumping and countervailing duty cases in Australia.
- Chapter 5 reports on a stocktake of measures that Australian governments have taken to reduce carbon emissions or to provide support in the transition to a less carbon intensive economy. The chapter further examines some implications of these measures (from an assistance viewpoint) and the processes for their evaluation and review. Appendix C contains a full list of the measures that have been identified in the stocktake.
- Chapter 6 reports on selected recent developments in international trade policy, including responses to the global financial crisis, the progress of multilateral trade negotiations, Australia's involvement in negotiating Preferential Trade Agreements (PTAs), and a broader examination of the issues relating to global trends in PTA formation.

2 Assistance estimates

Assistance to industry is provided by a wide array of government programs and policies. Each year, the Commission updates and publishes estimates of the assistance provided by:

- import tariffs, which mainly assist the manufacturing sector while raising costs to consumers and to industries that use manufactured and other tariff-assisted inputs;
- Australian Government budgetary measures — divided into government outlays and tax concessions — applying to the agricultural, mining, manufacturing and service sectors; and
- agricultural pricing and regulatory measures.

As well as providing estimates for these three categories, the Commission aggregates them to provide an estimate of the 'combined' assistance for four broad sectors of the Australian economy — 'primary production', 'mining', 'manufacturing' and 'services' — along with effective rates of assistance for all sectors except services. For each category of assistance, the Commission provides more detailed estimates of assistance by 35 industry groupings. In addition, the Commission disaggregates its estimates of budgetary assistance into special sub-categories (such as R&D and export assistance) to facilitate more detailed assessments of changes in the composition and nature of assistance.

Nonetheless, the estimates do not aim to capture all Australian Government support for industry (box 2.1); nor, apart from some minor agricultural assistance, do they include State government assistance.

The following sections outline the coverage of the Commission's assistance estimates, present the most recent (2007-08) assistance estimates and reflect on the broad changes in the structure of industry assistance over the last three decades.

Box 2.1 Coverage of the Commission's assistance estimates

The Commission's assistance estimates cover only those measures which selectively benefit particular firms, industries or activities, and which can be quantified given practical constraints in measurement and data availability. Exclusions from the annual estimates include:

- for agricultural industries, any assistance effects that may be associated with quarantine restrictions, the pricing of water resources or the impact of measures to address land degradation resulting from farming practices;
- capital depreciation subsidies and the impact of tariffs on capital items;
- the effects of government purchasing preferences — for example, as they affect the manufacturing sector and IT industries;
- regulatory restrictions on competition — for example, relating to pharmacy, air services, and media and broadcasting;
- anti-dumping and countervailing measures;
- certain differential tax arrangements, including in relation to excises, the GST and superannuation, as well as particular arrangements affecting the mining sector where resource rent taxation issues make it difficult to determine assistance impacts;
- State and Territory government assistance to industry, other than designated agricultural marketing arrangements and rural support programs;
- government programs affecting a range of service industries, mainly relating to the provision of health, education, sport and the arts;
- government programs affecting national security and public safety, including police and defence programs; and
- government programs affecting the labour market.

2.1 Tariff assistance

Tariffs have direct effects on the returns received by Australian producers. The Commission's estimates of tariff assistance are divided into three main categories — 'output' assistance, 'input' assistance and 'net' assistance.

- Tariffs on imported goods increase the price at which those goods are sold on the Australian market, and thus allow scope for domestic producers of competing products to increase their prices. These effects are captured by the Commission's estimates of output assistance.
- On the other hand, tariffs also increase the price of local and imported goods that are used as inputs and thus penalise local user industries. This 'penalty' is

reduced if tariff concessions are available to Australian producers. The penalties are reflected in the Commission's estimates of input assistance.

- Net assistance represents the 'effective' tariff assistance provided to industry, and is calculated as output tariff assistance less the input penalty imposed by tariffs.

The Commission estimates that the gross dollar value of tariff assistance to domestic production was $9.2 billion in 2007-08 (table 2.1). The general increase in the nominal value of output tariff assistance over the five year period to 2007-08 reflects growth in domestic industries and *not* an increase in tariff rates. However, significant tariff reductions occurred for motor vehicles and parts and textiles, clothing and footwear products in January 2005. Others things being equal, these reductions lowered the level of output assistance from 2004-05.

Table 2.1 **Tariff assistance, 2002-03 to 2007-08**

$million (nominal)

	2002-03	*2003-04*	*2004-05*	*2005-06*	*2006-07*	*2007-08*
Output assistance	8 280.2	8 933.2	8 638.2	8 421.8	8 757.0	9 161.2
Input assistance	-6 963.5	-7 600.4	-7 521.9	-7 069.6	-7 588.6	-8 125.2
Net tariff assistance	1 316.7	1 332.8	1 116.3	1 352.2	1 168.4	1 036.0

Source: Commission estimates.

The estimated cost penalties to user industries of tariffs was $8.1 billion in 2007-08. Over the five-year period to 2007-08, the nominal value of the input penalty has increased with general growth in the economy. Nevertheless, the 3 per cent duty on a range of imports for which there was no competing domestic production, much of which were used as business inputs, was removed on 11 May 2005. This lowered the input penalty of tariffs from 2004-05.

After deducting the tariff input penalty from the output assistance, net tariff assistance (for the Australian economy) was estimated to be around $1 billion in 2007-08, compared with $1.2 billion in 2006-07 and $1.3 billion in 2002-03. This represents a decline of around 21 per cent in nominal terms and 36 per cent in real terms since 2002-03.[1]

[1] The 'real' estimates in this chapter have been calculated by deflating the current value series to a 'real value' series, indexed to the reference year 2002-03, using the GDP deflator.

The Commission’s tariff assistance estimates are not adjusted to reflect tariff preferences granted under Australia’s preferential trading agreements on the basis that countries subject to lower (preferential) tariffs generally receive the full price benefits while domestic prices in Australia remain unchanged (box 2.2).

Box 2.2 **Treatment of preferential tariffs**

The tariff preferences provided under Australia’s preferential trading agreements need not result in any change in prices in the domestic market and, thus, in assistance to Australian industry provided by the general (Most Favoured Nation (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 preferential trading agreements (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. At the same time 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.

A further discussion of these effects and estimates of assistance conferred by tariff preferences is provided in a supplement to the Commission Research Report *Rules of Origin under the Australia–New Zealand Closer Economic Relations Agreement (PC 2004d)*.

Sources: PC (2004b); PC (2004c); PC (2008i).

Tariff assistance by sector and industry

Although aggregate net tariff assistance is positive, the sectoral experience is quite different. Most tariff assistance on outputs is directed towards the manufacturing sector, and in particular in the *Food, beverages & tobacco*, *Motor vehicles & parts*, and *Metal product manufacturing* groups (table 2.2 left hand column). Mining and primary production industries receive little tariff assistance on outputs, and tariffs are not levied on services.[2] On the other hand, because of their cost-raising effects on inputs, tariffs impose penalties on all industries (table 2.2 middle column).

[2] Due to ABS industry-of-origin classification conventions, a small amount of output tariff assistance is recorded for some service industries.

Table 2.2 **Tariff assistance by industry grouping,[a] 2007-08**

$million (nominal)

Industry grouping	*Output assistance*	*Input assistance*	*Net tariff assistance*
Primary production	**62.1**	**-55.7**	**6.3**
Dairy cattle farming	0.0	-3.6	-3.6
Grain, sheep & beef cattle farming	0.1	-16.0	-15.9
Horticulture & fruit growing	45.3	-8.9	36.5
Other crop growing	0.0	-4.7	-4.7
Other livestock farming	0.0	-2.0	-2.0
Fisheries	0.0	-8.4	-8.4
Forestry & logging	16.6	-3.8	12.9
Other primary production[b]	0.0	-8.4	-8.4
Mining	**4.3**	**-297.6**	**-293.3**
Manufacturing	**8 759.1**	**-2 932.9**	**5 826.2**
Food, beverages & tobacco	1 588.1	-396.9	1191.2
Textiles, clothing, footwear & leather	504.1	-124.0	380.1
Wood & paper products	752.5	-198.4	554.1
Printing, publishing & recorded media	447.2	-152.8	294.4
Petroleum, coal, chemical & ass. products	1 166.9	-326.4	840.5
Non-metallic mineral products	268.9	-64.4	204.4
Metal product manufacturing	1 294.9	-362.4	932.5
Motor vehicles & parts	1 374.2	-732.7	641.4
Other transport equipment	123.1	-73.0	50.1
Other machinery & equipment	728.8	-284.5	444.3
Other manufacturing	510.4	-217.2	293.2
Services	**335.8**	**-4 839.1**	**-4 503.3**
Electricity, gas & water supply[c]	6.8	-89.5	-82.6
Construction	0.0	-1 693.8	-1 693.8
Wholesale trade[c]	144.8	-317.8	-173.0
Retail trade[c]	184.1	-744.8	-560.7
Accommodation, cafes & restaurants	0.0	-393.1	-393.1
Transport & storage	0.0	-264.9	-264.9
Communication services	0.0	-143.5	-143.5
Finance & insurance	0.0	-33.5	-33.5
Property & business services	0.0	-354.5	-354.5
Government administration & defence	0.0	-346.1	-346.1
Education	0.0	-85.4	-85.4
Health & community services	0.0	-112.8	-112.8
Cultural & recreational services	0.0	-161.4	-161.4
Personal & other services	0.0	-97.9	-97.9

[a] Tariff assistance estimates are derived using ABS Industry Gross Value Added at current prices data. This information is subject to periodic revision by the ABS. Totals may not add due to rounding. [b] Other primary production includes *Services to agriculture* (including *Hunting & trapping)* and *Poultry farming*. [c] Due to ABS industry-of-origin classification conventions, a small amount of output tariff assistance is recorded for these service industries.

Source: Commission estimates.

With the value of tariff assistance on manufacturing outputs outweighing the cost imposts of tariffs on inputs, all manufacturing industries are estimated to receive net-positive tariff assistance (table 2.2 right hand column).

Outside the manufacturing sector, the *Horticulture & fruit growing* and *Forestry & logging* industries are also estimated to receive net-positive tariff assistance in 2007-08. Some imported products in these two particular industry groupings attract tariffs (for example, grapes and softwood conifers). All other primary, mining and service industries incur a net penalty from the level and structure of tariffs in Australia.

Since 2002-03, the value of net tariff assistance for the manufacturing sector has increased by 18 per cent, reflecting the general growth in manufacturing output. At the same time, the net tariff penalty on the service sector has increased by 29 per cent, reflecting the stronger growth of the sector (compared to manufacturing) and the punitive effect of tariffs on inputs.

2.2 Australian Government budgetary assistance

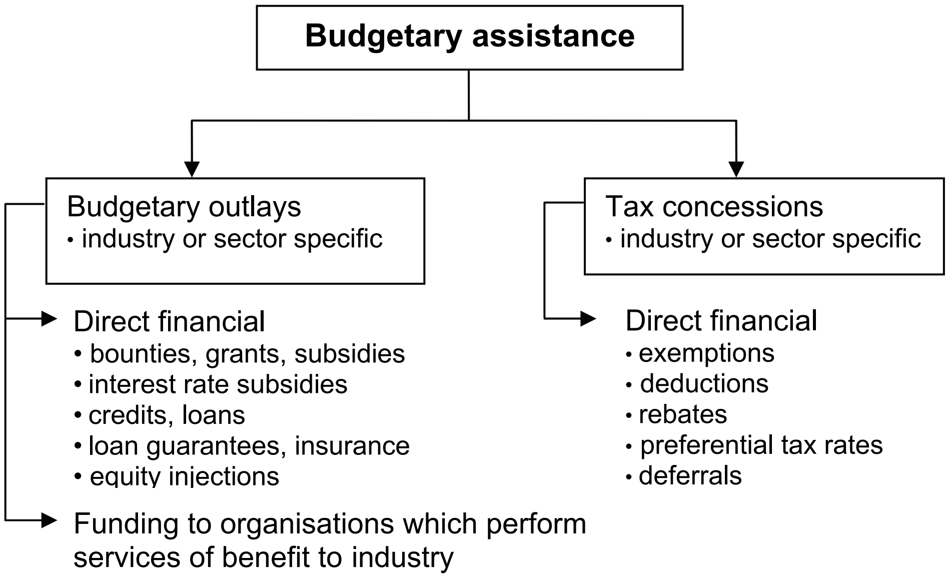
Budgetary assistance comprises outlays and tax concessions (figure 2.1). Recipients include individual firms and those undertaking or using the output of particular activities, such as R&D in particular industries. Some measures provide assistance directly to industry, such as the Automotive Competitiveness and Investment Scheme, while other budgetary support measures are provided indirectly via an intermediate organisation such as the Rural Industries Research and Development Corporation or the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

As well as reporting its budgetary assistance estimates in the aggregate, *Trade & Assistance Review* also reports on:

- the broad kinds of activities — including R&D, export grants, industry-specific support — to which the assistance is directed; and
- the incidence of assistance benefits across four broad sectors and 35 industry groupings.

The budgetary assistance estimates are derived primarily from actual expenditures shown in departmental and agency annual reports, and the Australian Treasury Tax Expenditures Statement. Industry and sectoral disaggregations are based primarily on supplementary information provided by relevant departments or agencies.

Figure 2.1 **Forms of budgetary assistance**

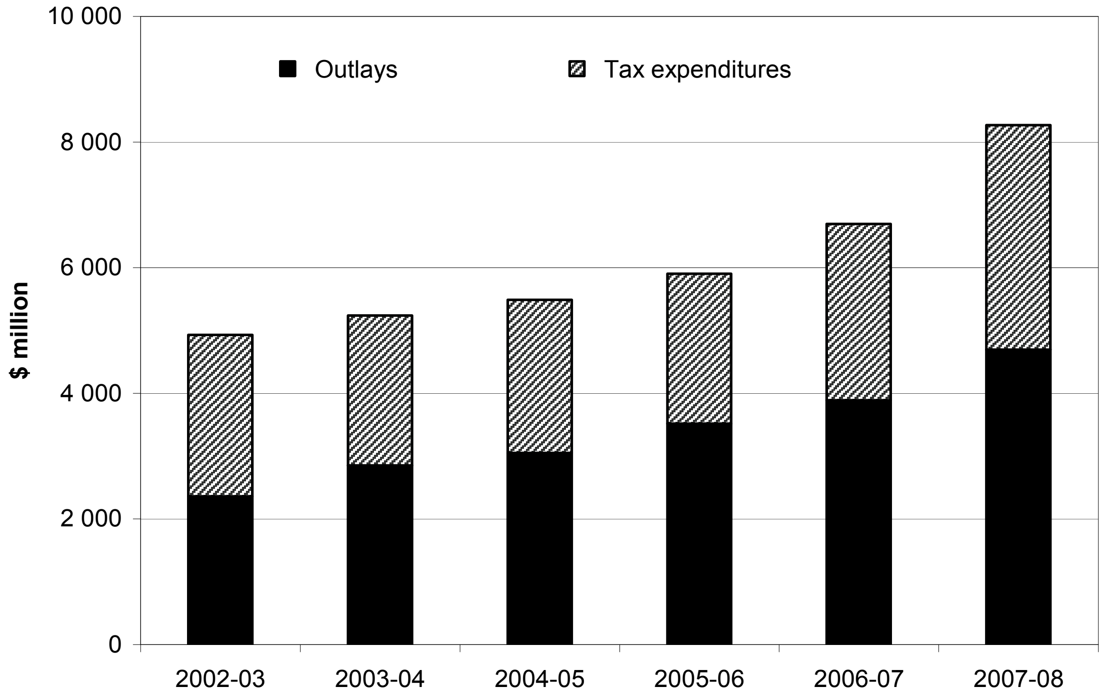


Aggregate budgetary assistance

The estimated gross dollar value of budgetary assistance to Australian industry was around $8.3 billion in 2007-08, compared with $6.7 billion in 2006-07 and $4.9 billion in 2002-03 (figure 2.2). In *real* terms, this represents an increase of 18 per cent since 2006-07 and 36 per cent since 2002-03. The main sources of increase in the last 12 months (2006-07 to 2007-08) were:

- an increase of around $430 million in 'exceptional circumstances' drought relief payments and interest rate subsidies;
- an increase of around $315 million in Small Business Capital Gains Tax concession measures;
- assistance of around $250 million to activities connected with commercial horse operations in response to the horse 'flu' outbreak;
- a $150 million increase in assistance provided under the Offshore Banking Unit Tax Concession Program;
- grants to Murray Darling Basin irrigators of $145 million to assist adjustment to reduced water allocations; and
- increases of around $80 million, $90 million and $115 million in assistance provided under the R&D Tax Concession, R&D Tax Offset for Small Companies and Premium R&D Tax Concession schemes, respectively.

Figure 2.2 **Budgetary assistance to industry, 2002-03 to 2007-08**
$million (nominal)



Sources: Commonwealth Budget and Budget related papers (various years), departmental annual reports (various years); Treasury (2009a); Commission estimates.

Activities targeted

Budgetary assistance is often designed to encourage particular activities (such as R&D or exports) or to support particular firms, industries or sectors. To provide an indication of the distribution of assistance among activities and to facilitate more detailed assessments of changes in the composition and nature of assistance, the Commission classifies its estimates of Australian Government budgetary assistance into several categories:

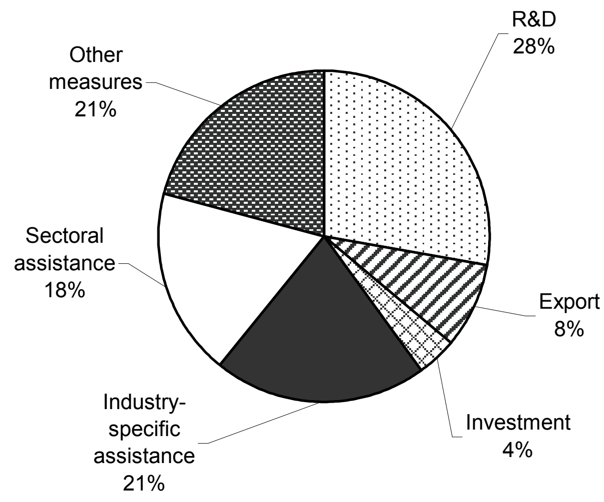
- R&D, including assistance to CSIRO as well as various R&D tax concessions;
- Export measures, including assistance provided through Austrade as well as Export Market Development Grants (EMDG);
- Investment, including Offshore Banking Unit tax concessions;
- Industry-specific measures, including the Automotive Competitiveness and Investment Scheme and the Textiles, Clothing and Footwear Strategic Investment Program;

- Sectoral measures, such as 'exceptional circumstances' drought relief payments, as well as tax concessions made under the Farm Management Deposits Scheme; and
- a residual 'other' category, which includes measures such as small business capital gains tax concessions, payments under the Tasmanian Freight Equalisation Scheme, the Structural Adjustment Fund for South Australia and the Regional Partnerships Program.

Budgetary assistance is largely directed towards R&D (28 per cent), with most of the remainder fairly evenly spread between sectoral assistance (18 per cent), industry-specific assistance (21 per cent) and other measures (21 per cent) (figure 2.3).

Some caution is required when interpreting these estimates. While programs have been allocated to one category only, a number have characteristics of more than one category, for example, the R&D category includes rural R&D, which could also be considered sector specific.

Figure 2.3 **Budgetary assistance by category, 2007-08**



Source: Commission estimates.

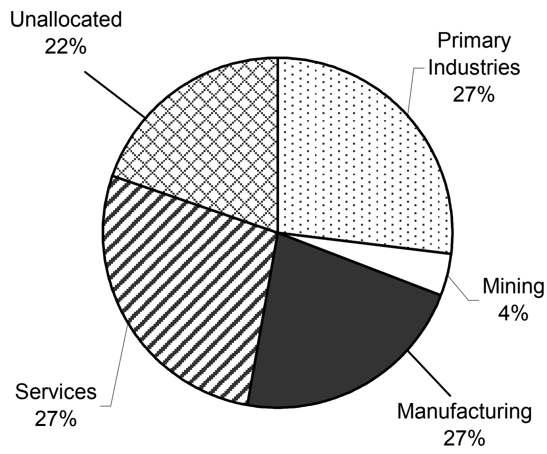
Sectoral and industry distribution

The Commission estimates the incidence of budgetary assistance by the initial benefiting industry, that is, the industry which receives the assistance first. Estimates are presented for 35 'industry groupings', plus 4 'unallocated' groupings. The groupings are based on the 1993 Australia and New Zealand Standard Industrial Classification (ANZSIC). The 35 groupings comprise 9 in the primary sector, 11 in manufacturing, 14 in services, and one for mining. The four unallocated categories are used for programs where it has not been possible to confidently identify the initial benefiting industry or sector. While the Commission has used detailed information to make allocations, the need for judgment means that there remains some scope for imprecision. More detailed discussion of the budgetary assistance methodology is available in a methodological annex (PC 2008i). Reporting budgetary assistance by broad sectors and industries helps highlight the incidence of assistance and facilitates comparisons on the basis of a common classification.

In 2007-08, manufacturing, primary production and the (much larger) services sector each received around one quarter of total estimated budgetary assistance, while the mining sector received relatively little measured budgetary assistance (figure 2.4).

However, around 20 per cent of total budgetary assistance is classified as 'unallocated' because of a lack of appropriate industry distribution data. The principal unallocated items are the small business tax concessions, Austrade funding and the 25 per cent entrepreneurs' tax offset.

Figure 2.4 **Budgetary assistance by sector, 2007-08**



Source: Commission estimates.

Over the seven years 2001-02 to 2007-08 (appendix A), estimated budgetary assistance has grown the most for the services sector, mainly due to growth in the Offshore Banking Unit tax concession, introduction of the LPG Vehicle Scheme in 2006-07 and the Equine Influenza Emergency Assistance Package in 2007-08, and growth in the various R&D support schemes. Primary sector budgetary assistance has also increased over the period, mainly through drought related payments. At the same time, budgetary assistance to manufacturing and mining changed little.

At the industry level in 2007-08, estimated budgetary assistance was highest for *Grain, sheep & beef cattle farming* ($1.05 billion), mainly in the form of drought assistance payments and R&D support (table 2.3). *Motor vehicles & parts* received the second largest amount of budgetary assistance ($603 million), mainly through the Automotive Competiveness and Investment Scheme.

Within the services sector, *Cultural & recreational services*, *Finance & insurance* and *Property & business services* receive the largest amount of measured budgetary support (over $400 million each). However, while more than 95 per cent of the *Finance & insurance* support is in the form of tax concessions (the Offshore Banking Unit Tax Concession program, R&D tax concessions and venture capital programs), the majority of budgetary assistance for *Cultural & recreational services* and *Property & business services* is delivered in the form of outlays, such as the Equine Influenza Emergency Assistance Package, film industry programs, and the R&D Tax Offset for Small Companies.

Table 2.3 Budgetary assistance by industry grouping, 2007-08

$ million (nominal)

Industry grouping	*Outlays*	*Tax concessions*	*Total budgetary assistance*
Primary production	**2 009.2**	**210.9**	**2 220.1**
Dairy cattle farming	300.3	21.8	322.1
Grain, sheep & beef cattle farming	937.7	107.2	1 044.8
Horticulture & fruit growing	102.1	34.5	136.6
Other crop growing	148.0	17.3	165.3
Other livestock farming	26.9	6.5	33.3
Fisheries	178.3	9.8	188.1
Forestry & logging	35.6	1.1	36.7
Other primary production[a]	18.6	12.7	31.3
Unallocated primary production[b]	261.8	0.0	261.8
Mining	**147.8**	**175.1**	**322.9**
Manufacturing	**862.3**	**954.8**	**1 817.1**
Food, beverages & tobacco	88.4	37.5	125.9
Textiles, clothing, footwear & leather	126.4	12.8	139.2
Wood & paper products	62.5	36.3	98.7
Printing, publishing & recorded media	30.2	9.9	40.0
Petroleum, coal, chemical & ass. products	189.6	35.5	225.1
Non-metallic mineral products	8.4	11.9	20.3
Metal product manufacturing	45.4	33.3	78.7
Motor vehicles & parts	16.1	587.0	603.1
Other transport equipment	10.1	12.1	22.1
Other machinery & equipment	98.0	62.0	160.1
Other manufacturing	136.2	12.7	148.9
Unallocated manufacturing[b]	50.9	103.9	154.8
Services	**1 356.1**	**917.7**	**2 273.7**
Electricity, gas & water supply	53.1	7.7	60.8
Construction	12.0	20.3	32.4
Wholesale trade	31.0	69.6	100.6
Retail trade	178.2	37.8	215.9
Accommodation, cafes & restaurants	4.3	26.4	30.7
Transport & storage	39.1	19.4	58.6
Communication services	137.5	32.3	169.7
Finance & insurance	16.2	437.8	454.0
Property & business services	249.7	162.3	412.0
Government administration & defence	3.8	0.2	4.0
Education	13.6	4.2	17.8
Health & community services	62.8	10.3	73.0
Cultural & recreational services	407.6	79.4	487.0
Personal & other services	9.0	6.0	15.0
Unallocated services[b]	138.3	4.0	142.3
Unallocated other[b]	**318.3**	**1 314.9**	**1 633.2**
TOTAL	**4 693.6**	**3 573.4**	**8 267.0**

[a] Other primary production includes *Services to agriculture* (including *Hunting & trapping)* and *Poultry farming*.
[b] Unallocated includes programs where details of beneficiaries cannot be readily identified.

Source: Commission estimates.

2.3 Agricultural pricing and regulatory assistance

Historically, the bulk of measured assistance to the agriculture sector has been maintained through a range of statutory marketing arrangements, regulations and price support schemes. However, most of these measures have now ceased. While the dairy industry received support in 2007-08 through the Dairy Structural Adjustment Program, the program ceased in April 2008 (table 2.4). The estimated agricultural pricing and regulatory assistance to *Dairy cattle farming* is therefore expected to be negligible in 2008-09.

Table 2.4 **Agricultural pricing and regulatory assistance by industry grouping, 2002-03 to 2007-08**

$million (nominal)

Industry grouping	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*	*2007-08*
Dairy cattle farming	170.3	150.4	143.5	136.6	124.3	120.1
Grain, sheep & beef cattle farming (including rice)	8.4	6.4	5.2	4.6	-	-
Other crop growing (including sugar)	17.6	9.1	-	-	-	-
Total	**196.3**	**165.9**	**148.7**	**141.2**	**124.3**	**120.1**

Source: Commission estimates.

2.4 Combined assistance

This section presents the results of combined tariff, budgetary assistance, and agricultural pricing and regulatory assistance. Combined assistance is reported in terms of the net value of assistance and its components, and the effective rate of assistance (box 2.3).

Aggregate estimates

Total estimated gross assistance was $17.5 billion in 2007-08, having increased by roughly $2 billion from 2006-07 (table 2.5). This represents an increase of around 13 per cent in *nominal* terms and 8 per cent in *real* terms. While relatively stagnant in the middle years of the series, gross assistance has increased by 31 per cent in *nominal* terms and 7 per cent in *real* terms between 2002-03 and 2007-08.

Box 2.3 **Summary measures of combined assistance**

In reporting its estimates of combined net assistance, the Commission adopts two summary measures. First, it reports total net assistance (otherwise known as the *net subsidy equivalent (NSE)),* which is the dollar value of net assistance to the land, labour and capital resources used in a particular industry or activity. It indicates the level of transfers of income to benefiting producers from consumers, taxpayers and other firms, although it does not indicate the ultimate 'economic welfare' costs or benefits to the community of the assistance. NSE estimates are reported for the four sectors and 35 industry groupings.

The second summary measure is the effective *rate* of assistance (ERA). It measures the NSE of combined assistance to a particular industry in proportion to that industry's unassisted net output (or unassisted value added). It can provide an indication of the extent to which assistance to an industry allows it to attract and hold economic resources. That is, where there is some competition between industries for resources, those industries with relatively high effective rates of assistance are more likely, as a result of their assistance, to be able to attract resources away from those with lower rates. ERA estimates are reported for industries in the primary production, mining and manufacturing sectors. Effective rates of assistance are not published for the services sector.

After considering the negative effects of tariff assistance on industry inputs, total estimated net assistance amounted to around $9.4 billion in 2007-08, representing an increase of around $1.4 billion from 2006-07. This represents an increase of around 18 per cent in *nominal* terms and 13 per cent in *real* terms. Between 2002-03 and 2007-08, total estimated net assistance to industry has risen by 46 per cent in *nominal* terms and 19 per cent in *real* terms.

Table 2.5 **Combined assistance, 2002-03 to 2007-08**

$million (nominal)

	2002-03	*2003-04*	*2004-05*	*2005-06*	*2006-07*	*2007-08*
Tariff output assistance	8 280.2	8 933.2	8 638.2	8 421.8	8 757.0	9 161.2
Budgetary outlays	2 359.5	2 851.2	3 053.3	3 519.3	3 890.9	4 693.6
Tax concessions	2 572.8	2 387.3	2 437.1	2 382.7	2 807.9	3 573.4
Agricultural marketing & pricing assistance	196.3	165.9	148.7	141.2	124.3	120.1
Gross combined assistance	**13 408.8**	**14 337.6**	**14 277.3**	**14 464.9**	**15 580.1**	**17 548.4**
Tariff input assistance	-6 963.5	-7 600.4	-7 521.9	-7 069.6	-7 588.6	-8 125.2
Net combined assistance	**6 445.4**	**6 737.2**	**6 755.4**	**7 395.3**	**7 991.5**	**9 423.1**

Source: Commission estimates.

Sector and industry estimates

Value of assistance

Table 2.6 summarises, at the industry level, all the tariff and budgetary assistance information for 2007-08. Reflecting the earlier discussion on the individual elements, the manufacturing sector receives the highest level of combined industry assistance because of significant tariff assistance to its output. Although the services sector receives the most budgetary assistance (around $2.3 billion in identifiable support), such assistance is outweighed by the input tariff penalty (around $4.8 billion). A time series for the period 2001-02 to 2007-08 for net combined assistance (column 7) is presented in appendix A.

Estimated effective rates of combined assistance by sector and industry

The estimated effective rate of assistance — value of assistance as a proportion of value added by a particular sector — has remained stable around 5 per cent since 2002-03 for the manufacturing sector. The effective rate for the primary sector has been a little more volatile, ranging from 4.8 to 7.5 per cent (table 2.7). The effective rate of assistance for mining is negligible.[3]

Textiles, clothing, footwear & leather and *Motor vehicles & parts*

The estimates by industry grouping indicate that both Textiles, clothing, footwear & leather and Motor vehicles & parts continue to have relatively high effective rates of combined assistance — roughly three times the manufacturing sector average. While remaining relatively high, the estimated effective rates of assistance to both Textiles, clothing, footwear & leather and Motor vehicles & parts industry groups have declined significantly over recent decades following significant reductions in tariffs and the removal of import quotas.[4] Within these groups, some activities, such as passenger motor vehicle production and the manufacture of certain items of clothing, attract higher assistance raising the sector average, while others receive relatively low assistance.

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[3] An effective rate is not calculated for the services sector. This reflects technical matters relating to the treatment of services in transportable goods in the calculation of effective rates for the primary, mining and manufacturing sectors.

[4] Whereas today automotive tariffs are at 10 per cent, and tariffs on TCF are at 17.5 per cent or lower, in the late-1980s automotive tariffs were 45 per cent, and the highest tariff rate for any one TCF line item (inclusive of the effect of tariff quotas) was 125 per cent. The effective rates of assistance for the automotive industry and TCF (as estimated in the 1983-84 series) were 140 per cent and 157 per cent, respectively, in 1984-85.

Table 2.6 **Combined assistance, summary by industry grouping, 2007-08**[a]

$million (nominal)

Industry grouping	*Tariffs*		*Net tariff assistance*	*Budgetary*		*Net combined assistance*
	Output	*Input penalty*		*Outlays*	*Tax concess*	
Primary production[b]	**62.1**	**-55.7**	**6.3**	**2 009.2**	**210.9**	**2 346.6**
Dairy cattle farming[b]	0.0	-3.6	-3.6	300.3	21.8	438.7
Grain, sheep & beef cattle	0.1	-16.0	-15.9	937.7	107.2	1 028.9
Horticulture & fruit growing	45.3	-8.9	36.5	102.1	34.5	173.1
Other crop growing	0.0	-4.7	-4.7	148.0	17.3	160.6
Other livestock farming	0.0	-2.0	-2.0	26.9	6.5	31.3
Fisheries	0.0	-8.4	-8.4	178.3	9.8	179.7
Forestry & logging	16.6	-3.8	12.9	35.6	1.1	49.6
Other primary production	0.0	-8.4	-8.4	18.6	12.7	22.9
Unallocated primary	0.0	0.0	0.0	261.8	0.0	261.8
Mining	**4.3**	**-297.6**	**-293.3**	**147.8**	**175.1**	**29.6**
Manufacturing	**8 759.1**	**-2 932.9**	**5 826.2**	**862.3**	**954.8**	**7 643.3**
Food, beverages & tobacco	1 588.1	-396.9	1191.2	88.4	37.5	1 317.1
Textiles, clothing & footwear	504.1	-124.0	380.1	126.4	12.8	519.3
Wood & paper products	752.5	-198.4	554.1	62.5	36.3	652.8
Printing, publishing & media	447.2	-152.8	294.4	30.2	9.9	334.5
Petroleum, coal & chemicals	1 166.9	-326.4	840.5	189.6	35.5	1 065.6
Non-metallic mineral products	268.9	-64.4	204.4	8.4	11.9	224.8
Metal product manufacturing	1 294.9	-362.4	932.5	45.4	33.3	1 011.2
Motor vehicles & parts	1 374.2	-732.7	641.4	16.1	587.0	1 244.6
Other transport equipment	123.1	-73.0	50.1	10.1	12.1	72.2
Other machinery & equipment	728.8	-284.5	444.3	98.0	62.0	604.4
Other manufacturing	510.4	-217.2	293.2	136.2	12.7	442.1
Unallocated manufacturing	0.0	0.0	0.0	50.9	103.9	154.8
Services	**335.8**	**-4 839.1**	**-4 503.3**	**1 356.1**	**917.7**	**-2 229.6**
Electricity, gas & water	6.8	-89.5	-82.6	53.1	7.7	-21.8
Construction	0.0	-1 693.8	-1 693.8	12.0	20.3	-1 661.4
Wholesale trade	144.8	-317.8	-173.0	31.0	69.6	-72.4
Retail trade	184.1	-744.8	-560.7	178.2	37.8	-344.7
Accomm., cafes & restaurants	0.0	-393.1	-393.1	4.3	26.4	-362.4
Transport & storage	0.0	-264.9	-264.9	39.1	19.4	-206.3
Communication services	0.0	-143.5	-143.5	137.5	32.3	26.2
Finance & insurance	0.0	-33.5	-33.5	16.2	437.8	420.5
Property & business services	0.0	-354.5	-354.5	249.7	162.3	57.5
Government admin. & defence	0.0	-346.1	-346.1	3.8	0.2	-342.1
Education	0.0	-85.4	-85.4	13.6	4.2	-67.6
Health & community services	0.0	-112.8	-112.8	62.8	10.3	-39.8
Cultural & recreational	0.0	-161.4	-161.4	407.6	79.4	325.5
Personal & other services	0.0	-97.9	-97.9	9.0	6.0	-82.9
Unallocated services	0.0	0.0	0.0	138.3	4.0	142.3
Unallocated other	0.0	0.0	0.0	318.3	1 314.9	1 633.2
TOTAL[b]	**9 161.2**	**-8 125.2**	**1 036.0**	**4 693.6**	**3 573.4**	**9 423.1**

[a] Read in conjunction with notes to tables 2.2 and 2.3. [b] Net combined assistance includes $120.1 million agricultural pricing and regulatory assistance (table 2.4).

Source: Commission estimates.

Dairy cattle farming

Dairy cattle farming continues to record a relatively high estimated effective rate of assistance of around 17 per cent in 2007-08. However, this represents a significant decline compared with the rate that prevailed prior to the dairy industry's deregulation in July 2000, when the effective rate of combined assistance was estimated to exceed 30 per cent. Further, under the new arrangements, assistance to dairy farmers has been 'decoupled' from dairy output and farm activity levels, thus diluting its effects on production incentives. As noted, payments made under the Dairy Structural Adjustment Program ceased in April 2008 and, as a result, the estimated effective rate of assistance to *Dairy cattle farming* will fall further.

Grain, sheep & beef cattle farming

As noted above, drought related payments have increased noticeably in the primary sector in recent years, particularly for the grain, sheep and beef cattle sub-grouping and is reflected in a rise in the effective rate for this group from 3.9 per cent in 2005-06 to 7.2 per cent in 2007-08.

Fisheries and Forestry & logging

Fisheries recorded an ERA of 17 per cent in 2007-08, following a rate of 31 per cent in 2006-07. These recorded rates are primarily due to payments made under the Fisheries Structural Adjustment Program since 2006-07. *Forestry & logging* recorded an ERA of around 8 per cent in 2007-08.

Notwithstanding these estimates, the forms of assistance covered in the combined estimates are likely to play a relatively minor role in these two industries compared with other government measures. Specifically, key government measures affecting fisheries and forestry relate to resource management issues, such as the pricing of forest products, and certain tax provisions relating to investments in plantation forestry by managed investment schemes, and the use of mechanisms such as quotas and licenses to control fisheries harvesting rates to protect the resource stock.

Mining

Mining recorded a negligible ERA in 2007-08. That said, the mining industry is more affected by other government measures not captured in the combined estimates, such as environmental regulation, prescribed royalty levels and accelerated depreciation provisions.

Table 2.7 **Effective rate of combined assistance by industry grouping,[a] 2002-03 to 2007-08**
per cent

Industry grouping	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*	*2007-08*
Primary production[b]	5.7	4.8	4.5	4.9	7.0	7.5
Dairy cattle farming	17.5	16.2	11.9	13.4	17.8	17.3
Grain, sheep & beef cattle	5.8	4.3	3.1	3.9	6.3	7.2
Horticulture & fruit growing	4.9	3.9	3.8	3.6	3.3	3.3
Other crop growing	3.6	5.7	6.9	7.7	6.7	5.7
Other livestock farming	3.4	2.6	1.5	2.2	2.3	3.2
Fisheries	2.6	2.8	6.0	5.3	30.9	17.4
Forestry & logging	9.7	4.8	10.0	9.2	11.5	7.6
Other primary production	0.4	0.4	0.4	0.5	0.6	0.6
Mining	0.1	0.1	0.1	0.1	0.0	0.0
Manufacturing[b]	4.8	4.8	4.6	4.5	4.5	4.5
Food, beverages & tobacco	3.5	3.6	3.6	3.7	3.7	3.7
Textiles, clothing & footwear	16.7	15.9	14.1	12.9	12.2	12.5
Wood & paper products	4.7	4.7	4.8	4.9	4.9	5.2
Printing, publishing & media	1.7	1.8	1.7	1.8	1.8	1.9
Petroleum, coal, & chemicals	4.3	4.0	3.7	4.0	4.0	4.1
Non-metallic mineral products	2.7	2.7	2.7	2.7	2.8	2.8
Metal product manufacturing	3.6	3.7	3.6	3.6	3.6	3.5
Motor vehicles & parts	16.1	15.5	13.7	12.0	12.1	11.9
Other transport equipment	2.1	1.9	1.5	1.8	1.6	1.7
Other machinery & equipment	3.4	3.2	3.2	3.6	3.6	3.7
Other manufacturing	5.0	6.2	6.1	6.7	6.5	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.

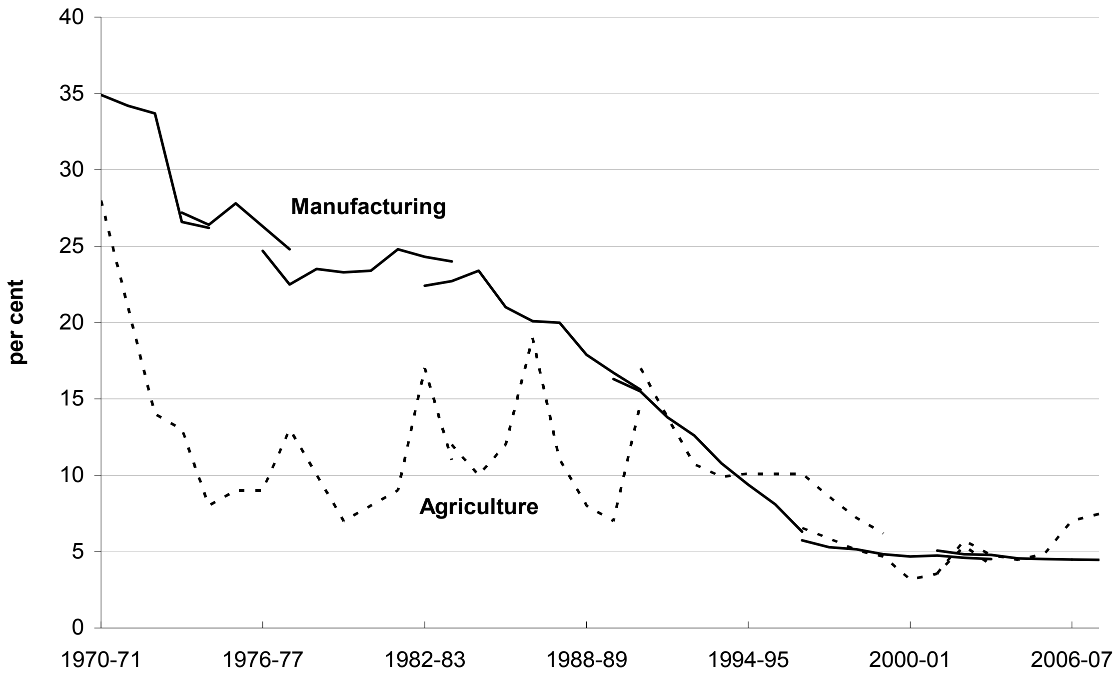
2.5 Effective rates of industry assistance since 1970

The Commission has estimated assistance to the manufacturing and agricultural sectors since the early 1970s. The estimates have been derived in several 'series', each spanning a number of consecutive years with each series retaining a common methodology, coverage of measures and data sources across those years. Nevertheless, some caution is required in comparing estimates from the different series, as there can be changes in the coverage of assistance measures, methodologies and data sources between them. Despite such differences, taken together, the successive series do provide a broad indication of directions and trends in assistance at the sectoral level over time.

Figure 2.5 presents ERA estimates from the different series from 1970-71. Breaks in the series are represented by gaps in the chart, and overlaps are included to show the effects, for particular years, of the changes made in moving between series.

Figure 2.5 Effective rates of assistance to manufacturing and agriculture, 1970-71 to 2007-08

per cent



Source: Commission estimates.

The estimates indicate a significant decline in measured assistance to the manufacturing sector over the last 35 or so years. The estimated effective rate of assistance for manufacturing (as calculated in the first series) was around 35 per cent in 1970-71, whereas since 2000, the rate (as calculated in the new 2001-02 series, as well as in the previous 1996-97 series) has been around 5 per cent. This decline has been driven in particular by the 25 per cent across-the-board tariff cut of 1973, the abolition of tariff quotas and the broad programs of tariff reductions that commenced in the late 1980s.

For agriculture, the estimated effective rate of assistance (as calculated in the first series) was over 25 per cent in 1970-71 and by 1974-75, it had fallen to about 8 per cent. Today the estimate for primary production is in the order of 7 per cent. The increase in 2006-07 reflected large increases in drought relief payments and interest rate subsidies. The volatility in the agricultural estimates relative to the manufacturing sector is significantly influenced by variations in the relative value of agricultural products due to world price changes (used for assistance benchmarks) as well as the impact of drought and other fluctuations in output.

2.6 Summing up

In real terms, the total amount of measured net assistance to Australian industries has increased by 20 per cent over the period 2002-03 to 2007-08.

The mix of industry assistance has changed considerably. Net tariff assistance has continued to decline in both nominal and real terms, and agricultural pricing and regulatory assistance is relatively small and likely to fall to negligible amounts with the completion of the Dairy Structural Adjustment Program in April 2008. In contrast, budgetary assistance increased by 35 per cent in real terms between 2002-03 and 2007-08.

Moreover, the trend towards increased estimated budgetary assistance is likely to continue. Chapter 4 reports on some additional budgetary assistance amounts that have been announced in 2008-09 and, thus, are not captured in the 2007-08 estimates. Increased assistance has also been recommended by several major industry reviews (chapter 3) and substantial amounts of assistance have been proposed as part of the Carbon Pollution Reduction Scheme (chapter 5).

3 Major reviews of industry assistance

In 2008, the Australian Government commissioned four major reviews which bear directly upon industry policy and industry assistance arrangements:

- a review of Australia's export policies and programs (the 'Mortimer' review) which included a separate review of the Export Markets Development Grants (EMDG) scheme;
- a review of Australia's national innovation system (the 'Cutler' review), which included a separate examination of the Cooperative Research Centre program;
- a review of the Australian automotive industry (the 'Bracks' review); and
- a review of the Australian textile, clothing and footwear industries (the 'Green' review).

These four reviews were inter-linked through requirements in the automotive and TCF reviews to have regard to innovation issues raised in the Cutler review, and to export competiveness and market access issues that were to be covered in general terms in the Mortimer review.

Collectively, the tariff and budgetary programs covered by the reviews account for more than 40 per cent of estimated Australian Government industry assistance (chapter 2).

The following sections summarise the findings of each review about the difficulties identified or shortcomings in current arrangements, the scope for change, and review recommendations. In discussing the reviews, the Commission builds on *Trade & Assistance Review 2006-07* (chapter 6) which reported on the commencement of the reviews and discussed some key requirements for ensuring the best use of Australia's scarce resources.

Other reviews conducted during 2008 that also have implications for industry assistance are discussed in chapter 4.

3.1 Review of export policies and programs

In announcing the review of export policies and programs in February 2008, the Minister for Trade stated:

> … Australian exports have underperformed in recent years. Across all major export categories, growth of export volumes in the past six years has been below the historical average since the floating of the Australian dollar in 1983…
>
> [the review] represents the Government's determination to develop an integrated approach to trade policy and ensure it is part of the broader economic policy settings … to ensure our trade performance once again becomes a strong contributor to Australia's economic performance to sustain us beyond the resources boom. (Crean 2008)

The review's terms of reference asked for an assessment of Australia's trade performance over the past two decades and ways of improving that performance, as well as an assessment of the net benefits of Australia's recent bilateral trading agreements. The scheduled 2010 review of the EMDG scheme was undertaken as part of this broader review.

The report was released on 1 September 2008.

The review characterised Australia's recent export performance as 'disappointing'. It expressed concern that a continuation of Australia's trade and current account deficits would increase Australia's net foreign debt and pose risks to Australia's economic prosperity. It also expressed concern about gaining export access in unfamiliar markets, many of which are impeded by regulatory barriers, border restrictions and policy uncertainties not generally encountered in Australia's traditional markets such as Europe and North America.

The review suggested that there was scope to enhance the productive capacity of the economy, remove domestic impediments to closer engagement with global markets, engage in negotiations to remove foreign barriers to Australian exports and investment and to increase the effectiveness of programs supporting trade and investment. To help achieve these objectives, it concluded that Australia required a new national export and investment strategy based on four pillars.

- Pillar One: improving Australia's international competitiveness — such as through improved export infrastructure (ports, roads, energy and water).
- Pillar Two: improving market access — such as through World Trade Organization (WTO) trade liberalisation, trade agreements and reductions in non-tariff barriers.
- Pillar Three: enhancing market development using export and investment facilitation programs — such as through increased funding for Austrade, EMDG and the Export Finance and Insurance Corporation (EFIC).

- Pillar Four: improving coherence and coordination between all levels of government — such as through establishment of a national trade and investment council, and a committee of officials to support the Council of Australian Governments (COAG) Ministerial Council on International Trade.

To implement this strategy the review made 73 recommendations. Pillar One deals with matters beyond the immediate focus of the *Trade & Assistance Review*. It relates more closely to the COAG national reform agenda. This reform agenda is broad ranging and covers energy, transport and infrastructure reform, regulatory reform and human capital. Reforms in these areas would be paramount in improving Australia's productivity and enhancing the nation's export performance. For example, in its Report to COAG on the potential benefits of the national reform agenda (PC 2006b), the Commission estimated that competition and regulatory reforms could raise exports by 3.7 per cent. It also estimated that human capital workforce participation and productivity reforms could have even greater impact — with estimates ranging up to a 20 per cent increase in exports over the longer term.

With respect to Pillar Two, the review affirmed that support for a strong, rules based, multilateral trading system administered through the WTO should remain a priority for Australia, notwithstanding the recognised difficulties in achieving consensus among the diverse WTO membership. It recommended that Australia remain active in WTO institutional reform.

To complement multilateral trade negotiations and institutional reform efforts, the review supported the use of bilateral and regional approaches for gaining improved market access for Australian exporters and investment. Market access issues are discussed more fully in chapter 6.

Pillar Four focuses on improving coordination between all levels of government and the potential to subsume elements of trade policy into COAG processes. Such measures are beyond the scope of this *Trade & Assistance Review*.

Elements relating to export market development programs (Pillar Three) are discussed below.

Market development

The review considered that the Australian Government's market development efforts should focus on:

- identifying and developing trade opportunities in industries in markets with 'high growth potential';

- positioning Australian companies to respond to identified market opportunities; and
- assisting business to overcome lack of knowledge about export and investment opportunities, inexperience with exporting and lack of export finance.

To support this focus, the review made recommendations, amongst other things, in relation to priorities and strategies, service delivery by Austrade and financial support to exporters.

Bilateral priorities and strategies for Australian export and investment

To help develop trade opportunities in industries with high growth potential and position companies to respond to those opportunities, the review recommended 'greater emphasis' be given to the 'strategic' setting of market development priorities and strategies. It proposed that the priorities be determined with reference to factors such as clearly identified market opportunities or customer demand, strategic competitive advantages, and a high level of industry commitment to global growth.

The judgement of the Mortimer review was that Australia's policy efforts would be best oriented to export and investment by Australian firms in the East Asian and South Asian regions and to investment in North America and Europe. At the industry level, it suggested policy efforts should focus on the development of services exports (particularly funds management and agribusiness), the pursuit of niche markets for elaborately transformed manufactures (such as automotive industry products, medical and scientific instruments, and processed food), and renewable and low-emissions energy goods, services and technologies. Further, some very specific geo-industry priorities were pinpointed — automotive products and services to the Middle East, South Africa and Russia, and mining technology services in sub-Saharan Africa and Latin America.

In addition to such perceived market and sectoral priorities, the review considered that joint government-business campaigns directed to major commercial outcomes should form part of a new export and investment strategy. Financial services, sporting services and clean energy were nominated.

Assisting exporters through Austrade

Austrade provides export and outward investment services to Australian business through a national and global network of offices. Services include: country and industry information; help identifying international partners; advice on local practices and culture; language translation; and introductions to potential buyers (box 3.1).

Box 3.1 **Austrade activities and funding**

General information to businesses is provided free of charge, while specific, tailored advice (such as export planning, logistics and marketing strategies) is charged at $190 per hour — fee revenue totalled around $30 million in 2007-08.

At 30 June 2008, Austrade's overseas network comprised 117 offices in 63 countries. Within Australia, there are 18 offices plus 50 TradeStart offices (which are partnerships between Austrade and a range of local private and public sector organisations).

For 2007-08 Austrade's public appropriation was $170 million (chapter 2). It worked directly with over 15,500 businesses. However, disaggregation according to the industries and export markets receiving government support is not publicly available.

From 1 July 2008 Austrade took responsibility for the Global Opportunities program and inward investment promotion from the industry portfolio, with an additional appropriation of approximately $10 million.

Austrade also administers the EMDG scheme.

Source: Austrade (2008).

To help enhance the effectiveness of government support to export market development by Australian firms, the Mortimer review recommended that Austrade be recognised as the focus of Australian Government export and investment facilitation. It also recommended enhanced coordination and cooperation across Australian, State and Territory governments, with particular attention to centralising overseas representation.

In addition, the review suggested that Austrade's capabilities could be enhanced, including to: assist Australian companies to form clusters, provide links to global supply chains and access to major international projects; provide advice and information to Australian business investing offshore; and undertake additional research and analysis of global trends and opportunities.

In making the recommendations for a stronger role for Austrade, the review drew attention to the flow of firms through the Austrade network and associated export activity. It reported that Austrade had worked with around 15 500 firms in 2007-08, of which over 5000 had achieved export success involving commercial export deals with a value amounting to some $22 billion. It also drew attention to the increase since 2001 in the number of exporters assisted by Austrade as well as expansion in trade negotiation related work, both without additional funding. However, the review did not provide industry and export market information on the successful activities supported, nor elaborate on the 9 000-10 000 contacts not achieving export success. It remains unclear what factors were *systematically* most or less important in success or failure, and the extent to which export success might have been achieved without Austrade's services. In the absence of convincing *causal* evidence about the effectiveness of Austrade in achieving its goals, it is not clear that expanding the role of Austrade would provide net community benefits.

Export finance assistance via EMDG

The Mortimer review identified a lack of finance as sometimes restricting the export potential of firms. It argued that there is a role for government in helping to overcome this constraint, particularly for export promotion activities of small and medium sized businesses entering export markets for the first time. The EMDG scheme was identified as the Australian Government's primary financial assistance program. It has provided export finance assistance since 1974 in the form of partial reimbursement of promotional expenses (box 3.2). Annual funding is around $150 million.

Box 3.2 **The Export Market Development Grants scheme**

The scheme was established in 1974. For the 2008-09 grant year, the EMDG will reimburse up to 50 per cent of eligible export promotion expenses above a threshold of $10 000. A scheme participant is limited to eight consecutive years of taxable grants, with a minimum grant of $5000 and not exceeding $200 000 in total. Grants are paid in two parts: an initial tranche up to a guaranteed ceiling of $40 000; and a second tranche based on remaining funding and outstanding claims. Eligibility is restricted to firms with turnover less than $50 million.

In 2007-08, expenditure on the scheme was $150.3 million. Almost 4000 grants were made — 30 per cent to first timers, averaging around $38 000. About 80 per cent of recipients were small exporters with annual income of $5 million or less. Over 60 per cent of recipients were in service industries, predominantly tourism, education, and ICT, and the top two countries targeted were the United States of America and the United Kingdom.

The Scheme has been reviewed 14 times since 1974 and numerous changes have been made to eligibility and assistance payments, although the basic construct of partial subsidisation of eligible promotional expenses has remained. Major changes include: in 1988, New Zealand was removed from the scheme as an eligible export destination because of the similarities of markets; in 1991, the grant rate was reduced from 70 per cent to 50 per cent of eligible expenses; in 1997-98, funding was budget-limited (capped); and in 2003, eligibility was shifted towards smaller and less experienced exporters.

Source: Mortimer (2008) and Austrade (2008).

As part of the Mortimer review, Mr David Mortimer AO and Dr John Edwards conducted a separate review of the EMDG. The EMDG review comprised an assessment of:

- the rationale for the scheme;
- the effectiveness of the scheme in increasing exports (additionality);
- the economy-wide efficiency of the scheme (public benefit test); and
- the provisions of the scheme, including funding, reimbursement rates, eligible activities and duration of assistance.

In accordance with the findings of the separate EMDG review, the Mortimer review recommended the continuation of EMDG, though with some tightening of eligibility criteria (discussed below).

Rationale

The EMDG review considered that the scheme rationale was to address three potential 'market failures':

- information deficiencies, such as knowledge about the general benefits of exporting and specific knowledge about suitable export markets;
- inexperience by participating firms — learning-by-doing generates productivity spillover benefits *within* the firm such as improved organisational capabilities, better managerial systems, improved skills, and a focus on quality; and
- knowledge and experience deficiencies among *non-participants* — the pioneering efforts and general experience of EMDG participants 'spill-over' to other exporters.

The Commission has reservations concerning the applicability of these rationales, particularly the first two, as a basis for government support through the scheme.

First, investments in information are part of the cost of doing business. Governments do not generally provide subsidies to businesses to reduce their operating costs. Moreover, it is not clear that a subsidy for export promotion would be appropriate to deal with lack of awareness and knowledge about the general benefits of exporting. It is also unclear that EMDG would be the most appropriate vehicle for overcoming information deficiencies, given that other programs also target such deficiencies. For example, the review consultant observed that Austrade can 'remedy many information deficiencies faced by aspiring exporters, as well as those relatively new to the activity' (Lateral Economics 2008). Similarly, Tourism

Australia provides market information, export promotion and other assistance to tourism exporters (one of the major industries supported by EMDG).

The second rationale does not address a market failure. The value of internal 'spillover' benefits gained from learning-by-doing is fully captured by the firm, and as such, firms have strong incentives to realise these gains. Such learning by doing is ubiquitous in business for almost any 'new' activity – domestic expansion, re-organisation, and major new capital purchases. Governments do not generally underwrite learning-by-doing in business.

The third rationale, external spillover benefits, is the same justification used for public support for R&D. To warrant public support it needs to be demonstrated that material export spillovers occur in practice. However, uncertainty exists about the nature and magnitude of export spillovers (see below).

More generally, the Mortimer review itself observed that the EMDG scheme seeks to address the differing needs of a wide range of exporters through a single program and that 'more tailored programs may better address identified points of market failure and exporter needs'. The review listed some options for addressing potential gaps. However, it was not clear from the review what additional costs would be entailed.

Effectiveness in inducing additional exports

Drawing on survey information and a comparison of the activities of EMDG participants and non-participants, the review concluded that the EMDG had been effective in inducing more promotional expenditure by recipients than otherwise. In turn, the additional promotional effort was estimated to generate additional (long run) exports by recipients of between $13.50 and $27 per dollar of grants.

This would appear an implausibly large response given that export promotional expenses comprise about 5 per cent of total exports costs (CIE 2005) and the EMDG scheme only partially reimburses these expenses. Moreover, concerns have been raised repeatedly about the methodology for assessing EMDG additionality, with alternative calculations suggesting substantially lower inducement (Lattimore et al. 1998, PC 2000b, Revesz and Lattimore 2001).[1] In a similar vein, the independent analysis commissioned by the Mortimer review recognised that the underlying comparison of export growth performance of grants recipients and non-recipients could be 'invalid', because it did not control for other underlying

[1] The 2008 EMDG review noted the results of Revesz and Lattimore (2001).

differences between recipients and non-recipients that have a bearing on export performance (Lateral Economics 2008, p.29).

Economy-wide efficiency

The economy-wide efficiency effects of EMDG are determined by the extent of any public spillovers beyond participants. For example, an Australian exporter may conduct market research, test markets, modify the product, establish a distribution network, and create a broader reputation of quality of Australian products. Other Australian firms may later benefit from these investments but without some of the set up costs. Wine was identified as an example of an Australian reputation for quality being established by pioneer exporters.

Quantifying the size of public spillover benefits from EMDG exports to non-participants is difficult. Therefore, rather than attempt an estimation, the review explored the comparative effects of three assumed spillover rates (0, 50 and 100 per cent). In interpreting the results, it asserted that the highest spillover rate canvassed — 100 per cent — was the 'most realistic of the scenarios'. However, other information suggests that this is likely to be optimistic (box 3.3).

Recognising the uncertainty regarding the extent and nature of EMDG public spillovers, the independent consultant for the EMDG observed that estimating the extent of EMDG-spillovers remains an area for future research. The consultant also proposed an 'export spillover impact assessment' be required in applications to help facilitate such knowledge (Lateral Economics 2008).

Scheme funding and design

The Mortimer review was concerned that current demand for the scheme exceeded available funding from government. Participants are guaranteed up to a designated amount, but remaining payments depend on residual funding. For example, in 2007-08, 22 per cent of recipients received less than 'full re-imbursement'. The EMDG review concluded that rationing of funding had created uncertainty about how much participants would receive, potentially deterring pre-commitment to trade promotion. To better align demand and supply of grants assistance, the EMDG review suggested either: increasing funding to match demand (given current eligibility criteria) or tightening the eligibility criteria so that demand is within current funding. The Mortimer review recommended the latter — cap on-going funding around \$200 million — as well as reduce the number of grants from eight to five and increase the minimum threshold to \$30 000 (or reduce reimbursement rates).

Box 3.3 Some cautionary considerations regarding EMDG spillovers

The nature, duration and extent of export spillovers could reasonably be expected to differ according to such factors as the export destination, the nature of the product, the particular 'pioneering barrier' that was overcome (language; regulatory compliance) and the domestic links between EMDG participants and non-participants (the precise transmission of the 'benefit'). The survey conducted for the 2008 EMDG review provides some insight into these factors. For example it found that:

- the majority of EMDG exports were to traditional markets (United States and United Kingdom);
- the main products exported by EMDG participants are tourism, education, culture, information technology and food and beverages;
- only 25 per cent of non-EMDG exporters said they had 'benefited' from EMDG exporters. (There is no break-down about the nature of these benefits, the transmission mechanism, which products or which export markets); and
- the majority of EMDG firms were experienced exporters and mostly exported identical or virtually the same products as they sell domestically.

This profile of EMDG activity suggests that the scope and extent of 'learning' and 'pioneering' spillover benefits may be more limited than assumed in the review modelling.

Other researchers use evidence on R&D spillovers as a guide to potential export spillovers. Using this method, an estimate in the range 10 to 30 per cent has been suggested as a reasonable guide to export spillovers (CIE 2005).[2]

Considering that the basic construct of the EMDG has remained unchanged since 1974, there would appear to be scope to more closely assess other design options that could improve the targeting and efficiency of the scheme (*Trade & Assistance Review* 2006-07). For example, the Cutler review of innovation (discussed below) recommended income contingent loans for the proposed Competitive Innovations Grants Scheme, while the Green review of TCF suggested consideration be given to assistance in the form of contingent loans rather than grants.

[2] The CIE (2005) was commissioned by Austrade to conduct an independent evaluation of the EMDG.

3.2 Review of the national innovation system

In announcing the review of Australia's national innovation system on 22 January 2008 (the 'Cutler review'), the Minister for Innovation, Industry, Science and Research said:

> In today's economy, innovation policy is industry policy. … In particular, we need to find ways to increase innovation performance across the economy, to ensure that business has better access to new ideas and new technologies and to bridge the divide between industry and research. (Carr 2008c)

The terms of reference asked, among other things, that the review: identify gaps and weaknesses in the Australian innovation system and develop proposals to address them; develop a set of national innovation priorities to complement the national research priorities; and examine the scope for simplifying and reducing program duplication and ensuring that any support is well-targeted and easy to access.

The final report was released on 9 September 2008.

The review's overall assessment was that 'Australian innovation seems to have slowed or even stalled in the new millennium'. In reaching this conclusion, the review referred to the slowing of Australian productivity growth since 2003 and a relative decline in government expenditure on education and public research since the mid-1990s. It also identified the drought and large increases in mining investment ahead of production as important partial explanations of the productivity slowdown.

In addition to its concern about funding of education and public research, other shortcomings it canvassed in current innovation arrangements included:

- lack of capacity of firms to acquire, absorb and apply knowledge;
- insufficient incentive provided by the suite of R&D tax concession schemes and other business support programs to overcome market failures in business R&D; and
- insufficient capacity (within firms and the public sector) to deal effectively with major environmental and climatic challenges.

To overcome the perceived shortcomings and to encourage increased innovation activity, the review proposed an 'Innovation Action Plan', comprising 72 recommendations. Some key target areas are discussed below.

Capacity of firms to be innovative

Notwithstanding evidence of substantial innovation activity in Australia over the last two decades,[3] the review considered that there is a lack of sufficient capacity among Australian firms to 'acquire, absorb and apply knowledge from science, research, and customers, in order to provide novel, distinctive, business offerings'. To address this perceived shortcoming the review recommended establishing an Innovating Enterprises program, to provide business innovation services.[4] This would be delivered in conjunction with existing business review and advisory services within the current Enterprise Connect Program.

The review also recommended another new program — Knowledge Connections — to facilitate new connections and clusters among firms. The review said 'it is not uncommon' that two firms could enhance their joint value by combining their ideas and information but do not do so because they are not aware of the other's knowledge, or the risk involved in revealing their own information to another party is too great. It considered this could be overcome through the use of trusted intermediaries and noted that this practice has spread from the United States to other countries.

Although nominating shortcomings in firms' innovative capability and clustering, the review did not explain why some firms allegedly 'fail' to acquire the necessary skills and capabilities or to cluster while other firms are apparently more successful, nor why these alleged missed opportunities would be more apparent to third parties. In the absence of such information, the Commission has doubts about the extent to which expenditure on such 'services programs' would meaningfully improve firms' innovation effort.

Human capital

Skills, knowledge and attitudes of the workforce are widely understood to be instrumental to innovation. The review expressed concern that Australia's investment in human capital had 'stalled' — for example, it referred to evidence of declining educational proficiency relative to other OECD economies. The review made three recommendations intended to improve the human capital underpinning of the innovation system:

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[3] See, for example, PC (2007a, Appendix J).

[4] The Review did not specify in the recommendation which specific innovation services were most needed. In the body of the Report, it suggested that business innovation success rests on such factors as an enterprise's training and skills acquisition, organisational design, marketing proficiency and specific production and managerial capabilities.

- that there be support for the human capital focus of the COAG national reform agenda and broader national education reforms, with a central focus on raising teacher quality;
- that innovation policy be aligned with immigration policies to ensure that they facilitate Australia's access to the 'global talent pool'; and
- there be a program to support provision by professional bodies of 'accelerated pathways', particularly in areas of skill shortages, for example, facilitating the entry of science and mathematics graduates into teaching.

Research capacity in universities and public bodies

The review calculated that Australian Government expenditure on science and innovation in higher education and public research bodies had fallen as a percentage of GDP from 0.49 per cent in 1993-94 to 0.32 per cent in 2007-08. It saw this as having adversely affected innovation activity and Australia's future innovation potential. To make up this gap, the review advocated the principle of full funding of university research costs,[5] restoration by 2010 of funding of public research to at least 1993-94 levels and a longer-term goal of raising the funding to match that of the top quartile of OECD economies by 2020 (currently around 0.9 per cent of GDP).[6]

In addition to perceived insufficient funding of public research, the review suggested there were structural deficiencies in the public research system in the form of insufficient incentives for collaboration and the 'endless' creation of new, duplicative research agencies and institutes. To address these concerns, it recommended there be additional funding for research bodies to engage in partnerships (including with international institutions) and for efforts to be made to avoid further fragmentation of research in areas of national challenge (namely, water, carbon emission reduction and climate change).

In respect of research infrastructure, the review considered there was a need for a coordinated, collaborative and strategic approach to research infrastructure. It recommended a successor program to the (concluded) National Collaborative Research Infrastructure Scheme for 10 years at a cost of $150-200 million per year, and for the new program to include support for the humanities, social sciences and creative arts in addition to 'hard' science.

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5 The Productivity Commission's report on *Public Support for Science and Innovation* (PC 2007a) recommended that block funding of higher education research not be further reduced.

6 Achieving the 2010 objective was estimated by the review to cost $2.2 billion. The cost to meet the 2020 target was not estimated.

R&D tax concession

The review noted the role of market competition in encouraging businesses to undertake R&D and as a stimulus to innovation more generally. It also recognised that 'spillover' benefits beyond the investing firm could result in less R&D than is socially worthwhile. Accordingly, the review confirmed a role for government initiatives to create more favourable market conditions such as through R&D subsidies.

The present suite of R&D tax concession schemes is the principal form of government support intended to induce additional business R&D. In 2007-08, assistance provided by these tax concessions totalled about $750 million. However, the review concluded that there were shortcomings with the current arrangements, particularly the decline in the after-tax benefit of the basic concession from 24.5 cents in the dollar (when introduced in 1985-86) to 7.5 cents presently. Eligibility rules that limit the use by small firms of the R&D Tax Offset, and restricted access by foreign owned firms conducting R&D in Australia were also seen as limiting effectiveness.

In response to these perceived shortcomings, the review recommended replacing the present suite of R&D tax concessions and offsets with a tax credit scheme. The key features of the proposal are:

- a *non-refundable* 40 per cent tax credit for large firms and foreign owned firms;
- a 50 per cent *refundable* tax credit for small domestic owned firms;
- the definition of small firms be lifted from those with a turnover less than $5 million to less than $50 million; and
- no minimum R&D expenditure rule.

The proposal is equivalent to a 166 per cent tax concession for small firms and 133 per cent tax concession for large firms. Expressed another way, the after-tax benefit is 20 cents in the dollar for small firms and 10 cents in the dollar for large firms. The present tax concession is worth 7.5 cents in the dollar.

The effectiveness of the tax credit proposal will depend upon the extent to which the increase in subsidy induces more R&D than in the absence of support — that is, its 'additionality'. The review predicted that the tax credit scheme would induce higher levels of expenditure by small firms, particularly smaller technology firms still in tax loss, such as in biotechnology. However, the bulk of R&D undertaken in Australia is by medium and large firms, which the review notes are quite unresponsive to changes in general R&D incentives — for example, evidence suggests that each dollar of the 125 per cent tax concession encouraged an extra

$0.10 of R&D by large firms (PC 2007a). It is therefore not clear to the Commission that the tax credit proposal would induce sufficient new R&D to justify the public cost.

The economy-wide efficiency of the tax credit proposal depends on the extent to which any additional R&D generates benefits beyond the firm that received the subsidy (spillovers). In its study of the R&D tax concession, the Commission concluded that most R&D under the present basic tax concession benefited only the recipients (PC 2007a). More generally, the Commission considered that public benefit spillovers from R&D are far less prevalent than commonly claimed. It was of the view that spillovers are more likely for basic science and novel research that triggers cycles of innovation by rivals rather than the more commercially orientated R&D efforts of many firms. It also suggested that the public benefits are greatest when there are many potential domestic beneficiaries (such as with generic technologies and/or many market participants).

In sum, in the Commission's assessment, the Cutler review's tax credit proposal has the risk of increasing the transfer of public funds to large firms for less than a proportional gain in R&D effort. The review had obtained confidential indicative costing of the proposal from Treasury, but provided no insight in its report of the broad magnitude of costs.

Other programs to support business R&D and innovation

In addition to the tax credit proposal, the review considered there was a need for what it called 'market facing programs', involving direct financial support to industry for innovation. It identified three broad streams. First, it considered there was a need to build additional capacity in firms to absorb and incorporate new knowledge. It recommended extending two existing programs in this area: Enterprise Connect (as discussed above); and a further five years for Commercialising Emerging Technologies (COMET) with at least a 25 per cent increase in funding.[7] It also recommended the creation of a new program — Competitive Innovation Grants — to assist firms, with limited access to capital, in the high-risk, proof of concept and development stages. Successful firms would be required to repay grants from the royalties or earning streams. It would seek to assist 200 firms annually at $150 million per year (average $750 000).

The second stream proposed for government action was in facilitating additional collaboration among major R&D providers — large firms, universities and publicly

[7] COMET is almost 10 years old and due to end in 2010-11. It aims to provide tailored services to early-growth stage and spin-off companies to help commercialise their innovation.

funded research agencies. To this end, it recommended that the Government act immediately on the recommendations of the parallel review of the Cooperative Research Centres Program (CRC) (O'Kane review), released in July 2008. Among other changes, the O'Kane report recommended:

- re-instating a public interest focus for the program;
- funding be injected to allow for annual rounds to take place over the next five years, so that urgent public good issues can be quickly addressed;
- encourage CRCs of varying lifespan (typically 4-7 years but up to a maximum of 10 years), with a maximum funding of $45 million over the life of a Centre;
- participation by small and medium enterprises (SMEs) and service industries be encouraged; and
- the share of public funding of any CRC be aligned to the level of likely induced social benefits; and CRC end-user applicants normally be expected to provide more than half the cash contribution towards the CRC.

The public benefit recommendation accords with the finding of the Productivity Commission in its study of public support for science and innovation (PC 2007a). The Commission study and the O'Kane review also reached similar conclusions about the deterrent effect of the complex CRC structures on the involvement of SMEs, but made somewhat different recommendations. The Commission strongly encouraged the development of smaller, shorter, more flexible arrangements between groups of firms, particularly ones that would encourage SMEs to participate. It suggested a complement to the CRC program, in the form of a pilot enhancement of the ARC Linkage program. The O'Kane review recommended participation by SMEs in CRCs be encouraged.

In November 2008, the Government introduced new CRC Guidelines based on the O'Kane and Cutler recommendations and opened an eleventh round of applications. In particular, it reinstated 'public good' benefits (social and environmental) as a key objective. Nevertheless, it adopted a slightly different funding model to O'Kane's recommendation. Funding will now be provided for varying periods up to 10 years, without an upper dollar limit and, in exceptional circumstances, further funding up to 15 years will be available. As a means of encouraging SMEs, the Guidelines included a requirement that each CRC must include strategies that build SME innovation and/or R&D capacity.

While the CRC is the major collaborative program, the Cutler review saw a need for a range of other collaboration and linkage programs to fulfil roles not covered by the CRC. Other current programs include: the Industry Cooperative Innovation Program; rural R&D corporations; Australian Research Council programs (Centres of Excellence, the Research networks and ARC Linkages Grants); National Health and Medical Research Council program grants; and state and territory programs. It did however, identify what it saw as a gap in the collaborative framework regarding the take-up of ready-to-go-knowledge. To fill this gap, it recommended the creation of an Innovation Voucher Scheme to support SMEs to submit research questions to the research community. It proposed each voucher would be worth up to $15 000 and the scheme would support 5000 firms per year at a cost of $50-$70 million per year.

The third broad stream identified for government action was in facilitating financial capital availability. It asserted that ‘there is a global and systematic funding gap in the availability of finance for early stage ventures and small technology business’. To boost venture capital availability in Australia, it recommended expansion of two current programs that support capital raising by early stage companies — the Innovation Investment Fund Program and Pre-Seed Fund program — at an estimated cost of $400 million over 15 years. The Commission had previously reported that these schemes generally deliver high rates of assistance compared with other R&D schemes (PC 2007a). The review also recommended there be new strategies to attract international venture capital to Australia.

If implemented in full, the review’s recommendations would significantly increase both the number of programs and budgetary cost of business R&D and innovation programs. However, a concern of the government when announcing the review was the already ‘bewildering array’ of programs and the scope to ‘streamline these programs, reducing fragmentation and improving effectiveness’ (Carr 2008c).

National innovation priorities

The Cutler review was also asked to develop a set of national *innovation* priorities to complement the National Research Priorities. In response, the panel outlined five principles for determining such priorities, including leveraging Australia’s natural endowments, and targeting areas where there is a distinctively Australian challenge or an advantage. It proposed two sets of national priorities:

- where the government itself can take a leadership role in innovation — agriculture and food security; climate change mitigation and adaption, population health, tropical solutions, and broadband applications; and
- where government stimulus can increase the returns to private innovative activity — resource industries, space and astronomy, finance and risk management; and marine industries.

The review noted significant overlap between these nominated *innovation* priorities and the existing National Research Priorities and the consequent need to manage and coordinate the respective priorities.

General principles for intervention, design and evaluation of innovation programs

Besides the many specific recommendations regarding new and existing innovation programs, the Cutler review addressed a number of more general issues such as general design principles for innovation programs and program review.

With regard to government intervention, the review said

> Taxpayers demand that their money is well spent, so when it is proposed that a program of public spending or the provision of subsidies should be undertaken, a clear case has to be made. (Cutler 2008, p.37)

The review identified and explored the in-principle 'market failure' case for government programs for R&D and innovation. It proceeded to explain that 'once a case has been made successfully for public intervention in the national innovation system, it is crucial that program design be addressed carefully following key principles'.

The principles the review outlined are similar to those identified in previous reviews and relate to problem identification, inducement and behavioural change, program eligibility and duration, interaction with other programs, administration efficiency and accountability. The difficulty has been in their practical application — in particular, identifying genuine market failures, distinguishing between public and private benefits, and meaningfully assessing the inducement effects of government interventions (PC 2008c).

In regard to evaluation, monitoring and reporting, the review was concerned that only 36 percent of innovation programs have subsequently been reviewed and many have unclear and/or unmeasurable key performance indicators. It recommended there be a rigorous policy of evaluating all Australian Government innovation programs and other relevant programs. Moreover, it saw a need for pre-evaluation 'ground work' when programs were being established, such as setting forth evaluation criteria, collection of base line data, provision for ongoing performance data and commitment to transparency in reporting. Finally, it recommended the review function be 'arms-length' from the administering body and transparent. Indeed, such processes are crucial to good public policy (PC 2008c).

3.3 Review of the automotive industry

Although assistance to motor vehicle producers and components suppliers has declined significantly since the mid-1980s, the automotive industry remains among the most highly assisted manufacturing industries (chapter 2). Its assistance derives largely from long-standing tariffs and budgetary support, particularly through the Automotive Competitiveness and Investment Scheme (ACIS).

Although tariffs and ACIS are the dominant forms of assistance, the local sector also derives significant advantages from periodic firm-specific assistance by both Australian and state governments, as well as Government procurement programs, a luxury car tax (which falls mostly on imported vehicles) and a $12 000 tariff on imported second-hand vehicles.

In announcing the review of the automotive industry on 14 February 2008, the Minister for Innovation, Industry, Science and Research said:

> The automotive industry is strategically vital to Australia in terms of employment, exports and innovation. … The review will assist laying down a new set of principles to make the industry sustainable into the future. (Carr 2008a)

The terms of reference required, among other things, an assessment of the challenges and opportunities currently facing the sector, an evaluation of the key outcomes of the ACIS, and an assessment of the legislated passenger motor vehicle tariff reductions. Regarding innovation, the review was asked to make recommendations on the delivery of the Government's Green Car Innovation Fund, as well as other measures to boost innovation in the sector, and to have regard to the issues raised in the concurrent review of Australia's national innovation system (the 'Cutler review').

The Government also separately requested the Productivity Commission to undertake modelling of the economy-wide effects of future assistance options identified by the Bracks review. The Commission's study was released in May 2008 (PC 2008d).

In August 2008, the Government released the final report of the Bracks review and the Government responded to the recommendations in November 2008.

The Bracks review was the latest in a series that had previously been undertaken by the Productivity Commission or its predecessors. The reviews have been conducted about every five years and timed to be completed before the scheduled reductions in assistance in place at the time (IAC 1981; IC 1990; IC 1997a; PC 2002b). The present review, headed by the former Premier of Victoria and comprising a panel including current and former automotive industry and union representatives, supported by a departmental secretariat, was conducted in advance of scheduled reductions in 2010 of automotive tariffs from 10 per cent to 5 per cent and a concurrent move from Stage 2 to Stage 3 of ACIS.

The review found that although relatively high levels of assistance have been provided to the Australian sector, local automotive businesses have, in recent years, been under considerable commercial pressure. This has culminated in reported trading losses for vehicle manufacturers amounting to 8.6 per cent of sales in 2007.

A relatively large appreciation of the Australian dollar against the US dollar over the period since the 2002 review was identified as a key source of this commercial pressure. At the same time, inefficiencies in the components sector arising from fragmented small scale operations, inadequate quality and disruptions in supply have added to the cost of local vehicle manufacturers. In addition to these broad economic and cost pressures, there has been a shift in consumer preferences towards smaller vehicles and sports utility vehicles and away from medium and larger cars traditionally manufactured in Australia. Cleaner emissions requirements have further added to development costs.

Regarding future commercial opportunities, the review considered there was increased export potential in both established markets (such as the Middle East) and emerging markets (such as China, Russia and India). The shift of consumer preferences towards low fuel consumption was also considered to be an ‘opportunity’ for local vehicle manufacturers to find a niche in the medium to large car segment with alternative fuel and drive-train technologies. Increasing global supply chain integration was identified by the review as an opportunity for the local components suppliers to diversify and invest in foreign markets.

Recommended future assistance arrangements

The review made 42 recommendations, covering industry-specific assistance as well as broader matters such as trade agreements, emissions trading, taxation, and vehicle safety. The assistance recommendations are outlined below.

Continuation of scheduled tariff reductions

The review recommended continued reductions in import tariffs, as planned, from 10 per cent to 5 per cent in 2010. The review said that a reduction in tariffs ‘would continue the structural adjustment process the industry had been undergoing since the mid-1980s’. Drawing on the PC’s modelling report, the review noted that a reduction in Australia’s automotive tariffs from 10 per cent to 5 cent could provide net benefits to the economy of around $0.5 billion a year with gains to consumers and other industries outweighing negative impacts on the automotive industry.

The review noted the modelling by the Commission illustrated that significant appreciation (or depreciation) of the Australian dollar against major trading currencies would have a much greater adverse (or positive) effect on the automotive industry than the scheduled tariff reductions.

Replacement of ACIS with a longer and larger transitional assistance scheme

ACIS commenced in January 2001 and was initially scheduled to end in December 2005. It was intended to provide transitional assistance and encourage competitive investment in the context of trade liberalisation. Tariffs had been reduced by 2.5 percentage points each year since 1990, starting from 40 per cent, until frozen at 15 per cent in 2000. Although ACIS was intended to be a transitional program to help secure industry change (during the five year tariff pause), it was designed to deliver around the same quantum of assistance as the scheme it replaced — the Export Facilitation Scheme — which had been vulnerable to challenge under the WTO as a prohibited export subsidy.

In December 2002, the Government announced that ACIS would continue beyond 2005 through to 2015, with some revision of arrangements, and some increase in total assistance available.

The ACIS subsidises three categories of activity — production, investment and R&D. The maximum rate of subsidy is different for each category and there are some differences between rates for vehicle producers and supply chain businesses. Much of the assistance available is ‘capped’ and has necessitated ‘modulation’ (or rationing) each year with average payout rates being about three–quarters of the maximum subsidy rate. Assistance is accrued in the form of import duty credits rather than cash.

The review concluded that ACIS had been effective in inducing additional production, investment and R&D than would otherwise have occurred. The Commission has noted that some additionality could be expected given the relatively large rate of subsidy (PC 2002b). What is less clear from the Bracks review is guidance on the relative magnitude of the separate inducement effects on production, R&D and plant and equipment by vehicle producer and components businesses. However, quantitative assessment of ‘additionality’ effects is severely hampered by the lack of publicly available data on ACIS funded production, plant and equipment and R&D (ANAO 2008).

Based on its assessment of the commercial environment facing the Australian automotive industry, and the view that R&D should be boosted further, the review elected to recommend further extension of transitional assistance through to 2020. It proposed replacing ACIS with a new program — the Global Automotive Transition Scheme (GATS) — to commence in 2010 rather than proceed with ACIS through to 2015. It nominated funding be increased to $1.5 billion from $1.0 billion under ACIS over the period 2010 to 2015 and that a further $1.0 billion be provided over the period 2016 to 2020 (with the latter front-loaded and reducing to zero over the five-year period).

It was also proposed that the design of GATS differ in some important respects to that of ACIS. First, assistance should be in the form of grants rather than import duty credits. This is intended to address concerns about 'non-neutrality' regarding sources of imports and some leakage of duty credits to brokers.

Second, the maximum rate of assistance for eligible R&D should be increased from 45 per cent under ACIS to 50 per cent, while the rate of claims for plant and equipment would be reduced from 25 per cent to 15 per cent. The increase in the R&D subsidy rate by 5 cents in the dollar is intended to address the review's concern that aggregate automotive industry R&D has plateaued in recent years — sectoral growth in R&D averaged more than 18 per cent per year from 1999-2000 to 2002-03, but only 2 per cent per year thereafter. The review speculated that the 'flattening' of R&D growth may be partly due to the lumpiness of R&D expenditure and international competition for investment in an R&D intensive industry.

Under GATS, automotive production would continue to earn assistance, similar to that provided under ACIS.[8] The review said vehicle producers should continue to receive production assistance, in addition to support for R&D and investment activity, as this would help smooth out the flow of payments available under GATS to firms. (Information on the 'smoothness' of ACIS assistance is not publicly available.)

Bringing forward and doubling of the Green Car Innovation Fund

Prior to the review, the Australian Government had committed to introducing a $500 million Green Car Innovation Fund (GCIF) in 2011 and in June 2008 the Government announced a $35 million grant from the Fund to Toyota to assist the manufacture of a hybrid petrol-electric Toyota Camry in Australia.

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[8] The Review does not specify a production subsidy rate. Under the capped component of ACIS, duty credits on eligible production are calculated as 25 per cent of the production value, times the tariff rate. Thus, at a 10 per cent tariff rate the subsidy is 2.5 per cent of the value. The Bracks review recommended partial uncapping of production credits.

In order to help the Australian industry gain early commercial opportunities in 'green car' development, the review recommended bringing forward commencement of the GCIF to 2009 from its scheduled 2011 start. Further, it recommended that if the Fund proved successful in the first two years, funding should be doubled from the planned $500 million to $1 billion and extended beyond its initial five years.[9] It also suggested the planned 1:3 government-industry funding ratio could be varied on a case-by-case basis in order to accommodate technological and commercial risk profiles of proposals which may vary considerably. However, exercising this discretion effectively would require government officials to have very detailed knowledge.

For the purposes of its modelling report, the Commission considered whether assisting 'green car' production was likely to result in either innovation spillovers or lower greenhouse emissions (PC 2008d). It noted that the GCIF would be likely to encourage some buyers to switch from taxed, more efficiently produced imported hybrid and fuel-efficient vehicles to subsidised, higher cost, locally-produced ones — without necessarily increasing 'green car' sales overall.

Additional short term adjustment assistance for the components sector

Another important recommendation was for a short-term restructure fund to further assist the local supply chain to 'improve economies of scale, enhance management capabilities, and internationalise production to build capacity and demand.' As a guide, the review proposed Government funding be in the range $60 to $80 million over a two year period. It proposed that payments be determined on a case-by-case basis by the responsible Minister, taking into account such matters as facilitating mergers and fair and reasonable adjustment assistance for displaced employees.

Government response

In its response to the review, the Government announced a $6.2 billion assistance package for the automotive industry between 2009 and 2021 — *A New Car Plan for a Greener Future* (box 3.4). This represents new commitments of $3.2 billion additional to the $3.0 billion expected to have been spent in the remaining stages of ACIS.

[9] The review, however, did not outline how success could be or would be judged over the two year period. Indeed, it observed that the full benefits of the initiatives supported by the Fund may not be evidenced for some years after the support is provided.

Although the Government's industry assistance plan broadly aligns with the recommendations of the review, there are some key differences:

- The replacement for ACIS, to be known as the Automotive Transformation Scheme (ATS), will provide $3.4 billion, compared with $2.5 billion recommended by the review, and will start a year later (2011).
- Additional funding of $80 million will be provided to assist the transition from ACIS to ATS during 2010.
- The Green Car Innovation Fund will be increased to $1.3 billion and will run for 10 years, starting in 2009.
- An Automotive Industry Structural Adjustment Program (AISAP) will provide $116.3 million to facilitate consolidation in the components sector by helping firms with legal, relocation and other merger costs and labour market adjustment.

Box 3.4 **The *'New Car Plan for a Green Future'***

Tariffs — cut from 10 per cent to 5 per cent on 1 January 2010 as per previously announced tariff phasing arrangements.

Automotive Competitiveness and Investment Scheme (ACIS) — replaced by a $3.4 billion Automotive Transformation Scheme (ATS) to run from 2011 to 2020. Transition assistance of around $80 million towards changing from ACIS to ATS will be provided in 2010.

Green Car Innovation Fund — expanded to $1.3 billion, based on matching $1 for $3 expenditure by industry, over 10 years, from 2009.

Structural adjustment in the supply sector — $116.3 million to promote structural adjustment through consolidation in the components sector and to facilitate labour market adjustment.

Suppliers capability — $20 million over 2009 and 2010 to help suppliers improve their capabilities and integrate into national and global supply chains.

Export market access — $6.3 million from 2009-10 for an enhanced sector-specific market access program.

Institutional — a new Automotive Industry Innovation Council to bring key decision makers together to drive innovation and reform.

LPG — $10.5 million expansion of the LPG vehicle scheme through doubling of payments for purchases of new vehicles using LPG technology from $1000 to $2000.

Other recommendations related to the treatment of transport in emissions trading rules, safety design rules, government vehicle purchasing policies, fringe benefits tax, State government investment incentives and State and Territory vehicle-related taxation.

Source: Australian Government (2008b).

3.4 Review of the textiles, clothing and footwear industries

As with the automotive industry, assistance to TCF industries has declined significantly since the mid-1980s, yet the estimated effective rate of assistance remains more than twice the average for manufacturing industries (chapter 2). Import tariffs confer about three quarters of the estimated assistance with budgetary assistance, principally the TCF Strategic Investment Program (TCF SIP), accounting for the remainder. Australia is reportedly one of the few countries to provide sector-specific budgetary assistance to TCF firms (Green 2008).

Although import tariffs and SIP are the dominant sources of assistance to the local sector, other assistance includes additional sector-specific funding within the TCF Post-2005 Assistance Package, tax concessions and grants through generally available R&D programs and exports marketing grants.

In announcing the review of the TCF industry on 8 March 2008, the Minister for Innovation, Industry, Science and Research said:

> The TCF industries have an important role to play in Australia's economic and social future. ... [The review's] task will be to develop practical and effective strategies to ensure Australia's TCF industries will be vibrant, innovative and competitive well into the future. (Carr 2008b)

The terms of reference required, among other things, an evaluation of the appropriateness and effectiveness of tariff and sector-specific budgetary assistance, the adequacy of existing structural adjustment assistance, and the scope for the industry to take advantage of research and development, new technologies and innovation in textiles and design. The review was also to have regard to the issues raised in the concurrent Cutler review of Australia's innovation system.

The Government also separately requested the Productivity Commission to undertake modelling of the economy-wide effects of future assistance options identified by the Green review. The Commission's study was released in June 2008 (PC 2008e).

In September 2008, the Government released the report of the Green review — *Building Innovative Capability: Review of the Australian Textiles, Clothing and Footwear Industries*. The Government has yet to respond to the review and the Post-2005 Assistance Package remains in place (box 3.5).

As in the case of automotive assistance, the recent review was the latest in a series (IAC 1980; IAC 1986; IC 1997b; PC 2003). The present review, headed by the Dean of the Macquarie Graduate School of Management, with an advisory panel comprising industry and union representatives and academics, supported by a departmental secretariat, was conducted in advance of scheduled reductions in 2010 of tariffs on imported TCF products and cessation of TCF SIP eligibility in 2010, other than for clothing and finished textiles.

Box 3.5 **TCF post-2005 Assistance Package**

The $747 million TCF Post-2005 Assistance Package followed the $687 million TCF Post-2000 Assistance Package. The 2005 arrangements were to operate to 2015.

Import tariffs

Since 1 January 2005, the Australian import tariffs (Most Favoured Nation basis) for clothing and finished textiles — the bulk of imports — has been 17.5 per cent. Under present arrangements this will reduce to 10 per cent on 1 January 2010 and to 5 per cent on 1 January 2015.

Tariffs for other textile products presently range from 5 per cent to 10 per cent. From 1 January 2010 all these tariffs will be 5 per cent.

TCF-specific post-2005 budgetary assistance

The post-2005 assistance package provides for funding of $747 million over 10 years (2005 to 2015), comprising six programs:

- *TCF Post-2005 Strategic Investment Program (TCF SIP)* — $575 million available for subsidies of up to 40 cents in the dollar for eligible capital expenditure and up to 80 cents in the dollar for eligible R&D. All TCF industries are eligible up to 2010 but only clothing and finished textile businesses thereafter.
- *TCF Structural Adjustment Program (TCF SAP)* — $50 million to support industry consolidation and labour market adjustment.
- *TCF Small Business Program (TCF SBP)* — $25 million in competitive grants to improve the business culture of small TCF businesses.
- *TCF Product Diversification Scheme (TCF PDS)* — $50 million to internationalise sourcing and to complement product range. Support is in the form of import duty credits earned on incremental production.
- *TCF Expanded Overseas Assembly Provisions Scheme (TCF EOAPS)* — $27 million in import duty concessions for importation of overseas assembly of predominantly Australian made fabric or leather.
- *TCF Supply Chain Opportunities Program (TCF SOP)* — $20 million in competitive grants for capital investment.

The review identified several sources of commercial pressure facing the Australian TCF industries. Foremost, as in other developed economies, was competition from suppliers in developing economies in low-cost, high-volume market segments. Other commercial challenges included constant pressure for creative design and value-added fashion products, continual downward pressure in prices particularly from large retailers and difficulty of some Australian SMEs linking into global supply chains.

Despite the testing trading environment, the review considered that the Australian TCF industries have a 'promising future providing they deliver products that are differentiated from those of competitors by their uniqueness, product quality, design and branding'.

Recommended future assistance arrangements

The review made a total of 15 recommendations covering both industry-specific assistance and other matters such as industrial relations for home based workers, ethical standards relating to labour, environment and animal welfare and national sizing standards. The industry assistance recommendations are outlined below.

Continuation of scheduled tariff reductions

The review considered that tariff protection was a blunt instrument for the promotion of innovation and competitive capability at the enterprise level and recommended that the scheduled tariff reductions should be allowed to take their course through to 2015. Drawing on the Productivity Commission's modelling report, the review noted that the scheduled reduction in Australia's TCF tariffs in 2010 and 2015 could provide net benefits to the economy of around $60 million per year with gains to consumers and other industries outweighing negative impacts on the TCF industry.

The Commission's modelling further indicated that exchange rate variations due to factors outside the control of TCF industries (such as changes in the world price of Australia's mineral exports) were likely to have a larger impact on sector prospects than the impact of scheduled tariff reductions (PC 2008e).

Replacement of the present transitional package with a TCF Innovation Assistance Package

In accordance with the terms of reference, the review examined the effectiveness of the existing six budgetary assistance programs. Regarding the principal program, TCF SIP, it observed that eligible industry expenditure in 2000-01 (at the commencement of the 'first' SIP) was approximately double the 1998-99 level, with little further growth in total expenditure in the last seven years. It also observed that eligible innovation-related business expenditure had increased from about 25 per cent of total eligible expenditure to about 50 per cent.

Looking back, the review concluded that SIP had focussed TCF firms on repositioning themselves in the changing operating environment rather than focussing on protectionist assistance and had facilitated structural adjustment and the survival of many firms in the TCF industries. However, looking forward, the review was of the view that SIP had 'reached the limits of its rationale and has been superseded by the increasing emphasis on innovation by industry, design and creativity as key sources of competitive advantage'.

The review's assessment of the other five programs within the Post-2005 Package was mixed:

- It concluded that the restructuring initiative grant scheme (TCF SAP) does not appear strategically focussed on initiatives that would take the industry forward in a meaningful way — for example, requiring one participant in a merger to be unviable does little to establish confidence that the scheme will benefit the industry. It was also assessed to be cumbersome and to involve high compliance costs. Similarly, the review found that the product diversification program (TCF PDS) was problematic in that it had only engaged a small number of firms, and did little to encourage innovation, skills enhancement, supply chain initiatives or other issues identified by the review as vital to the ongoing future of the TCF industries.
- In contrast, it concluded that the small business program (TCF SBP) had facilitated strategic business improvement and the development of entrepreneurial culture[10] and that the overseas assembly program (TCF EOAPS) was achieving its policy objective. (The supply chain program had not commenced at the time of the review.)

Overall, the review concluded that current assistance arrangements were 'not tuned' to where the TCF industries needed to head. It recommended there should be a change in the focus of industry assistance away from the more traditional structural adjustment forms of support towards a greater emphasis on building innovative capacity at the enterprise and workplace level. Specifically, it recommended the existing transition assistance be superseded by a new TCF Innovation Assistance Package 2009-2015 with a budget of $250 million. This is broadly the amount of

[10] There has been three rounds to date. The review provides a disaggregation of expenditure, based on unpublished data, including the completion rate of projects and examples of project outcomes.

residual funding that would be left from the $575 million TCF SIP allocation, after 30 June 2009.[11]

The cornerstone of the package would be a $200 million TCF Innovation Capability Program (TCF ICP), to be available to applicants on a contestable basis. The review recommended certain eligibility and merit assessment rules apply:

- five basic eligibility criteria comprising value-adding, ethical production, additionality, employee involvement in change projects, and accountability for delivery of project aims (recommendation 6); and
- seven operational criteria (funding categories), including for innovation capability, collaboration, accessing global opportunities, high performance work and management systems, and environmentally sustainable and ethical practices (recommendation 7).

The funding category priorities would be reviewed from time to time via the TCF Innovation Council as well as guided at a higher level by the general framework for innovation priority setting in accordance with the recommendations of the Cutler review.

It also recommended that $15 million of the $200 million be specifically for small and micro businesses and that priorities for the ICP include R&D performance and training and skills (recommendations 12 and 13).

Although such multiple rules reflect a desire to target support at activities deemed to be in the long term interests of the industry, there is a risk that such compartmentalisation may unduly limit support for worthwhile projects or encourage businesses to 'distort' applications towards categories where they may be more likely to receive funding.

There is a further risk that grants may provide assistance for projects that are commercially viable and would have been undertaken in the normal course of business (that is, additionality may be very low). The review itself suggested consideration be given to income-contingent loans, which may be a more efficient means of providing government support. More generally, the proposed eligibility rules do not appear to rule out proposals by firms that have successfully transformed

[11] Cumulative assistance via TCF SIP (post-2005) for 2006-07 and 2007-08 was about $193.7 million (appendix A, table A.1). If expenditure in 2008-09 is of a similar magnitude to each of the first two years, cumulative expenditure would be about $295 million, leaving a residual of around $280 million.

under current arrangements — and are inconsistent with the rationale for 'special' innovation transition assistance.[12]

Other assistance recommendations

In relation to innovation, the review also recommended the establishment of a TCF Innovation Council ($12 million) and broadening the definition of TCF industries to include collaborating activities such as fashion and accessories, design, research, technology, branding and supply chain management.

Other recommendations with notable implications for industry assistance include:

- continuation of assistance to retrenched workers under the existing Structural Adjustment Program (Part 1) through to 2015 with funding of $25 million — the current program is demand driven and has assisted 946 retrenched workers at a cost of $3 million in the period 2005-2008;
- use of Government procurement policy to foster capability building of TCF firms;[13] and
- additional funding for the business advisory services of Enterprise Connect to permit a specific TCF focus.

3.5 Summing up

The four reviews collectively made over 200 recommendations. These not only addressed industry assistance arrangements such as tariffs, subsidies, and trade agreements, they also touched on broader issues pertaining to industry performance, including public education, environmental regulation, industrial relations and government procurement.

Broadly, each review addressed three questions: is there a role for government in certain areas; how well were existing arrangements operating; and how can better outcomes be achieved? Each review included a public submission process and the

[12] Textor was described by the review as an example of a firm that had successfully transformed under TCF transition assistance from a precarious financial position in 2000 to one that will be debt free and financially sustainable by 2010. The review particularly noted 'Textor has been aware that the incentives would cease in June 2010'.

[13] Depending upon how this is implemented, there is a danger that such support would be considered a trade barrier. For example, the review itself considered that the US Berry Amendment (which excludes Australian TCF firms from the US defence apparel procurement market) was an unfair and unjustified trade barrier and should be raised with negotiators in the context of the Australia-US Free Trade Agreement.

public release of a final report (though not of a draft report to enable public scrutiny of proposals).

All four identified productivity improvement as a high level goal for Australia because of its role in improving living standards, with innovation being instrumental in achieving productivity growth. Each review also recognised the effect of market forces in efficient resource use and encouraging productivity improving innovation.

At the same time, all the reviews identified a potential role for government in overcoming market failures. The range of 'failures' identified by the reviews included: lack of capital for innovation and exporting; lack of information about export markets; inexperience in exporting; lack of innovation capability in small firms; and foregone public spillover benefits from R&D because of insufficient incentive to conduct private R&D. However, the substance of such claims varies across the reviews with the existence of some alleged failures not adequately demonstrated or supported. To the extent that programs do not target demonstrable market failures, they are unlikely to yield a net payoff to the community as a whole, even though they may benefit the recipients.

Market failure aside, the four reviews also favoured a role for government in strategic priority setting, for example, identifying prospective export markets and goods and services on which to concentrate government efforts, setting national innovation priorities, ensuring long-term manufacturing of certain products and the establishment of industry councils to 'guide' the future. Proposed eligibility and merit assessment criteria for grant programs also have an element of picking 'desirable' activities, rather than being focussed principally on removing impediments to efficient decision making by firms or promoting demonstrable public spillover benefits.

Across the four reviews, the depth of the analysis of the effectiveness of existing assistance programs varies and a general problem confronting the assessments is lack of availability of appropriate data. In the case of TCF and the automotive industries, no clear picture emerges about how effective assistance has been over the last five years in moving these activities closer to 'economic sustainability', despite proposals to continue or extend substantial sector-specific support to these activities. In regard to R&D and export subsidies, the claimed size of the inducement effects and the nature and extent of public spillover benefits appear optimistic.

The Commission's preliminary assessment is that the overall level of industry assistance would rise significantly with the full implementation of the various review recommendations, with higher government spending outweighing the assistance reducing effects of recommended tariff reductions in the automotive and TCF industries.

Concerning the more highly assisted automotive and TCF industries, both have had similar transition assistance packages for about a decade based on subsidies for production, investment and R&D. However, the Commission notes that the respective reviews recommended somewhat different approaches to future assistance arrangements. For the automotive industry, the Bracks review recommended (and the government decision strengthened) further extension of subsidies for production, plant and equipment and R&D. In contrast, the Green review of the TCF industries concluded that current budgetary assistance support arrangements were no longer suited to the future directions of the TCF industries. It recommended instead a competitive based innovation assistance program, costing about the same as expected expenditure under current arrangements, with the same sunset date as under current arrangements.

While each of the reviews sought to raise productivity and living standards through more effective and efficient industry assistance arrangements, the Commission has reservations about the assessment of the rationales for and the potential net benefits of some programs. Future assessments would be enhanced by the generation of data about industry assistance program participation, the provision of measurable performance benchmarks for individual programs and how the programs change economic outcomes against those benchmarks.

4 Recent developments in industry assistance

This chapter provides an overview of the numerous policy announcements with implications for industry assistance that have been made since November 2007, the reporting date for *Trade & Assistance Review 2006-07*. These announcements have involved the introduction of new programs with a business or activity focus, as well as the abolition of some existing programs and the redirection of funding to other priorities. In addition, this chapter refers to a number of significant infrastructure and regional development programs including Infrastructure Australia, the Building Australia Fund and the National Broadband Network, that will impact on various industries and are likely to provide some industry assistance.

The industry assistance landscape has also changed materially as a result of a range of measures to address economic dislocation associated with the global financial crisis. Such measures include support for particular businesses or activities including through government guarantees on bank deposits and the Australian Business Investment Partnership, Economic Security Strategy, Nation Building Plan and the National Building and Jobs Plan.

In addition to this increase in program activity, a number of policy reviews with potential implications for assistance to Australian industry have been announced or have been conducted during the year. Four major reviews with industry assistance implications were reported in chapter 3. In addition to these reviews, matters under examination with potential assistance implications include: Australia's taxation system; drought policy; quarantine and biosecurity; the pigmeat industry; the outbreak of equine influenza in Australia; the removal of the levy on retail sales of fresh milk; and the review of Australia's anti-dumping and countervailing system.

The broad range of recent developments in Australian Government programs and policy settings are likely to have ramifications for Australia's assistance structure generally or for particular industries or sectors. The developments are reported on in the following groupings: research, development and innovation (R&D); rural sector; manufacturing and services sectors; infrastructure provision and regional development; responses to developments in global financial markets; and policy reviews with potential implications for industry assistance.

4.1 Research, development and innovation

Support for R&D, including innovation and commercialisation, forms a significant component of the Australian Government's budgetary assistance to industry. It accounted for around one third of budgetary assistance in 2007-08 (chapter 2). In the May 2008 Budget, the Australian Government made a number of announcements in relation to support for R&D and its commercialisation. These announcements, together with other recent government R&D initiatives, are discussed in this section.

Enterprise Connect

In May 2008, the Australian Government announced funding of around \$250 million over five years for the establishment of eleven Enterprise Connect centres. The centres aim to provide Australia's small and medium sized enterprises (SMEs) with access to technology, research, and business and management advisory services.

Enterprise Connect will comprise two components, a manufacturing network and innovation centres. The manufacturing network will consist of six centres located in Adelaide, Dandenong (Victoria), Burnie (Tasmania), Brisbane, Sydney and Perth. It is intended that these centres will work with companies to: improve business strategies and operations; benchmark against best practice; improve products and efficiency; access prototyping and testing facilities; and reduce red tape and improve access to government programs.

The five innovation centres will be: mining technology (located in Mackay, Queensland), remote enterprise (located in Alice Springs, Northern Territory), innovative regions (in Geelong, Victoria), creative industries (in Sydney) and clean energy (located in Newcastle, New South Wales). In November 2008, the Government announced an additional \$20 million for a Defence Innovation Centre, to be located in Dandenong. It is intended that the innovation centres will assist SMEs access new ideas, technologies and markets (Carr 2008e).

Commercial Ready, Commercial Ready Plus and Renewable Energy Development Initiative programs

In its 2007 *Science and Innovation* study, the Commission noted that the Commercial Ready program supported too many projects that would have proceeded without public support and that the national benefits of the program were at best uncertain. The Commission suggested that the introduction of a repayment mechanism within the CR program would offer scope to improve the inducement rate associated with the program (PC 2007a).

In the May 2008 Budget, the Australian Government announced that the Commercial Ready (CR), Commercial Ready Plus (CRP) and the Renewable Energy Development Initiative (REDI) would be closed to new applicants. The Government estimated that cost savings from closing the programs would amount to around $550 million over four years (Carr 2008d). Of these cost savings, $160 million will be used to offset the costs of the Government's Clean Business Australia Initiatives (see chapter 5).

Intermediary Access (pilot) program

The Intermediary Access (pilot) program was announced in May 2007. The program was intended to support SMEs wanting to access new technologies and partnerships through the use of intermediaries to connect them with relevant researchers, other SMEs and large companies. Grants of up to 50 per cent of eligible costs were available up to a limit of $50 000.

In the May 2008 Budget, the Australian Government announced that the program would not continue beyond the pilot phase. The pilot program concluded on 30 June 2008, and a review of the program was released in early 2009. The review was based on a survey of participating companies and feedback from the two intermediary service providers that delivered the program. The review found that the program achieved its policy objectives for the majority of program participants. It found that government funding was a key incentive for companies to participate in collaborative projects, as was access to relevant technology and partners and project development activities requiring specialised skills, both of which were provided by the intermediaries (Carr 2008d).

North East Tasmania Development package

In August 2008, the Australian Government, together with the Tasmanian State Government, announced that they would establish a North East Tasmania Development package, following the closure of the Tonganah sawmill. The package is intended to increase employment opportunities in the area. Funding is around $4.3 million and will be delivered over two years commencing in 2008-09 (Carr 2008g).

The Australian Government will provide funding of $4.0 million — $3.7 million for the North East Tasmania Innovation and Investment Fund (NETIIF) and $300 000, a co-contribution to the Business Micro Capital Scheme (NETMicro). The Australian Government will deliver NETIIF and the Tasmanian Government will deliver NETMicro.

NETIIF is a competitive granting program providing minimum funding of $50 000 towards business investments in Tasmania's north-east. Applicants are expected to contribute funding towards projects and the extent of co-investment will be a factor in assessing applications. NETMicro provides grants up to $25 000 to develop new opportunities or expand existing businesses (Carr 2008h).

Small Business Advisory Services program

In the May 2008 Budget, the Australian Government announced the provision of $42 million over four years to fund 36 nominated Business Enterprise Centres (BECs) to deliver low-cost small business advisory services (Emerson 2008a).

In October 2008, the Australian Government increased funding by $4 million ($2 million to be expended in 2008-09 and $2 million in 2009-10) to provide additional support and advisory services, in the 2009 calendar year, to *existing* small businesses in response to the global financial crisis (Emerson 2008b).

Building Entrepreneurship in Small Business program

In the May 2008 Budget, the Australian Government announced the closure of the Building Entrepreneurship in Small Business program. The program, initiated in 2005, funded third party service providers to deliver incubation, skills development, mentoring, succession planning and advisory services to small business operators throughout Australia (see *Trade & Assistance Review 2006-07*).

4.2 Rural sector

Australian Government support for the rural sector is substantial, comprising around 25 per cent of total budgetary assistance in 2007-08 (chapter 2). The Australian Government has made a number of announcements in relation to the sector since November 2007.

Caring for Our Country

In March 2008, the Australian Government announced that it would invest more than $2 billion over five years in natural resource and environmental management through the Caring for Our Country program. The program is intended to provide a coordinated approach to environmental management in Australia supported by transparent and consistent national five-year objectives. It will integrate the delivery of previous Australian Government natural resource management programs including: the Natural Heritage Trust; the National Landcare program; the Environmental Stewardship program; and the Working on Country program. The amalgamation of the natural resource management programs is also designed to reduce associated administrative costs and allow more funding to be directed towards farmers and other land managers (Garrett and Burke 2008a).

The Australian Government is required to prepare an annual Caring for Our Country business plan, to ensure that funding is delivered in accordance with the five year outcomes. Six priority areas have been identified to receive funding under the program:

- Australia's National Reserve System;
- biodiversity and natural icons;
- coastal environments and critical aquatic habitats;
- sustainable farm practices;
- natural resource management in remote and northern Australia; and
- community skills, knowledge and engagement.

In the May 2008 Budget, the Australian Government announced the $200 million Great Barrier Reef Rescue Plan (GBRRP) would form part of the integrated Caring for Our Country program. The GBRRP is intended to help protect the Great Barrier Reef while providing benefits for local conservation and Indigenous groups, agricultural production, tourism, fishing and aquaculture industries. The main elements of the plan are:

- Great Barrier Reef Water Quality Grants program — provides matching grants to landowners and managers that commit to reducing the amount of nutrients and sediment run-off from the land ($146 million);
- Healthy Reef Partnerships program — to promote partnerships between government, state agencies and non-government organisations that support landowners with local expertise and extension staff ($12 million);
- Great Barrier Reef Water Quality R&D program — to research the link between land management practices and environmental impacts, and to develop new water-quality monitoring techniques ($10 million);
- Water Quality Monitoring and Reporting program — to expand existing monitoring and reporting of water quality in the Reef ($22 million); and

- Land and Sea Country Indigenous Partnerships program — to employ Sea Country Officers in Indigenous communities and provide additional funding for the Great Barrier Reef Marine Park Authority to strengthen partnerships with indigenous communities ($10 million) (Garrett and Burke 2008b).

National Weeds Research and Productivity Program

In the May 2008 Budget, the Australian Government committed $15.3 million over four years to establish a National Weeds and Productivity Research Program (Burke 2008v). The centrepiece of the program will be an Australian Weeds Research Centre to improve collaboration and coordination on weeds research and oversee the funding of research projects. The program will focus on investigating and addressing significant invasive plant problems and improving advice to the farm and forestry sectors on managing invasive plants in forests, pastures and native vegetation. This measure includes funding of $0.3 million over two years from 2008-09 for research into the control of fireweed.

Agriculture–Advancing Australia

The Agriculture–Advancing Australia (AAA) package, first introduced in 1997, comprised a number of sector-wide programs intended to facilitate structural adjustment. The AAA package included the Farm Help, Farm Management Deposits, FarmBis, Advancing Agricultural Industries and the Rural Financial Counselling Service programs. More than $1.7 billion in government funding was provided under the AAA package to 2007-08.

In November 2007, the Australian Government announced that it would end the AAA package (DAFF 2009f). This involved closing the Farm Help, FarmBis and Advancing Agricultural Industries programs, while the Rural Financial Counselling Service program, the International Agricultural Cooperation program and the Farm Management Deposits scheme were continued independently. Funds saved from closing the AAA package were diverted to the $130 million Australia’s Farming Future program (see below).

Australia’s Farming Future program

In the May 2008 Budget, the Australian Government announced the Australia’s Farming Future (AFF) program with funding of $130 million over four years. The program, which commenced in July 2008, is intended to assist primary producers in adapting and responding to climate change. It consists of a number of elements including the Climate Change Research Program, FarmReady, Climate Change Adjustment Program, and Community Networking and Capacity Building (Burke 2008j).

Climate Change Research

The Climate Change Research Program funds research projects and on-farm demonstration pilots to help prepare Australia's primary industries for climate change. The projects focus on:

- reducing greenhouse gas emissions such as methane and nitrous oxide;
- improving soil management and determining the potential of sequestration of carbon in agricultural soils — in a variety of soil types, locations and under differing management practices; and
- research into alternative management practices and the development of adaptation tools and techniques.

FarmReady

A primary producer reimbursement grant and an industry grant are available under the Farm Ready component of AFF. The FarmReady Reimbursement grant will provide funding of up to $1500 per financial year for primary producers and indigenous land managers to attend approved training courses. The FarmReady Industry grant will provide funding of $80 000 per financial year for projects that assist in the development of strategies to manage the impacts of climate change. The industry grant will be available to eligible industry, farming and natural resource management groups.

Climate Change Adjustment Program

The Climate Change Adjustment Program (CCAP) component of AFF will provide funding for adjustment advice and training grants of up to $5000, re-establishment grants of up to $150 000, and access to rural financial counsellors (via the existing Rural Financial Counselling Service program). The CCAP will also provide for short-term income support through the Transitional Income Support Program.

Community Networks and Capacity Building

Community networks and capacity building activities are intended to increase leadership and representative capacity of target groups including women, youth, Indigenous Australians and other minority groups. Currently two grant programs are being administered: Recognising Women Farmers and Next Gen Farmers. These are aimed at promoting the development of leadership and management skills among individuals and groups living in rural, regional and remote Australia and strengthening industry productivity and community resilience (DAFF 2009a).

Water for the Future plan

In the May 2008 Budget, the Australian Government announced details of the ten year $12.9 billion Water for the Future plan. The plan is intended to develop a single national framework that integrates both rural and urban water issues. It is built on four Government priorities: climate change; water use; water supply; and rivers and waterways health (Wong 2008).

The main elements of the Water for the Future plan are:

- Sustainable Rural Water Use and Infrastructure program — funding of projects that return water to the environment and also provide a long-term future for irrigation communities ($5.8 billion);
- Restoring the Balance in the Basin program — funding to purchase water entitlements from irrigators in the Murray-Darling Basin to be used to increase environmental flows ($3.1 billion);
- National Urban Water and Desalination Plan — funding for projects that use desalination, recycling and stormwater harvesting to improve water supply security in towns and cities of 50 000 people or more ($1 billion); and
- Water Smart Australia program — funding for large-scale projects that increase the development and uptake of new technologies and practices in water use ($1.6 billion).

Other programs under the Water for the Future plan include: Driving Reform in the Basin program; Improving Water Information initiative; National Water Security Plan for Cities and Towns; National Rainwater and Greywater initiative; Raising National Water Standards program; Living Murray initiative; Great Artesian Basin plan; and Northern Australia Futures Assessment program. Total funding for these programs amounts to around $1.5 billion (DEWHA 2009a).

Small Block Irrigators Exit Grant Package

In September 2008, the Australian Government announced a $57.1 million Small Block Irrigators Exit Grant Package designed to assist small block irrigators, particularly horticultural producers, in the Murray-Darling Basin (DEWHA 2009b). The package provides an exit grant of up to $150 000 to eligible farmers who wish to cease irrigated farming. Recipients also have access to funds for removal of permanent plantings and other production-related infrastructure and for advice and training. The Package will be available until 30 June 2009, and forms a part of the Australian Government's *Water for the Future* plan.

In February 2009, the Australian Government amended the eligibility criteria for this package to allow small block irrigators on farms up to 40 hectares in the Murray-Darling Basin to apply. In addition, the grant for removal of plantings was increased from up to $10,000 to up to $20,000.

Regional Food Producers Innovation and Productivity program

In the May 2008 Budget, the Australian Government announced that it would provide $35 million over five years for the Regional Food Producers Innovation and Productivity (RFPIP) program. The program aims to increase the productivity and competitiveness of Australia's regional food and seafood industries through innovation and technology improvements. The program replaces the previous Food Innovation Grants (FIG) program (Burke 2008i).

Under the new program, matching funding grants of between $50 000 and $2 million will be available to eligible food and seafood businesses to undertake projects that encourage innovation in production, processing and value adding in the regional food industry. Preference will be given to projects which develop new technologies, processing or production methods at the business level, rather than industry-wide consultancies or studies. Around $10 million from the program will be set aside specifically for the seafood industry (DAFF 2009e).

The Government also announced that it would continue to support the existing National Food Industry Strategy (NFIS). The NFIS is intended to improve international marketing, export market development and market access although, as indicated, the FIG component of the NFIS is being replaced by the RFPIP program. The NFIS was discussed in more detail in *Trade and Assistance Review 2006-07*.

Promoting Australian Produce program

In the May 2008 Budget, the Australian Government announced that it would provide $5 million over three years for the Promoting Australian Produce program. The program is intended to assist Australian producers in developing and implementing initiatives that raise awareness of the premium quality of Australian produce, including home grown fruit and vegetables, pork and seafood (Burke 2008u).

Under the program, matched-funding grants of between $50 000 and $750 000 will be available to eligible food industry organisations to undertake projects in one or more of the following activities: enhancing industry marketing and promotional capabilities; developing new strategies for industry marketing; gaining consumer insights; and strengthening links with domestic and international markets (DAFF 2009d).

Promoting Australian Produce (Major Events)

In December 2008, the Australian Government announced details of the Promoting Australian Produce (major events) program. The program is intended to improve cooperation and collaboration in the food and fibre industries. The program is a discretionary grants program with funding of $3 million available until 30 June 2009 (Burke 2008u).

Under the program, grants are available to help stage major national events organised by food and fibre industries that aim to:

- bring together food and fibre industry participants to increase information exchange across the production, manufacturing, marketing and distribution chain;
- develop and adapt new technologies and systems to improve productivity; and
- increase industry-wide collaboration to meet challenges presented by climate change and globalisation (DAFF 2009c).

Wheat marketing

Like most other agricultural industries, the Australian wheat industry has had a long history of government intervention. However, a number of reforms to wheat marketing arrangements have been introduced over the last two decades. A discussion of the main reforms to wheat marketing up to November 2007 was provided in *Trade & Assistance Review 2006-07*.

In November 2007, the Australian Government announced that it would introduce new marketing arrangements for wheat exports that would provide for increased choice for wheat growers by allowing multiple accredited exporters through the introduction of the Wheat Export Accreditation scheme. The Export Wheat Commission would also be replaced by a new export regulator — Wheat Exports Australia — which would be responsible for administering the Accreditation scheme. These new arrangements are discussed in more detail below.

In January 2008, the Australian Government announced the establishment of an 'Industry Expert Group' to advise on the delivery of industry development functions under the new wheat marketing arrangements. Areas to be addressed by the group included: strategic planning; R&D; quality assurance and varietal development; industry receival standards; industry training; and generic promotion. The group's report, delivered to the Minister for Agriculture, Fisheries and Forestry in April 2008, was released by the Government in May 2008 (Burke 2008g).

The primary finding from the report was that many of the industry development functions as outlined above could continue effectively under the new wheat marketing arrangements. Other recommendations from the report include:

- the Australian Government should play a role in the collection and distribution of information to growers through the Australian Bureau of Statistics (ABS) and Australian Bureau of Agricultural and Resource Economics (ABARE) collecting and distributing monthly industry information on wheat production, exports and the availability of wheat;
- wheat receival standards should be managed by the National Agricultural Commodities Marketing Association (NACMA) according to existing processes, while individual grain marketers should develop refinements to complement the industry agreed standards. These standards are now being managed by Grain Trade Australia (formerly NACMA); and
- the Grains R&D Corporation (GRDC) should take on responsibility for the establishment and operation of a wheat variety classification panel. GRDC has engaged the Bread Research Institute (BRI) to manage the process (Burke 2008k).

In June 2008, the Australian Parliament passed legislation to bring about the reforms announced in November 2007 to Australia's bulk wheat export marketing system. Under the new arrangements:

- Wheat Exports Australia, the new industry regulator, will have the power to grant, vary, suspend or cancel accreditation of exporters;
- a new applicant under the accreditation scheme must meet a number of tests, including that it is a 'fit and proper company' to trade in wheat and it must be a corporation or cooperative;
- a compulsory wheat export charge of $0.22 per tonne will continue (as under previous arrangements) to be payable for the control and monitoring by Wheat Exports Australia of all (bulk and non-bulk) wheat exports from Australia; and
- applicants operating a bulk grain port terminal must also provide access to other exporters, by entering into arrangements to be overseen by the Australian Competition and Consumer Commission from October 2009 (Burke 2008o).

In May 2008, the Australian Government also announced that it would provide around $9 million in funding over three years to assist the industry with the transition to the new marketing arrangements, including grower information sessions, publication of market data and technical market support grants. The Government will also ask the Productivity Commission to commence a review of the new marketing arrangements before 1 January 2010 (Burke 2008l). Information sessions have been held, and the market data project is underway with the first reports received in February 2009.

In August 2008, the Australian Government announced that five companies had been accredited to export wheat under the new marketing arrangements (Burke 2008q). By April 2009, a further 18 had been accredited, including two subsidiaries of AWB Limited — AWB Harvest Finance Limited and AWB Australia Limited. AWB International, a subsidiary of AWB Limited, was the previous holder of the single desk arrangements for the export of bulk wheat (AWB 2008).

Pigmeat

In recent years, the Australian pigmeat industry (both production and processing) has experienced structural change and become increasingly integrated into world pigmeat markets. Based on industry concerns regarding these changes, the implications for the competitiveness of the Australian pigmeat industry and the impact of import competition, the Australian Government has asked the Productivity Commission and its predecessor to undertake a number of policy reviews of the pigment industry (IC 1995, PC 1998a, PC 2005b and PC 2008b).

In October 2007, the Australian Government asked the Productivity Commission to report on whether safeguard action, in accordance with the WTO Agreement on Safeguards, was warranted against imports of certain frozen pigmeat (see box 4.1). The Commission provided an accelerated report to the Australian Government in December 2007. The Commission's main findings from the accelerated report were discussed in last year's *Review* (PC 2008c).

Box 4.1 WTO safeguards actions

Safeguard action is temporary, 'emergency action' (typically employing tariffs, tariff-quotas or quotas) and may be taken by a member country of the WTO where a surge of imports causes or threatens to cause serious material injury to a domestic industry. It allows a country to respond to unexpected and unforeseen increases in imports which have caused serious material injury. The increase in imports must be 'recent enough, sudden enough, sharp enough and significant enough' to cause (or threaten to cause) serious injury.

The 1998 inquiry was also conducted under the WTO Agreement on Safeguards. In that inquiry, the Commission reported on possible safeguard action against imports of pigmeat from Canada. It found that while a tariff of 10 per cent (phasing out over 2 years) could be justified under WTO rules, it questioned whether this would be the most appropriate means of remedying serious injury and facilitating industry adjustment.

Source: PC (2008b)

In April 2008, the Australian Government released the Commission's final report on pigment imports — *Safeguards Inquiry into the Import of Pigmeat*. Consistent with its accelerated report, the Commission concluded that:

> Increased imports have not caused and are not threatening to cause serious injury to the domestic industry. The overwhelming cause of serious injury has been higher domestic feed costs. The Commission accordingly finds that safeguard action against imports of frozen pigmeat is not warranted. (PC 2008b, p.XXVIII)

In addition to assessing whether safeguards measures were warranted, the Commission's report also looked at developments in the structure and operating methods of the local pigmeat industry and whether more could be done to ease cost pressures, particularly from high feed grain costs. The Commission found that rises in feed grain prices were in part attributable to the drought, economic growth and changing tastes. It also found that the higher grain prices also reflect the impacts of quarantine restrictions on grain imports (especially during drought) and of government policies encouraging the diversion of land away from feed-crop production in favour of crops for use in the production of ethanol, particularly overseas and to a lesser extent in Australia.

With respect to broader industry development issues, the Commission also made a number of recommendations in its final report, including:

- Commonwealth and State and Territory governments should continue work on promoting consistency of regulations across jurisdictions, including more harmonised implementation and enforcement processes where appropriate;

- regular independent reviews should be conducted to ensure that government R&D funding directed to the pigmeat industry delivers net benefits to the community, and continues to satisfy program criteria;
- industry programs that operate in conjunction with government support need to be regularly and transparently reviewed; and
- there should be a review into the overall economic impact of the current and proposed policies relating to ethanol.

The Australian Government responded to the Commission's report in June 2008. As the Commission is the 'designated' Australian body under WTO rules to determine whether safeguard mechanisms are appropriate, based on the Commission's findings, the Government notified the WTO that the safeguards investigation had been terminated and that it would not impose safeguard measures. The Government also agreed, or agreed in principle, with all of the Commission's recommendations in the report (Australian Government 2008a).

Equine influenza ('horse flu')

The first recorded outbreak of equine influenza in Australia occurred in New South Wales in August 2007. Equine influenza is an acute, highly contagious, viral disease affecting horses, donkeys, mules and other equine species. The disease is not generally fatal, but fatalities may occur especially in old or infirm horses, and foals (DAFF 2009b). Details of the previous Government's response to the outbreak during 2007 were discussed in *Trade & Assistance Review 2006-07*.

In February 2008, the Australian Government announced that assistance provided under the previous Government's Equine Influenza Assistance Package would be extended to 14 March 2008 or until restrictions on horse movements had been lifted. The specific payments extended under the package included:

- Equine Workers Hardship Payment Wage Supplement Payment (administered by the Department of Families, Housing, Community Services and Indigenous Affairs);
- Business Assistance Grant;
- Commercial Horse Assistance Payment; and
- grants for non-profit community groups (Burke 2008c).

Payments in excess of $260 million were made in 2007-08 under the package.

In March 2008, the Australian Government declared, in accordance with international agreements, that Australia had achieved provisional free status of equine influenza following the completion of comprehensive disease control and surveillance programs, together with a three-month period since the last recorded incidence of the disease. This declaration was extended, by the Australian Government, to official free status in June 2008 with the Government also lifting the remaining emergency requirement that people notify authorities of their intention to move horses or hold an event. Further, in December 2008, twelve months after the last recorded outbreak of the disease, the Australian Government, in accordance with the World Animal Health Organisation Terrestrial Animal Health Code 2008, declared that Australia had regained its (international) equine influenza free status (Burke 2008e, Burke 2008p and DAFF 2008).

In June 2008, the Australian Government released the Callinan inquiry report into the outbreak of equine influenza in Australia. The report was commissioned by the Government in September 2007. The inquiry was required to report on the circumstances contributing to the outbreak of the disease and on the need for any strengthened biosecurity procedures for the quarantine management of imported horses. All 38 recommendations made by the inquiry were agreed to by the Government. Among other things, the inquiry recommended that the Government:

- review biosecurity policies for horses and carry out an import risk analysis;
- reassess conditions, applied by AQIS, on the importation of horses;
- review pre-export, airport and quarantine station facilities; and
- review fees charged for the export of horses to Australia, looking at the cost of quarantine, auditing and risk factors.

For those recommendations requiring immediate action, the Government has allocated around $1.3 million for implementation (Burke 2008n).

Emergency Animal Disease Response Agreement

In February 2008, in parallel with other developments concerning the equine influenza outbreak and its management, the Australian Government introduced legislation to Parliament to enable the horse industry to join the current Emergency Animal Disease Response Agreement. Under the agreement, the Australian Government underwrites industry’s share of the costs of any emergency disease outbreak and recovers an agreed share of these costs, from the industry. These costs are usually recovered, using an industry levy, over a ten year period. The cattle, pig wool, sheep meat, dairy, bee, poultry and goat industries are already signatories to the agreement (Burke 2008d and 2008m). This legislation failed to pass Parliament in February 2009.

Following agreement at the Primary Industries Ministerial Council meeting in November 2008, the Australian Government announced that it would establish a further panel to consider how to manage the risks of any potential future equine influenza outbreak and potential strategies for dealing with such an outbreak. The panel is to report its findings to the next Primary Industries Ministerial Council meeting in the first half of 2009 (Burke 2008s).

Dairy Industry Adjustment Package

Assistance to the Australian dairy industry has declined significantly since the mid-1980s when the effective rate of assistance was more than 200 per cent. Since 2000, most of its assistance has been derived from the Dairy Industry Adjustment Package (DIAP). Before this, most assistance to the dairy industry was afforded by state government price and regulatory controls, and Australian Government Market Support Payments, which were removed as the industry was deregulated. The DIAP and former assistance arrangements have been discussed in more detail in previous editions of the *Trade & Assistance Review*.

Since the introduction of the DIAP on 1 July 2000, payments from the package up until 2007-08 have amounted to around $1.8 billion and have been made to around 13 000 dairy farm businesses. The package was designed to help the industry adjust from the previous state-regulated drinking milk arrangements to a more deregulated environment. The DIAP was funded by an 11 cents per litre levy on retail sales of fresh milk (Burke 2008r).

In April 2008, the final quarterly payments were made from the DIAP and action to unwind the package is almost complete. The Dairy Adjustment Levy, which remained in place to recover debts incurred by the Commonwealth in establishing the DIAP, was removed on 22 February 2009. The Dairy Structural Adjustment Fund, which holds the levy receipts, is expected to be closed in 2009 (Burke 2008r and Burke 2009).

Forests

In the May 2008 Budget, the Australian Government announced that it would provide $20 million over three years for the Preparing Australia's Forestry Industry for the Future package. The package is intended to help Australia's forest industries deal with issues including climate change and skills shortages. The main elements of the package are outlined below.

- The Forest Industries Development Fund is intended to encourage investment in value-adding activities and boost the international competitiveness of Australia's forest industry. Grants from the fund are expected to represent around 30 per cent of total project costs and are limited to no more than $500 000. A total of $9 million has been allocated from the package to fund this measure.

- Research into the impact of climate change on forest systems and industries ($8 million). It is intended that many of the gaps in knowledge about the impact of climate change on forests and forest industries will be identified by the development of the National Climate Change and Commercial Forestry Action Plan.
- The ForestWorks program is intended to support the establishment of the Forest and Forest Products Industry Skills Council to address skill shortages in the industry ($1 million).
- The Forest and Wood Products Industry Workforce and Industry Data Collection research project ($1 million).
- Measures intended to support work with industry, regional governments and overseas countries to restrict the sale of illegally-logged timber ($1 million) (Burke 2008h).

4.3 Manufacturing and services sectors

Automotive industry

While assistance to the automotive industry, including both motor vehicle producers and component suppliers, has declined significantly since the mid-1980s, the industry remains one of the most highly assisted within the manufacturing sector. This assistance derives largely from long-standing tariffs and tariff concession schemes, particularly the Automotive Competitiveness and Investment Scheme (ACIS). Chapter 3 reports on the Bracks review of the Australian automotive industry. This section outlines the Government response to that review and a number of other measures introduced during 2008 to assist the automotive industry.

South Australian Automotive Assistance package

In February 2008, the Australian and South Australian Governments announced a $50 million assistance package to help support workers, and also the Tonsley Park region in South Australia following the announcement by Mitsubishi Motor Corporation that it would close its Adelaide vehicle assembly plant from March 2008. The package includes: up to $10 million for intensive assistance to workers made redundant as a result of the plants closure; and a $40 million South Australian

Innovation and Investment Fund to assist the expansion of manufacturing in South Australia.

The South Australian Investment and Innovation Fund is to run over three years from 2008-09 through to 2010-11. It is intended that up to $30 million will be used to support projects that are likely to create full-time employment, with a focus on projects aimed at supporting the introduction of new innovations or technology (including investment in emerging and growth sectors such as defence and ICT), and activities in the southern suburbs of Adelaide. In addition, the fund is to provide up to $10 million for strategic infrastructure intended to improve the competitiveness of the region (Rudd, Carr and Rann 2008).

The Australian Government had introduced a similar $50 million structural adjustment package in May 2004. This package was announced in response to the closure of Mitsubishi's engine plant in Lonsdale in South Australia. The package included a $10 million labour market assistance program and $40 million towards investment incentives and structural adjustment measures, particularly for the southern suburbs of Adelaide. This program was discussed in more detail in *Trade & Assistance Review 2003-04* (PC 2004a).

Assistance to Automotive Components Limited

In April 2008, the Australian Government announced that it would provide $2 million in assistance to Tasmanian auto-parts supplier Automotive Components Limited (ACL) (the sole supplier of precision auto bearings to the Australian operations of Ford, Holden and Toyota). A requirement of the support package is that ACL implement an efficiency and productivity strategy to secure the future viability of the company. The Government negotiated clear requirements and milestones with the company to ensure that this outcome occurs. The Tasmanian Government will also provide assistance of $330 000 to the company (Carr and Wriedt 2008).

A New Car Plan for a Greener Future

In November 2008, following the release of the Bracks review of the Australian automotive industry, the Government announced that it would introduce a $6.2 billion plan for the automotive industry — *A New Car Plan for a Greener Future*. The main elements of the package include: the continuation of scheduled Motor Vehicle and Parts (MVP) tariff reductions in 2010; the introduction of a new $3.4 billion assistance program from 2011, the Automotive Transformation Scheme (ATS), to replace ACIS; an expanded $1.3 billion Green Car Innovation Fund; and the continuation of ACIS through to 2010, but with changes to the scheme as proposed by the Bracks review to facilitate the transition to the ATS (Carr 2008i). These changes, together with other elements of the plan, are discussed in more detail in chapter 3.

Administration of ABC Learning Centres Limited

In November 2008, ABC Learning Centres Limited (ABC Learning) announced that it would be placed into voluntary administration and a receiver appointed. In response, the Australian Government announced that it would commit up to $22 million to ensure that 1040 ABC Learning child care centres remained operational until 31 December 2008. ABC Learning was Australia's largest private child care provider with around 120 000 children attending its centres and employing over 16 000 people (Gillard 2008a).

In December 2008, the Receiver of ABC Learning announced that 720 child care centres would remain within the ABC Learning Group, but that 55 centres would close and be consolidated into nearby ABC centres. A further 241 centres were also identified as unviable under the ABC Learning business model, but would remain open in 2009 under an agreement reached with the Government (McGrathNicol 2008). The Australian Government stated that, while under normal circumstances the 241 centres would be closed, it believes a number of these centres could be viable under different arrangements and announced that it would provide an extra $34 million to keep these centres open until 31 March 2009 (Gillard 2008b, 2009). This was later extended to 15 May 2009, though no additional funding was committed as the Government would draw on unused funds that were previously announced.

4.4 Infrastructure provision and regional development

Since November 2007, the Australian Government has announced significant financial commitments for the provision of infrastructure and regional development. These commitments will have a wide range of impacts on industry. Some of the industry impacts may constitute positive or negative industry assistance. The level of assistance ultimately conferred on industry would depend on factors such as:

- the level of government contributions and risk sharing to business investment, for example though support for the construction and operation of new infrastructure such as a road, rail or port facility;
- the user charges relative to the economic cost of service provision; and
- the public good nature of the infrastructure.

Any assistance afforded would generally benefit the infrastructure industry receiving it, but it could also have flow on benefits (costs) to industries utilising the assisted services, taxpayers and households. However, ascertaining the degree of assistance, and its incidence, can be difficult. Moreover, regulatory arrangements accompanying the construction and operation of infrastructure also affect industry.[1]

Infrastructure Australia

In January 2008, the Australian Government formally approved the establishment of Infrastructure Australia with funding of $20 million over four years. The primary role of Infrastructure Australia is to provide advice to Australian governments (including Commonwealth, state and local Governments), investors in infrastructure and the owners of infrastructure on matters relating to infrastructure, including:

- nationally significant infrastructure priorities;
- policy, pricing and regulatory reforms intended to improve the efficient utilisation of national infrastructure networks;
- options to address impediments to the development and provision of efficient national infrastructure;
- the needs of users of infrastructure; and
- mechanisms for financing investments in infrastructure (Rudd and Albanese 2008a).

Infrastructure Australia is required to conduct regular audits to determine the adequacy, capacity and condition of nationally significant infrastructure. In conducting these audits, Infrastructure Australia is also to take into account future economic growth and the adequacy of the infrastructure to meet these growth targets. Based on the information collected, Infrastructure Australia is then required to develop a national infrastructure priority list for consideration by the Council of Australian Governments (COAG).

[1] While infrastructure provision and regional development measures may confer industry assistance, such measures typically have not been included in the Commission’s annual assistance estimates series because of practical constraints in measurement and data availability. However, in recognition of the potential for such measures to have some industry assistance effect, the Commission’s approach is to report qualitatively on developments, as details become available and to examine the issues separately in detailed studies or inquiries. For example, the Commission was asked by Government to report on road and rail infrastructure pricing and the price regulation of airport services (PC 2006d and 2006e). It also has reported on assistance to tourism (PC 2005a).

In August 2008, Infrastructure Australia called for public submissions to provide project ideas for evaluation and possible inclusion on the National Infrastructure Priority List. A summary of the information gathered from the submissions, together with input from Infrastructure Australia identifying infrastructure 'needs', was presented to COAG in December 2008.

Building Australia Fund

In the May 2008 Budget, the Australian Government announced that it would establish the Building Australia Fund (BAF) with an initial allocation of $20 billion (Swan 2008a). Funding for the BAF was to be sourced largely from the Commonwealth budget surplus in 2007-08 and the then expected surplus in 2008-09. Both capital and earnings from the BAF are to be used to fund infrastructure projects including roads, rail, ports and broadband (see below).

The first allocations from the fund are expected to be made in 2009-10. Allocations from the fund are to be guided by Infrastructure Australia's national audit and infrastructure Priority List.

In addition to the BAF, the Australian Government also announced that it would create two sectoral funds:

- the Education Investment Fund (EIF) — to finance capital expenditure in Australia's higher education institutions (initial allocation of $11 billion); and
- the Health and Hospital Fund (HHF) — to finance the renewal and refurbishment of Australia's hospitals and health facilities and fund major medical research projects (initial allocation of $10 billion).

Like the BAF, the EIF and HHF were to be financed largely from expected Commonwealth budget surpluses.

National Broadband Network

In April 2009, the Australian Government announced that it would establish a company to build and operate a high speed National Broadband Network (Rudd 2009c).

The new company will invest up to $43 billion over eight years to build the network. The Government will be the majority shareholder of the company, with private investment encouraged from the initial build stage. The Government intends to sell down its interest within five years of the network being built.

This announcement followed the Government's decision to terminate the National Broadband Network Request for Proposals process on the basis of unpublished advice from the independent Panel of Experts that none of the proposals received were sufficiently well developed to offer 'value for money'.[2]

The Government's objective for the new National Broadband Network is to connect 90 per cent of homes and workplaces to the fibre network within the company's investment of up to $43 billion. Connecting fibre optic cables directly to people's homes is intended to enable speeds of 100 megabits per second (Mbps) and beyond to be achieved. For the remaining 10 per cent of premises, next generation wireless and satellite technologies is intended to deliver broadband speeds of 12 Mbps.

The rollout schedule, network coverage and mix of technologies will be finalised following an implementation study to be completed in early 2010.

More immediate Government action includes plans to invest up to $250 million to address 'black spots' throughout regional Australia, through the rollout of fibre optic transmission links connecting cities, major regional centres and rural towns.

Australian Broadband Guarantee program

In the May 2008 Budget, the Australian Government announced that it would provide $271 million over four years to fund the Australian Broadband Guarantee program.

The program is intended to provide residential and small business premises and Aboriginal or Torres Strait Islander Community Council areas across Australia with access to 'metro-comparable' broadband services where such services are not available on commercial terms. Financial assistance, in the form of incentive payments, are provided to registered internet service providers to supply these services. A metro-comparable broadband service is defined under this program as any internet service that offers a minimum 512 kilobits per second (Kbps) download and 128 Kbps upload data speed, with 3 GB per month data usage at a total cost of

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[2] In April 2008, the Australian Government released a 'Request for Proposals' (RFP) to roll-out and operate a new, open access, high-speed, fibre-based broadband network. It also announced government funding of up to $4.7 billion for the network in addition to considering any regulatory changes needed to facilitate its construction (Conroy 2008b). In December 2008, the Government announced that five parties — Acacia, Axia, Optus-Terria, TransACT and the Tasmanian Government — had met the requirements for participation. It also announced that Telstra had been excluded because it had not met all of the requirements of the RFP process (Conroy 2008c).

no more than $2500 (GST inclusive) over three years (including installation and connection fees).

The Australian Broadband Guarantee is intended to provide a higher level of certainty of access for areas in Australia that are not currently well served by broadband services while the National Broadband Network (see above) is being rolled out (Conroy 2008a).

Better Regions program

In the May 2008 Budget, the Australian Government announced funding of $176 million over four years for the Better Regions Program. The funding will be used to help local communities deliver local infrastructure and other regional projects such as:

- the revitalisation of towns' main streets;
- multi-purpose community and resource centres;
- major sport and recreational venues; and
- community transport infrastructure (Albanese and Gray 2008).

Guidelines for the program were announced in August 2008 (DITRDLG 2008) and designed to meet all relevant requirements of the *Financial Management and Accountability (FMA) Act 1997* and associated regulations, and to reflect the Australian National Audit Office (ANAO) Better Practice Guide and the recommendations from the ANAO audit of the Regional Partnerships program. Under the guidelines:

- the administering department is required to undertake a risk analysis of both proponent and project viability in an effort to ensure that any identified risks are appropriately managed;
- any approval for the provision of funding is dependent on the preparation and execution, by both parties, of a Funding Agreement that sets out the terms and conditions under which the funding is provided;
- each proponent is required to identify (for inclusion in the Funding Agreement) the project's key outputs and the manner in which they will be measured so as to enable an evaluation of the benefits of Australian Government funding; and
- a 'Project Completion Report' is required so as to 'demonstrate that all agreed milestones have been achieved'.

From 1 January 2009, the Department is required to report grants within seven days of their execution (DITRDLG 2008). As at 7 April 2009, eight projects had been publicly listed.

Community Infrastructure program

In November 2008, the Australian Government announced details of the $300 million Regional and Local Community Infrastructure program (subsequently renamed the Community Infrastructure program). The Government's objective for the program is to support local economic development and employment in the 565 local council areas around Australia. Funding from the program will be delivered by 30 June 2009.

In February 2009, the Australian Government announced, as part of the $42 billion Nation Building and Jobs Plan, that it would provide an additional $500 million (over two years) towards the program (Albanese 2009). The program will be divided into two funds. The first is a $550 million fund for large-scale community infrastructure projects. Grants under this part of the program will be competitively based and only open to projects seeking a minimum Commonwealth contribution of $2 million.

The second component of the program will provide $250 million towards a one-off grant allocated to local councils and shires for community infrastructure projects. Allocations from the fund will range from $100 000 for councils with fewer than 5000 people to $2.9 million for the largest council. Local councils will also be required to submit proposals that meet the program's guidelines in order to claim their allocation.

Community infrastructure projects that may be eligible for funding under the entire program include:

- social and cultural infrastructure, such as town halls, community centres, libraries, parks, public squares;
- sport and recreation facilities, such as sporting grounds, stadiums, pools, walking tracks and playgrounds;
- tourism infrastructure, such as walkways and tourist information centres; and
- access facilities, such as footbridges, bus shelters, jetties and boat ramps.

Ongoing funding for the program will be determined as part of the May 2009 Budget (Rudd and Albanese 2008b).

4.5 Responses to developments in global financial markets

Associated with the global financial crisis, the Australian Government has introduced a number of large scale measures to support economic activity in Australia. Notwithstanding the broader stimulatory motivation for these packages, some of these measures will benefit particular businesses or activities relative to others. The level of assistance ultimately conferred would depend on the effect of the packages on business costs and prices. Elements of these packages that are not industry assistance-related include one-off cash payments to pensioners, carers, students and eligible families, totalling about $20 billion.

Financial Claims Scheme

The Financial Claims Scheme was introduced in June 2008 in response to recommendations by the Council of Financial Regulators, the HIH Royal Commission, and the global Financial Stability Forum. The stated aim of the scheme is to assist depositors and policyholders in the event that a general insurer or an authorised deposit-taking institution (ADI), such as a bank, building society or credit union, in Australia, fails. The Australian Government will fund payments under the scheme with these costs to be recovered, to the extent possible, through the liquidation of the failed entity. Where the liquidation fails to fully recover the Government’s costs, a levy may be applied to the relevant financial institutions (Swan 2008c)

In October 2008, the Australian Government announced that it would extend the scheme by providing a guarantee on all deposits of ADIs in Australia. The guarantee was introduced in response to developments in global financial markets. As part of the guarantee arrangements, the scheme automatically covers deposits of up to $1 million, per depositor, per institution. Amounts beyond $1 million are eligible to be covered by the ADI for a fee, under the Large Deposits and Wholesale Funding Guarantee (see below). The Government expects the deposit guarantee to operate for a period of three years (Rudd 2008a).

Residential Mortgage Backed Securities

In September 2008, in the context of highly unusual conditions in international capital markets and their impact on Australia's mortgage lending market, the Government directed the Australian Office of Financial Management (AOFM) to purchase residential mortgage backed securities with the intention of supporting competition in Australia’s mortgage markets (Swan 2008d). Up to $8 billion is available for investment, with at least $4 billion to be allocated to issuer/originators that are non-authorised deposit taking institutions. The Government expects that the RMBS purchased by the AOFM will be held until they are redeemed, or sold into secondary markets, when market conditions improve.

Guarantee for large deposits and wholesale term funding of ADIs

In October 2008, the Australian Government announced that it will guarantee deposits and wholesale funding of Australian banks, building societies and credit unions, Australian subsidiaries of foreign-owned banks, and domestic deposits of Australian residents with branches of foreign banks in Australia. All eligible deposits of up to $1 million are guaranteed for free. The Government will also guarantee eligible deposits over $1 million and wholesale funding for a fee. It is intended that this guarantee will enable the eligible institutions to more readily raise funds overseas and help restore confidence in credit markets in Australia. The Government intends to withdraw the wholesale funding guarantee once market conditions have normalised (Rudd 2008a).

Economic Security Strategy

In October 2008, the Australian Government announced a $10.4 billion ‘Economic Security Strategy’. The Strategy is intended to provide support to the Australian economy and Australian households during the current economic downturn. The Strategy includes nearly $9 billion in payments to individuals, but the remaining funding from the strategy may provide support for particular businesses or activities (Rudd and Swan 2008). These include:

- an increase in the first home buyers grant from $7 000 to $14 000 for established homes and $21 000 for newly constructed homes — $1.5 billion;
- 56 000 new training places in 2008-09 — $187 million; and
- acceleration of the implementation of the Australian Government’s nation building funds (see section on Building Australia Fund) so as to bring forward project funding in 2009.

Assistance to car dealer financiers

In November 2008, the Australian Government announced that it would establish a ‘Special Purpose Vehicle’ (SPV), together with the support of Australia’s major banks, to provide liquidity to car dealer financiers. The SPV has been introduced in response to the decision by General Electric (GE) Money Motor Solutions and

General Motors Acceptance Corporation (GMAC) to exit the Australian dealer floor plan financing market as a result of dislocation in financial markets associated with the global financial crisis.

The SPV will be established as a financing trust and provide liquidity to car dealer financiers through the securitisation of eligible loans provided to car dealers. The overall size of the SPV is expected to be around $850 million with the Government providing support to the SPV in the form of a guarantee to cover an unspecified proportion of the securities issued. Introduced on 2 January 2009, the SPV is expected to operate with government support for a period of around 12 months after which the government guarantees will be progressively withdrawn (Swan 2008e)

Nation Building package

In December 2008, the Australian Government announced a $4.7 billion 'Nation Building' package. The package is intended to bolster economic activity in Australia and help create up to 32 000 jobs. The package includes funding for road, rail and education infrastructure, as well as tax reductions for businesses (Rudd 2008b). The infrastructure elements of the package include:

- new funding for the Australian Rail Track Corporation — $1.2 billion;
- bringing forward future funding for road projects and the black spots program — $711 million; and
- funding for university and TAFE infrastructure projects funded from the Education and Investment Fund (see section on Building Australia Fund) — $1.6 billion.

The business tax reductions included in the package were:

- a temporary 10 per cent investment allowance (available until 30 June 2009) to encourage capital investment by Australian businesses — $1.6 billion (Swan 2008f); and
- a 20 per cent cut in the next quarterly pay-as-you-go (PAYG) tax instalments for 1.3 million business entities with aggregated turnover of $2 million per annum or less — $440 million (Swan and Emerson 2008).

This temporary investment allowance was subsequently expanded and extended by the Small Business and General Business Tax Break (as part of the National Building and Jobs Plan, see below).

Australia Business Investment Partnership

In January 2009, the Australian Government announced that it would establish the Australian Business Investment Partnership (ABIP) as a temporary, contingency measure intended to provide liquidity support for viable commercial property assets where financiers have withdrawn from debt financing arrangements as a result of the global financial crisis. ABIP may also provide financing arrangements in other areas of commercial lending if circumstances necessitate and provided those arrangements are agreed unanimously by the members of ABIP (the Commonwealth of Australia and Australia’s four major domestic banks).

A major Government objective in establishing the scheme is to support employment in the commercial property sector (Rudd 2009a).

ABIP will be initially financed at $4 billion, with the Australian Government’s contribution of $2 billion matched by a $0.5 billion contribution from each of the four major banks. This could be extended via the issuance of Government guaranteed debt of up to $26 billion to create up to $30 billion in financing.

ABIP will be established under the *Corporations Act 2001* as a public company limited by shares. It will operate in a commercial manner and will only provide funding for commercial property where the underlying assets, and the income streams from those assets, are financially viable. The types of commercial property assets that ABIP may consider providing financing to include, but are not limited to, retail shopping centres, commercial office buildings and industrial property.

In March 2009, the Australian Senate referred for inquiry the Bill for establishing the Australian Business Investment Partnership to the Senate Standing Committee on Economics. The Committee is to report by 7 May 2009 (APH 2009)

Nation Building and Jobs Plan

In February 2009, the Australian Government announced a $42 billion Nation Building and Jobs Plan. The Government estimates that the plan will support up to 90 000 jobs in 2008-09 and 2009-10 and provide a boost to economic activity of around 0.5 per cent of Gross Domestic Product (GDP) in 2008-09 and to 1 per cent of GDP in 2009-10. The key measures funded by the plan include:

- rebates for installing ceiling insulation in 2.7 million Australian homes and increases in existing rebates for solar and heat pump hot water systems — $3.9 billion;

- new buildings and/or upgrades to existing buildings in both government and non-government schools — $14.7 billion;
- 20 000 new social housing dwellings and around 800 new houses for the Australian Defence Force, including upgrades and maintenance for existing social houses — $6.7 billion;
- an additional $2.7 billion temporary Small Business and General Business Tax Break that expands and extends the temporary investment allowance announced in December 2008 as part of the Nation Building package;[3] and
- additional funding for local community infrastructure and local road projects — $890 million.

In addition, it includes $12.7 billion one-off cash payments to eligible families, single workers, students and drought affected farmers, much of which are considered not to provide direct benefits to industry (Rudd 2009b).

4.6 Policy reviews

The Government initiated a number of reviews that potentially have implications for government assistance to industry. Some of these have concluded, while others are still in progress, with reports due to be delivered to the Government during 2009.

Quarantine and biosecurity

In February 2008, the Minister for Agriculture, Fisheries and Forestry announced an independent review of Australia's quarantine and biosecurity systems (the 'Beale' review) (Burke 2008a). A panel was appointed to undertake the review and to provide recommendations to the Government by late July 2008 (later extended by two months) (Burke 2008f). The review's terms of reference required the panel to make recommendations on the appropriateness, effectiveness and efficiency of: the

[3] Small business entities need to invest a minimum of $1000 to qualify for the Tax Break. All other businesses need to invest a minimum of $10 000. The Tax Break is available for new tangible depreciating assets and new expenditure on existing assets. Where an eligible asset is acquired between 13 December 2008 and the end of June 2009, and is installed ready for use before the end of June 2010, it will qualify for a tax deduction of 30 per cent of the cost of the asset, in addition to the normal depreciation deduction for the asset. An eligible asset acquired between the start of July 2009 and the end of December 2009, and installed ready for use by the end of December 2010, will qualify for a tax deduction of 10 per cent of the asset's cost, in addition to the normal depreciation deduction for the asset. The estimated cost of the two business tax concessions announcements (as part of the Nation Building Package and Nation Building and Jobs Plan) is $3.8 billion.

current arrangements to achieve Australia's 'Appropriate Level of Protection'; public communication, consultation and research and review processes; resourcing levels and systems and their alignment with risk in delivering requisite services; and governance and institutional arrangements to deliver biosecurity, quarantine and export certification services (including the functions of the Australian Quarantine and Inspection Service and Biosecurity Australia).

The panel's report, delivered to the Minister in September 2008, was released by the Government in December 2008 together with its preliminary response to the report's findings. The Government accepted in-principle all 84 recommendations from the report. Further consultation is being undertaken on how best to implement the findings and fund the reforms (Burke 2008t). The key recommendations included:

- share the responsibility between the Commonwealth, states, territories, industry and the broader community across the biosecurity continuum;
- share the costs of biosecurity, including commitment by all industries to share the costs of pest and disease response actions;
- create a new national authority to bring together the major functions of Biosecurity Australia, the Australian Quarantine and Inspection Service and parts of the Department of Agriculture, Fisheries and Forestry;
- establish a national biosecurity standards commission to assess the biosecurity risk of imports, with greater emphasis on risks to human health and the environment;
- develop new biosecurity legislation to replace the Quarantine Act 1908;
- appoint an Inspector-General of Biosecurity with broad powers to audit and investigate the (new) authority's work;
- improve the coordination of the Commonwealth, States, Territories and industry to better monitor biosecurity after goods and people enter the country;
- target strategies and resources based on the biosecurity risk and recognise businesses that maintain an excellent compliance record by reducing regulatory burden;
- establish a new council of experts to advise the government on biosecurity matters; and
- increase funding for biosecurity together with significant information technology upgrades and costs shared between businesses (through cost recovery) and taxpayers (through the Commonwealth budget).

Pharmaceuticals Partnerships Program

The Pharmaceuticals Partnerships Program (P^3) was introduced in 2004, following a review by the Productivity Commission of the forerunner program (the Pharmaceutical Industry Investment Program). P^3 provided for $150 million over five years to induce pharmaceuticals R&D in Australia and associated partnerships, and collaborations with multinational firms and local companies. Under the program, for each dollar spent on 'additional' eligible R&D activity, eligible companies receive up to 50 cents in government support.

In May 2008, the Department of Innovation, Industry, Science and Research released an evaluation report by Deloitte Insight Economics on the appropriateness, effectiveness and efficiency of the PPP over its first three years (DIE 2008). The report recommended that:

- the program not be renewed in its current form when it is due to end in June 2009; and
- as a pre-condition to the development of any new sector–specific program to support R&D in the pharmaceuticals sector, compelling evidence should be presented to demonstrate why such a program should be developed in preference to a more broadly available program.

In late May 2008, the Australian Government also announced the establishment of the Pharmaceuticals Industry Strategy Group (PISG) to examine the drivers and barriers to attracting new manufacturing, R&D and investment in clinical trials in the pharmaceuticals sector in Australia. The PISGs report, delivered to the Minister for Innovation, Industry, Science and Research in December 2008, was released by the Government in January 2009 (Carr 2008f and Carr 2009). Recommendations specifically relating to the industry included:

- there be a co-investment scheme for strategic projects;
- the Australian Government implement the recommendations of the National Innovation System Review in relation to a Competitive Innovation Grants program and improve access to venture capital; and
- the regulatory and operating environment for clinical trials be streamlined to increase Australia's attractiveness as a location for this activity.

More general recommendations included: that the Review of Australia's Taxation System consider reducing Australia's corporate tax rate to encourage more pharmaceuticals manufacturing; and the Government's response to the Review of Australian Higher Education examine ways to reduce the skills gaps in the industry and to promote improved collaboration between industry and research sectors.

Australia’s taxation system

In May 2008, the Australian Government announced a comprehensive review of Australia’s tax and transfer system. A primary objective of the Government in conducting the review is to create a tax and transfer system that positions Australia to effectively deal with the demographic, social, economic and environmental challenges facing Australia. The review follows the 2020 Summit which proposed a comprehensive review of State and Federal taxes to consider measures to harmonise and simplify taxes, reduce inefficient taxes, ensure a progressive system and address negative interaction with the welfare system (Swan 2008b)

The review is required to make recommendations to enhance overall economic, social and environmental wellbeing, with a particular focus on ensuring there are appropriate incentives for:

- workforce participation and skill formation;
- individuals to save and provide for their future, including access to affordable housing;
- investment and the promotion of efficient resource allocation to enhance productivity and international competiveness; and
- reducing tax system complexity and compliance costs.

With particular significance for the Commission’s assistance estimates, the review is required to consider all relevant tax expenditures including those affording assistance to industry. Currently, tax expenditures comprise around 45 per cent of the budgetary assistance estimates compiled by the Commission (chapter 2).

The review panel is to deliver its final report to the Treasurer in December 2009.

Drought policy

In June 2008, the Productivity Commission was asked to undertake a public inquiry into the current government drought support arrangements in Australia. The Commission was asked to identify the most appropriate way for governments to assist farmers, farm businesses and farm dependent rural small businesses to improve their self-reliance and preparedness for drought events. Among other matters the Commission was requested to: report on the appropriateness, effectiveness and efficiency of the Commonwealth, State and Territory governments’ business support and income support measures; identify impediments to improving self-reliance and preparedness for periods of financial difficulty and identify the most appropriate, effective and efficient responses by Commonwealth, State and Territory governments, to build self-reliance and preparedness to manage drought.

The inquiry is part of a national review of drought policy that included:

- an expert panel's assessment of the social dimensions of the impacts of drought and the extent and range of current government and non-government social support services available to farm families and rural communities; and
- the Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation's assessment of what a changing climate would mean for drought in Australia and the appropriateness of using the concept of exceptional climatic circumstances to trigger the availability of assistance measures.

The Commission's draft report was released on 30 October 2008. The Commission recommended that the Australian, State and Territory governments should enter into an agreement that: committed the Australian Government to providing specified forms of funding through the Australia's Farming Future initiative; and committed all governments not to re-introduce or maintain reactive business support for farmers and farm-dependent businesses.

Other findings and recommendations included:

- the Exceptional Circumstances (EC) declaration process is inequitable and unnecessary;
- EC interest rate subsidies and state-based transport subsidies are ineffective, can perversely encourage poor management practices, and should not be continued;
- EC household relief payments are limited to those in drought declared areas, and should be replaced with conditional, temporary income support that is available to all farm households in financial hardship;
- the National Drought Policy should be replaced with revised and extended objectives for the Australia's Farming Future program;
- the Farm Management Deposits Scheme has encouraged farmers to save and to be more self reliant, and should be retained; and
- significant public funding should be directed to research, development and extension and to a continuous learning program, to provide advice and training for managing climate variability.

The Commission's final report was delivered to the Australian Government on 27 February 2009.

Film tax offsets

Division 376 of the *Income Tax Assessment Act 1997* (ITAA) provides that companies may be entitled to one of three refundable tax offsets in relation to Australian expenditure incurred in making films. The offsets are designed to support and develop the Australian screen media industry by providing concessional tax treatment for Australian expenditure. The offsets are the producer offset, the location offset, and the post, digital and visual effects production offset. These offsets, together with other support for the film and television production sector were discussed in more detail in *Trade & Assistance Review 2006-07*.

Section 376-275 of the ITAA requires the Minister to:

> '… initiate a review of the effect of this Division in relation to levels of production by the Australian independent production sector compared to levels of production by the Australian television broadcaster'. (Treasury 2008b, p. 1)

The requirement to conduct a statutory review reflects concerns raised by the independent film production sector that the offset would result in a shift towards in-house production by the commercial television broadcasters at the expense of the independent production sector.

The Australian Government initiated this review in October 2008 and a review report was released in April 2009. The report found that it was too early to draw any significant conclusions as to the effect of the film tax offsets on Australian television production. Based on the evidence available, the report found that the introduction of the film tax offsets has not affected the balance of television production between in-house production companies and the independent production sector (Treasury 2009b).

Restrictions on parallel importation of books

In November 2008, the Australian Government announced that it had requested the Productivity Commission to examine the provisions of the *Copyright Act 1968* that restrict the parallel importation of books into Australia. This announcement follows an earlier COAG agreement that the Commonwealth would request the Commission to undertake a review of the restrictions (Bowen 2008).

Under the *Copyright Act 1968*, authors and publishers who create a book are automatically entitled to a number of 'exclusive rights' over their work. Copyright protection of a book makes it illegal for others to make copies of that book without the permission of the copyright holder. Other provisions in the Copyright Act — the parallel import restrictions — allow Australian copyright holders to prevent the importation for sale of copies of their works that have been legally produced and purchased overseas.

The terms of reference for the review require the Commission to examine and provide recommendations in a number of areas in relation to the parallel importation restrictions including: the extent to which the provisions promote and achieve the objectives of the Copyright Act; whether the provisions amount to a restriction on competition; if so, the costs, benefits and effects of the restriction; whether the benefits to the community from the present provisions outweigh any costs from restricting competition; and any identified options for reform, including non-legislative approaches, and any transitional arrangements.

In March 2009, the Productivity Commission released its discussion draft into Restrictions on the Parallel Importation of Books (PC 2009b).

Anti-dumping and countervailing measures

In March 2009, the Australian Government announced that it had requested the Productivity Commission to undertake an inquiry into Australia's anti-dumping and countervailing system. This announcement followed an earlier COAG agreement that the Commonwealth would request the Commission to undertake a review of Australia's anti-dumping system (Bowen 2009).

The terms of reference for the inquiry require the Commission to assess the policy rationale for, and objectives of, Australia's anti-dumping and countervailing system, and to assess the effectiveness of the current system in achieving those objectives. The Commission's study will also involve an examination of the economy-wide costs and benefits of Australia's anti-dumping and countervailing system including its impact on Australian industry, consumers and the broader community. The Commission is also required to make recommendations on the appropriate future role of an anti-dumping and countervailing system within the Government's overall policy framework.

The Commission will issue a draft report in September and a final report to the Government in December 2009.

Information on the number and nature of recent anti-dumping and countervailing cases in Australia is presented in appendix B.

4.7 Summing up

Since November 2007, the Australian Government has announced substantial new spending with potential implications for industry assistance. Most proposed outlays are planned to occur within the next five years, although some will extend further, such as budgetary assistance to the MVP industry.

Of these identified outlays, around $20 billion is generally associated with traditional forms of Australian Government assistance to industry reported each year in the *Trade & Assistance Review* such as specific support to primary and manufacturing industries, research and development and innovation. Around $5 billion (of the $20 billion) is associated with ongoing programs, with the remainder being new expenditures.

A further $15 billion of proposed new outlays is to support the provision of infrastructure and regional development, including through the Building Australia Fund and Regional and Local Community Infrastructure program. In addition, the Government has made a commitment to support the development of an Australian broadband network. These various commitments will have a range of impacts on industry, some of which would confer assistance either to recipients or user industries. The level of assistance and its incidence, however, is often difficult to determine and would depend on factors such as: the level of government contributions and the risks transferred to the private sector; user charges relative to the costs of service provision; and the public good nature of the infrastructure.

The remaining $60 billion relates to measures announced in response to the global financial crisis — the Economic Security Strategy, Nation Building package, and Nation Building and Jobs plan. Some elements of these packages would not be considered industry assistance, such as the one-off cash payments to individuals and eligible families totalling about $20 billion.

Further to the above industry-related proposals, the Australian Government has announced other measures which may benefit industry including the guarantee of bank deposits and wholesale term funding of ADIs, the purchase of residential mortgage backed securities, and assistance to car dealer financiers.

5 Measures related to carbon emission reduction

All Australian governments have enacted policies that aim to reduce greenhouse gas emissions with the intent of averting damaging climate change. Governments have mandated the supply of minimum quantities of renewable energy, funded research into clean-coal technologies and subsidised the installation of solar hot water systems. In addition, the Australian Government proposes to implement the Carbon Pollution Reduction Scheme (CPRS), encompassing an Emissions Trading Scheme (ETS) and a number of transitional assistance programs. These measures have the potential to deliver benefits by contributing to a global reduction in harmful greenhouse gases. Many of these measures also directly or indirectly assist certain sectors of the economy, while penalising others.

Previous editions of *Trade & Assistance Review* have reported on a number of carbon emission reduction measures. The *Trade & Assistance Review 2006-07* noted that assistance to renewable energy is significant and increasing, and provided by both Australian and State Governments, in many different forms (PC 2008c). It further stated that a review of these measures could usefully consider the merits and effectiveness of assistance for renewable energy.

The Commission has also recently commented on climate change policy through:

- a submission to the Prime Ministerial Task Group on Emissions Trading (PC 2007d);
- an assessment of the methodology of the Stern Review (Baker et al. 2008); and
- a submission to the Garnaut Climate Change Review on the role of policies to supplement an emissions trading scheme (PC 2008f).

In addition, in August 2008, the Commission held a roundtable on *Promoting Better Environmental Outcomes* (PC 2009a).

This chapter draws on this work, and other more recent analysis, to provide preliminary estimates of the size and value of carbon emission reduction measures. Although the Commission has not estimated effective rates of assistance relating to these measures, it has identified 244 measures and more than $23 billion in projected budgetary assistance, mainly over the five years to 2011-12. In addition, the proposed Carbon Pollution Reduction Scheme will introduce a charge on carbon emissions, estimated to generate $12 billion in 2011-12.

5.1 Measuring the impact of carbon emission reduction measures

The Commission has traditionally calculated rates of assistance by comparing a sector's returns with what those returns would have been in the absence of the assistance. These estimates indicate the extent to which a sector's returns are altered by government assistance.

Carbon emission reduction measures similarly attempt to change incentives, such that emitters of greenhouse gases face a cost associated with greenhouse gas emission, and that investors in carbon-saving technologies make a return associated with reducing greenhouse gases. In the absence of such measures, some emission-intensive activities would be undertaken for which the social costs, from a global perspective, outweigh the benefits. Or to put it another way, those investing in carbon-reducing methods would be penalised, as the full benefits of their decisions would not be rewarded.

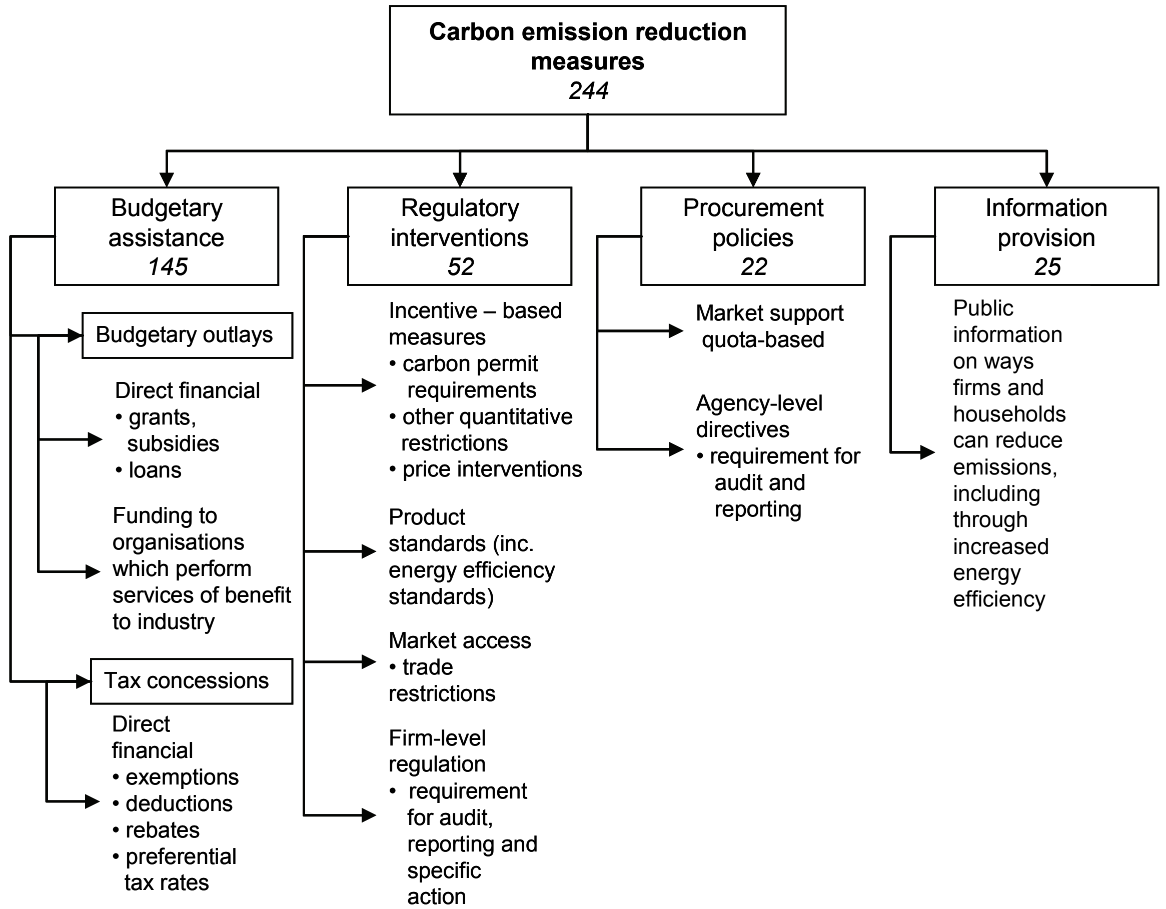
Carbon emission reduction measures selectively change the incentive structure faced by industry and consumers, and these changes can be represented within an industry assistance framework. Many of the measures have only recently been introduced, or are yet to be introduced, so the Commission has not comprehensively reported carbon emission reduction measures in an assistance framework.

To make a start on this, the present chapter reports a preliminary stocktake of carbon emission reduction measures (section 5.2); examines the assistance implications of these measures (section 5.3); and examines the processes for the evaluation and review of these measures (section 5.4). It helps to fulfil the role of the *Trade & Assistance Review* to '… report on assistance and regulations affecting industry and the effect of such assistance and regulations on industry and on the economy as a whole.'

5.2 Level and nature of measures

Government interventions aimed at addressing carbon emissions are a diverse array of budgetary, regulatory and other actions (figure 5.1).

Figure 5.1 **Forms of government intervention related to carbon emissions**



Establishing whether an assistance measure is intended to reduce carbon emissions is not clear cut, however. Some measures have objectives beyond carbon emission reduction and, while other measures do not deliver direct assistance to an industry, they do mandate standards or provide incentives to use more environmentally friendly products. Some guidelines that the Commission has used in identifying measures that would be appropriately included in the stocktake are provided in box 5.1.

Using these guidelines, the Commission has identified a total of 244 (quantified and non-quantified) current or prospective measures relating to carbon emission reduction, administered by 56 different departments or agencies. Of these, the Commission has quantified the assistance value of 135 measures, amounting to $23.7 billion in projected budgetary assistance and a further 4 measures comprising $470 million in regulatory assistance in 2009 (in maximum subsidy equivalent terms). These estimates are explored in more detail below.

The 244 measures comprise 145 budgetary assistance programs (including proposed permit exemptions), 52 regulations, 22 government procurement measures and

25 programs of information provision. Appendix C contains more details on all of these measures.

Box 5.1 **Coverage of this stocktake**

For the purposes of this preliminary stocktake, the Commission has relied on the following guidelines to compile a catalogue of existing and prospective carbon emissions reduction assistance measures:

- Is an objective of the measure, in whole or in part, to reduce carbon emissions or to assist firms to adjust to a lower carbon economy?
- Does the measure selectively assist particular firms, industries, sectors or activities? In particular, even if assistance is directed at households, does it *selectively* assist particular firms, industries, sectors or activities?
- Can the measure be quantified given practical constraints in measurement and data availability?

For inclusion under these guidelines, measures must have both the requisite objective and be selective in their assistance impact. They do not need to involve *direct* assistance to industries, sectors or activities. So, for example, measures that provide rebates to households to install insulation, while not directly assisting the insulation industry, indirectly do so, and are included in this stocktake. In contrast, broader energy market reform measures (such as the installation of smart energy meters) are typically not included.

The Commission has also identified a number of measures that meet the above guidelines, except that they have not been able to be quantified at this stage. These largely relate to regulations, procurement guidelines and information provision policies. These measures are separately reported in appendix C and are not included in the figures presented in this chapter, unless otherwise stated.

Furthermore, where possible, the Commission has included both existing measures, and measures that governments are currently proposing to introduce. For example, the Commission has included the effects of the Australian Government's proposed CPRS as it is expressed in draft legislation released in March 2009 and in the Australian Government White Paper, *Carbon Pollution Reduction Scheme: Australia's low pollution future*, released in December 2008 (Australian Government 2008c and DCC 2009).

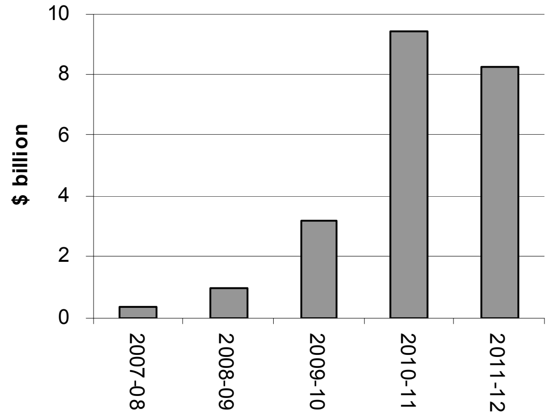
In addition, this preliminary stocktake is intended to provide a useful, illustrative guide to the extent and size of carbon emission reduction measures. However, as some measures have multiple objectives, the quantitative estimates may be an upper-bound estimate of the carbon emission-related aspects of those measures. On the other hand, it has not been possible to quantify the value of assistance afforded by most regulatory interventions, procurement guidelines or information provision measures, nor are forward estimates available for all programs. To this extent, the estimates presented understate levels of assistance.

Budgetary assistance

Aggregate estimates

Figure 5.2 **Australian Government budgetary assistance for carbon emission-related measures, 2007-08 to 2011-12**

$ billion



Source: Commission estimates.

Australian Government budgetary assistance measures are estimated at $342 million in 2007-08, increasing to a projected $8.2 billion by 2011-12 (figure 5.2). Total budgetary assistance for the period, from 2007-08 to 2011-12, is estimated at $22.2 billion. These projections assume the implementation of proposed measures such as the CPRS.

The introduction of the CPRS would result in permit exemptions becoming the largest form of budgetary assistance. By 2011-12, Commonwealth permit exemptions will constitute almost 50 per cent of all budgetary assistance. This includes $3.1 billion of permit exemptions to firms in the Emissions-Intensive, Trade-Exposed (EITE) sector, and $700 million in assistance to Strongly Affected Industries.

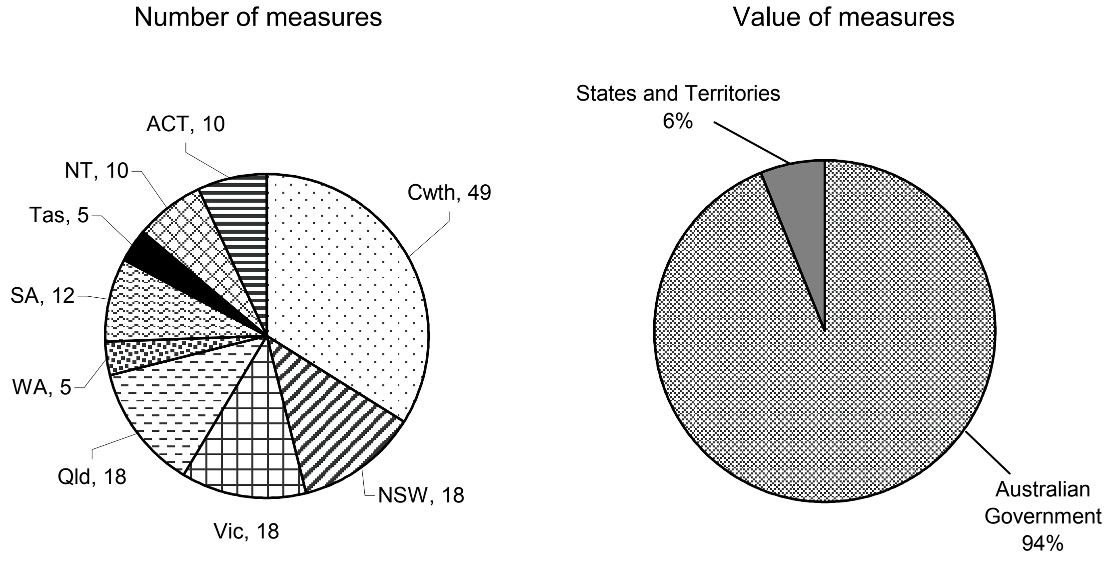
Nonetheless, even before the proposed start date of the CPRS, a range of smaller measures would see Commonwealth budgetary assistance more than triple in 2009-10. Some of this increase occurs because of additional funding to install insulation ($1.4 billion), the Green Car Innovation Fund ($168 million) and ethanol production grants ($60 million). A total of 21 programs receive additional funding in 2009-10.

The Commission's estimates do not include measures that support the use of Liquefied Petroleum Gas (LPG), Liquefied Natural Gas or Compressed Natural Gas. Such measures amounted to $943 million in budgetary assistance in 2007-08, but were not implemented with an objective to reduce carbon emissions, so they have not been included in this stocktake.

From 2007-08, the Commission estimates that State and Territory Governments have spent or allocated $1.4 billion in budgetary assistance, over the medium term, relating to carbon emission reduction measures. In some instances it has not been possible to allocate the proposed expenditure to an expenditure year and some of it may be spent beyond 2011-12. Further, part of this estimate captures money set aside for funds to finance ongoing carbon emission reduction measures.

Budgetary assistance delivered by State and Territory Governments represents only 6 per cent of the total amount of budgetary assistance estimated in this stocktake. Yet, the number of State and Territory government budgetary programs is nearly double the number of Commonwealth programs (figure 5.3).

Figure 5.3 **Australian governments budgetary assistance measures by number and by value**



Source: Commission estimates.

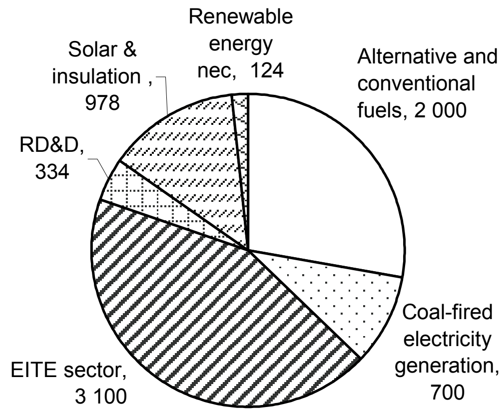
State and Territory budgetary assistance focuses mainly on subsidies to selected activities or for the use of products with low levels of carbon emissions. Some of the largest measures include rebates for the installation of hot water systems in New South Wales ($100 million), funding for a solar power station in Victoria ($100 million) and funding for households to monitor and reduce their energy use in Queensland ($60 million to 2011-12).

In addition to the budgetary programs, Australian and State and Territory Governments implement regulations, procurement processes or information provision programs focused on greenhouse gas emissions. Such programs are more common at the State and Territory level.

By 2011-12, several major programs of industry-specific assistance are expected to have commenced as part of the CPRS, and under the Nation Building and Jobs Plan.[1] Taking a snapshot of projected assistance for that year, the largest share of budgetary assistance will be provided to selected EITE industries and firms (figure 5.4). Expenditure under this program is intended to protect these firms from the potential for carbon leakage and is estimated at $3.1 billion in 2011-12. Other measures include $2 billion to adjust fuel excises to offset the impact of the CPRS and $700 million for coal-fired electricity generation.

Figure 5.4 **Australian Government budgetary assistance, related to carbon emissions by assistance category, 2011-12**

$ million



RD&D Research, Development and Demonstration nec Not elsewhere classified.

Source: Commission estimates.

Carbon Pollution Reduction Scheme

As shown above, the proposed CPRS contains the largest of the measures intended to reduce carbon emissions. Under the proposed Scheme, firms emitting over 25 000 tonnes of designated greenhouse gases a year would be required to surrender emission permits equal to their annual volume of emissions, with Scheme requirements upheld by criminal sanctions.

The purchase of permits by liable firms is estimated to raise $11.5 billion in revenue in 2010-11 and $12.0 billion in 2011-12 (table 5.1). Emissions from agriculture and deforestation activities will be initially exempt from the Scheme, although most farms have emissions below 25 000 tonnes in any case.

[1] Under the National Building and Jobs Plan, the Australian Government has allocated $3.9 billion to provide rebates for the installation of ceiling insulation and solar and heat pump hot water systems (see chapter 4).

Table 5.1 **CPRS measures impacting on costs to industry**

$ million

	2009-10	2010-11	2011-12
	Cost increasing measures		
Permit payment by industry	na	11 500	12 000
	Cost reducing measures		
Fuel tax adjustment	na	2 400	2 000
Assistance to EITE sector	na	2 900	3 100
Assistance to Strongly Affected Industries	na	700	700
Climate Change Action Fund[a]	300	700	700

na Not applicable. [a] Only a portion of this fund will be available to reduce costs to industry as the fund also assists community sector organisations, workers, regions and communities.

Source: Australian Government (2008c).

The cost of purchasing permits, which effectively acts as a negative form of assistance for liable firms, will be partially offset for some firms according to their degree of emissions-intensity, their level of trade-exposure and other considerations such as potential loss in asset values due to carbon pricing. The offsets will provide selected assistance and be provided in the form of:

- fuel excise adjustment (worth $4.4 billion in total for 2010-11 and 2011-12) for the use of most conventional fuels such as diesel, petrol and LPG;
- free permits (worth $6 billion in total for 2010-11 and 2011-12) to firms that meet certain criteria for emissions-intensity and trade-exposure; and
- "once-and-for-all" assistance ($1.4 billion in 2010-11 and 2011-12, and $3.9 billion over the first five years of the Scheme) to 'strongly affected' industries, effectively coal-fired electricity generators that are above a certain emissions-intensity.

Additional transitional assistance is proposed for other industries and sectors. The Climate Change Action Fund (worth $2.15 billion over five years) will provide assistance for a range of businesses, community sector organisations, workers, regions and communities, to support investment in energy efficiency, low emission technologies and structural adjustment. Adjustment assistance to the coal sector (worth $750 million over five years) will be provided under the program to assist mines that will be significantly impacted by the introduction of the Scheme.

In addition, assistance to low and middle income households (estimated at $3.9 billion in 2010-11 and $6 billion in 2011-12), aims to 'maintain their standard of living while moving to a low pollution future' (Australian Government 2008c, p. 17-1). Because this measure constitutes assistance to households that does not selectively assist a particular firm, industry, sector or activity, it is not included in this stocktake.

Non-budgetary measures

In addition to the budgetary assistance measures identified above, others provide assistance through non-budgetary means:

- Mandatory targets prescribe that a certain amount of energy is sourced from renewable or low-emission technologies.
- Some jurisdictions have introduced 'feed-in' tariffs that prescribe higher prices for electricity sourced from small-scale, low-emission generators.

In addition, other regulations, procurement processes and information provision policies are sometimes aimed at reducing carbon emissions, though the Commission has not been able to quantify their impact. Appendix C contains more details on these measures.

Mandatory targets for renewable and low emission energy

The Australian, Victorian and Queensland Governments have mandated targets for the supply of renewable or low emission energy. These targets directly affect the mix of electricity generation and support the development of lower-emission energy sources.

- The Australian Government's Mandatory Renewable Energy Target (MRET), requires wholesale purchasers of electricity (retailers and large users) to proportionately contribute towards the generation of an additional 9500 gigawatt hours (GWh) of renewable energy annually by 2010 (box 5.2).
- The Victorian Renewable Energy Target (VRET) mandates that 10 per cent of Victorian electricity consumption be sourced from renewable energy generators by 2016, with the scheme legislated to continue until 2031.[2]
- The Queensland Gas Scheme mandates that electricity retailers, and other liable parties, source 13 per cent of their electricity from gas-fired generation. In addition, the Queensland Government's Renewable and Low-Emissions scheme mandates that 10 per cent of Queensland's electricity consumption be sourced

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[2] VRET applies in Victoria in addition to the requirements of MRET. Therefore some Victorian generators and retailers will participate in both schemes (ESC 2009).

from renewable and low-emission generators by 2020, with the scheme legislated to continue until 2030.

New South Wales, Western Australia, South Australia and the ACT all have proposed to introduce similar schemes.

Box 5.2 **The MRET scheme**

MRET is an Australian Government requirement on large, wholesale purchasers of electricity to proportionately contribute towards the generation of an additional 9500 GWh of renewable energy annually by 2010. Introduced in 2001, the scheme is legislated to continue until 2020.

Wholesale purchasers meet their obligations through the surrender of renewable energy certificates (RECs) or by paying a shortfall charge (of $40) for each MWh of their liability.

RECs are created by sourcing energy from:

- renewable energy power stations, including hydro, wind, solar and various biomass sources (though power stations existing prior to 1997 must generate electricity above established baselines to generate RECs);
- eligible solar hot water systems according to the amount of electricity they displace; and
- small generation units such as photovoltaic systems, mini electric hydro systems and small wind systems.

Source: Office of the Renewable Energy Regulator (2008).

The COAG Working Group on Climate Change and Water has developed a proposal for an expanded, nationally-consistent renewable energy target scheme. The proposed scheme is intended to consolidate the Australian Government's mandatory renewable energy target, and existing and proposed State and Territory government targets. The scheme proposes a Renewable Energy Target (RET) of 45 000 GWh of renewable energy by 2020 and is designed as a transitional measure, phasing out between 2025 and 2030, as the emissions trading scheme 'matures'. The scheme also proposes to provide additional incentives to small generation units. Over a transitional period, electricity generated by such units will receive multiple RECs for every 1 MWh generated. Draft legislation for the proposed scheme was released in December 2008 (DCC 2008).

In addition to these renewable energy schemes, New South Wales and the ACT have established programs that aim to reduce emissions from a broader range of sources. Under these schemes suppliers can choose to meet their obligation to reduce emissions through the surrender of tradeable abatement certificates. The schemes target a set reduction in greenhouse gases each year.

Under each of the above schemes, suppliers who do not meet the designated targets must pay a shortfall charge per megawatt hour (MWh). While suppliers who can meet the requirements at a cost less than the shortfall charge will presumably do so, these shortfall charges and targets together determine the maximum effective subsidy to renewable or low emission energy implied by each scheme. For the MRET the maximum effective subsidy would be the product of 8100 GWh (the annual target) and $40 per MWh (the shortfall charge).[3] The level of maximum effective subsidy of these schemes can be as high as several hundred million dollars a year (table 5.2).

Table 5.2 **Assistance provided by selected quota-based schemes**

Measure	*Target in 2009*[a]	*Shortfall charge*	*Maximum effective subsidy*[b]	*Start date*	*Finish date*
		$ in 2009	$m		
MRET	8 100 GWh renewable	40 per MWh	324	2001	2010
VRET[c]	578 GWh renewable	46 per MWh	27	2007	2031
NSW GGAS	9.7 Mt CO_2-e reduction[d]	12 per t of CO_2-e	117	2003	2020[e]
ACT GGAS	0.2 Mt CO_2-e reduction[d]	12 per t of CO_2-e	3	2005	2020
Proposed RET	12 500 GWh renewable (in 2010)	40 per MWh[f]	500	2010	2030

[a] Legislated targets vary by year. [b] The maximum effective subsidy to renewable energy production is determined by the annual production target multiplied by the legislated shortfall charge. [c] The Victorian Government has indicated that it will only transition VRET into the proposed, national RET scheme, if the RET ensures a level of support at least equal to that provided to Victoria under VRET (Victorian DPI 2009). [d] The target of the New South Wales and ACT schemes is an abatement target, here expressed in Mega tonnes of carbon-equivalent emissions reduction. [e] While the NSW Government has committed to extending the targets to 2020, it has indicated that the Scheme will end on the commencement of the CPRS (IPART 2009b). [f] This estimate is based on the current shortfall charge for the MRET of $40 per MWh. The commentary to the draft legislation proposes to apply a rate that is 'marginally above the projected peak REC price' (DCC 2008).

Source: Commission estimates; Australian Government (2008c); IPART (2009a, 2009b) and Victorian DPI (2009).

These estimates represent an upper bound of the annual effective subsidy of the targets. However, other costs and benefits to regulated firms or their competitors may arise. For example, a recent Commission research report (the *Annual Review of*

[3] The calculations for the NSW and ACT Greenhouse Gas Abatement Schemes are slightly more complicated. These schemes mandate set reductions in carbon equivalent emissions per person, from a baseline level. The maximum effective subsidy is calculated here by the product of the reductions from the baseline, the State or Territory population and the shortfall penalty.

Regulatory Burden on Business: Manufacturing and Distributive Trade) noted concerns about the administrative costs imposed by MRET and the uncertainty around the tax treatment of certificates (PC 2008g).

Price-based market support

A number of jurisdictions have mandated a premium tariff for electricity fed into the grid by small generation units, such as photovoltaic rooftop systems. (As noted above, small-scale generation units will also receive concessional treatment under the proposed RET scheme.)

- In Queensland and South Australia, eligible solar generators receive 44 cents per kilowatt hour (kWh) for *net* electricity generated. At the time of the scheme's introduction in Queensland, this rate was around three times the existing domestic use tariff. Both of the schemes are proposed to last until 2028.
- In the Northern Territory, through the Alice Springs Solar City project, residents can access a *gross* feed-in tariff of 45.76 cents per kWh for systems up to 2 kW capacity, capped at $5 per day.
- In the ACT, from March 2009, eligible generators with units up to 30 kilowatt installation capacity will receive, for *total* electricity generated, an initial rate of 50.05 cents per kilowatt hour. This rate is set at 3.88 times the most common price paid by the ACT electricity users, and it is to apply for a period of 20 years after connection to the grid.
- In Victoria, the proposed scheme (to commence in 2009) mandates that eligible generators, with systems up to 2 kilowatt installation capacity, receive for *net* electricity supplied to the grid, a rate of 60 cents per kilowatt hour, which is about four times the standard retail rate. The scheme will run for 15 years through to 2024.

COAG has recently agreed on a set of national principles to apply to these feed-in tariffs (COAG 2008). One element of these principles is that such schemes should be transitional in nature, recognising that any future national emissions trading scheme will provide increasing support for low emissions technologies.

Summary

This stocktake has identified a total of 244 measures that are aimed at reducing carbon emissions and $23.7 billion in budgetary assistance. Measures other than budgetary assistance also have substantial assistance impacts through establishing quotas, or prescribing prices, for the use of low-emission energy, mandating standards or providing information to businesses and consumers.

There are two key characteristics that stand out from the stocktake of these measures:

- First, there are a significant number of carbon emission reduction measures and the funds allocated to these measures are comparatively large. If the CPRS and other proposed measures are implemented, this stocktake estimates budgetary assistance (relating to carbon emission reduction) at $8.2 billion in 2011-12. This compares to an estimate of *total* budgetary assistance to *all* industry of $8.3 billion in 2007-08 (chapter 2) — though this figure already captures some carbon emission reduction measures.
- Second, many of the measures are aimed at the same objective (say, for example, the installation of insulation or solar panels) and, because of this and other reasons, the effects of many of the measures are inter-related. Further, there are relationships between the measures identified in this stocktake, and other measures that more broadly relate to the regulation of the energy and transport sectors.

Against this backdrop, the next two sections respectively analyse some of the impacts of these measures from an assistance viewpoint, and examine the existing arrangements for the evaluation and review of these measures.

5.3 Assistance implications

As the previous section demonstrates, Australian governments have implemented, or are implementing, a range of measures aimed at reducing carbon emissions. Some of these are broad-based measures that change incentives for almost all sectors of the economy, while other schemes are narrowly targeted, providing assistance to specific industries or carbon-reducing technologies.

- First, the CPRS proposes to establish a price for carbon by imposing a limit on emissions. The trading of carbon permits will determine the carbon price (subject to a safety valve price or hybrid arrangement).[4] The price of carbon effectively establishes a pecuniary penalty, or ‘assistance tax’, on carbon emissions. The resulting carbon price provides a signal to businesses and households on the cost of carbon emissions and an incentive to adopt least-cost ways of reducing emissions.

4 The carbon price would be set according to costs of abatement at the margin of the cap. Other design features will also affect the carbon price. For example, allowance for the international trade of permits, or the possibility of banking and borrowing permits, will change the marginal costs of abatement and, hence, the carbon price.

- Second, the CPRS proposes to provide transitional assistance that, while not directly designed to reduce emissions, may assist some industries to adjust to a lower carbon economy. Under the CPRS, selected industries (such as EITE industries or Strongly Affected Industries) will receive temporary allocations of carbon permits. As discussed below, some of these measures risk muting the price signal explicit in the carbon price. By doing so they hold resources in emission intensive activities longer than might otherwise be the case, allowing a more gradual transition to lower emission activities.
- Third, Australian governments are providing a range of specific assistance to particular activities intended to reduce carbon emissions. For example, governments support a range of research and development activities that intend to find ways of reducing carbon emissions. Governments also directly subsidise some lower-emission activities.
- Fourth, governments attempt to alter the behaviour of businesses and consumers through regulation and the provision of information. Such regulation benefits those industries to which activities are directed and imposes costs on those industries whose activities are restricted.

Assessments of the assistance implications of carbon emission reduction measures provide scope for explicitly recognising the cost of carbon emissions and their likely impacts. While the measures are intended to afford a net benefit to the community through lower carbon emissions, from an assistance viewpoint, they may introduce distortions that affect different industries and sectors differently.

Interaction between carbon emission reduction measures

Different carbon emission reduction measures do not operate in isolation but interact with each other. Under a broad-based emissions trading scheme, carbon emission reduction is determined by the price of an additional unit of carbon and the relative costs of abatement relating to certain activities. Most firms and households are likely to undertake abatement activities that have marginal abatement costs below the carbon price. At the same time, however, this stocktake has identified 113 measures that stipulate particular methods of reducing carbon emissions. Of these, 81 provide direct budgetary assistance, involving $8.6 billion from 2007-08 to 2011-12, and a total of 22 programs (across all jurisdictions) subsidise the installation of solar panels or home insulation.

The selective specification of certain abatement activities has the potential to impose a higher total cost for a given reduction in carbon emissions. For instance, in the presence of an economy-wide cap on emission levels, supplementary measures will not generally reduce emission levels further. Instead, supplementary policies generally have one of two effects:

- they can encourage abatement activities that are below the carbon price and are likely to have occurred anyway; or
- they can alter the mix of abatement activities that occur by inducing activities that are more costly than the carbon price.

However, additional measures may be warranted where they can be demonstrated to meaningfully address gaps in a broad-based carbon response (box 5.3). Such gaps may occur where there are impediments to the efficient setting of a carbon price or there are informational or other impediments to firms and households efficiently reducing carbon emissions.

Where these gaps do not exist, supplementary measures that encourage activities that are below the carbon price generate additional policy-related costs without any additional decreases in carbon emissions. Supplementary policies that encourage more costly abatement activities would tend to put downward pressure on the carbon price, for a given level of aggregate reduction in emissions.

From an assistance viewpoint, a lower carbon price potentially disadvantages other industries that could otherwise profitably mitigate emissions. For example, suppose that a supplementary policy supports technologies that reduce emissions in cement production. Such a policy would not just advantage the cement industry, it would disadvantage the cement industry's competitors that have more accessible or cheaper emissions reduction options available. In addition, a lower carbon price will benefit firms that must buy carbon permits to produce.

The potential for distorted results is heightened when a large number of measures deliver differing rates of support to carbon reducing activities and impose differing penalties on carbon emissions. For example, five jurisdictions have announced premium feed-in-tariffs that support the installation of small generation units (such as rooftop solar photovoltaic systems, small wind turbines and micro-hydro systems) — by paying a higher price for electricity sourced from these units. Yet, the national RET scheme also proposes additional incentives for these units, by allocating more renewable energy certificates to them than for the same amount of energy sourced from other renewable sources.

Box 5.3 Possible rationales for supplementing broad based policies

Notwithstanding the benefits of a broad-based carbon price, other measures may, under certain circumstances, complement the response to carbon emission reduction. Given the potential for such policies to undermine the signals given by a broad-based carbon price, a rigorous examination of the costs and benefits of such measures would need to precede their implementation.

First, investments in carbon-reducing technologies (such as renewable energy or carbon capture and storage) may result in spillover benefits, if private investors are unable to earn a sufficient return on the development of such technologies (as others may be able to cheaply replicate innovations). Existing policies such as patent law and R&D assistance will help improve these incentives.

Second, broad-based schemes are likely to exclude some sectors due to the administrative costs of monitoring emissions. For example, the proposed CPRS does not, at first, cover the agricultural sector because:

> The agricultural sector is characterised by thousands of small emitters and the calculation of emissions is complex, so it would not be practical at this stage to cover those emissions directly. (Australian Government 2008c, p. xxix)

In these circumstances, other arrangements that encourage carbon reduction in uncovered sectors may be warranted to improve overall efficiency by lowering the adjustment burden on sectors covered by the broad-based scheme.

Third, in some circumstances, households or businesses may not make energy-efficient investments that would be more cost effective for them. For example, the public good characteristics of information provision may merit a role for governments to provide, or mandate that others provide, information on the energy efficiency of certain goods. Another reason is that consumers sometimes exhibit systemic biases in weighing up short-term costs versus long-term benefits.

Fourth, some industries may experience short-term difficulty in adjusting to a lower carbon economy. From an equity perspective, transitional assistance may be delivered to certain industries and sectors that are disproportionately affected by policy-induced reductions in carbon emissions. In addition, assistance to trade-exposed industries may be warranted ahead of a global response to carbon emissions (see below).

Fifth, other measures may beneficially supplement a broader response during a transition period to a more stringent carbon constraint. If businesses expect governments to provide further assistance once the more stringent constraint is in place, then they may have less incentive to adjust now.

Source: PC (2008d, 2008f).

Indeed, measures that encourage specific abatement activities at a state level can create additional distortions, as they not only designate types of abatement, they also often restrict the geographic location where abatement occurs. In addition, the multiple administrative arrangements for these schemes add to the compliance costs of achieving abatement. Such costs will not only be imposed on businesses and households that must navigate the array of different measures in place (and the changes that are made to these measures from time to time), but also fall on governments that must coordinate multiple programs. Across the nine Australian governments, 56 departments and agencies are responsible for administering the 244 carbon emission reduction measures identified by the Commission's stocktake.

Transitioning to a lower carbon economy

Transitional assistance typically shelters individual activities from the full cost of carbon emission reduction policies for a period of time by providing direct support to affected industries, sometimes in the form of subsidies to undertake certain activities. Often transitional assistance is argued for on equity grounds based on targeting those that experience hardship as a result of reform. The CPRS proposes $11.3 billion of assistance for strongly-affected industries and low and middle income households (over the three year period from 2009-10 to 2011-12) for these reasons.

However, it is difficult to design transitional assistance in ways that do not impede the adjustments that the original reform actually targets. For instance, often assistance cannot be directly targeted to those that require assistance. Disentangling the effects of any reform from the normal economic impacts that buffet industries from time to time is not always possible. As a result, proxy measures are often used to identify assistance recipients. Since these proxies can be imperfect, basing assistance on these measures risks prolonging the operation of inefficient activities. Even when those suffering harm can be identified, unless there is a strong commitment to make the assistance transitional, an inefficient cycle can persist when industries continually request assistance to take advantage of successive reform initiatives.

These issues are not unique to carbon emission reduction; they have been evident in many assistance programs tied to fundamental economic reforms. Transitional assistance packages delivered to the passenger motor vehicles, textiles, clothing and footwear and dairy industries are examples.

In the general context of national reform initiatives, the Commission has noted that adjustment assistance should be developed as a key part of a reform program in line with appropriately agreed principles. In contrast, designing adjustment assistance in an ad hoc way:

> … heightens the risk of inappropriate intervention, or failure to provide adequate and well targeted support when desirable. (PC 2005c, p. xxiv)

In the context of transitional assistance relating particularly to carbon emission reduction policies, there are specific issues relating to assistance provided to counteract carbon leakage (in the transition to a global agreement to constrain carbon emissions) and the manner in which revenues from the sale of carbon emission permits (and associated taxes) are returned to businesses and households.

Carbon leakage

Carbon leakage occurs if, after Australia introduces a carbon constraint, emissions intensive production that would have otherwise been performed in Australia shifts to countries that have less stringent carbon constraints. An example could be if an aluminium smelter were to relocate to a country that has not yet imposed a carbon price. Other examples include reductions in new investment or the refurbishment of existing facilities that instead shift to non-carbon constrained countries.

The effect of such shifts would be for global emissions not to fall by as much as intended by the domestically-introduced emissions cap (or even to rise, if the substituted production proved more carbon intensive). Further, the production that shifts because of carbon leakage may return once a global carbon constraint is in place. This creates the potential for a double adjustment effect during the transition to a carbon constrained global economy. These effects provide an in-principle rationale for measures that aim to prevent carbon leakage.

An economy's exposure to carbon leakage depends on its emissions intensity and the extent to which domestic firms can pass on the cost of carbon emission permits (partly determined by their exposure to competition from overseas suppliers). Activities assessed to be particularly exposed to carbon leakage have been designated 'Emissions-Intensive, Trade-Exposed industries' in Australian policy frameworks.

In response to the issue of carbon leakage, the Australian Government has proposed, as part of the CPRS, to grant transitional assistance to EITE industries in the form of free permits. New and existing entities undertaking an eligible EITE activity will receive an allocation of 60 or 90 per cent of emission permits based on their previous year's production and historical emissions. It is further proposed that these allocations will reduce by a 'carbon productivity dividend' of 1.3 per cent per year. Trade-exposure assessments and historical industry-wide emissions intensity data (for a process or activity) would be used to determine eligibility as an EITE activity. Allocations would be based on historical emissions with the intention that they do not create incentives for firms to maintain emissions at artificially high levels. The Australian Government has also proposed delivering further assistance to EITE firms disadvantaged by the proposed and expanded RET scheme (DCC 2008).

Nonetheless, such grants of emission permits afford assistance to the designated activities, raising returns and lowering the incentive to reduce production in those industries that receive assistance (box 5.4). However, as also described in box 5.4, policies that counteract carbon leakage will most likely transfer the abatement task to other sectors. This will impose additional costs on other firms that must buy permits to emit greenhouse gases.

In practice, determining the level of assistance to EITE activities is complicated by uncertainty about the extent of carbon leakage. A global carbon constraint would help abatement activities shift to where they impose the lowest costs. However, if Australia imposes a constraint ahead of other countries, production may shift to countries not because of cheaper abatement opportunities, but because firms in those countries do not pay the full price of their pollution. So, judging the extent of carbon leakage requires estimating a counter-factual: what activities would stay in Australia in the environment of a uniform and consistent global carbon constraint?

Accordingly, identifying activities that *may* contract, shut-down or shift offshore following the introduction of a domestic constraint is not sufficient. The test for carbon leakage is whether these shifts would still have occurred even if other countries efficiently constrained their carbon usage. The difficulty in forming these judgements make it likely that any policy response will at times fail to protect against carbon leakage and also at times provide assistance where no carbon leakage would have otherwise occurred.

The broader implications of transitional assistance

The provision of budgetary assistance comes at the cost of what else the government could have done with the revenue. Direct budgetary assistance requires governments to raise revenue from taxes that will generally impose broader distortions and consequent welfare losses. Likewise, concessions to revenue raising measures (such as the allocation of carbon permits without levying the permit price) potentially not only distort the allocation of economic resources, but also impose a cost reflected by the forgone revenue and opportunity to reduce distortive taxes. These ‘opportunity costs’ are substantial in the case of Australia’s proposed CPRS, given the significant value of the free permit allocations, other tax concessions and outlays proposed (a total of $6.5 billion in 2011-12, table 5.1).

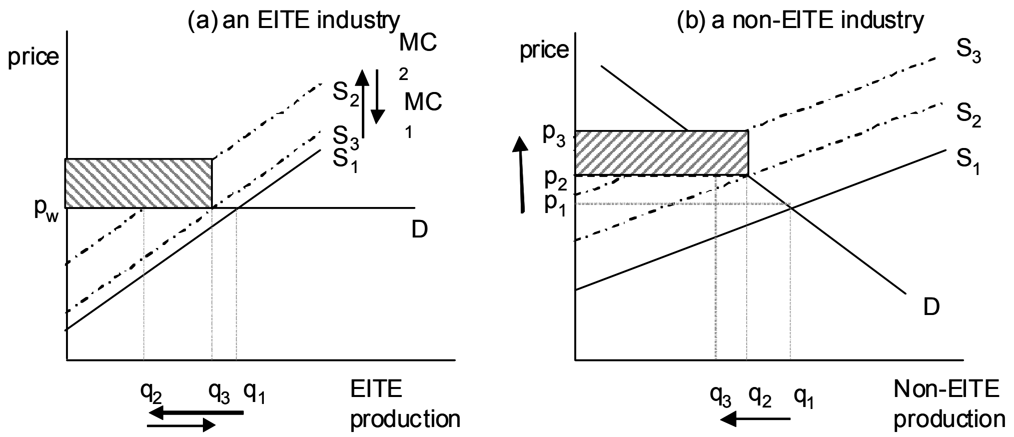
Box 5.4 **Stylised representation of the assistance implications of carbon leakage**

Policies that protect against carbon leakage (by reducing impacts on EITE industries) would transfer the abatement task to other sectors of the economy. Further, in the absence of international trade in emission reductions, this transfer would raise the domestic price of a carbon permit. This is because these measures constrain domestic abatement opportunities, concentrating the abatement task to a narrower section of the economy. The upshot is that providing protection against carbon leakage assists production and employment in some activities at the expense of other activities.

The impact of these ‘second round’ effects is shown in the stylised example below, where the solid lines indicate the status quo prior to the introduction of an ETS. (It should be noted that the diagrams are illustrative only, and the shifts in curves do not represent the expected magnitude of any changes.)

Since EITE industries are exposed to international trade they are likely to have little influence over the price of their output — this feature is represented by a flat demand curve, ‘D’ in panel (a). A unilaterally introduced ETS raises the costs of the EITE industry and shifts their supply curve to ‘S_2’ and reduces their production to ‘q2’. However, if the EITE industry is granted permits to offset these increased costs, their costs (and hence supply curve) will shift back to ‘S_3’. The amount of the assistance is represented by the shaded area. The size of the assistance depends on the firms’ previous year’s production and the ability of an EITE industry to substitute to non-carbon intensive inputs. Indeed, if substitution possibilities are significant, it is possible that production may increase beyond pre-ETS levels.

For non-EITE industries that purchase carbon permits, the ETS originally raises their costs and hence shifts supply to ‘S_2’ (since some of these industries will not be trade-exposed they are drawn with downward sloping demand curves, panel (b)). However, the additional increase in the abatement that they must undertake (caused by EITE assistance and the transfer of the reduction burden to those other sectors) increases their costs, further shifting their supply curve to ‘S_3’. This further reduces the output (and increases the price) of the non-EITE industry’s output (the ‘assistance tax’ represented by the shaded area).



(continued next page)

Box 5.4 (continued)

It is important to note that this disadvantages not only the non-EITE industry, but also the customers of the non-EITE industry's output.

Hence, the economic effects of assistance relating to carbon leakage are not isolated to the firms directly affected by carbon leakage. Any policy that prevents carbon leakage will have adverse effects on some non-EITE industries.

In this context, some have argued that the auctioning of carbon permits potentially presents a 'double dividend' (Kaplow 2006). That is, raising environmental taxes could give rise to two kinds of potential benefit — first, a reduction in environmental damages and second, a reduction in the inefficiencies caused by the general taxation system — if the incremental tax revenue is used to replace or reduce existing 'distortive' taxes. However, a carbon price may introduce its own distortions as it will raise the price of goods relative to leisure, which, by reducing incentives to supply labour, may aggravate the distortions created by income taxes.

Though a double dividend effect may not strictly arise, these considerations make it more, not less, important to use tax revenues (including those raised from environmental taxes or the auction of permits) in efficient ways.

5.4 Processes for evaluation and review

A large number of the measures identified in the Commission's stocktake have been implemented progressively over the last decade in response to emerging concerns about climate change, and further measures are planned in parallel with the introduction of the CPRS. Not surprisingly then, concern has been raised about the risks of uncoordinated policy processes overlapping (Garnaut 2008 and PC 2008f).

Such issues have recently been considered by COAG, and through this process Australian governments have committed to reviewing a number of carbon emission reduction measures to ensure that they deliver efficient, effective and equitable results. In particular, at the 29 November 2008 meeting of COAG, Australian governments agreed to:

> … review and streamline their existing climate change mitigation measures, with the aim of achieving a coherent and streamlined set of climate change measures in 2009. (COAG 2008).

The principles agreed by COAG that will guide this review include that complementary measures should:

- be tightly targeted at a market failure not adequately addressed by the CPRS or be targeted at managing the impacts of the CPRS on particular sectors of the economy;
- adhere to best-practice regulatory principles including those of efficiency, effectiveness, equity and administrative simplicity;
- be kept under review against these principles; and
- be implemented by the level of government that is best able to deliver the measure.

In 2008 the Australian Government announced a review to develop a set of principles to assist its assessment of whether existing programs are complementary to an emissions trading scheme. The review, headed by Roger Wilkins AO, reported in July 2008 but has not been made public to date.

Australian, State and Territory Governments have individual responsibility for progressing reviews of carbon emission reduction measures and implementing the recommendations of these reviews.

In addition, the Australian Government has proposed that EITE assistance would be reviewed five years after the introduction of the CPRS. The Australian Government would provide five years' notice of any modifications to the EITE assistance program, unless the modifications were required for compliance with Australia's international trade obligations. The CPRS further proposes that firms may request the government to ask the Productivity Commission to assess whether, in the next five years, carbon leakage may result in the premature closure of an industry that would otherwise be competitive in a carbon constrained world (DCC 2008). The draft legislation for the nationally expanded RET scheme also mandates a review of the scheme in 2014.

The size and complexity of carbon emission reduction measures suggests that regular review of these measures across jurisdictions will be worthwhile. The inter-relation of carbon emission reduction measures with other national policy measures such as energy efficiency, road congestion and transport pricing indicates that broad ranging reviews are likely to be more effective than more narrowly focused reviews. In addition, the involvement of nine Australian governments (and the added complications of the need for an international carbon emission reduction agreement), increases the need for processes that engender coordination and cooperation across jurisdictions.

In recent Australian policymaking history, the implementation of National Competition Policy (NCP) provides an example where Australian governments coordinated the review of a complex set of interacting and overlapping regulatory measures. Though not without its shortcomings, NCP oversaw the review of over 1800 pieces of legislation and reformed the regulation of access to essential services, food, trading hours, the professions and other areas. Many of the reviews in these areas adopted a national approach whereby a single review covered regulations across all Australian governments. The overarching reviews also assessed the regional and distributional effects of change and these assessments were important to understand the implications of reform.

In its review of NCP, the Commission (PC 2005c) found that some of the key institutional frameworks that improved the outcomes that NCP delivered included:

- clearly specified reform objectives and principles, including effective public interest tests;
- agreed implementation timetables;
- independent monitoring and public reporting on progress;
- adequate resourcing of key coordinating/decision making and assessment bodies; and
- mechanisms to lock-in reforms.

Accordingly, the Commission considers that it would be beneficial for Australian governments to give greater weight to institutional arrangements that will guide the review of carbon emission reduction measures. Although the agreed review processes have a number of strengths (including the commitment for ongoing review), the lessons from other policy reform agendas suggest that there may be scope to strengthen processes. For instance, experience has highlighted the importance of formal progress monitoring arrangements and mechanisms that provide for accountability against stated commitments. Transparent and independent assessment arrangements generally create an environment conducive to adherence to agreed reviews.

In this context, the Commission notes that the National Reform Agenda (NRA) establishes institutional frameworks to guide reform of infrastructure, regulations, health, education and training. The COAG Reform Council (CRC) has been established to monitor progress and assess the performance of governments in meeting their reform commitments under the NRA (COAG 2008). There are many synergies between a review of carbon emission reduction measures and other aspects of the national reform agenda, such as energy market reform and transport pricing reform.

5.5 Summing up

Designing efficient, effective and equitable policy responses to carbon emission concerns is a challenging policy task but a crucial one for Australia's economy and environment.

- The large number and magnitude of the measures (over $23 billion) makes the potential gains from maximizing their efficiency and effectiveness commensurably large.
- Given the extent of the funds from the proposed sale of emission permits (estimated at $12 billion in 2011-12) there will be pressure on governments to fund a variety of programs, some of which may not provide additional benefits.
- While most measures are aimed at reducing carbon emissions, some are concerned with distributing the adjustment burden among firms and households.
- The involvement of multiple jurisdictions and the interdependent nature of the measures make it particularly important to coordinate evaluation and review processes.
- The science, economics and global politics of reducing carbon emissions is evolving. In this environment, keeping stock of the efficiency and effectiveness of existing and proposed measures will not be easy, yet assumes even greater importance.

Indeed, in its submission to the Garnaut Climate Change Review the Commission observed that achieving least-cost abatement of greenhouse gases would be Australian governments' 'most difficult ever regulatory challenge' (PC 2008f). To meet this continuing challenge, there is merit in governments establishing sound institutional frameworks to guide the review of carbon emission reduction assistance measures. Given that the effects of these measures are interdependent and applied by multiple jurisdictions, the payoff from establishing national approaches appears significant. The stocktake of measures in this report may assist governments to come to terms with the size and nature of the task ahead, as well as the best way to proceed.

6 Recent developments in trade policy

Before the global financial crisis and associated contraction in trade and economic activity, the primary focus of trade policy had been on achieving liberalisation through multilateral, regional and bilateral agreements. And, while there has been sometimes strenuous debate concerning appropriate strategies and extended negotiation processes, the underlying tendency has been towards more liberal global product and financial markets.

The global financial crisis and contraction in world trade has brought a new set of pressures on governments to manage market dislocation and contracting activity. Many responses introduced to address these broad economic problems involve significant market interventions that advantage selected businesses or industries, at the expense of other kinds of activity. Such measures could also, if sustained, counter liberalisation efforts and potentially impede the income and growth of nations, including developing countries.

At the same time, governments continue to apply themselves to concluding the Doha Round of multilateral trade negotiations and warn of the dangers of greater protectionism.

This chapter reports on the following developments in trade policy since *Trade & Assistance Review 2006-07*, including on:

- some trade policy responses to the global financial crisis;
- continued efforts to conclude the Doha Round of multilateral trade negotiations;
- ongoing negotiation by the Australian Government of several new preferential trade agreements and the intention to commence negotiation on further agreements;
- global trends in the formation of preferential trading agreements including the formation of new agreements involving Australia's trading partners; and
- the review of Australia's export policies and programs (the 'Mortimer' review) commissioned by the Australian Government, including the review's recommended approach to trade negotiations.

Because rules of origin are important in determining the margin of preference available to firms undertaking preferential trade, this chapter also reports on

Commission analysis of preferential rules of origin for the agreements between Australia and the United States, New Zealand, Thailand and Chile.

6.1 Responses to the global financial crisis

Recent sharp declines in world economic activity and global trade flows have placed increasing pressure on governments to provide substantial domestic assistance packages. In particular, although government actions initially focused on certain financial markets, policy responses have applied more widely, including trade policy.

While such policies aim to bolster financial markets and aid economic recovery, aspects of them provide assistance to selected activities and could ultimately increase the severity and duration of the crisis. The risks associated with emerging protectionism in product and financial markets are heightened by the interdependent nature of global markets.

A December 2008 report from the Organisation for Economic Cooperation and Development (OECD) warned of the consequences of increased protectionism:

> Open markets for trade and investment are a key driver of economic growth and development. Keeping markets open will therefore be an essential condition for recovery and long-term growth. Yet, just as the need to maintain open markets is greatest, concerns about the consequences of liberalisation and the perception that liberalisation may have even contributed to the current crisis have been growing. If these concerns result in a wavering commitment to multilateralism and in rising protectionism, the crisis will become even worse and recovery will be delayed. (OECD 2008, p. 8)

In a recent speech, the Australian Trade Minister made a similar point:

> … If instead we allow trade reform to stall, and let protectionist measures fill the policy vacuum, then countries will turn inwards and the decline in trade flows will exacerbate the current crisis. (Crean 2009).

Other governments have also warned of the risks of a re-emergence of protectionism and have committed to progress trade negotiations and coordinate their responses to the global financial crisis in an endeavour to avoid such an eventuality. For example, at a meeting in November 2008, leaders of the Group of Twenty (G-20) members affirmed the '… critical importance of rejecting protectionism and not turning inward in times of financial uncertainty…' and agreed that '… within the next 12 months, we will refrain from raising new barriers to investment or to trade in goods and services' (G-20 2008).[1] At the April 2009 meeting of the G-20, the leaders re-affirmed their commitment to an 'open world economy' (G-20 2009).

Nevertheless, domestic pressures have led some countries to raise their barriers to trade. In the context of the financial crisis and its impact on the global economy, the WTO reported on some trade-related developments since September 2008 (box 6.1). The Director-General of the WTO stated that:

> … there is no indication of an imminent descent into high intensity protectionism, involving widespread resort to trade restriction and retaliation. The multilateral trade rules under the WTO continue to provide a strong defence, and a unique insurance policy, against that happening. (Lamy 2009)

Despite this general finding, the WTO reported that in the two months to April 2009, there had been 'slippage' with a range of new tariff and non-tariff measures introduced (WTO 2009a, 2009c). These raise the threat of equivalent or retaliatory actions leading to further reductions in trade that would exacerbate the global recession.

While the measures that the WTO identified largely relate to trade in goods, the stress on financial markets has led governments to intervene in a variety of ways (box 6.2). The WTO suggested that:

> The most significant actions taken, mainly in OECD countries, in response to the financial crisis and onset of economic recession have involved financial support of one kind or another to banks and other financial institutions and to certain industries, notably the automobile industry (WTO 2009a).

Such financial market responses are distinct from those that seek to protect domestic industries from imports. In general terms, many are designed to relieve short-term financial stress, and in particular to limit the risks of financial contagion. Most of the financial market responses also do not discriminate between domestic and foreign-owned firms, so that the risks of retaliatory actions are low.

Notwithstanding that these measures are intended to relieve financial stress in the short run, they also clearly provide assistance to the financial sector, and just as trade barriers can distort international trade by changing relative returns, these measures can artificially influence capital flows within and across borders.

[1] The G-20 members are: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the European Union.

Consideration needs to be given by governments as to means of strengthening commitments and their observance, both through WTO processes and domestic institutional arrangements.

Box 6.1 Recent protectionist measures identified by the WTO

The WTO identified more than 80 new protectionist measures across a number of member countries, including 17 of the G-20 countries. The report found that these measures varied substantially, traversing border protection and government purchasing policies. While it is beyond the scope of this *Trade & Assistance Review* to comprehensively report on recent interventions, the following examples provide an indication of the breadth and nature of recent policy changes.

Measures at the border

- In November 2008, India increased import duties on iron, steel and soy products.
- In December 2008, Vietnam raised import tariffs on steel.
- In January 2009, the EU reintroduced export subsidies on dairy products.
- Also in January 2009, Russia, increased import duties on cars and trucks. (Russia is not a member of the WTO but is a member of the G-20.)

Government purchasing preferences and direct support to industry

Some governments have explicitly included increased protection for local industry as part of their policy response to the global financial crisis. For example:

- The United States' *American Recovery and Reinvestment Act 2009*, worth approximately A$1.2 trillion (US$787 billion), contains a 'Buy American' provision which requires all iron, steel and manufactured goods used in any public works to be produced in the United States.[2]
- In February 2009, the French Government agreed to provide Renault and Peugeot-Citroen with A$13 billion (€6.5 billion) in low interest loans in exchange for pledges that the companies would not close any factories or lay off workers in France for the duration of the loans.

Source: WTO (2009a, 2009c).

2 Exceptions apply if the quantity and quality of the locally sourced iron, steel or manufactured goods is deemed insufficient or unsatisfactory, if their use would raise the overall cost of the project by more than 25 per cent, or if their use would be inconsistent with the public interest or violate the United States' obligation under international trade agreements.

Box 6.2 Examples of recent support to the finance sector and other industries

Between October 2008 and March 2009, via a combination of programs (the Troubled Asset Relief Program, Systemically Significant Failing Institutions, Automotive Industry Financing Program and the Targeted Investment Program) the United States Government has purchased more than A$469 billion (US$323 billion) worth of stock and debt from troubled United States institutions and corporations.

The *Guarantee Scheme for Large Deposits and Wholesale Funding* was announced by the Australian Government in October 2008 to ensure the stability of the Australian financial system. The scheme provides eligible authorised deposit-taking institutions (ADIs) with a Government backed guarantee of certain deposits and wholesale funding instruments. Australian-owned banks and Australian-incorporated ADIs, which are subsidiaries of foreign banks, are treated equally. In March 2009, a similar scheme was extended to State Government issued securities.

In October and November 2008, the Canadian Government announced it would purchase up to A$88 billion (CN$75 billion) in mortgages already guaranteed through the Government's mortgage insurance program.

In February 2009, the UK Government introduced the Asset Protection Scheme with both the Royal Bank of Scotland and Lloyds TSB signing up. The scheme will see the Government guarantee A$1.2 trillion (£575 billion) in bank assets, in return for a number of undertakings, including a commitment from institutions receiving assistance to increase lending, specifically to UK based households and businesses.

In January 2009, the Australian Government announced the *Australian Business Investment Partnership* (ABIP) which would provide re-financing to support viable major commercial property projects in Australia and financing arrangements in other areas of commercial lending if those arrangements are unanimously agreed by the members of ABIP.

Sources: US Dept of Treasury (2009), Swan (2008g, 2009), Rudd (2009a), CMHC (2008) and HM Treasury (2009a, 2009b).

6.2 The World Trade Organization and the Doha Round

Since the signing of the General Agreement on Tariffs and Trade (GATT), membership of the GATT (and since 1995, the WTO) has grown from 23 countries in 1947 to more than 150 countries today. For over 60 years it has provided a stable, rules-based system for the conduct of international trade. It also provides a forum to liberalise trade through negotiation of new multilateral trade agreements.

Successive multilateral trade agreements negotiated under the auspices of the GATT/WTO framework have led to progressive liberalisation in 'bound' most favoured nation (MFN) tariff rates and other trade arrangements of member countries. These bindings form the basis for the conduct of trade and an internationally recognised benchmark for unilateral liberalisation by trading nations. An important, some would suggest crucial, role of negotiations under the GATT/WTO is to provide a means to bind tariff rates and other arrangements to levels more closely aligned to lower applied rates and liberalised arrangements. Indeed, these bindings, achieved over multiple previous GATT/WTO negotiating rounds, provide some protection against the risks of a rise in protectionism.

Launched in 2001, the WTO Doha Round set an ambitious negotiating agenda — some of the topics set for negotiation included agriculture, services, market access for non-agricultural products, trade related aspects of intellectual property, investment, competition policy, transparency in government procurement, trade facilitation, regional trade agreements, dispute settlement and other issues. The increased complexity of the issues under negotiation, combined with the growth in WTO membership, has resulted in a diversity of objectives and priorities.

For more than eight years now, the Round has inched towards agreement — at the World Economic Forum in January 2008 trade ministers from the United States, the European Union, Brazil, India, Australia and a number of other countries called for a new push to secure a conclusion to the Doha Round (ICTSD 2008). In July 2008, trade ministers convened in Geneva with a list of 20 topics to negotiate. They reached agreement on 18 but, ultimately the meeting collapsed due to a disagreement among a small, but influential, number of countries over the agricultural special safeguard mechanism (SSM), which would allow developing countries to temporarily increase tariffs in response to significant import surges or price falls. A further ministerial meeting planned for December 2008 was cancelled as the global financial crisis worsened, and agreement on the contentious issues remaining appeared out of reach.

Negotiations on agricultural domestic subsidies and market access issues are among the more contentious issues in the current round (WTO 2008a). Achieving agreement would deliver many beneficial reductions in ‘existing’ trade barriers, including the elimination of agricultural export subsidies and reductions in the levels of domestic support for agricultural producers. Reforms in these areas are considered particularly important for Australia and other members of the Cairns Group of agricultural exporters.

More broadly, an agreement would limit the reinstatement of barriers that have been reduced ahead of multilateral reform efforts. For example, the European Union’s reintroduction of export subsidies for butter, cheese and milk powder (in January 2009) would have been prohibited by the Doha Round’s current proposal to eliminate agricultural export subsidies. In this way, an agreement could limit the ability of countries to implement protectionist responses to the crisis and reduce fears of a rash of 'beggar-thy-neighbour' responses. According to the Director-General of the WTO:

> … the best contribution to reviving economic growth around the world is to conclude the DDA [Doha Development Agenda] as one of the most appropriate collective stimulus packages. … Completing the DDA is also the surest way we have of safeguarding our individual trade interests and the multilateral trading system against the threat of an outbreak of protectionism (Lamy 2009).

Nonetheless, the difficulties in reaching timely agreement serve to illustrate common concerns of the WTO framework, including: that trade liberalisation is often seen by constituents in members' home countries as a harmful (rather than desirable) outcome; and that the offer and acceptance approach to negotiations can portray a liberalising proposal, likely to benefit the proponent, as a 'concession'.

Notwithstanding these concerns, unilateral liberalisation by WTO members can move ahead of bound commitments. This suggests that while the WTO negotiating framework is the focus of multilateral liberalisation, achieving significant reductions in trade barriers will depend on the actions of members — either to lead reform or to adopt meaningful liberalisation proposals advanced through the WTO framework.

Increasing the transparency of trade policy

International transparency

Recently, the WTO produced reports documenting trade related developments since the start of the global financial crisis (WTO 2009a, 2009c). The WTO relies on members voluntarily providing information for these reports. Twenty-four members provided information for the most recent report.

Some have called for the WTO to have greater authority to collect and report on trade policy developments. A recent report by World Bank staff argues for the G-20 members to provide quarterly reports on new trade restrictions to the WTO (Gamberoni and Newfarmer 2009). Similarly, Baldwin and Evenett (2008) propose that WTO members should be required to report weekly to the WTO all forms of import and investment protection and, indeed, go further by suggesting that new measures should only be permitted on a temporary and 'safeguard' basis, providing countries with:

> … an "exit strategy" from the crisis-induced protection … When the world pulls out of the recession – say in 2010 – the mechanism would give leaders a list of the barriers to be dismantled. History suggests that this would be helpful. Much of the damage from

> the 1930s tariffs came well after the Great Depression passed as the tariffs stayed in place for decades. (Baldwin and Evenett 2008)

The sanctioning of temporary protectionist measures risks undermining the G-20's commitment to not increase barriers over the next 12 months. Nevertheless, greater transparency on trade policy responses may create pressures that enforce a greater adherence to these short-term commitments.

Promoting domestic transparency

A similar, longer term initiative that attempts to build support for trade liberalisation involves the creation of 'domestic transparency mechanisms' within member countries. In a recent comparative review of country approaches to trade policies, it has been suggested that:

> …to advance better trade policies, the emphasis has to shift onto domestic processes. The reason is domestic processes will always be more influential in changing the political economy of reform than external scrutiny. Stoeckel and Fisher (2008, p. xvii)

Such mechanisms would embody processes and institutions *within* member countries to promote a better understanding of, and accounting for, the domestic tradeoffs involved in trade liberalisation and its potential benefits.

Such a course of action is not a new idea. The notion of establishing domestic transparency mechanisms was advocated more than two decades ago by two eminent international study groups reporting on ways to overcome the then impasse in progressing multilateral trade negotiations (Leutwiler 1985, Long 1987, discussed in *Trade & Assistance Review 2005-06*). They also suggested that the transparency mechanisms be established using GATT/WTO processes.

At a practical level, it is one which Australia itself has followed in its approach to formulating industry assistance policy and assessing the potential benefits and implications of other national economic reforms. It has been achieved primarily through the operation of the Productivity Commission and its predecessors.

The recent *Review of Australia's Export Policies and Programs* (the Mortimer review) considered the issue of domestic transparency from the perspective of a number of bilateral capacity building exchanges. In that context, its view was that a campaign to promote a domestic transparency body in each country would be 'resource intensive and unlikely to attract support in the short term' (Mortimer 2008 p. 90). Instead, the review suggested the same goal could be advanced through existing structures, specifically through bilateral capacity-building programs between the Australian Government and other governments in the region.

The Director-General of the WTO recently recognised the potential benefits of domestic transparency mechanisms as a means of achieving trade liberalisation. Nevertheless, he also recognised that there was not general support for the sponsorship of country processes within the WTO framework (WTO 2009b).

While recognising that there are obstacles and difficulties in establishing domestic transparency mechanisms appropriate to country circumstances, the Commission considers that there would be merit in giving greater weight to the concept of such mechanisms as a means of promoting trade liberalisation, nationally and internationally.

6.3 Developments in Australia's preferential trading arrangements

Since the formation of the GATT in 1947, development of Australia's international trading relations has mainly been undertaken within the multilateral GATT/WTO framework. Nevertheless, Australia has also negotiated and maintained a limited number of bilateral and regional agreements with trading partners, which generally provide preferential entry for goods from member countries.[3]

Prior to 2003, Australia was party to three agreements, with Papua New Guinea, South Pacific countries and New Zealand, of which only the latter was a reciprocal agreement. Since then, Australia has signed preferential trade agreements with Singapore, Thailand and the United States. In addition to providing tariff preferences, these trade agreements cover many non-merchandise trade areas such as intellectual property, government procurement and trade in services.

Further, in 2008, the Australian Government concluded trade agreements with Chile and, jointly with New Zealand and the Association of South East Asian Nations (ASEAN). The Australian Government also intends to expand Australia's participation in similar preferential arrangements.

Details of the recently concluded agreements, ongoing negotiations and plans for expanded participation are outlined below.

[3] The term 'trade agreement' is not well defined. The Commission uses the overarching term 'preferential trade agreement' as most of these agreements provide preferential access to goods from member countries, over goods sourced from non-member countries. It should be noted that such preference occurs even if the agreement cuts tariffs to zero between the member countries. At the same time, the Commission notes that some agreements, such as the Asia Pacific Economic Cooperation (APEC) agreement, do not in general discriminate among countries, while others in part focus on aligning competition policy or harmonising and mutually recognising standards.

ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA)

Mooted as a possibility more than 15 years ago, formal negotiations for a trade agreement covering goods, services and investment commenced in 2004 between the members of ASEAN, Australia and New Zealand. The original architects of the agreement envisaged an open, outward-looking agreement (DFAT 1997).

Negotiations were concluded in August 2008 and the agreement was signed in February 2009. It is expected to enter into force in late 2009 or 1 January 2010. The agreement has a broad coverage, including provisions on goods, services, investment, intellectual property, competition policy, economic cooperation and dispute settlement. It provides for the reduction and elimination of bilateral tariffs on a high proportion of tariff lines (over 90 per cent of tariff lines for all countries, except for the three least developed countries, where tariff elimination coverage is 85 to 88 per cent of tariff lines). There are also improvements to existing WTO commitments across a range of services sectors.

Chile

The Australian Government announced its intention to negotiate a trade agreement with Chile in December 2006. The agreement was signed in July 2008. Chile was Australia's 40th largest two-way merchandise trade partner in 2007-08. The trade agreement has eliminated bilateral tariffs on 97 per cent of two-way merchandise trade. Tariffs on all existing bilateral merchandise trade will be eliminated by 2015.

The agreement also includes provisions on services, investment, government procurement, intellectual property and product specific preferential rules of origin (DFAT 2009b).

China

In 2005, following a feasibility study, the Australian Government commenced negotiations for a trade agreement with China. In 2008, China emerged as Australia's largest trading partner when two-way trade reached $58 billion. The negotiations cover market access for goods and other issues affecting trade in goods, services and investment and intellectual property, as well as transparency of administration, procedures for dispute settlement and other institutional issues.

The 13th round of negotiations were held in December 2008, with progress towards agreement reported in some areas such as customs procedures, sanitary and phytosanitary (SPS) issues and technical barriers to trade while other areas, including the core issues of market access for goods and for services and investment have continued to lag (DFAT 2009c).

Gulf Cooperation Council (GCC)

Negotiations for a trade agreement between Australia and the GCC commenced in 2006, following notification of a decision taken by the GCC Supreme Council that the United Arab Emirates (UAE) should not continue negotiations for a trade agreement with Australia on a bilateral basis — instead a GCC-wide agreement was suggested (incorporating, in addition to the UAE, Bahrain, Kuwait, Oman, Qatar and Saudi Arabia).

While acknowledging the potential challenge of concluding a trade agreement in line with Australia's preferred model, the Australian Government signalled its intention to pursue a comprehensive agreement. The last round of negotiations were held in February 2009 where progress was made on a range of issues including quarantine matters, customs procedures, rules of origin, financial services and dispute settlement provisions (DFAT 2009d).

Japan

In 2007, following a feasibility study, the Australian and Japanese Governments commenced negotiations on a trade agreement. Japan is Australia's largest export market and seventh largest services export destination.

The eighth negotiating round was held in March 2009, at which the two sides exchanged services and investment market access requests. Steady progress has been made on a range of issues, but discussions on agriculture issues have proved difficult (DFAT 2009e).

Malaysia

In 2005, following a scoping study and public consultation process, the Australian and Malaysian Governments announced that they would negotiate a 'high quality, comprehensive agreement'. Initial negotiating rounds focussed on information exchange and identification of areas of priority to both countries.

In October 2008, following a two-year negotiating pause (due to a focus on other negotiations), at a meeting of the Malaysia–Australia Joint Trade Committee in Kuala Lumpur, it was agreed that negotiations would be reopened in 2009. Both sides agreed that to be worthwhile a bilateral trade agreement would need to 'add value' to the recently concluded AANZFTA (DFAT 2009f).

Trans-Pacific Partnership agreement

In September 2008, the Australian Government announced it would consider participating in negotiations towards a Trans-Pacific Partnership (TPP) agreement. Following a public consultation process, the Government announced that it would participate in the initiative.

The TPPA is intended to expand the *Transpacific Strategic Economic Partnership Agreement* between Brunei Darussalam, Chile, New Zealand and Singapore (which entered into force in 2006). It has been mooted as a possible way to 'build towards the Free Trade Area of the Asia Pacific' (USTR 2008). In addition to Australia, Peru and Vietnam will be participating in the negotiations (DFAT 2009g).

Korea

In March 2009, the Australian and Korean Governments agreed to start negotiations on a trade agreement. This decision was made following two rounds of preparatory talks, and the release in April 2008 of a joint non-government feasibility study. The first round of negotiations is scheduled to take place in Australia in May 2009 (DFAT 2009h).

Other trade agreements under consideration

The Australian Government is also currently considering the potential to commence a number of other preferential trade agreements:

- In April 2009, the Australia and Indonesian governments released a joint feasibility study examining the merits of a bilateral trade agreement. The study stated that:

  > an ambitious and comprehensive FTA could improve trade and investment links, deepen bilateral and regional economic integration and provide positive outcomes in key agricultural and manufacturing sectors of importance to both Australia and Indonesia'. (DFAT 2009i)

- At the 2008 Pacific Islands Forum Leaders' meeting, officials agreed to formulate a detailed roadmap on the Pacific Agreement on Closer Economic Relations (PACER) Plus with a view to Leaders agreeing at the August 2009 Forum to the commencement of negotiations.
- In August 2007, Australia and India commenced a joint feasibility study on the merits of a trade agreement.

In April 2008, the Australian Government announced that it would conduct a review of the administration of Australia's dairy export quotas to the United States and the

European Union. Among other things, the review is to examine the appropriateness, effectiveness and efficiency of the current quota management arrangements and to identify areas where improvements to the arrangements can be made. This will involve looking at the concepts underpinning quota controls, the quota allocation process and the ongoing administration of the quotas (Burke 2008b).

6.4 Assessment of Australia's recent trade agreements

Establishing the effects of Australia's increased involvement in trade agreements is significantly more complex and uncertain than establishing the effects of multilateral or unilateral reform. Preferential trade agreements (PTAs) can capture some of the well known benefits associated with trade liberalisation, but unlike multilateral or unilateral reform, they can also divert trade to more costly suppliers, distort production decisions, entrench support for less ambitious multilateral reform, and divert skilled and experienced negotiating resources. Thus, depending on a number of factors, the conclusion of any particular PTA may have mixed results on productivity and efficiency.

Global trends in PTA formation

The spread of bilateral and regional trade agreements has led to a significant increase in the number of global trade relationships potentially affected by preferential arrangements — both directly (trade between members) and indirectly (trade between members and non-members).

Over the 40 year period from 1962 to 2006, the number of trade agreements in force and notified to the WTO has grown from 9 to more than 220 today.[4] In addition to the agreements notified to the WTO, there is a substantial number of other regional and bilateral agreements that define trade relations between countries, for example, APEC and agreements between some members of the former Soviet Union. In addition, the scope of each agreement has developed from covering tariff

[4]The nine trade agreements in force in 1962 were the Central American Common Market (CACM), the European Free Trade Area (EFTA), the Treaty of Rome (from which the EU evolved), EFTA—Finland Association, the Latin American Free Trade Area (LAFTA), the Canada — Australia trade agreement, the Ghana — Upper Volta trade agreement, the EEC — Greece interim agreement and the Equatorial Customs Union (comprised of the Central African Republic, Chad, Congo and Gabon). The WTO reports 223 agreements notified to the WTO and in-force in 2008, but this underestimates the actual number of agreements in-force as not all agreements are notified to the WTO — using Medvedev (2006) another 105 agreements not notified to the WTO are identified.

preferences in merchandise trade only to include many non-merchandise trade provisions[5].

Extent of global trade influenced by trade agreements

The proportion of bilateral trade links potentially directly affected by one or more trade agreements increased from 3 per cent in 1962 to 16 per cent in 2006. Trade agreements also have the potential to influence bilateral trade-flows *indirectly* through exclusion and trade diversion. Increasingly, the reach of trade agreements into the international trading system is through these overlapping links between members and non-members.

With the increase in multiple and overlapping membership of agreements, the incidence of bilateral trading links potentially directly and indirectly affected by one or more trade agreement increased from 59 per cent in 1962 to 96 per cent in 2006.

Furthermore, because of the economic size and the extent of global trade that occurs between members of regional and bilateral trading agreements, the influence of those agreements on the volume of global trade is greater than their influence on the proportion of bilateral trade links.

The Commission's analysis shows that the value of global trade potentially directly affected by one or more trade agreements increased from 17 per cent in 1962 to just over 50 per cent of global trade flows in 2006 (almost US$6 trillion) (figure 6.1 left panel).[6] The value of global trade potentially directly and indirectly affected by trade agreements increased from 83 per cent in 1962 to more than 99 per cent in 2006 (figure 6.1 right panel). Available information also indicates that the proportion of trade, by value, influenced (both directly and indirectly) by two or more agreements has steadily increased.

The pervasiveness of membership of agreements amongst major trading countries and regional groups, and the extent of trade influenced by those agreements, underlines the potential influence that bilateral and regional arrangements can have on trading relations between countries — including between member and non-member countries.

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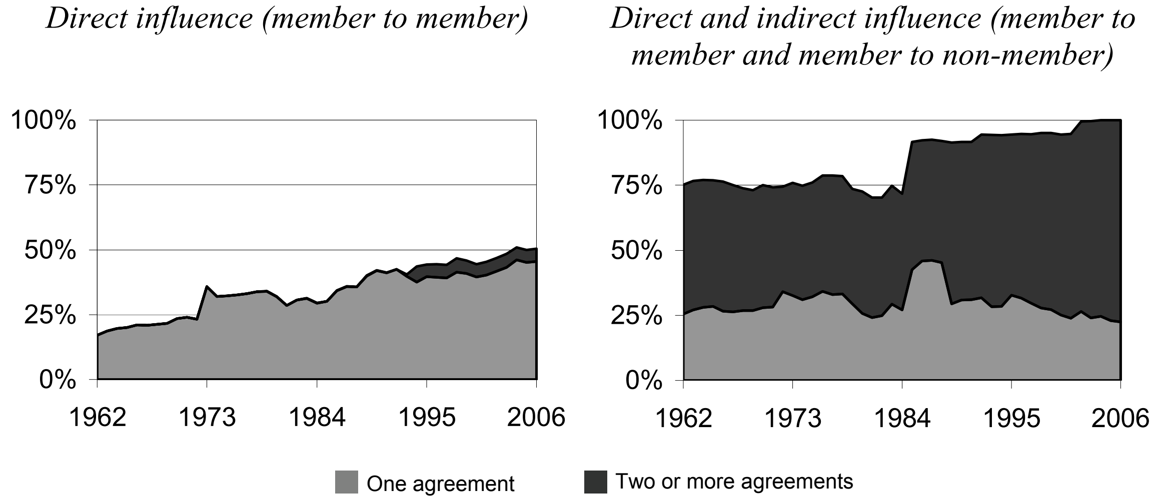
5 In addition to regional and bilateral trade agreements there is a range of other agreements and memoranda of understanding between countries governing economic relations between the parties. For example, according to UNCTAD data, there are around 5 500 International Investment Agreements (IIA) in force (UNCTAD 2009).

6 In 2006, global exports were valued at US$11 762 billion (WTO 2007b).

Figure 6.1 **Trade agreements' influence on global trade, 1962 to 2006**[a]



[a] Volume of merchandise trade in US dollars[7] - exports from 263 countries, 416 regional and bilateral trade agreements based on 311 notified to the WTO and 105 not notified to the WTO (Medvedev 2006).[8]

Sources: Trade data: from UN Comtrade database. Trade agreements: from WTO (Renard, C., WTO, Geneva, pers. comm., 14 Nov 2008) and Medvedev (2006).

One concern with the recent proliferation of preferential trade agreements in particular is that by a strict interpretation, they violate the WTO's most favoured nation treatment principle (PC 2004b). Nevertheless some argue that any reduction in barriers to trade is likely to provide net benefits, and that eventually, 'global free trade' will emerge. However, a number of factors weaken this 'building block' hypothesis.

- The diverse and overlapping rules that govern preferential trade relationships, along with the administration and enforcement of these rules, increase transaction costs. Because of these costs, PTAs will still distort trade and reduce productivity, even if they have a global coverage.

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7 Non-US currencies are converted to US dollars using an average annual exchange rate which is calculated by weighting the monthly exchange rate with the monthly volume of trade.

8 Using a comprehensive sample of trade agreements and the United Nations' Comtrade database, it is possible to estimate the proportion of bilateral trade links and volume of global trade flows that are potentially influenced by regional and bilateral trade agreements. The PTA sample was compiled from a WTO sourced list of all notified trade agreements (approximately 311 in force and expired) (Renard, C., WTO, Geneva, pers. comm., 14 Nov 2008) and from Medvedev (2006) (approximately 105 in force and expired) for trade agreements not notified to the WTO, for a total of approximately 416 agreements. In addition to the membership of each agreement, the dates of entry and exit of each member was recorded to allow *dynamic* exploration of the effect of preferential trade agreements on global trade flows. Trade data was compiled from the United Nation's Comtrade database for the period 1962 to 2006 and contains 263 countries (although some countries are not reported for the full period).

- In addition, the negotiation of preferential arrangements divert skilled and experienced negotiating resources, resulting in reduced engagement in multilateral negotiations. Further, the beneficiaries of the preferences created may reduce support for an ambitious multilateral reform agenda.

In the Commission's assessment, the long-term success of Australia's engagement in global trade and investment markets depends on an understanding of both the direct and indirect effects of preferential trading arrangements.

Review of Export Policies and Programs

In February 2008, the Australian Government announced a review of Australia's export policies and programs (the 'Mortimer' review). Among other things, the review was asked to assess the net benefits of Australia's recent bilateral trade agreements and develop new benchmarks for future bilateral and regional trade agreements.

This section reports the review's assessment of Australia's recent bilateral trade agreements (chapter 3 reports on other topics covered by the review). In the context of the review's assessment that Australia's export performance had been disappointing, it examined the trade and investment creating potential of trade agreements through the prism of design features, recent trends in bilateral trade with agreement partners and the experiences of selected businesses.

It focused on Australia's recent bilateral trade agreements with Singapore, Thailand and the United States. Using a count of the number of chapters and annexes in each of these agreements, and 27 others as an indicator of comparative comprehensiveness, the review concluded that the three trade agreements under consideration were relatively comprehensive in nature. It also observed that the agreements covered most agriculture and manufacturing products — though there were extended phasing periods for some key products. Further, it analysed the coverage and extent of the agreements by benchmarking the concessions offered in each bilateral agreement against the non-discriminatory liberalisation measures achieved under the auspices of the WTO.

The review concluded that the three agreements had a high liberalisation potential, noting that concessions were at least comparable to, and in some cases more far-reaching than, those achieved under the comparison agreements. While these considerations reflected on the design of agreements entered into by Australia, in the Commission's view they do not necessarily provide a reliable indicator of the likely economic effects of those agreements.

To examine the likely outcomes of the agreements, the review commissioned two trade intensity studies and a survey of businesses to assess how the agreements may be affecting individual firms.[9] The results from the trade intensity studies did not, in the review's assessment, demonstrate a substantial change in the intensity of trade between partners following the entry into force of the agreements.

It suggested, however, a number of factors may be confounding the analysis, including:

- the relatively short period since the agreements entered into force;
- insufficient liberalisation at this stage under the agreements to make any substantial impact on trade (but that this might change as the phase-down process continued for Australia's agreements with Thailand and the United States);
- the possible influence of other trade agreements enacted by all three partner countries with other countries; and
- the influence of other factors that have had an impact on trade (eg exchange rate movements).

With respect to the impact of other trade agreements, the review suggested that it was possible that the agreements with Australia may have enabled Australia's exports to hold their place in each of the three markets, and that Australia's performance actually might have been worse in the absence of the agreements.

The review's business survey found only limited evidence that the agreements had encouraged new entrants into bilateral trade in any of the three markets. The survey was sent to 105 firms engaged in bilateral trade covered by the three recent agreements and received 31 responses. There was some evidence, albeit limited, to suggest that other factors were more important to the businesses operations than the trade preferences delivered under the agreements.

On the basis of the information available and its own assessment, the review reported that the three agreements were 'of a world-class standard, and provide a strong basis for further expansion of trade and investment in the future' (Mortimer 2008, p. 99). It went on to recommend that Australia pursue a bilateral agreement with the European Union and plurilateral agreements such as the proposed Free Trade Area of the Asia-Pacific. More generally, it suggested that preferential trade agreements need not be mutually exclusive to the WTO process and outlined a number of criteria for compatibility and the negotiation of future agreements (box 6.3).

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9 Trade intensity reflects trade flows (imports plus exports) as a proportion of GDP.

Box 6.3 The Mortimer review's recommendations concerning preferential trade agreements

The review suggested an assessment of future agreements should be based on the trade agreement's potential to:

- counter trade diversion or deliver substantial commercial and wider economic benefits more quickly than would be possible through other efforts;
- be fully consistent with WTO provisions;
- deliver WTO-plus outcomes in the form of liberalising commitments that are broader and deeper than those undertaken in the WTO;
- provide for substantial liberalisation — including by eliminating virtually all tariffs and delivering new and significant access opportunities for services and investment — within a reasonable time period;
- allow, where possible, for the accession of third countries and be consistent with the goal of regional free and open trade and investment; and
- promote Australia's foreign and security policy interests.

It further made recommendations concerning the negotiation of future preferential trade agreements, such that they:

- promote similar provisions and approaches across agreements, and in particular:
  - harmonise rules of origin;
  - extend rules on mutual recognition to third parties; and
  - match provisions on access to services markets.
- encourage transparency and regulatory best practice;
- incorporate existing global standards; and
- allow expansion or accession of agreements to third parties.

Source: Mortimer (2008, pp. 102, 104).

Notwithstanding the conclusions and recommendations of the Mortimer review favouring the formulation of regional, plurilateral and preferential trade agreements, the Commission considers that there remain significant information gaps concerning the likely impact of these agreements, and the conditions under which they will deliver economic benefits in practice. There is a particular issue with how anti-competitive regulations needed to enforce trade preferences influence economic outcomes. Given that the links between the design of agreements and economic outcomes are difficult to judge, the Commission considers that further research on the economic costs and benefits of different types of agreements is warranted.

Analysis of recent rules of origin affecting Australia's trade agreements

With the design and coverage of regional and bilateral trade agreements being determined by the economic and political factors particular to each, there are significant differences across individual agreements and their supporting regulations.

As recognised in the Mortimer review, preferential rules of origin (RoO) are particularly prone to divergence. These rules are used to determine where a good has been made for the purpose of ensuring that only the products of countries which are party to an agreement obtain concessional entry under the agreement (box 6.4).

The review raised the complexity of rules of origin as an issue in the formation of preferential trade agreements and suggested that harmonisation would be beneficial (Mortimer 2008). It stated:

> The main benefits would be to harmonise and rationalise some of the complexity inherent in the existing suite of FTAs in the region — for example, in relation to rules of origin. (p. 101).
>
> … there are concerns at the risk of such agreements diverting trade rather than creating it, and to increased transaction costs for business as a result of multiple rules of origin. … Rules of origin that are too complex or administratively burdensome can impose a compliance burden that diminishes the gains from the FTA. (p. 181, 195).
>
> Rules of origin can equally be used as protectionist measures if they are so restrictive that only a very few products are eligible for preferential treatment. (p. 195)

In a similar vein, the Review of Australia's Automotive Industry, 'The Bracks Report', noted that:

> … differences in trade rules increase administrative costs for importers and exporters alike, and can act as a barrier to trade. (p 54).

It recommended that 'Trade rules, such as rules of origin, should, wherever practicable, be harmonised across free trade agreements to reduce compliance costs to industry' (Bracks 2008, p. 57).

The Commission reported on issues relating to rules of origin in previous issues of *Trade & Assistance Review*. The 2003-04 *Review* reported on the restrictiveness of preferential rules of origin and used an index framework to illustrate the relative restrictiveness of rules of origin from various preferential trade agreements. In the analysis, agreements associated with multiple criteria for determining origin, more restrictive variants of individual criteria and product specific rules (such as in the North American Free Trade Agreement (NAFTA) and related agreements and agreements entered into by the European Union), were assessed as most restrictive.

Box 6.4 **Key features of rules of origin**

The need for rules of origin

Rules of origin are used to establish criteria to determine which goods have sufficient local content to be accorded preferential tariff treatment under a preferential trade agreement.

In the case of customs unions (such as the European Union), where the treatment of goods imported from third parties has been harmonised, the common external tariff means that there is no advantage from transhipment and, in principle, no need for rules of origin to govern bilateral trade between members.

Assessing origin is difficult

Production processes for many goods are now typically fragmented and use inputs sourced from several countries. Moreover, the nature and potential sources of inputs are continually changing, as is the technology and organisation of production itself.

Consequently, attribution of origin to a single country can be problematic. In these circumstances, governments are forced to rely on negotiated and necessarily imperfect rules of origin that attempt to reconcile the goals of the particular trade agreement.

Three common tests for determining origin

- *The change in tariff classification (CTC) test* — a good is transformed if there is a change in tariff classification, using the Harmonized Commodity Description and Coding System. The CTC method can be applied at the 8-digit, 6-digit, 4-digit or 2-digit level of classification.
- *The specified process test* — a good is transformed if it has undergone specified manufacturing or processing operations which confer, or do not confer, origin of the country in which they were carried out. This test is sometimes used in respect of chemical products, for example.
- *The regional value content (RVC) test* — a good is transformed if a threshold percentage value of locally or regionally produced inputs is reached in the exporting country.

Special rules are common

Rules of origin are often subject to considerable 'fine print' — such as special rules for particular tariff items, differences in the application of tolerance or absorption rules and so on.

Source: PC (2004b).

The 2004-05 *Review* reported on the WTO Consultative Board's comments on the threat posed by the proliferation of preferential trade agreements to the multilateral trading system. According to the Board, the most significant cost is that preferential trade agreements complicate world product markets and add substantial costs to businesses negotiating the 'spaghetti bowl' of different preferential rates and rules of origin.

The 2005-06 *Review* reported on the change in the Australia–New Zealand CER Agreement, from rules that were relatively free from deliberatively restrictive product specific provisions to new rules that contain a variety of product specific provisions, sector specific tests and regional value-of-content provisions.

The restrictiveness of rules of origin

While origin rules are a necessary part of a PTA, they act as regulatory (non-tariff) barriers to trade.

For the purposes of this year's *Trade & Assistance Review,* the Commission examined the relative restrictiveness of rules of origin for various preferential trade agreements using a previously developed index framework (PC 2004b). The index measures assist in evaluating the extent to which rules of origin-related regulatory barriers may restrict trade and are a useful way to assess alternative rules of origin regimes when price and quantity measures or empirical estimates of impacts are not available. An overview of the Commission's index methodology is provided in box 6.5.

Results from the Commission's index calculations, updated to include the most recently concluded agreements, show substantial variation in provisions and likely restrictiveness of origin rules across preferential trade agreements. They suggest that the restrictiveness of the new rules of origin in the CER trade agreement are on a par with other agreements recently entered into by Australia (that is with the United States and Thailand) but, if anything, are likely to be more restrictive than the pre-existing rules of origin governing trans-Tasman trade and the origin rules applying in trade between Australia and Singapore under the recently completed SAFTA agreement (figure 6.2). This reflects the product-specific nature of the rules, which often involve multiple criteria and more restrictive variants of certain criteria.

The indexes also indicate that NAFTA and related agreements, and agreements entered into by the European Union, have the most restrictive rules. These agreements tend to be associated with regimes that adopt multiple criteria for determining origin, more restrictive variants of individual criteria, and product specific rules, particularly in areas otherwise supported by higher tariffs.

Box 6.5 **A restrictiveness index**

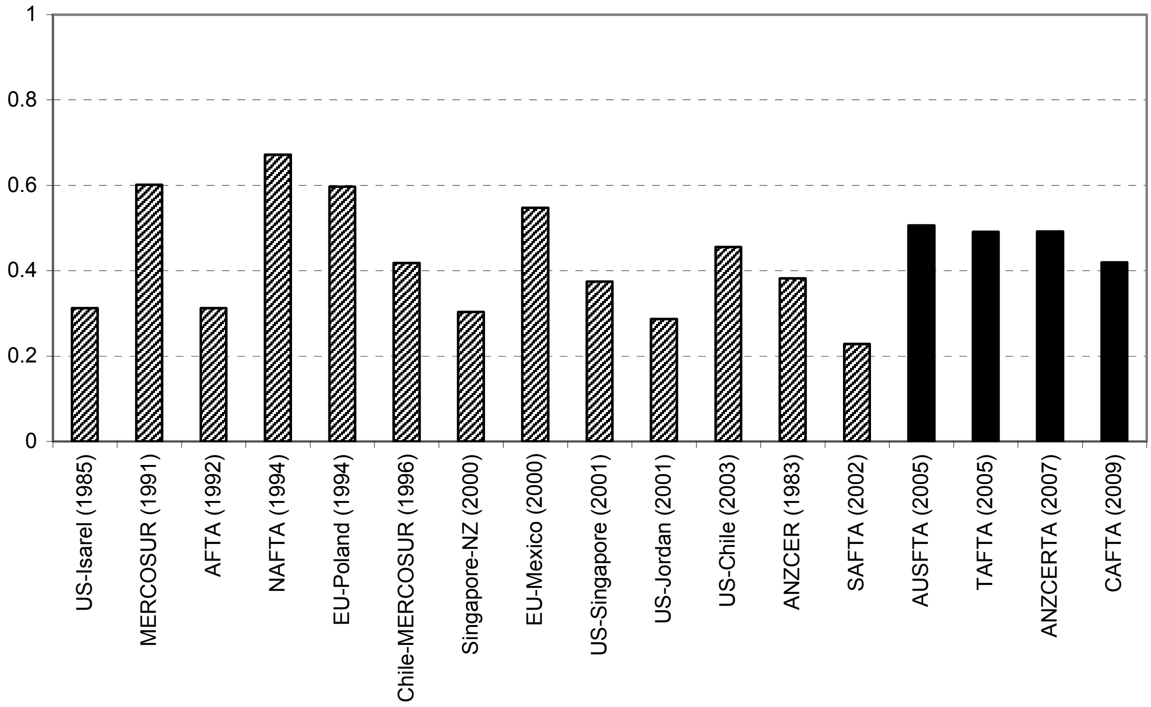
The overall index score for a particular set of rules of origin in the Commission's index reflects the number of restrictions that are applied, weighted by the relative importance of those restrictions. A higher overall index value is interpreted to indicate a more restrictive trading regime for the members of that preferential trading agreement. Within each restriction category, a score is assigned to the particular category of origin determination. The score ranges from 0 (least restrictive) to 1 (most restrictive). However, it needs to be appreciated that the information base for compiling the index — for example, for nominating the weights to be used — is limited. The results should therefore be seen as indicative of orders of magnitude, rather than as a precise measure of restrictiveness.

Rules of origin are not readily modelled in quantitative assessments of the welfare implications of agreements. Nevertheless, economic modelling of the possible welfare gains from an agreement that omit the restrictive effect of rules of origin will be biased because these rules reduce the degree of liberalisation implicit in the size of the tariff reductions.

Source: PC (2004b).

Figure 6.2 **Restrictiveness of preferential rules of origin in selected preferential trade agreements**

Index score ranges from zero (least restrictive) to 1 (most restrictive)



Source: Commission estimates, PC (2004b).

Further analysis of recent rules of origin affecting Australia

While the index analysis provides a useful broad indication of the relative restrictiveness of origin rules in each agreement, it does not highlight the diversity that occurs between and within various agreements — an important concern with overlapping rules of origin. To do this, a comparative analysis across agreements of the rules of origin applying to individual items within each agreement is required.

Analysis of four of Australia's recent agreements undertaken for this edition of *Trade & Assistance Review* demonstrates the diversity of approaches for conferring origin that Australian businesses must consider when sourcing inputs that attain concessional access. This diversity can be illustrated at the product level by reference to the rules required to confer origin for a single product (for example in the case of blankets and travelling rugs (box 6.6)). This complexity and non-uniformity is not an exception — the same pattern of prescriptive product specific rules is evident at an aggregate level (figure 6.3).

Box 6.6 **A comparison of Australia's rules of origin**

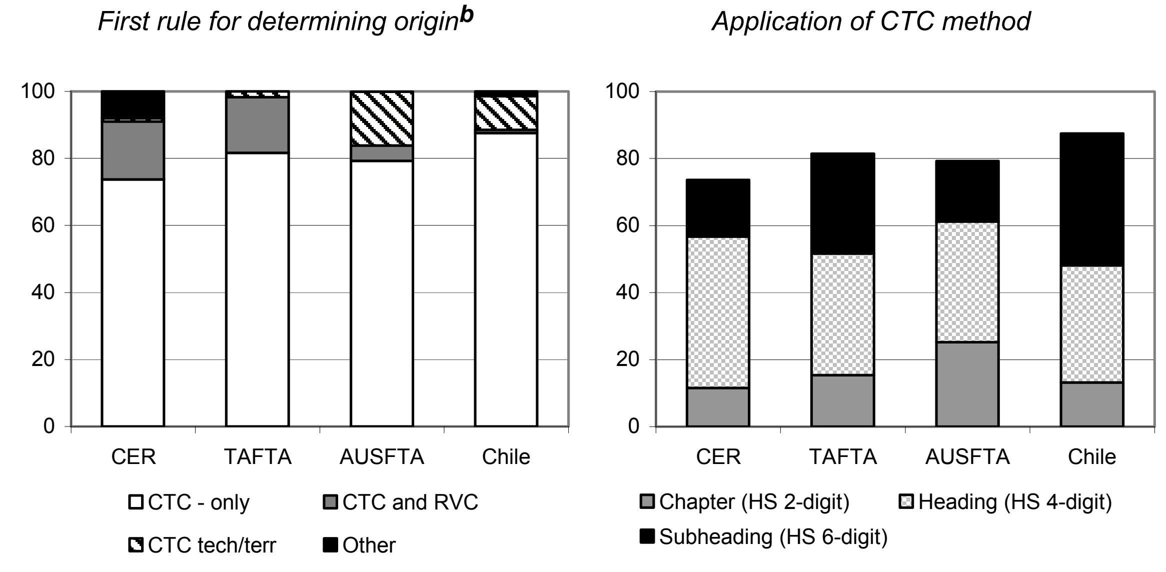
In order to qualify for concessional entry, *Blankets and travelling rugs* (as classified using the Harmonized System (HS) classification) must meet the following criteria:

- A change to subheading 6301 from any other chapter, except from heading 5106 through 5113, 5204 through 5212, 5307 through 5308 or 5310 through 5311, Chapter 54, or heading 5508 through 5516, 5801 through 5802 or 6001 through 6006, provided that the good is both cut (or knit to shape) and sewn or otherwise assembled in the US or Australia (Australia–United States).
- A change to heading 6301 from any other chapter, provided that, where the starting material is fabric, the fabric is pre-bleached or unbleached and there is a regional value content of not less than 55 percent (Thailand–Australia).
- A change to heading 6301 from any other heading except from headings 5007, 5111 through 5113, 5208 through 5212, 5309 through 5311, 5407 through 5408, 5512 through 5516, 5602 through 5603, 5801 through 5802, 5809 through 5811, 5903, 5906 through 5907 or 6001 through 6002; or a change to heading 6301 from any other heading provided there is a regional value content of not less than 55 per cent based on the build-down method (Australia–New Zealand).
- A change to heading 6301 from any other chapter provided that where the starting material is fabric, the fabric is raw and fully finished in the territory of the Parties (Australia–Chile).

Sources: ACS (2004a, 2004b, 2006, 2008a).

Figure 6.3 **Summary of methods used to determine origin in recent preferential trade agreements entered into by Australia**[a]

Per cent of items with non-zero MFN rates in the Australian tariff



[a] The recently concluded Australia-New Zealand-ASEAN agreement contains around 64 per cent of the rules of origin with a 'co-equal' first rule which presents a choice between an RVC or a CTC. [b] CTC refers to a change in tariff classification test. Tech/terr refers to territory or production tests that require particular production methods to be used within the territory of the PTA to qualify for preferential entry. RVC refers to a regional value content rule.

Source: Commission estimates.

The most frequent rule of origin (in Australia's most recent agreements) is the change in tariff classification (CTC) test. However, agreements often, but not always, specify rules of origin which require application of more than one rule (for example, a combination of a CTC rule and a regional value content (RVC) rule) or a CTC rule with an exception, which narrows the scope of the CTC rule by carving out specific products.[10]

Examining the individual agreements shows that:

- The AUSFTA and the Australia–Chile agreements contain a relatively high proportion of CTC rules with technical and territory tests, approximately 16 and 10 per cent, respectively, of rules for items with a non-zero MFN rate in the Australian tariff.
- The Australia–New Zealand and the Australia–Thailand agreements each contain less than 3 per cent of CTC rules with technical and territory tests.

[10] SAFTA only applies a single two tiered test of origin. The first tier requires that the product be manufactured in the member countries. The second tier requires the application of a regional value content rule.

However, these agreements have higher proportions of CTC rules with regional value content tests, around 17 per cent, respectively, for items with a non-zero MFN rate in the Australian tariff.

The application of the CTC method also varies within the CTC-only rules (figure 6.3, right panel). A CTC rule applied at the chapter level (2-digit) is likely to be more restrictive than a CTC rule applied at the heading or subheading (4, 6 or even 8 digit) level as it would require a more substantial transformation to take place before the rule is met. The AUSFTA agreement contains the highest proportion of CTC-only rules applied at the more restrictive 2-digit chapter level. In contrast, the Australia–Chile and the Australia–Thailand agreements apply the greatest proportion of CTC-only rules at the less restrictive 6-digit subheading level.

As demonstrated above, the implementation of rules of origin in a selection of Australia's agreements varies. The recently signed Australia–Chile agreement contains the least restrictive and greatest proportion of CTC-only rules, while the Australia–United States agreement contains a more restrictive and less uniform set of rules.

Some tariff lines have two or more rules applying (for example, a CTC rule and an alternative technical test). In some cases, there is a choice of up to eight rules to select between. The complexity of the rules are further increased by the incidence of these multiple rules for individual tariff items within agreements and different combinations of rules between agreements.

As the diversity and complexity of trade agreements which require rules of origin increases, the transaction costs of trading under these varying sets of rules is also likely to increase. Furthermore, the nature of the rules may serve to limit innovation in production processes and restrict competition as firms seek to adjust production processes to gain tariff preferences under particular agreements (PC 2004b).

6.5 Summing up

Slower global economic growth has seen a steep decline in world trade and increased calls, across the world, for measures to protect domestic industries. If such calls are successful, then trade activity will fall further, and with it economic growth. In this context, the integrity and progress of multilateral trade reform is even more important.

Despite this urgency, the Doha Round has yet to conclude. Although Governments have committed to resist protectionist measures, trade barriers in some countries have increased. Governments have also implemented a range of measures to protect financial markets that might distort capital flows. To maintain the integrity of the global trading system, proposals to increase transparency, both of trade policies and awareness of the costs of protection to the countries concerned, have a clear role to play.

A longer term trend in international trade policy has been the formation of regional and preferential trade agreements. Australia itself has entered into a number of such agreements. However, the evidence for their net benefits remains unclear and more research is needed. Moreover, the global increase of such agreements may have served to divert attention from finalising the Doha Round.

In addition, the specific rules of origin that apply in preferential agreements are particularly concerning given their potential to raise transaction costs, restrict trade and inhibit innovation. The relative restrictiveness of rules of origin in Australia agreements varies. Some recently concluded agreements have relatively uncomplicated rules. Nevertheless, some recent changes to the CER agreement appear to have introduced more restrictive arrangements than those they replaced.

A Detailed estimates of Australian Government assistance to industry

Chapter 2 provides an overview of the Commission's estimates of Australian Government assistance to industry. This appendix provides supporting details of those estimates for the period 2001-02 to 2007-08.

Tables A.1 to A.3 provide estimates of net tariff assistance, budgetary assistance and net combined assistance by industry.

Tables A.4 to A.8 detail budgetary assistance to primary, mining, manufacturing and services industry groupings, respectively, by budgetary measure. For each industry, budgetary assistance measures are also identified according to the activity assisted, such as exports and R&D. Table A.9 covers budgetary measures for which information about the industry benefiting is not available.

The budgetary assistance estimates are derived primarily from actual expenditures shown in departmental and agency annual reports, and the Australian Treasury Tax Expenditures Statement. Industry and sectoral disaggregations are based primarily on supplementary information provided by relevant departments or agencies.

The methodology used to allocate budgetary measures by industry groupings is described in Methodological Annexes to previous editions of the *Trade & Assistance Review* (PC 2000a, PC 2002a, PC 2006a and PC 2008i).

Tables in this appendix are also available on the Commission's website (http://www.pc.gov.au/annualreports/trade-assistance).

Table A.1 Net tariff assistance by industry grouping,[a] 2001-02 to 2007-08

$ million

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*	*2007-08*
Primary production	**-22.3**	**-12.9**	**-16.2**	**-10.5**	**7.5**	**10.5**	**6.3**
Dairy cattle farming	-4.1	-2.9	-3.0	-3.4	-3.0	-2.7	-3.6
Grain, sheep & beef cattle	-25.6	-17.9	-22.4	-20.4	-16.7	-13.2	-15.9
Horticulture & fruit growing	27.3	24.4	27.1	28.8	34.4	35.9	36.5
Other crop growing	-6.4	-5.5	-5.8	-5.6	-4.6	-4.1	-4.7
Other livestock farming	-3.2	-2.9	-2.8	-2.9	-2.3	-2.3	-2.0
Fisheries	-22.2	-21.3	-21.3	-18.8	-14.9	-7.8	-8.4
Forestry & logging	23.1	22.2	22.2	21.7	22.8	12.0	12.9
Other primary production[b]	-11.1	-8.9	-10.2	-9.9	-8.2	-7.3	-8.4
Mining	**-146.8**	**-147.5**	**-139.2**	**-176.8**	**-219.7**	**-275.5**	**-293.3**
Manufacturing	**4 544.3**	**4 957.4**	**5 343.9**	**5 218.0**	**5 339.5**	**5 561.3**	**5 826.2**
Food, beverages & tobacco	905.3	978.6	1 007.9	1 026.9	1 077.6	1 122.3	1 191.2
Textiles, clothing & footwear	548.0	569.4	641.4	525.5	390.4	406.6	380.1
Wood & paper products	355.4	418.2	443.1	436.6	495.0	515.6	554.1
Printing, publishing & media	195.4	214.0	232.9	237.9	263.0	274.0	294.4
Petroleum, coal & chemicals	560.9	615.5	667.2	700.4	750.9	782.1	840.5
Non-metallic mineral products	142.9	168.7	191.1	176.0	188.9	196.7	204.4
Metal product manufacturing	682.0	729.2	787.4	807.2	840.0	874.9	932.5
Motor vehicles & parts	625.1	689.6	755.6	676.5	613.6	639.1	641.4
Other transport equipment	30.1	33.2	36.4	39.8	47.9	49.9	50.1
Other machinery & equipment	275.7	312.5	332.9	344.8	416.2	433.5	444.3
Other manufacturing	223.6	228.5	248.1	246.3	256.0	266.6	293.2
Services	**-3 214.5**	**-3 480.3**	**-3 855.6**	**-3 914.4**	**-3 775.0**	**-4 127.9**	**-4 503.3**
Electricity, gas & water	-70.5	-76.5	-80.0	-79.4	-73.5	-72.7	-82.6
Construction	-911.6	-1 022.8	-1 188.7	-1 279.3	-1 288.3	-1 493.1	-1 693.8
Wholesale trade	-151.4	-168.7	-180.4	-175.6	-153.5	-162.2	-173.0
Retail trade	-530.6	-568.8	-616.5	-574.0	-510.2	-525.2	-560.7
Accomm., cafes &	-306.3	-315.6	-355.9	-366.6	-369.9	-376.7	-393.1
Transport & storage	-211.2	-224.9	-245.7	-242.2	-216.2	-239.9	-264.9
Communication services	-146.8	-155.9	-162.9	-160.3	-141.0	-148.0	-143.5
Finance & insurance	-21.7	-22.8	-24.9	-26.9	-28.5	-31.6	-33.5
Property & business	-256.0	-272.6	-290.6	-296.4	-291.2	-319.4	-354.5
Government admin. &	-265.7	-280.5	-304.6	-304.1	-304.1	-326.9	-346.1
Education	-65.3	-70.1	-73.9	-76.9	-77.4	-81.0	-85.4
Health & community	-85.9	-92.6	-100.9	-99.8	-98.2	-106.4	-112.8
Cultural & recreational	-114.1	-129.6	-146.1	-145.6	-140.6	-155.4	-161.4
Personal & other services	-77.3	-78.9	-84.4	-87.2	-82.3	-89.2	-97.9

[a] Tariff assistance estimates are derived using ABS Industry Gross Value Added at current prices data. This information is subject to periodic revision by the ABS. Totals may not add due to rounding. [b] Other primary production includes *Services to agriculture* (including *Hunting & trapping)* and *Poultry farming*.

Source: Commission estimates.

Table A.2 Budgetary assistance by industry grouping, 2001-02 to 2007-08

$ million

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*	*2007-08*
Primary production	**1 015.6**	**1 402.2**	**1 359.6**	**1 285.2**	**1 441.5**	**1 796.8**	**2 220.1**
Dairy cattle farming	70.8	136.3	142.0	115.4	150.9	216.3	322.1
Grain, sheep & beef cattle	475.3	720.9	664.8	479.2	594.6	762.2	1 044.8
Horticulture & fruit growing	111.7	157.3	136.5	133.9	140.2	131.5	136.6
Other crop growing	91.0	77.4	148.5	190.3	212.3	168.2	165.3
Other livestock farming	28.6	40.4	31.6	21.0	26.8	28.1	33.3
Fisheries	81.6	70.9	73.8	129.3	111.3	305.6	188.1
Forestry & logging	41.4	95.0	35.6	93.5	84.1	58.1	36.7
Other primary production[a]	24.3	22.2	25.3	23.5	25.3	27.7	31.3
Unallocated primary[b]	90.9	81.7	101.6	99.1	95.9	99.1	261.8
Mining	**238.4**	**198.1**	**200.9**	**248.3**	**260.3**	**286.7**	**322.9**
Manufacturing	**1 917.7**	**1 773.4**	**1 844.5**	**1 692.8**	**1 684.3**	**1 723.8**	**1 817.1**
Food, beverages & tobacco	80.4	79.1	104.1	106.7	124.2	131.4	125.9
Textiles, clothing & footwear	221.1	168.2	150.7	153.0	158.9	135.0	139.2
Wood & paper products	43.7	42.2	41.0	47.8	53.3	55.3	98.7
Printing, publishing & media	24.3	25.6	33.4	19.3	23.7	21.7	40.0
Petroleum, coal & chemicals	180.5	212.7	178.1	136.2	169.9	188.6	225.1
Non-metallic mineral products	20.7	9.1	8.8	8.6	10.7	13.8	20.3
Metal product manufacturing	120.6	138.3	186.2	139.8	96.3	106.7	78.7
Motor vehicles & parts	750.0	682.1	697.1	653.4	582.3	622.6	603.1
Other transport equipment	101.7	41.1	35.0	19.4	27.2	19.6	22.1
Other machinery & equipment	181.3	154.6	132.0	123.6	141.3	149.8	160.1
Other manufacturing	53.5	56.6	130.4	120.6	135.3	130.8	148.9
Unallocated manufacturing[b]	139.9	163.7	147.8	164.4	161.3	148.4	154.8
Services	**909.7**	**916.9**	**1 091.3**	**1 347.8**	**1 400.2**	**1 673.9**	**2 273.7**
Electricity, gas & water supply	55.1	53.4	52.8	38.7	67.4	58.1	60.8
Construction	17.8	19.5	22.2	20.8	22.7	28.1	32.4
Wholesale trade	51.7	45.1	54.4	62.6	69.4	77.9	100.6
Retail trade	10.0	20.7	23.4	31.0	35.3	164.9	215.9
Accomm., cafes & restaurants	14.9	24.9	24.1	24.2	24.3	29.3	30.7
Transport & storage	69.0	74.6	73.5	70.2	65.2	59.4	58.6
Communication services	77.0	89.3	124.1	134.1	137.9	162.5	169.7
Finance & insurance	104.6	95.0	153.9	208.4	223.6	295.9	454.0
Property & business services	159.5	197.1	251.8	284.1	312.6	331.9	412.0
Government admin. & defence	1.2	7.2	6.4	3.6	1.7	4.7	4.0
Education	12.3	11.3	12.6	11.3	16.2	16.6	17.8
Health & community services	34.1	29.1	43.0	70.1	62.6	96.3	73.0
Cultural & recreational services	92.5	111.3	128.5	212.9	183.5	176.7	487.0
Personal & other services	5.4	5.0	5.5	7.7	9.5	12.1	15.0
Unallocated services[b]	204.5	133.5	115.0	168.3	168.1	159.3	142.3
Unallocated other[b]	594.7	641.8	742.1	916.2	1 115.6	1 217.5	1 633.2
TOTAL	**4 676.1**	**4 932.3**	**5 238.5**	**5 490.4**	**5 901.9**	**6 698.8**	**8 267.0**

[a] Other primary production includes *Services to agriculture* (including *Hunting & trapping)* and *Poultry farming*.
[b] Unallocated includes general programs where details of beneficiaries are unknown.

Source: Commission estimates.

Table A.3 **Net combined assistance by industry grouping, 2001-02 to 2007-08**

$ million

Industry grouping	*2001-02*	*2002-03*	*2003-04*	*2004-05*	*2005-06*	*2006-07*	*2007-08*
Primary production	**1 261.1**	**1 585.6**	**1 509.3**	**1 423.4**	**1 590.2**	**1 931.6**	**2 346.6**
Dairy cattle farming	327.9	303.7	289.4	255.5	284.5	337.9	438.7
Grain, sheep & beef cattle	456.3	711.4	648.8	464.0	582.5	749.0	1 028.9
Horticulture & fruit growing	138.9	181.7	163.6	162.7	174.5	167.4	173.1
Other crop growing	84.6	89.5	151.7	184.7	207.8	164.1	160.6
Other livestock farming	25.4	37.6	28.8	18.1	24.5	25.8	31.3
Fisheries	59.4	49.6	52.4	110.5	96.4	297.8	179.7
Forestry & logging	64.5	117.2	57.8	115.2	107.0	70.1	49.6
Other primary production[a]	13.1	13.3	15.1	13.6	17.1	20.3	22.9
Unallocated primary[b]	90.9	81.7	101.6	99.1	95.9	99.1	261.8
Mining	**91.7**	**50.6**	**61.7**	**71.5**	**40.6**	**11.2**	**29.6**
Manufacturing	**6 452.1**	**6 730.8**	**7 188.4**	**6 910.8**	**7 023.8**	**7 285.1**	**7 643.3**
Food, beverages & tobacco	985.7	1 057.7	1 112.0	1 133.6	1 201.8	1 253.7	1 317.1
Textiles, clothing & footwear	759.3	737.6	792.1	678.5	549.3	541.6	519.3
Wood & paper products	399.1	460.4	484.1	484.4	548.3	570.9	652.8
Printing, publishing & media	219.7	239.6	266.3	257.2	286.7	295.7	334.5
Petroleum, coal & chemicals	741.4	828.2	845.3	836.6	920.8	970.8	1 065.6
Non-metallic mineral products	163.6	177.8	199.8	184.7	199.6	210.5	224.8
Metal product manufacturing	802.5	867.4	973.5	947.0	936.3	981.6	1 011.2
Motor vehicles & parts	1 375.1	1 371.8	1 452.6	1 329.9	1 195.9	1 261.7	1 244.6
Other transport equipment	131.8	74.3	71.4	59.2	75.1	69.5	72.2
Other machinery & equipment	457.0	467.2	464.9	468.4	557.5	583.3	604.4
Other manufacturing	277.1	285.0	378.5	366.9	391.2	397.4	442.1
Unallocated manufacturing[b]	139.9	163.7	147.8	164.4	161.3	148.4	154.8
Services	**-2 304.8**	**-2 563.4**	**-2 764.3**	**-2 566.5**	**-2 374.9**	**-2 453.9**	**-2 229.6**
Electricity, gas & water supply	-15.4	-23.1	-27.2	-40.8	-6.1	-14.7	-21.8
Construction	-893.8	-1 003.3	-1 166.6	-1 258.5	-1 265.5	-1 465.1	-1 661.4
Wholesale trade	-99.7	-123.6	-126.0	-113.0	-84.1	-84.3	-72.4
Retail trade	-520.7	-548.1	-593.2	-543.0	-474.8	-360.3	-344.7
Accomm., cafes & restaurants	-291.4	-290.7	-331.8	-342.4	-345.6	-347.4	-362.4
Transport & storage	-142.2	-150.3	-172.2	-172.0	-151.0	-180.5	-206.3
Communication services	-69.8	-66.6	-38.7	-26.2	-3.1	14.5	26.2
Finance & insurance	82.9	72.2	129.0	181.5	195.1	264.3	420.5
Property & business services	-96.4	-75.4	-38.9	-12.4	21.4	12.5	57.5
Government admin. & defence	-264.5	-273.3	-298.1	-300.6	-302.3	-322.2	-342.1
Education	-53.0	-58.9	-61.3	-65.6	-61.2	-64.4	-67.6
Health & community services	-51.8	-63.4	-57.9	-29.7	-35.6	-10.1	-39.8
Cultural & recreational services	-21.6	-18.3	-17.7	67.3	42.9	21.3	325.5
Personal & other services	-71.9	-73.9	-78.9	-79.5	-72.8	-77.1	-82.9
Unallocated services[b]	204.5	133.5	115.0	168.3	168.1	159.3	142.3
Unallocated other[b]	594.7	641.8	742.1	916.2	1 115.6	1 217.5	1 633.2
TOTAL	**6 094.8**	**6 445.4**	**6 737.2**	**6 755.4**	**7 395.3**	**7 991.5**	**9 423.1**

[a] Other primary production includes *Services to agriculture* (including *Hunting & trapping)* and *Poultry farming*.
[b] Unallocated includes general programs where details of beneficiaries are unknown.

Source: Commission estimates.

Table A.4 **Australian Government budgetary assistance to primary industry groups,[a] 2001-02 to 2007-08**

$ million

	01-02	*02-03*	*03-04*	*04-05*	*05-06*	*06-07*	*07-08*
Horticulture and fruit growing							
Industry-specific measures							
Assistance to the vegetable industry	-	-	-	-	0.3	1.0	1.1
Citrus Canker Eradication Programme	-	-	-	3.5	9.8	0.6	0.6
Citrus industry market diversification subsidy	0.7	-	-	-	-	-	-
Tax deduction for horticultural plantations	4.0	5.0	4.0	5.0	4.0	4.0	5.0
Tax deduction for grape vines	7.0	8.0	9.0	9.0	7.0	3.0	0.5
Sector-specific measures							
Agricultural development partnership	0.4	1.7	0.2	1.1	-	-	-
Drought Relief Package	-	<0.1	0.1	<0.1	-	-	-
Exceptional circumstances – interest rate subsidy	<0.1	0.2	1.9	2.1	4.9	8.6	14.7
Farm Help	3.0	3.5	2.3	1.4	2.5	2.4	0.6
Farm Management Deposits Scheme	13.3	37.3	24.7	10.1	13.0	10.3	13.0
Farm Bis Program	1.9	4.0	3.8	2.7	1.1	0.9	1.4
Income tax averaging provisions	21.8	26.0	17.0	9.7	7.4	6.5	5.5
Industry partnerships program	-	-	-	3.5	2.7	3.0	2.8
Rural Financial Counselling Service	0.9	0.8	1.0	0.7	0.7	1.1	2.0
Skilling farmers for the future	0.4	0.5	0.4	-	-	-	-
Tax allowance on drought preparedness assets	<0.1	-	-	-	-	-	-
Tax deduction for conserving or conveying water	4.5	5.6	5.6	6.6	6.6	8.3	8.3
Rural R&D measures							
Grape and Wine R&D Corporation	5.9	7.6	6.9	8.1	12.0	14.5	11.4
Horticulture Australia Limited – R&D	26.3	29.6	28.4	32.9	33.6	34.6	34.5
Rural Industries R&D Corporation	1.9	1.9	2.0	1.9	2.3	2.3	2.3
General export measures							
Export Market Development Grants Scheme	1.7	1.7	1.7	1.4	0.9	0.7	0.9
TRADEX	<0.1	<0.1	<0.1	<0.1	-	-	-
General investment measures							
Development allowance	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
General R&D measures							
Biotechnology Innovation Fund	-	-	<0.1	0.1	0.1	<0.1	-
Commercial Ready Program	-	-	-	-	1.0	1.3	0.6
COMET Program	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cooperative Research Centres	2.1	2.0	4.2	3.7	1.6	-	-
CSIRO	10.2	10.5	15.7	24.0	22.9	23.9	26.0
Major national research facilities	0.1	0.7	1.1	1.3	1.3	-	-
New Industries Development Program	1.4	1.3	1.1	1.2	0.9	0.6	0.3
Premium R&D tax concession	<0.1	0.1	0.2	0.2	0.2	0.3	0.5
Preseed fund	-	3.4	0.7	0.3	-	<0.1	<0.1
R&D Start	<0.1	1.6	0.2	0.4	0.2	<0.1	-
R&D tax concession	0.3	0.7	0.8	0.5	0.6	0.7	0.8
R&D tax offset for small companies	-	1.4	2.2	1.7	2.0	1.9	2.5
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Other measures							
Eden Structural Adjustment	<0.1	<0.1	<0.1	-	-	-	-
Farm Innovation Program	3.1	0.7	<0.1	-	-	-	-
Scottsdale Industry and Community Development Fund	-	-	-	-	-	-	0.3
Small business capital gains tax exemption	0.3	1.1	1.1	0.7	0.7	0.9	0.9
South West Forests Structural Adjustment	0.1	0.1	-	-	-	-	-
Wide Bay Burnett Structural Adjustment	0.1	<0.1	-	-	-	-	-
Total	*111.7*	*157.3*	*136.5*	*133.9*	*140.2*	*131.5*	*136.6*
Grain, sheep and beef cattle farming							
Industry-specific measures							
Australian Wool Innovation grant	-	-	-	-	-	15.0	-
Beef Expo & Gracemere Saleyards	1.8	3.9	-	-	-	-	-
Lamb industry development program	4.0	-	-	-	-	-	-
Lamb Industry Development Program – Levy Alleviation	7.8	-	-	-	-	-	-
National Livestock Identification System	-	-	-	5.0	5.0	5.0	4.7
Ovine Johnes Disease Control Programme	0.4	0.1	0.1	0.3	0.3	-	-
Tasmanian wheat freight subsidy	0.8	0.8	0.8	0.4	-	-	-
Tuberculosis Freedom Assurance Programme	-	-	1.0	0.6	-	-	-
Wheat Export Authority Supplementation	-	-	-	-	-	-	2.0

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Sector-specific measures							
Agricultural development partnership	0.2	0.7	0.1	0.5	-	-	-
Drought Relief Package	-	2.1	4.8	1.6	-	-	-
Exceptional circumstances – interest rate subsidy	6.9	25.2	66.1	70.9	166.2	291.8	497.6
Exceptional circumstances – relief payments	10.6	24.5	92.8	70.9	92.8	150.8	239.1
Farm Help	8.1	12.3	5.0	7.1	6.2	6.3	1.6
Farm Management Deposits Scheme	109.8	306.4	178.8	67.8	78.3	46.7	57.9
Farm Bis Program	11.6	17.7	14.2	6.9	6.5	5.5	7.2
Income tax averaging provisions	163.2	139.3	90.8	53.4	40.7	35.6	30.5
Industry partnerships program	-	-	-	0.1	0.3	0.4	0.8
Interim Income Support	0.3	27.8	25.1	1.1	0.3	7.0	4.8
Rural Financial Counselling Service	1.4	1.7	2.0	1.9	2.5	5.7	6.1
Skilling farmers for the future	2.3	2.3	1.6	-	-	-	-
Tax allowance on drought preparedness assets	0.8	-	-	-	-	-	-
Tax deduction for conserving or conveying water	7.3	10.0	10.0	6.8	6.8	8.5	8.5
Rural R&D measures							
Wool R&D	14.4	16.2	14.1	13.5	11.0	11.6	12.3
Grains R&D Corporation	40.8	39.2	42.4	35.7	43.1	35.8	28.9
Meat and livestock R&D	22.9	26.6	32.8	39.0	40.3	35.7	34.5
Rural Industries R&D Corporation	2.6	2.7	2.6	2.2	1.8	2.4	2.4
General export measures							
EFIC national interest business[b]	3.7	4.1	4.3	3.9	3.4	4.0	2.5
Export Market Development Grants Scheme	0.2	0.3	0.5	0.4	0.4	0.4	0.5
General investment measures							
Development allowance	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	-	<0.1	<0.1	<0.1	-	-	-
Commercial Ready Program	-	-	-	0.2	-	-	-
COMET Program	-	<0.1	<0.1	-	<0.1	<0.1	<0.1
Cooperative Research Centres	6.2	8.2	9.0	8.7	10.7	11.4	13.0
CSIRO	43.3	44.4	61.4	71.3	69.9	72.8	79.1
Innovation investment fund	-	-	-	1.0	-	-	-
New Industries Development Program	0.3	0.3	0.2	0.3	0.2	0.1	<0.1
Premium R&D tax concession	<0.1	0.2	0.3	<0.1	0.1	0.2	0.3
R&D Start	-	-	<0.1	-	-	-	-
R&D tax concession	2.0	0.9	1.1	0.3	0.3	0.4	0.4
R&D tax offset for small companies	-	-	-	0.3	0.4	0.3	0.5

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Farm Innovation Program	0.8	0.2	<0.1	-	-	-	-
Small business capital gains tax exemption	0.8	2.9	2.9	7.0	7.0	8.9	9.6
Total[c]	*475.3*	*720.9*	*664.8*	*479.2*	*594.6*	*762.2*	*1 044.8*
Dairy cattle farming							
Sector-specific measures							
Agricultural development partnership	0.2	0.7	0.1	0.5	-	-	-
Drought Relief Package	-	0.9	1.4	0.5	-	-	-
Exceptional circumstances – interest rate subsidy	3.0	11.0	19.7	21.2	49.6	87.1	148.4
Exceptional circumstances – relief payments	7.5	17.5	44.1	33.6	44.1	71.6	113.5
Farm Help	2.4	8.3	5.0	1.2	1.0	0.9	0.2
Farm Management Deposits Scheme	10.0	21.2	12.5	5.6	8.2	4.8	7.5
Farm Bis Program	1.3	2.4	1.6	0.5	0.3	0.4	0.4
Income tax averaging provisions	18.8	26.1	17.0	21.4	16.3	14.3	12.2
Interim Income Support	0.2	19.8	11.9	0.5	0.1	3.3	2.3
Rural Financial Counselling Service	0.6	0.6	0.6	0.4	0.4	1.4	1.7
Skilling farmers for the future	0.3	0.3	0.2	-	-	-	-
Tax allowance on drought preparedness assets	<0.1	-	-	-	-	-	-
Tax deduction for conserving or conveying water	0.6	1.2	1.2	1.1	1.1	1.4	1.4
Rural R&D measures							
Dairy Research and Development	15.4	15.3	15.4	14.5	15.4	16.0	18.3
General export measures							
Export Market Development Grants Scheme	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
TRADEX	-	-	-	0.4	0.5	0.6	0.6
General R&D measures							
CSIRO	10.1	10.4	11.1	13.7	13.6	14.1	15.4
New Industries Development Program	0.4	0.3	0.3	0.3	0.2	0.1	<0.1
Other measures							
Farm Innovation Program	<0.1	<0.1	<0.1	-	-	-	-
Small business capital gains tax exemption	<0.1	-	-	-	-	-	-
Total[d]	*70.8*	*136.3*	*142.0*	*115.4*	*150.9*	*216.3*	*322.1*

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Poultry farming							
Sector-specific measures							
Drought Relief Package	-	<0.1	<0.1	<0.1	-	-	-
Exceptional circumstances – interest rate subsidy	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2
Exceptional circumstances – relief payments	0.3	0.6	2.0	1.5	2.0	3.2	5.1
Farm Help	0.5	0.6	0.1	-	<0.1	<0.1	<0.1
Farm Management Deposits Scheme	0.3	0.6	0.5	0.3	0.4	0.3	0.3
Farm Bis Program	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Income tax averaging provisions	1.8	1.5	1.0	0.5	0.4	0.4	0.3
Industry partnerships program	-	-	-	0.1	0.2	1.0	1.0
Interim Income Support	<0.1	0.7	0.5	<0.1	<0.1	0.2	0.1
Rural Financial Counselling Service	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Skilling farmers for the future	<0.1	<0.1	<0.1	-	-	-	-
Tax allowance on drought preparedness assets	<0.1	-	-	-	-	-	-
Tax deduction for conserving or conveying water	<0.1	0.1	0.1	0.1	0.1	0.1	0.1
Rural R&D measures							
Egg Research and Development	-	0.4	1.1	0.8	1.0	1.2	1.0
Rural Industries R&D Corporation	2.8	1.7	2.0	2.1	2.0	1.8	1.9
General export measures							
Export Market Development Grants Scheme	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Cooperative Research Centres	-	-	3.2	3.5	3.4	3.4	3.4
CSIRO	-	-	1.2	1.2	1.2	1.3	1.4
New Industries Development Program	0.2	0.1	0.1	0.1	<0.1	<0.1	<0.1
R&D tax concession	<0.1	-	-	-	-	-	-
Other measures							
Farm Innovation Program	0.4	<0.1	<0.1	-	-	-	-
Small business capital gains tax exemption	<0.1	-	-	1.0	1.0	1.3	1.4
Total	*6.4*	*6.7*	*12.2*	*11.3*	*12.1*	*14.7*	*16.4*
Other livestock farming							
Industry-specific measures							
Pigmeat processing grants program	1.6	-	-	-	-	-	-

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Sector-specific measures							
Drought Relief Package	-	<0.1	<0.1	<0.1	-	-	-
Exceptional circumstances – interest rate subsidy	0.1	0.5	1.2	1.3	3.1	5.4	9.1
Exceptional circumstances – relief payments	0.2	0.3	1.2	0.9	1.2	1.9	3.0
Farm Help	0.4	1.1	0.2	0.2	0.2	0.2	<0.1
Farm Management Deposits Scheme	7.8	19.8	12.6	5.0	6.7	4.2	4.3
Farm Bis Program	<0.1	0.4	0.3	<0.1	0.1	0.1	0.2
Income tax averaging provisions	7.0	6.5	4.3	2.4	1.9	1.6	1.4
Industry partnerships program	-	-	-	0.1	<0.1	<0.1	<0.1
Interim Income Support	<0.1	0.4	0.3	<0.1	<0.1	<0.1	<0.1
Rural Financial Counselling Service	0.4	0.4	0.4	0.3	0.3	0.2	0.2
Skilling farmers for the future	<0.1	<0.1	<0.1	-	-	-	-
Tax allowance on drought preparedness assets	<0.1	-	-	-	-	-	-
Tax deduction for conserving or conveying water	0.3	0.6	0.6	0.1	0.1	0.2	0.2
Rural R&D measures							
Pig Research and Development	3.7	3.3	4.6	4.2	3.6	3.4	3.7
Rural Industries R&D Corporation	1.2	1.2	1.1	1.2	1.2	1.8	1.8
General export measures							
Export Market Development Grants Scheme	0.3	0.6	0.4	0.5	0.5	0.8	0.5
General R&D measures							
COMET Program	<0.1	<0.1	-	-	-	-	-
Cooperative Research Centres	-	-	-	-	3.3	3.6	3.8
CSIRO	4.1	4.3	3.4	3.8	3.8	4.0	4.3
New Industries Development Program	0.3	0.3	0.2	0.3	0.2	0.1	<0.1
R&D tax concession	0.6	0.5	0.6	0.4	0.5	0.6	0.7
Other measures							
Farm Innovation Program	0.5	0.1	<0.1	-	-	-	-
Small business capital gains tax exemption	<0.1	-	-	-	-	-	-
Total	*28.6*	*40.4*	*31.6*	*21.0*	*26.8*	*28.1*	*33.3*
Other crop growing							
Industry-specific measures							
Sugar Industries Package	19.7	-	-	-	-	-	-
Sugar Industry Infrastructure Program	1.8	-	-	-	-	-	-
Sugar Industry Reform Program	-	-	69.9	129.4	140.0	39.1	35.6
Tobacco Grower Adjustment Assistance	-	-	-	-	-	39.3	14.4

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Sector-specific measures							
Drought Relief Package	-	0.2	0.2	<0.1	-	-	-
Exceptional circumstances – interest rate subsidy	0.7	2.7	3.4	3.7	8.6	15.2	25.9
Exceptional circumstances – relief payments	1.3	2.9	13.3	10.2	13.3	21.6	34.3
Farm Help	10.0	2.4	2.5	1.4	0.9	0.7	0.2
Farm Management Deposits Scheme	7.7	21.3	14.0	5.5	7.5	6.7	8.0
Farm Bis Program	0.2	1.1	0.9	<0.1	0.1	<0.1	0.2
Income tax averaging provisions	7.0	6.9	4.5	4.5	3.4	3.0	2.6
Industry partnerships program	-	-	-	0.1	-	-	-
Interim Income Support	<0.1	3.3	3.6	0.2	<0.1	1.0	0.7
Rural Financial Counselling Service	<0.1	0.1	0.1	0.1	0.1	0.7	0.6
Skilling farmers for the future	<0.1	0.1	0.1	-	-	-	-
Tax allowance on drought preparedness assets	<0.1	-	-	-	-	-	-
Tax deduction for conserving or conveying water	6.8	6.2	6.2	4.2	4.2	5.2	5.2
Rural R&D measures							
Cotton Research and Development Corporation	7.2	7.3	4.8	4.3	4.9	4.6	3.1
Rural Industries R&D Corporation	0.4	0.6	0.7	0.6	0.8	0.8	0.8
Sugar Research and Development Corporation	7.0	5.1	5.2	3.8	5.2	5.5	6.3
General export measures							
Export Market Development Grants Scheme	0.5	0.3	0.2	0.1	0.2	0.4	0.2
TRADEX	-	<0.1	<0.1	-	-	-	-
General R&D measures							
Biotechnology Innovation Fund	-	<0.1	0.2	0.2	0.1	-	-
Commercial Ready Program	-	-	-	-	<0.1	<0.1	0.6
COMET Program	-	<0.1	<0.1	<0.1	<0.1	-	0.1
Cooperative Research Centres	7.5	6.1	8.3	6.6	8.1	8.8	9.1
CSIRO	9.7	9.9	9.6	14.2	13.6	14.1	15.3
New Industries Development Program	0.2	0.1	0.1	0.1	<0.1	<0.1	<0.1
Premium R&D tax concession	<0.1	<0.1	0.1	0.2	0.2	0.4	0.6
R&D Start	<0.1	-	-	0.0	-	-	-
R&D tax concession	2.0	0.4	0.4	0.6	0.7	0.8	0.9
R&D tax offset for small companies	-	-	-	0.2	0.2	0.2	0.3
Other measures							
Farm Innovation Program	0.9	0.2	<0.1	-	-	-	-
Scottsdale Industry and Community Development Fund	-	-	-	-	-	-	0.3
Small business capital gains tax exemption	<0.1	-	-	-	-	-	-
Total[e]	*91.0*	*77.4*	*148.5*	*190.3*	*212.3*	*168.2*	*165.3*

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Services to agriculture (inc hunting and trapping)							
Industry-specific measures							
Renewable Energy Equity Fund	-	-	-	-	0.5	-	-
Sector-specific measures							
Drought Relief Package	-	<0.1	<0.1	<0.1	-	-	-
Exceptional circumstances – interest rate subsidy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
FarmBis Program	-	<0.1	0.1	-	<0.1	<0.1	<0.1
Income tax averaging provisions	10.3	9.0	5.9	3.9	3.0	2.6	2.2
Skilling farmers for the future	-	<0.1	<0.1	-	-	-	-
Tax allowance on drought preparedness assets	<0.1	-	-	-	-	-	-
Tax deduction for conserving or conveying water	0.4	1.3	1.3	0.5	0.5	0.6	0.6
General export measures							
Export Market Development Grants Scheme	0.3	0.4	0.6	0.1	0.3	0.5	0.5
TRADEX	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	0.1	1.2	0.9	0.5	0.2	<0.1	-
Commercial Ready Program	-	-	-	<0.1	1.0	1.1	1.2
COMET Program	0.3	<0.1	0.1	0.2	0.3	<0.1	<0.1
Premium R&D tax concession	<0.1	0.1	0.2	0.8	1.0	1.6	2.5
R&D Start	5.2	1.4	1.3	1.1	0.2	<0.1	-
R&D tax concession	0.8	0.6	0.7	2.6	2.9	3.4	4.0
R&D tax offset for small companies	-	1.0	1.6	1.5	1.8	1.7	2.2
Other measures							
Farm Innovation Program	<0.1	<0.1	<0.1	-	-	-	-
Industry Cooperative Innovation Program	-	-	-	-	-	0.3	<0.1
Innovation Investment Fund for South Australia	-	-	-	-	-	-	0.2
Scottsdale Industry and Community Development Fund	-	-	-	-	-	-	0.1
Small business capital gains tax exemption	0.2	0.5	0.5	0.9	0.9	1.2	1.3
Small business programs	-	-	-	-	0.4	-	-
South West Forests Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Wide Bay Burnett Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*17.9*	*15.6*	*13.2*	*12.2*	*13.2*	*13.0*	*14.9*
Forestry and logging							
Industry-specific measures							
12-month prepayment rule	-	55.0	-15.0	40.0	40.0	-10.0	-5.0
Forest Industry Structural Adjustment	18.9	16.4	21.5	21.3	9.7	30.6	-

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Sector-specific measures							
Farm Management Deposits Scheme	0.1	0.4	0.3	0.1	0.2	1.3	2.8
Income tax averaging provisions	2.9	4.1	2.7	3.6	2.7	2.4	2.0
Industry partnerships program	-	-	-	0.1	-	0.4	<0.1
Rural Financial Counselling Service	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tax deduction for conserving or conveying water	<0.1	<0.1	<0.1	0.6	0.6	0.8	0.8
Rural R&D measures							
Forest and Wood Products R&D	1.4	1.5	1.6	1.4	1.4	1.8	2.0
Rural Industries R&D Corporation	2.2	1.8	1.7	1.3	1.8	1.0	1.0
General export measures							
Export Market Development Grants Scheme	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	-	0.6	1.1	0.6
COMET Program	-	<0.1	<0.1	<0.1	-	-	-
Cooperative Research Centres	2.4	2.4	2.6	0.4	2.7	3.3	4.2
CSIRO	12.6	13.0	19.9	24.2	24.0	24.9	27.1
Premium R&D tax concession	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2
R&D tax concession	0.5	0.1	0.1	0.2	0.2	0.3	0.3
R&D tax offset for small companies	-	-	-	<0.1	<0.1	<0.1	<0.1
Other measures							
Eden Structural Adjustment	<0.1	<0.1	<0.1	-	-	-	-
Farm Innovation Program	<0.1	<0.1	<0.1	-	-	-	-
Scottsdale Industry and Community Development Fund	-	-	-	-	-	-	0.4
Small business capital gains tax exemption	<0.1	-	-	-	-	-	-
Total	*41.4*	*95.0*	*35.6*	*93.5*	*84.1*	*58.1*	*36.7*
Commercial fishing							
Industry-specific measures							
Aquaculture Industry Action Agenda	-	-	2.5	1.0	-	-	-
Fisheries Structural Adjustment Package	-	-	-	-	1.3	159.9	25.3
Fishing Structural Adjustment Package – Management Levy Subsidy	-	-	-	-	-	-	5.0
Great Barrier Reef Structural Adjustment	-	-	-	49.1	32.6	65.9	67.8

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Sector-specific measures							
Farm Help	<0.1	0.1	<0.1	1.2	<0.1	<0.1	<0.1
Farm Management Deposits Scheme	1.0	3.0	1.6	0.6	0.7	0.6	1.2
Farm Bis Program	0.2	1.1	3.7	1.6	0.3	0.5	0.8
Income tax averaging provisions	27.2	10.6	6.9	5.6	4.2	3.7	3.2
Industry partnerships program	-	-	-	0.4	0.4	0.5	0.2
Rural Financial Counselling Service	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
Skilling farmers for the future	<0.1	0.1	0.4	-	-	-	-
Tax allowance on drought preparedness assets	<0.1	-	-	-	-	-	-
Tax deduction for conserving or conveying water	<0.1	-	-	-	-	-	-
Rural R&D measures							
Fishing industry R&D	15.8	17.4	17.7	16.9	16.0	16.0	16.3
General export measures							
Export Market Development Grants Scheme	0.4	0.3	0.5	0.4	0.5	0.7	0.3
TRADEX	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General investment measures							
Development allowance	1.6	0.8	0.4	0.3	0.2	<0.1	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	<0.1	1.6	3.0	3.4
COMET Program	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cooperative Research Centres	1.5	2.6	2.7	2.6	2.6	2.6	6.5
CSIRO	29.0	30.1	29.6	39.9	40.7	42.4	46.1
New Industries Development Program	0.4	0.4	0.3	0.3	0.3	0.2	<0.1
Premium R&D tax concession	<0.1	0.2	0.3	0.5	0.6	0.9	1.5
R&D Start	2.3	0.5	2.2	1.8	1.1	0.3	<0.1
R&D Start Loans	-	-	-	-	<0.1	-	-
R&D tax concession	0.5	1.0	1.2	1.4	1.6	1.8	2.1
R&D tax offset for small companies	-	1.9	3.1	4.2	4.9	4.5	6.1
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Eden Structural Adjustment	0.2	<0.1	<0.1	-	-	-	-
Farm Innovation Program	0.6	0.1	<0.1	-	-	-	-
Industry Cooperative Innovation Program	-	-	-	-	0.1	0.2	0.2
Small business capital gains tax exemption	0.4	0.3	0.3	1.3	1.3	1.6	1.8
South West Forests Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*81.6*	*70.9*	*73.8*	*129.3*	*111.3*	*305.6*	*188.1*

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Unallocated primary production							
Industry-specific measures							
Australian animal health laboratory	5.9	6.1	6.2	6.8	6.9	7.0	7.2
Exotic Disease Preparedness program	1.2	1.2	3.0	1.2	0.8	0.9	0.9
Sector-specific measures							
Agricultural development partnership	0.3	1.4	0.2	1.0	-	-	-
Caring for our country - landcare	-	-	-	-	-	-	9.0
Drought assistance – Murray Darling Basin grants to irrigators	-	-	-	-	-	-	144.3
Drought assistance – professional advice	-	-	-	-	-	-	6.2
Drought assistance – re-establishment assistance	-	-	-	-	-	-	4.6
Drought assistance – technical information workshop	-	-	-	-	-	-	6.1
Drought Relief Package	-	<0.1	<0.1	<0.1	-	-	-
Exceptional circumstances – interest rate subsidy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Farm Help	0.6	0.5	0.3	0.4	0.3	0.3	<0.1
Farm Bis Program	0.6	1.2	1.1	0.3	0.1	0.1	0.2
Industry Partnerships Program	-	-	-	0.2	0.2	-	0.3
National landcare program	40.3	32.7	39.1	39.3	37.0	37.0	26.8
Regional assistance	-	3.2	4.7	-	-	0.5	0.1
Rural adjustment scheme	10.7	-	-	-	-	-	-
Rural Financial Counselling Service	1.8	1.5	1.2	1.0	1.0	2.1	2.8
Skilling farmers for the future	0.1	0.2	0.1	-	-	-	-
Rural R&D measures							
Land and water resources R&D	11.6	11.9	12.2	12.5	12.5	12.8	13.0
Rural Industries R&D Corporation	4.2	4.7	4.8	5.2	5.4	5.8	5.9
General export measures							
Export Market Development Grants Scheme	-	-	-	-	-	<0.1	-

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Table A.4 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
General R&D measures							
Biotechnology Innovation Fund	-	-	0.2	-	-	-	-
Cooperative Research Centres	9.1	11.0	19.4	20.8	22.0	23.3	23.8
Major national research facilities	0.1	0.7	1.1	1.3	1.3	-	-
R&D Start	-	-	1.7	-	-	-	-
Other measures							
Tasmanian Freight Equalisation Scheme	4.4	5.5	6.0	9.2	8.4	9.3	10.5
Total	*90.9*	*81.7*	*101.6*	*99.1*	*95.9*	*99.1*	*261.8*
Total outlays	**562.9**	**658.6**	**930.4**	**991.8**	**1 154.8**	**1 603.9**	**2 009.2**
Total tax expenditures	**452.7**	**743.6**	**429.3**	**293.5**	**286.7**	**192.9**	**210.9**
Total Budgetary assistance	**1 015.6**	**1 402.2**	**1 359.6**	**1 285.2**	**1 441.5**	**1 796.8**	**2 220.1**

- Nil. Figures may not add to totals due to rounding. [a] The estimates are derived primarily from Australian Government departmental annual reports and Treasury's Tax Expenditure Statements and unpublished information provided by relevant agencies. [b] The estimates reported in this section are net National Interest Business outlays. These payments are insurance pay-outs. Because any difference between the National Interest Business scheme's borrowing and lending rates is underwritten by the Australian Government, the scheme may provide assistance to agricultural exporters. However, net National Interest Business outlays provide only a weak indication of any assistance provided. [c] Excludes assistance derived from NSW statutory marketing arrangements for rice, which the Commission categorises as 'agricultural pricing and regulatory assistance' rather than budgetary assistance. The arrangements ended on 1 July 2006. [d] Does not include funding provided under the Australian Government's Dairy Industry Adjustment Package, which has been included in the estimates of 'agricultural pricing and regulatory assistance' reported in recent *Reviews*. The Commission estimates that the package provided dairy farmers remaining in the industry with assistance totalling $120.1 million in 2007-08. [e] Does not include funding of $18 million and $9 million in 2002-03 and 2003-04, respectively, provided under the Australian Government's 2002 Sugar Industry Reform Program. This assistance has been included in the estimates of 'agricultural pricing and regulatory assistance'.

Source: Commission estimates.

Table A.5 **Australian Government budgetary assistance to mining,[a] 2001-02 to 2007-08**

$ million

	01-02	*02-03*	*03-04*	*04-05*	*05-06*	*06-07*	*07-08*
Industry-specific measures							
Greenhouse gas abatement program	0.3	0.2	0.7	0.6	0.6	0.9	0.8
Regional minerals program	0.3	0.3	0.3	0.3	-	-	-
Renewable Energy Development Initiative	-	-	-	-	-	0.3	0.5
Sector-specific measures							
Capital expenditure deduction for mining	30.0	30.0	20.0	30.0	25.0	25.0	20.0
General export measures							
Export Market Development Grants Scheme	2.2	1.5	1.4	1.4	1.3	2.2	1.6
TRADEX	0.4	2.3	1.9	0.2	0.5	0.6	0.6
General investment measures							
Development allowance	78.6	41.1	21.4	14.3	8.9	3.6	0.2
General R&D measures							
Biotechnology Innovation Fund	-	0.1	<0.1	0.1	<0.1	-	-
Commercial Ready Program	-	-	-	0.1	2.4	6.3	9.2
COMET Program	0.3	0.2	0.2	0.2	<0.1	<0.1	<0.1
Cooperative Research Centres	7.3	8.4	10.2	10.5	10.9	9.3	8.1
CSIRO	54.1	55.4	74.4	104.8	109.0	113.5	123.3
Innovation Investment Fund	0.8	-	-	-	0.9	0.6	0.3
Major national research facilities	0.1	0.8	1.2	1.3	1.3	-	-
New Industries Development Program	0.2	0.1	0.1	0.1	<0.1	<0.1	<0.1
Premium R&D tax concession	3.3	8.2	13.9	19.5	25.4	38.1	60.6
R&D Start	13.0	4.4	3.3	1.6	2.7	1.2	0.1
R&D Start Loans	-	-	-	-	<0.1	-	-
R&D tax concession	47.4	44.3	50.6	60.7	68.1	79.1	93.8
R&D tax offset for small companies	-	0.7	1.2	2.6	3.0	2.8	3.8
Other measures							
Beaconsfield Community Fund	-	-	-	-	-	3.2	-
Small business capital gains tax exemption	<0.1	-	-	-	-	-	-
Total outlays	**78.6**	**72.2**	**93.0**	**123.6**	**132.5**	**140.4**	**147.8**
Total tax expenditures	**159.8**	**125.9**	**107.9**	**124.7**	**127.9**	**146.4**	**175.1**
Total Budgetary assistance	**238.4**	**198.1**	**200.9**	**248.3**	**260.3**	**286.7**	**322.9**

- Nil. Figures may not add to totals due to rounding. [a] The estimates are derived primarily from Australian Government departmental annual reports and Treasury's Tax Expenditure Statements and unpublished information provided by relevant agencies.

Source: Commission estimates.

Table A.6 Australian Government budgetary assistance to manufacturing industry groups,[a] 2001-02 to 2007-08

$ million

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Food, beverages and tobacco							
Industry-specific measures							
Brandy preferential excise rate	5.0	5.0	5.0	4.0	4.0	4.0	5.0
Food Processing in Regional Australia	-	-	-	-	3.6	4.2	2.3
National food industry strategy	-	7.0	12.1	14.5	18.0	15.6	0.5
Renewable Energy Development Initiative	-	-	-	-	-	0.8	-
Tasmanian wheat freight subsidy	0.4	0.4	0.4	0.2	-	-	-
Sector-specific measures							
Rural Financial Counselling Service	0.1	0.1	0.2	0.2	0.3	-	-
General export measures							
Export Market Development Grants Scheme	8.4	11.2	11.8	11.6	15.2	15.4	13.7
TRADEX	0.6	0.9	0.7	1.2	0.8	0.9	0.9
General investment measures							
Development allowance	2.9	1.5	0.8	0.5	0.3	0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	-	-	0.1	<0.1	-	-	-
Commercial Ready Program	-	-	-	<0.1	0.8	1.1	1.6
COMET Program	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Cooperative Research Centres	4.1	2.6	2.7	2.6	2.6	2.6	2.6
CSIRO	21.0	21.7	38.9	36.1	37.7	39.2	42.6
Innovation Investment Fund	-	-	-	-	-	0.2	-
New Industries Development Program	0.5	0.4	0.4	0.4	0.3	0.2	<0.1
Premium R&D tax concession	0.7	1.8	3.1	3.7	4.8	7.2	11.5
R&D Start	2.1	1.8	0.8	0.6	0.1	2.3	0.2
R&D Start Loans	-	-	-	-	0.7	-	-
R&D tax concession	20.8	10.2	11.7	11.3	12.7	14.7	17.5
R&D tax offset for small companies	-	0.7	1.2	2.0	2.3	2.1	2.9

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Australia HomeGrown Campaign	-	-	-	-	0.5	1.8	0.9
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Eden Structural Adjustment	0.7	0.3	0.1	-	-	-	-
Innovation Investment Fund for South Australia*	-	-	-	-	-	-	2.3
Scottsdale Industry and Community Development Fund*	-	-	-	-	-	-	<0.1
Small business capital gains tax exemption	0.3	0.5	0.5	1.9	1.9	2.4	2.6
Small business programs	-	-	-	-	0.6	-	-
Tasmanian Freight Equalisation Scheme	12.2	12.5	13.6	15.7	16.8	16.3	18.5
Wide Bay Burnett Structural Adjustment	0.4	0.3	-	-	-	-	-
Total	*80.4*	*79.1*	*104.1*	*106.7*	*124.2*	*131.4*	*125.9*
Textiles, clothing, footwear and leather							
Industry-specific measures							
Howe leather – loan repayment	-	-	-2.3	-2.5	-2.4	-3.2	-3.4
TCF Development	3.2	0.5	<0.1	-	0.5	-	-
TCF Import Credits Scheme	9.9	-	-	-	-	-	-
TCF Project Diversification Scheme	-	-	-	-	-	5.0	5.0
TCF Small Business Program	-	-	-	-	-	2.2	2.0
TCF Strategic Investment Program	150.7	109.7	119.1	123.7	123.8	-	-
TCF Strategic Investment Program - Post 2005	-	-	-	-	4.3	96.2	97.4
TCF Structural Adjustment Scheme	-	-	-	-	2.8	3.0	2.3
General export measures							
Export Market Development Grants Scheme	6.2	5.1	4.1	3.5	4.2	4.2	5.3
TRADEX	15.7	17.5	14.4	8.3	5.9	7.2	7.2
General R&D measures							
Commercial Ready Program	-	-	-	-	-	-	0.7
COMET Program	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
CSIRO	32.2	33.0	13.0	18.2	17.8	18.5	20.2
Premium R&D tax concession	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2
R&D Start	0.7	1.0	0.6	<0.1	-	-	-
R&D tax concession	1.6	0.2	0.3	0.2	0.3	0.3	0.4
R&D tax offset for small companies	-	0.4	0.6	0.9	1.0	0.9	1.2

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Small business capital gains tax exemption	<0.1	-	-	<0.1	<0.1	<0.1	<0.1
Tasmanian Freight Equalisation Scheme	0.8	0.8	0.6	0.5	0.5	0.5	0.5
Total	*221.1*	*168.2*	*150.7*	*153.0*	*158.9*	*135.0*	*139.2*
Wood and paper products							
Industry-specific measures							
Integrated Forest Products Grant*	-	-	-	-	-	-	4.0
Investment incentives to Visy industries	3.0	2.9	2.9	-	-	-	-
Tasmanian Community Forest Agreement*	-	-	-	-	-	-	26.0
Rural R&D measures							
Forest and Wood Products R&D Corporation	1.4	1.5	1.6	1.5	1.6	1.2	1.4
General export measures							
Export Market Development Grants Scheme	1.8	1.3	1.2	0.9	0.8	0.7	1.0
TRADEX	0.2	<0.1	<0.1	<0.1	0.6	0.7	0.7
General investment measures							
Development allowance	0.8	0.4	0.2	0.2	<0.1	<0.1	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	0.2	-	1.8	2.4
COMET Program	<0.1	<0.1	<0.1	<0.1	-	<0.1	0.1
Cooperative Research Centres	2.5	5.4	6.4	5.4	5.3	3.5	2.3
CSIRO	5.8	5.9	-	-	-	-	-
Premium R&D tax concession	0.4	1.1	1.8	4.2	5.5	8.3	13.1
R&D Start	0.1	<0.1	<0.1	0.2	0.3	0.1	-
R&D tax concession	7.5	5.8	6.7	14.5	16.3	18.9	22.4
R&D tax offset for small companies	-	0.4	0.6	1.1	1.3	1.2	1.6
Other measures							
Scottsdale Industry and Community Development Fund*	-	-	-	-	-	-	2.4
Small business capital gains tax exemption	<0.1	-	-	-	-	-	-
Tasmanian Freight Equalisation Scheme	20.1	17.4	19.5	19.4	21.5	18.8	21.3
Wide Bay Burnett Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*43.7*	*42.2*	*41.0*	*47.8*	*53.3*	*55.3*	*98.7*

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Printing, publishing and recorded media							
Industry-specific measures							
Enhanced printing industry competitiveness	-	1.1	1.6	-	-	-	-
Extended printing industry competitiveness	15.9	8.6	11.2	-	-	-	-
Printing Industry Competitiveness Scheme	1.9	0.5	-	-	-	-	-
General export measures							
Export Market Development Grants Scheme	2.9	3.2	3.2	2.2	3.4	0.4	0.7
TRADEX	<0.1	0.3	0.3	0.2	0.2	0.3	0.3
General investment measures							
Development allowance	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	-	<0.1	0.8	11.0
COMET Program	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2
Premium R&D tax concession	0.3	0.7	1.2	1.2	1.5	2.3	3.7
R&D Start	1.5	0.5	0.6	0.3	0.4	0.3	0.9
R&D tax concession	1.4	3.8	4.3	3.9	4.3	5.0	6.0
R&D tax offset for small companies	-	6.7	10.9	11.6	13.7	12.5	17.1
Other measures							
Scottsdale Industry and Community Development Fund*	-	-	-	-	-	-	0.3
Small business capital gains tax exemption	0.2	0.2	0.2	-	-	-	-
Total	*24.3*	*25.6*	*33.4*	*19.3*	*23.7*	*21.7*	*40.0*
Petroleum, coal, chemical and associated products							
Industry-specific measures							
Biofuels Infrastructure Grants	-	-	-	2.1	11.5	3.7	7.2
Ethanol production subsidy	-	21.7	10.8	8.6	15.4	31.9	56.7
Greenhouse gas abatement program	1.5	0.7	3.0	2.7	2.9	3.9	3.4
Investment incentive to Syntroleum	20.0	-	-	-	-	-	-
Pharmaceutical industry development program	50.3	64.7	59.3	0.4	-	-	-
Pharmaceutical partnerships program	-	-	-	4.2	12.4	18.4	18.5
Product Stewardship (Oil) program	2.6	8.8	6.4	5.5	5.4	4.4	-
Renewable Energy Development Initiative	-	-	-	-	-	-	1.6
Renewable Energy Equity Fund	-	-	-	0.8	2.8	0.2	0.1

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
General export measures							
Export Market Development Grants Scheme	5.0	5.4	4.9	4.8	4.5	7.5	7.1
TRADEX	2.8	3.6	3.0	2.0	2.1	2.6	2.6
General investment measures							
Development allowance	6.8	3.5	1.9	1.2	0.8	0.3	<0.1
General R&D measures							
Biotechnology Australia	2.3	2.1	2.1	5.0	3.1	3.0	-
Biotechnology Innovation Fund	1.3	1.3	1.5	0.6	0.8	0.1	-
Commercial Ready Program	-	-	-	0.1	10.6	12.6	9.2
COMET Program	0.4	0.8	0.5	0.2	0.2	0.3	0.6
Cooperative Research Centres	12.0	11.2	12.0	7.3	9.1	9.1	13.9
CSIRO	42.9	44.0	22.8	45.1	44.9	46.8	50.9
Innovation Investment Fund	0.4	10.4	7.5	0.6	-	-	-
National Stem Cell Centre	0.8	3.6	4.6	5.8	7.1	6.5	6.0
New Industries Development Program	0.3	0.3	0.2	0.3	0.2	0.1	<0.1
Premium R&D tax concession	0.9	2.3	3.8	4.1	5.3	7.9	12.6
Preseed fund	-	-	-	0.5	-	-	0.5
R&D Start	12.1	10.4	10.5	9.3	4.9	1.7	0.4
R&D tax concession	17.6	12.8	14.6	13.1	14.7	17.1	20.3
R&D tax offset for small companies	-	5.3	8.7	9.2	10.8	9.9	13.5
Other measures							
Farm Innovation Program	0.1	<0.1	<0.1	-	-	-	-
Industry Cooperative Innovation Program	-	-	-	-	0.2	0.6	-
Small business capital gains tax exemption	0.5	-	-	-	-	-	-
Structural Adjustment Fund for South Australia	-	-	-	2.7	-	-	-
Renewable Energy Development Initiative	-	-	-	-	-	-	4.9
Total	*180.5*	*212.7*	*178.1*	*136.2*	*169.9*	*188.6*	*230.0*
Non-metallic mineral products							
General export measures							
Export Market Development Grants Scheme	1.1	1.2	0.7	0.6	0.9	0.7	0.9
TRADEX	0.1	<0.1	<0.1	0.4	0.2	0.3	0.3
General investment measures							
Development allowance	0.4	0.2	0.1	<0.1	<0.1	<0.1	<0.1

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
General R&D measures							
Commercial Ready Program	-	-	-	-	1.0	1.2	1.2
COMET Program	<0.1	<0.1	0.1	-	<0.1	0.1	0.5
Premium R&D tax concession	0.4	0.9	1.5	1.4	1.9	2.8	4.5
Preseed fund	-	-	-	-	0.2	0.8	-
R&D Start	10.6	1.6	0.2	0.8	0.6	1.2	0.1
R&D tax concession	8.1	4.5	5.2	4.3	4.8	5.6	6.6
R&D tax offset for small companies	-	0.6	1.0	0.6	0.7	0.6	0.9
Other measures							
Small business capital gains tax exemption	<0.1	-	-	0.3	0.3	0.4	0.5
Total	*20.7*	*9.1*	*8.8*	*8.6*	*10.7*	*13.8*	*15.5*
Metal products							
Industry-specific measures							
Australian Magnesium Corporation	-	-	84.6	-	-	-	-
Greenhouse gas abatement program	1.0	0.5	2.0	1.8	1.9	2.6	2.3
Investment incentives to Hismelt – grant	-	-	-	50.0	50.0	55.0	20.0
Investment incentives to Hismelt – loan	-	45.6	45.7	45.7	-	-	-
General export measures							
Export Market Development Grants Scheme	3.1	2.8	2.3	2.0	1.5	2.2	3.3
TRADEX	3.6	5.0	4.1	1.4	1.8	2.2	2.2
General investment measures							
Development allowance	40.3	21.1	11.0	7.3	4.6	1.8	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	<0.1	2.1	3.6	2.4
COMET Program	0.1	0.1	<0.1	0.1	0.4	0.3	0.5
Cooperative Research Centres	8.8	8.3	8.3	7.2	8.0	8.1	8.3
CSIRO	29.6	30.4	-	-	-	-	-
Premium R&D tax concession	0.8	2.1	3.6	3.8	4.9	7.4	11.7
R&D Start	7.4	6.9	5.7	1.5	1.3	1.4	1.1
R&D tax concession	24.1	11.5	13.1	12.3	13.8	16.0	19.0
R&D tax offset for small companies	-	1.6	2.6	2.8	3.3	3.0	4.1
Other measures							
Industry Cooperative Innovation Program	-	-	-	-	-	<0.1	<0.1
Small business capital gains tax exemption	<0.1	0.3	0.3	0.3	0.3	0.4	0.4
Tasmanian Freight Equalisation Scheme	1.7	2.2	2.8	3.7	2.4	2.9	3.2
Total	*120.6*	*138.3*	*186.2*	*139.8*	*96.3*	*106.7*	*78.7*

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Motor vehicles and parts							
Industry-specific measures							
ACL Bearings*	-	-	-	-	-	-	2.0
Automotive competitiveness and investment scheme – Stage 1	594.9	571.5	584.3	568.8	479.8	-	-
Automotive competitiveness and investment scheme – Stage 2	-	-	0.5	0.9	-	537.0	506.9
Automotive incentives – Ford	-	-	-	-	32.5	-	-
Automotive market access and development	4.9	-	-	-	-	-	-
Investment incentive for Holden	8.5	4.0	-	-	-	2.0	2.0
General export measures							
Export Market Development Grants Scheme	2.1	1.5	1.8	1.4	1.5	1.2	1.0
TRADEX	96.3	71.6	74.3	60.5	38.3	46.9	46.8
General investment measures							
Development allowance	8.8	4.6	2.4	1.6	1.0	0.4	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	-	1.3	2.2	0.8
COMET Program	0.3	0.2	0.2	0.1	<0.1	0.1	0.4
Cooperative Research Centres	-	-	-	-	4.6	5.1	6.5
Premium R&D tax concession	1.5	3.8	6.5	4.2	5.4	8.2	13.0
Preseed fund	-	0.8	-	-	0.3	-	<0.1
R&D Start	2.9	1.4	0.6	0.4	<0.1	-	-
R&D Start Loans	-	-	-	-	<0.1	-	-
R&D tax concession	29.7	21.4	24.4	13.1	14.7	17.1	20.2
R&D tax offset for small companies	-	1.3	2.1	2.3	2.7	2.5	3.4
Other measures							
Industry Cooperative Innovation Program	-	-	-	-	-	<0.1	<0.1
Small business capital gains tax exemption	<0.1	-	-	-	-	-	-
Wide Bay Burnett Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*750.0*	*682.1*	*697.1*	*653.4*	*582.3*	*622.6*	*603.1*
Other transport equipment							
Industry-specific measures							
Aerospace incentives – Hawker de Havilland	-	-	-	-	10.0	2.5	-
Shipbuilding bounty	5.5	13.3	6.8	0.8	-	-	-
Shipbuilding innovation scheme	4.0	8.7	7.0	2.1	-	-	-
General export measures							
Export Market Development Grants Scheme	1.0	1.3	1.8	1.2	1.4	1.4	1.3
TRADEX	0.1	0.2	0.1	0.2	0.2	0.2	0.2

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
General R&D measures							
Commercial Ready Program	-	-	-	-	0.1	0.9	0.1
COMET Program	0.2	0.2	0.2	0.2	<0.1	<0.1	0.2
Cooperative Research Centres	3.9	5.1	5.1	4.7	4.3	3.7	5.7
Innovation Investment Fund	-	-	-	-	-	0.3	0.7
Major national research facilities	0.1	0.7	1.1	1.3	1.3	-	-
Premium R&D tax concession	0.5	1.2	2.0	1.5	2.0	3.0	4.7
R&D Start	4.2	3.3	2.2	1.6	1.2	<0.1	<0.1
R&D tax concession	82.2	6.5	7.4	4.5	5.0	5.9	7.0
R&D tax offset for small companies	-	0.7	1.2	1.3	1.5	1.4	1.9
Other measures							
Small business capital gains tax exemption	-	-	-	0.1	0.1	0.2	0.2
Total	*101.7*	*41.1*	*35.0*	*19.4*	*27.2*	*19.6*	*22.1*
Other machinery and equipment							
Industry-specific measures							
Renewable Energy Development Initiative	-	-	-	0.2	0.2	1.1	1.9
Renewable Energy Equity Fund	-	-	-	0.3	0.1	<0.1	-
Wind turbine industry assistance	-	-	-	-	-	0.7	-
General export measures							
Export Market Development Grants Scheme	14.8	15.1	15.0	12.8	13.2	15.1	13.7
TRADEX	7.4	4.7	3.9	4.3	4.7	5.8	5.7
General investment measures							
Development allowance	0.7	0.4	0.2	0.1	<0.1	<0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	-	0.7	0.7	1.1	0.7	<0.1	-
Commercial Ready Program	-	-	-	0.4	14.7	36.5	28.2
COMET Program	1.6	1.5	1.2	1.4	1.4	1.6	2.2
Cooperative Research Centres	19.3	15.3	14.5	11.7	8.3	5.5	2.5
CSIRO	36.8	37.8	-	-	-	-	-
Innovation Investment Fund	-	4.2	-	1.7	1.4	1.0	1.4
Major national research facilities	0.4	2.4	3.6	4.0	4.0	-	-
New Industries Development Program	0.2	0.2	0.1	0.1	0.1	<0.1	<0.1
Premium R&D tax concession	1.7	4.3	7.3	7.0	9.1	13.7	21.8
Preseed fund	-	-	-	-	1.3	0.2	1.8
R&D Start	51.8	27.3	31.1	30.0	26.3	11.3	4.3
R&D Start Loans	-	-	-	-	0.2	-	-
R&D tax concession	46.2	23.1	26.5	21.6	24.2	28.2	33.4
R&D tax offset for small companies	-	16.5	27.1	25.7	30.2	27.7	37.7

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Industry Cooperative Innovation Program	-	-	-	-	0.2	0.3	<0.1
Innovation Investment Fund for South Australia*	-	-	-	-	-	-	4.2
Scottsdale Industry and Community Development Fund*	-	-	-	-	-	-	<0.1
Small business capital gains tax exemption	<0.1	0.7	0.7	0.8	0.8	1.0	1.1
Small business programs	<0.1	0.2	0.2	0.2	-	-	-
South West Forests Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Wide Bay Burnett Structural Adjustment	0.3	0.2	-	-	-	-	-
Total	*181.3*	*154.6*	*132.0*	*123.6*	*141.3*	*149.8*	*160.1*
Other manufacturing							
Industry-specific measures							
Renewable Energy Development Initiative	-	-	-	-	-	0.5	0.7
Renewable Energy Equity Fund	-	-	0.1	-	-	-	-
General export measures							
Export Market Development Grants Scheme	8.1	8.4	9.4	8.1	6.0	2.7	3.9
TRADEX	18.1	20.1	16.4	4.5	1.9	2.3	2.3
General investment measures							
Development allowance	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	0.1	1.6	1.7	-	0.1	<0.1	-
Commercial Ready Program	-	-	-	-	6.4	6.9	8.1
COMET Program	0.8	0.8	0.8	0.9	0.7	0.6	0.7
Cooperative Research Centres	-	-	-	-	-	-	2.5
CSIRO	-	-	56.6	91.0	90.7	94.4	102.6
Premium R&D tax concession	0.3	0.8	1.3	1.3	1.7	2.5	4.0
Preseed fund	-	-	1.0	-	-	-	-
R&D Start	17.5	13.3	27.1	<0.1	11.2	4.5	2.8
R&D Start Loans	-	-	-	-	0.3	-	-
R&D tax concession	6.3	4.2	4.8	4.1	4.6	5.4	6.4
R&D tax offset for small companies	-	5.2	8.6	8.7	10.2	9.4	12.8

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Table A.6 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Industry Cooperative Innovation Program	-	-	-	-	<0.1	0.2	0.2
Innovation Investment Fund for South Australia*	-	-	-	-	-	-	0.3
Small business capital gains tax exemption	0.3	0.5	0.5	-	-	-	-
Tasmanian Freight Equalisation Scheme	1.7	1.7	1.9	2.0	1.4	1.4	1.6
Wide Bay Burnett Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*53.5*	*56.6*	*130.4*	*120.6*	*135.3*	*130.8*	*148.9*
Unallocated manufacturing							
Industry-specific measures							
Advanced electricity storage	-	-	-	-	-	0.5	2.8
General export measures							
Duty Drawback	93.7	121.0	105.9	121.1	117.0	103.9	[b] 103.9
Export Market Development Grants Scheme	-	-	-	-	-	<0.1	-
General R&D measures							
Cooperative Research Centres	2.3	2.2	3.9	4.6	4.0	3.5	3.5
Technology Diffusion program	12.9	4.2	-	-	-	-	-
Other measures							
Enterprise Development program	0.7	-	-	-	-	-	-
Intermediary Access Program	-	-	-	-	-	1.1	-
Tasmanian Freight Equalisation Scheme	30.2	36.3	38.0	38.7	40.3	39.4	44.6
Total	*139.9*	*163.7*	*147.8*	*164.4*	*161.3*	*148.4*	*154.8*
Total outlays	**753.5**	**795.0**	**862.3**	**765.8**	**858.8**	**799.9**	**862.3**
Total tax expenditures	**1 164.3**	**978.4**	**982.2**	**927.1**	**825.5**	**923.9**	**954.8**
Total Budgetary assistance	**1 917.7**	**1 773.4**	**1 844.5**	**1 692.8**	**1 684.3**	**1 723.8**	**1 817.1**

- Nil. Figures may not add to totals due to rounding. [a] The estimates are derived primarily from Australian Government departmental annual reports and Treasury's Tax Expenditure Statements and unpublished information provided by relevant agencies. [b] Estimate for 2007-08 based on 2006-07 estimate due to a lack of published data from the Australian Customs Service.

Source: Commission estimates.

Table A.7 Australian Government budgetary assistance to services industry groups,[a] 2001-02 to 2007-08

$ million

	01-02	*02-03*	*03-04*	*04-05*	*05-06*	*06-07*	*07-08*
Electricity, gas and water supply							
Industry-specific measures							
Greenhouse gas abatement program	3.8	1.8	7.5	6.7	7.2	9.8	8.6
Low emission technology development fund	-	-	-	-	2.0	6.7	2.0
Remote renewable power generation program	-	-	-	-	28.7	13.8	29.9
Renewable energy commercialisation	8.9	9.2	9.2	1.4	1.7	1.5	-
Renewable Energy Development Initiative	-	-	-	2.2	3.3	5.0	1.8
Renewable Energy Equity Fund	3.4	2.6	1.0	0.5	0.3	-	-
General export measures							
Export Market Development Grants Scheme	0.4	0.4	0.3	0.4	0.5	0.8	0.6
TRADEX	-	-	-	<0.1	0.1	0.1	0.1
General investment measures							
Development allowance	4.4	2.3	1.2	0.8	0.5	0.2	<0.1
Infrastructure bonds scheme	13.0	10.5	10.4	10.4	10.4	7.8	2.6
Infrastructure borrowing's tax offsets scheme	9.6	7.7	7.2	2.9	1.0	-	-
General R&D measures							
Commercial Ready Program	-	-	-	-	0.5	1.1	0.9
COMET Program	0.4	0.3	0.3	0.2	0.2	0.2	0.7
Cooperative Research Centres	7.4	8.6	7.3	6.8	5.6	4.5	4.1
Innovation Investment Fund	-	-	-	-	-	-	2.2
Premium R&D tax concession	<0.1	0.1	0.2	0.1	0.1	0.2	0.3
Preseed fund	-	-	-	-	<0.1	0.4	-
R&D Start	3.0	5.9	3.2	1.6	<0.1	-	-
R&D tax concession	0.8	3.1	3.5	2.7	3.0	3.5	4.1
R&D tax offset for small companies	-	0.9	1.5	1.6	1.8	1.7	2.3
Other measures							
Industry Cooperative Innovation Program	-	-	-	-	-	0.1	<0.1
Small business capital gains tax exemption	<0.1	-	-	0.4	0.4	0.5	0.5
Total	*55.1*	*53.4*	*52.8*	*38.7*	*67.4*	*58.1*	*60.8*

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Construction							
General export measures							
Export Market Development Grants Scheme	0.9	1.8	1.5	1.1	1.2	1.0	1.1
TRADEX	0.9	1.8	1.5	<0.1	<0.1	<0.1	<0.1
General investment measures							
Development allowance	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	-	-	2.5	1.8
COMET Program	0.1	0.2	0.1	0.2	0.2	0.2	0.3
Cooperative Research Centres	1.5	2.0	2.6	2.5	2.3	1.8	1.5
Innovation Investment Fund	1.2	-	-	-	-	-	<0.1
Premium R&D tax concession	0.4	1.0	1.7	1.4	1.9	2.8	4.4
R&D Start	3.5	1.2	0.9	0.3	0.2	-	-
R&D tax concession	8.0	6.6	7.6	6.0	6.7	7.8	9.2
R&D tax offset for small companies	-	2.2	3.7	4.3	5.1	4.7	6.3
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Industry Cooperative Innovation Program	-	-	-	-	0.3	0.2	0.2
Scottsdale Industry and Community Development Fund	-	-	-	-	-	-	0.1
Small business capital gains tax exemption	1.2	2.6	2.6	4.9	4.9	6.2	6.6
Small business programs	-	-	-	-	0.1	0.9	0.7
Total	*17.8*	*19.5*	*22.2*	*20.8*	*22.7*	*28.1*	*32.4*
Wholesale trade							
Industry-specific measures							
Ethanol Distribution Program	-	-	-	-	-	-	1.7
General export measures							
Export Market Development Grants Scheme	12.4	12.6	12.4	10.2	11.0	10.8	12.3
TRADEX	5.9	1.0	0.9	4.8	2.8	3.5	3.5
General investment measures							
Development allowance	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	-	-	-	-	<0.1	-	-
Commercial Ready Program	-	-	-	-	<0.1	0.2	-
COMET Program	-	<0.1	0.2	<0.1	<0.1	<0.1	0.3
Premium R&D tax concession	1.4	3.4	5.8	7.6	9.8	14.8	23.5
R&D Start	0.6	0.8	2.2	0.8	1.4	0.2	0.2
R&D tax concession	18.6	18.8	21.5	25.4	28.4	33.0	39.2
R&D tax offset for small companies	-	5.1	8.3	11.2	13.2	12.1	16.5

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Industry Cooperative Innovation Program	-	-	-	-	-	0.1	-
Small business capital gains tax exemption	12.4	3.1	3.1	2.5	2.5	3.2	3.5
Wide Bay Burnett Structural Adjustment	0.2	0.1	-	-	-	-	-
Total	*51.7*	*45.1*	*54.4*	*62.6*	*69.4*	*77.9*	*100.6*
Retail trade							
Industry-specific measures							
Ethanol Distribution Program	-	-	-	-	-	0.7	4.5
Greenhouse gas abatement program	0.2	<0.1	0.4	0.3	0.4	0.5	0.4
LPG Vehicle Scheme	-	-	-	-	-	121.8	163.2
General export measures							
Export Market Development Grants Scheme	1.3	1.2	1.1	0.7	1.3	1.7	1.5
TRADEX	<0.1	0.2	0.2	1.6	3.6	4.4	4.4
General investment measures							
Development allowance	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
COMET Program	0.1	<0.1	<0.1	-	<0.1	<0.1	0.2
Premium R&D tax concession	0.3	0.7	1.2	1.1	1.4	2.2	3.4
R&D Start	0.3	<0.1	0.3	-	-	-	-
R&D tax concession	2.6	3.6	4.2	3.4	3.8	4.4	5.2
R&D tax offset for small companies	-	3.1	5.0	5.7	6.7	6.1	8.4
Other measures							
Eden Structural Adjustment	0.1	<0.1	<0.1	-	-	-	-
Small business capital gains tax exemption	4.4	10.9	10.9	18.1	18.1	23.0	24.7
South West Forests Structural Adjustment	0.5	0.5	-	-	-	-	-
Wide Bay Burnett Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*10.0*	*20.7*	*23.4*	*31.0*	*35.3*	*164.9*	*215.9*
Accommodation, cafes and restaurants							
General export measures							
Export Market Development Grants Scheme	9.1	8.0	7.5	4.7	4.8	4.7	4.1
General R&D measures							
COMET Program	<0.1	-	-	-	-	-	-
Premium R&D tax concession	<0.1	<0.1	<0.1	-	-	-	-

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	0.2
Eden Structural Adjustment	0.2	<0.1	<0.1	-	-	-	-
Small business capital gains tax exemption	5.4	16.4	16.4	19.3	19.3	24.6	26.4
Small business programs	<0.1	0.1	0.1	0.1	0.2	-	-
South West Forests Structural Adjustment	0.2	0.3	-	-	-	-	-
Wide Bay Burnett Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*14.9*	*24.9*	*24.1*	*24.2*	*24.3*	*29.3*	*30.7*
Transport and storage							
Industry-specific measures							
Bass Straight Passenger Vehicle Equalisation	17.4	34.3	31.8	32.4	31.1	28.4	30.1
Investment incentive to Asia Pacific Space Centre	6.0	-	-	-	-	-	-
General export measures							
Export Market Development Grants Scheme	9.3	8.6	7.6	5.4	5.2	5.8	5.8
TRADEX	2.4	3.2	2.7	1.1	0.4	0.5	0.5
General investment measures							
Development allowance	10.6	5.5	2.9	1.9	1.2	0.5	<0.1
Infrastructure bonds scheme	12.0	9.5	9.6	9.6	9.6	7.2	2.4
Infrastructure borrowing’s tax offset scheme	5.4	7.3	11.6	8.4	6.5	3.8	3.8
General R&D measures							
Commercial Ready Program	-	-	-	-	0.2	0.8	1.3
COMET Program	0.2	0.3	0.2	0.2	0.2	0.1	0.1
Premium R&D tax concession	0.1	0.3	0.5	0.5	0.7	1.0	1.7
R&D Start	0.7	0.5	1.1	1.7	0.7	<0.1	-
R&D tax concession	3.4	2.4	2.7	2.3	2.6	3.0	3.6
R&D tax offset for small companies	-	0.4	0.6	1.2	1.4	1.3	1.7
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
` Small business capital gains tax exemption	1.5	2.2	2.2	5.5	5.5	7.0	7.5
Total	*69.0*	*74.6*	*73.5*	*70.2*	*65.2*	*59.4*	*58.6*

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Communication services							
Industry-specific measures							
Investment incentives to IBM	0.8	0.8	-	-	-	-	-
Investment incentives to SITA	2.3	1.7	0.3	-	-	-	-
Software engineering centres	3.5	2.4	1.1	-	-	-	-
The Advanced Networks Program	-	8.8	6.6	8.0	7.0	12.5	-
General export measures							
Export Market Development Grants Scheme	1.2	1.1	1.5	1.7	2.4	17.1	22.2
TRADEX	<0.1	<0.1	<0.1	<0.1	-	-	-
General investment measures							
Development allowance	12.0	6.3	3.3	2.2	1.4	0.5	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	-	1.2	5.2	2.8
COMET Program	1.1	0.8	0.4	0.6	0.5	0.6	1.1
Cooperative Research Centres	4.4	5.8	6.0	5.8	4.6	3.5	4.4
CSIRO	21.9	22.5	58.6	63.5	62.5	65.0	70.7
ICT centre of excellence	-	10.3	11.3	17.2	23.5	24.0	26.8
Innovation Investment Fund	6.1	6.8	2.3	2.0	0.7	0.2	-
Premium R&D tax concession	0.9	2.3	3.9	3.7	4.8	7.1	11.4
Preseed fund	-	-	2.2	1.8	2.4	1.8	1.0
R&D Start	14.8	4.6	8.4	8.4	5.3	0.6	0.2
R&D tax concession	6.9	11.8	13.5	11.1	12.4	14.5	17.2
R&D tax offset for small companies	-	2.5	4.1	5.5	6.4	5.9	8.0
Other measures							
Industry Cooperative Innovation Program	-	-	-	-	0.2	0.4	0.2
Small business capital gains tax exemption	1.1	0.8	0.8	2.7	2.7	3.5	3.7
Small business programs	<0.1	<0.1	<0.1	<0.1	-	-	-
Total	*77.0*	*89.3*	*124.1*	*134.1*	*137.9*	*162.5*	*169.7*
Finance and insurance							
Industry-specific measures							
High Costs Claims scheme	-	-	-	0.4	<0.1	8.8	3.2
Renewable Energy Equity Fund	-	-	-	0.4	0.5	0.3	0.3
United Medical Protection support	-	-	15.9	24.4	13.7	13.2	0.1
General export measures							
Export Market Development Grants Scheme	1.0	0.8	0.9	0.9	1.3	0.9	0.5
TRADEX	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
General investment measures							
Development allowance	0.4	0.2	0.1	<0.1	<0.1	<0.1	<0.1
Infrastructure borrowing's tax offsets scheme	5.0	5.0	6.3	3.8	2.5	1.3	1.3
Offshore banking unit tax concession	45.0	45.0	55.0	75.0	90.0	160.0	310.0
General R&D measures							
Biotechnology Innovation Fund	-	-	0.2	<0.1	-	-	-
Commercial Ready Program	-	-	-	-	0.3	1.6	1.8
COMET Program	<0.1	0.2	0.2	0.1	0.2	<0.1	0.1
Innovation Investment Fund	-	-	-	5.0	4.6	3.9	3.1
Premium R&D tax concession	1.9	4.8	8.1	11.4	14.8	22.2	35.3
Preseed fund	-	-	-	2.3	3.9	1.9	2.2
R&D Start	4.1	1.2	3.5	2.0	0.7	0.4	-
R&D tax concession	37.9	27.7	31.6	41.5	46.5	54.0	64.1
R&D tax offset for small companies	-	1.5	2.5	3.3	3.9	3.5	4.8
Other measures							
Pooled development funds	6.0	6.0	7.0	9.0	7.0	9.0	12.0
Small business capital gains tax exemption	3.1	2.6	2.6	3.8	3.8	4.8	5.2
Venture capital limited partnerships	-	-	20.0	25.0	30.0	10.0	10.0
Total	*104.6*	*95.0*	*153.9*	*208.4*	*223.6*	*295.9*	*454.0*
Property and business services							
Industry-specific measures							
Renewable Energy Development Initiative	-	-	-	0.2	0.3	1.1	1.0
Renewable Energy Equity Fund	-	-	-	-	-	0.3	1.4
Solar cities initiative	-	-	-	-	0.6	3.0	9.1
TCF Small Business Program	-	-	-	-	-	-	0.3
General export measures							
Export Market Development Grants Scheme	25.7	27.1	27.6	24.9	30.3	27.6	26.6
TRADEX	<0.1	3.6	2.9	0.6	0.4	0.4	0.4
General investment measures							
Development allowance	1.8	0.9	0.5	0.3	0.2	<0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	2.2	3.7	4.7	3.6	1.2	0.2	<0.1
Commercial Ready Program	-	-	-	0.3	11.4	26.9	23.3
COMET Program	4.5	3.7	2.9	2.3	2.6	3.6	6.5
Cooperative Research Centres	4.7	5.6	11.4	13.5	12.2	10.3	12.5
Innovation Investment Fund	15.0	3.3	2.1	4.8	4.9	3.8	4.4
Premium R&D tax concession	3.3	8.2	13.9	16.9	21.9	32.9	52.3
Preseed fund	-	-	-	0.7	2.6	2.1	4.3
R&D Start	35.9	20.9	24.6	31.5	13.6	5.6	0.4
R&D tax concession	61.0	43.6	49.9	54.2	60.7	70.6	83.7
R&D tax offset for small companies	-	55.0	90.2	104.1	122.4	112.3	152.6

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	1.3
Eden Structural Adjustment	<0.1	<0.1	<0.1	-	-	-	-
Industry Cooperative Innovation Program	-	-	-	-	0.1	0.2	0.7
Small business capital gains tax exemption	4.7	14.9	14.9	19.0	19.0	24.1	25.9
Small business programs	0.6	6.4	6.2	4.8	8.3	6.8	5.2
Techfast	-	-	-	2.5	-	-	-
Wide Bay Burnett Structural Adjustment	0.1	<0.1	-	-	-	-	-
Total	*159.5*	*197.1*	*251.8*	*284.1*	*312.6*	*331.9*	*412.0*
Government administration and defence							
General export measures							
Export Market Development Grants Scheme	<0.1	<0.1	<0.1	-	-	0.1	0.3
TRADEX	<0.1	2.4	1.9	<0.1	0.2	0.2	0.2
General R&D measures							
COMET Program	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1
R&D Start	0.7	0.1	-	<0.1	-	-	-
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Small business programs	0.4	4.6	4.5	3.4	1.6	4.3	3.3
Total	*1.2*	*7.2*	*6.4*	*3.6*	*1.7*	*4.7*	*4.0*
Education							
General export measures							
Export Market Development Grants Scheme	8.4	7.8	8.0	6.6	7.0	8.6	8.5
General investment measures							
Development allowance	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	-	-	-	<0.1
COMET Program	<0.1	0.2	0.2	<0.1	0.3	0.2	0.3
Premium R&D tax concession	0.1	0.3	0.5	0.4	0.6	0.9	1.4
R&D Start	2.2	<0.1	0.2	0.2	<0.1	<0.1	-
R&D tax concession	1.4	1.4	1.6	1.4	1.5	1.8	2.1
R&D tax offset for small companies	-	1.1	1.8	1.8	2.1	1.9	2.6

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Small business capital gains tax exemption	<0.1	-	-	0.5	0.5	0.6	0.7
Small business programs	<0.1	0.4	0.4	0.3	4.1	2.6	2.0
Total	*12.3*	*11.3*	*12.6*	*11.3*	*16.2*	*16.6*	*17.8*
Health and community services							
Industry-specific measures							
Premium Support scheme	-	-	-	24.4	17.1	50.0	23.5
Renewable Energy Equity Fund	-	0.4	-	-	-	-	-
General export measures							
Export Market Development Grants Scheme	0.5	0.9	0.8	1.6	2.0	1.9	1.4
TRADEX	<0.1	-	-	0.2	0.3	0.3	0.3
General investment measures							
Development allowance	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Biotechnology Innovation Fund	1.1	3.2	3.1	2.8	1.5	<0.1	-
Commercial Ready Program	-	-	-	<0.1	3.5	7.0	7.8
COMET Program	0.9	0.8	0.3	0.2	0.6	0.5	1.5
Cooperative Research Centres	7.1	7.2	14.1	15.3	19.6	19.0	24.2
Innovation Investment Fund	0.6	-	5.8	3.9	2.3	2.4	-
Premium R&D tax concession	<0.1	<0.1	0.2	0.2	0.3	0.5	0.8
Preseed fund	-	-	2.5	0.5	1.8	2.0	1.1
R&D Start	20.8	10.6	9.3	12.1	4.4	1.8	0.2
R&D tax concession	2.3	0.6	0.7	0.7	0.8	1.0	1.1
R&D tax offset for small companies	-	1.6	2.7	2.0	2.4	2.2	3.0
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	<0.1
Small business capital gains tax exemption	0.8	3.6	3.6	5.9	5.9	7.5	8.1
Small business programs	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1
Wide Bay Burnett Structural Adjustment	<0.1	<0.1	-	-	-	-	-
Total	*34.1*	*29.1*	*43.0*	*70.1*	*62.6*	*96.3*	*73.0*

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Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Cultural and recreational services							
Industry-specific measure							
Australian Film Commission	16.9	20.5	22.5	48.6	52.0	52.4	53.0
Australian Film Finance Corporation	50.0	57.5	60.5	65.5	70.5	70.5	70.5
Equine Influenza Emergency Assistance Package	-	-	-	-	-	-	256.8
Exemption of film tax offset payments	-	1.0	3.0	16.0	7.0	9.0	21.0
Film Australia	4.9	9.8	10.0	10.8	13.0	13.2	13.3
Film industry tax incentives – 10B & 10A	-4.0	2.0	3.0	-1.0	-2.0	-13.0	-13.0
Refundable tax offset for large scale film production	-	3.0	9.0	53.0	22.0	29.0	69.0
General export measures							
Export Market Development Grants Scheme	10.6	11.3	12.2	11.3	12.1	5.0	5.5
TRADEX	-	-	-	<0.1	-	-	-
General investment measures							
Development allowance	0.3	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
General R&D measures							
Commercial Ready Program	-	-	-	-	0.2	0.2	0.2
COMET Program	0.1	0.1	<0.1	0.2	0.1	0.2	0.4
Cooperative Research Centres	2.4	2.4	4.3	4.8	4.7	4.7	3.5
Innovation Investment Fund	0.6	-	-	-	-	-	-
Premium R&D tax concession	<0.1	<0.1	0.1	0.2	0.2	0.3	0.5
R&D Start	0.7	0.3	0.3	0.1	-	-	-
R&D tax concession	9.0	0.6	0.7	0.5	0.6	0.7	0.8
R&D tax offset for small companies	-	1.0	1.7	1.9	2.3	2.1	2.8
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	0.9
Eden Structural Adjustment	<0.1	<0.1	<0.1	-	-	-	-
Industry Cooperative Innovation Program	-	-	-	-	-	0.7	-
Small business capital gains tax exemption	0.5	0.9	0.9	0.8	0.8	1.1	1.1
Small business programs	<0.1	<0.1	<0.1	<0.1	-	0.7	0.6
South West Forests Structural Adjustment	0.2	0.3	-	-	-	-	-
Wide Bay Burnett Structural Adjustment	0.2	0.1	-	-	-	-	-
Total	*92.5*	*111.3*	*128.5*	*212.9*	*183.5*	*176.7*	*487.0*

(Continued next page)

Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Personal and other services							
Industry-specific measure							
Renewable Energy Development Initiative	-	-	-	-	-	0.7	1.5
General export measures							
Export Market Development Grants Scheme	1.2	0.7	0.7	0.9	1.2	1.8	1.7
General R&D measures							
Commercial Ready Program	-	-	-	-	0.6	0.1	<0.1
COMET Program	<0.1	<0.1	-	<0.1	0.1	0.1	<0.1
Premium R&D tax concession	<0.1	0.1	0.2	0.3	0.3	0.5	0.8
R&D Start	2.7	0.3	0.2	<0.1	-	-	-
R&D tax concession	0.6	0.6	0.7	1.2	1.3	1.5	1.8
R&D tax offset for small companies	-	0.9	1.5	1.9	2.3	2.1	2.8
Other measures							
Australian Tourism Development Program	-	-	-	-	-	-	1.7
Industry Cooperative Innovation Program	-	-	-	-	-	0.5	<0.1
Small business capital gains tax exemption	0.7	1.0	1.0	2.5	2.5	3.1	3.4
Small business programs	0.1	1.3	1.2	0.9	1.2	1.6	1.2
Total	*5.4*	*5.0*	*5.5*	*7.7*	*9.5*	*12.1*	*15.0*
Unallocated services							
Industry-specific measures							
Building IT strengths	64.6	16.1	11.6	12.6	10.6	7.5	-
ICT Incubators Program	-	-	-	-	-	-	1.7
Travel compensation fund	5.0	-	-	-	-	-	-
General export measures							
Tourism Australia	97.9	99.9	97.9	138.4	137.8	133.8	135.8
Export Market Development Grants Scheme	-	-	-	-	-	<0.1	-
General R&D measures							
CSIRO	10.3	10.6	-	-	-	-	-
R&D Start	-	-	0.2	-	-	-	-

(Continued next page)

Table A.7 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
Australian Tourism Development Program	-	-	-	4.0	7.0	6.8	-
Back of Bourke Exhibition Centre	0.9	0.2	-	-	-	-	-
Cairns Esplanade Development	-	-	-	2.9	3.0	1.9	-
Cairns Foreshore Promenade Development	-	-	-	2.0	2.9	-	-
Fairbridge Village Redevelopment	-	-	-	0.7	-	-	-
Film Licensed Investment Company Scheme	-	-	-	-	-	4.0	4.0
Further Tourism Promotion	5.0	-	-	-	-	-	-
Indigenous Tourism Business Ready Program	-	-	-	0.2	0.8	1.1	0.4
Kimberley Cultural Tourism Promotion	-	-	-	0.1	0.1	-	-
Lancefield Visitor Information Centre & Reserve	-	-	-	0.2	-	-	-
National Tourism Accreditation Framework	-	-	-	0.7	0.8	0.5	-
North East Chinese Heritage Trail	-	-	-	-	0.5	1.2	-
Oatlands Callington Mill upgrade	-	-	-	<0.1	<0.1	-	-
Regional Online Tourism Program	1.4	-	-	-	-	-	-
Regional Tourism Program	1.9	3.0	0.5	-	-	-	-
See Australia Domestic Tourism Initiative	-	1.5	1.5	2.4	-	-	-
Small business assistance – Tourism	10.5	-	-	-	-	-	-
Stockman's Hall of Fame	1.4	1.4	1.3	-	-	0.5	0.4
Tasmanian Infrastructure Initiative	-	-	1.1	-	0.7	-	-
Tasmanian Regional Tourism	0.2	0.4	-	-	-	-	-
The Great Green Way - Tourism Initiative	-	-	-	1.9	1.9	1.9	-
Tourism Assistance Package	5.0	-	-	-	-	-	-
Tourism in Protected Areas	-	-	1.1	1.9	1.7	-	-
Tourism Operations	0.5	0.5	-	-	-	-	-
Willow Court Restoration of 'The Barracks'	-	-	-	<0.1	0.3	-	-
Woodend Bike Trail	-	-	-	0.2	-	-	-
Total	*204.5*	*133.5*	*115.0*	*168.3*	*168.1*	*159.3*	*142.3*
Total outlays	**581.2**	**590.7**	**697.6**	**841.9**	**893.7**	**1 044.5**	**1 356.1**
Total tax expenditures	**328.4**	**326.2**	**393.7**	**505.9**	**506.5**	**629.4**	**917.7**
Total Budgetary assistance	**909.7**	**916.9**	**1 091.3**	**1 347.8**	**1 400.2**	**1 673.9**	**2 273.7**

- Nil. Figures may not add to totals due to rounding. [a] The estimates are derived primarily from Australian Government departmental annual reports and Treasury's Tax Expenditure Statements and unpublished information provided by relevant agencies.

Source: Commission estimates.

Table A.8 **Australian Government budgetary assistance, Unallocated other,[a,b] 2001-02 to 2007-08**

$ million

	01-02	*02-03*	*03-04*	*04-05*	*05-06*	*06-07*	*07-08*
Industry-specific measures							
Australian Seafood Industry Council	-	-	-	<0.1	0.1	-	-
Pharmaceuticals Partnerships Program	-	-	-	-	-	-	16.6
Renewable Energy Development Initiative	-	-	-	-	-	-	3.4
Tasmanian wheat freight subsidy	-	-	-	-	-	0.6	0.9
General export measures							
Austrade	174.5	163.8	158.5	155.1	167.0	172.0	170.1
EFIC national interest business	11.8	13.0	12.8	10.4	9.1	10.9	6.7
Export access	2.9	0.2	-	-	-	-	-
Export Market Development Grants Scheme	-	-	-	-	-	<0.1	-
International Food and Agricultural Service	-	-	-	30.7	30.5	30.5	36.7
TRADEX	-	-	-	1.5	-	-	-
General investment measure							
Development allowance	48.9	25.6	13.3	8.9	5.6	2.2	0.1
Invest Australia	14.0	16.7	19.4	22.3	22.0	24.0	-
Regional headquarters program	0.5	0.5	0.5	0.5	0.5	0.5	0.5
General R&D measures							
Biotechnology Innovation Fund	-	-	-	1.2	0.3	<0.1	-
Commercial Ready Program	-	-	-	0.8	1.3	0.4	24.3
COMET Program	-	-	-	<0.1	-	-	-
Commonwealth technology park	11.5	-	-	-	-	-	-
Innovation Access Program	-	10.7	11.0	5.8	9.3	0.8	1.1
Innovation Investment Fund	-	-	-	0.5	-	-	-
Major national research facilities	1.3	7.1	10.9	11.9	11.9	-	-
Premium R&D tax concession	0.4	1.0	1.6	2.4	3.1	4.7	7.4
Preseed fund	-	-	-	0.1	-	-	-
R&D Start	-	0.3	-	28.2	4.6	2.2	1.5
R&D Start Loans	-	-	-	-	0.1	-	-
R&D tax concession	27.7	6.5	7.4	10.2	11.4	13.3	15.7
R&D tax offset for small companies	-	2.3	3.8	5.9	6.9	6.4	8.6
R&D tax offset payments – exemption	40.0	60.0	35.0	2.0	-30.0	-55.0	-85.0

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Table A.8 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures							
25 per cent entrepreneurs' tax offset	-	-	-	-	-	130.0	170.0
Australian Made Campaign – export strategy	-	-	-	0.9	0.7	0.5	0.9
Beaconsfield Community Fund	-	-	-	-	-	1.0	2.4
Business assistance fund for disasters	-	-	-	-	-	10.0	11.0
Cyclone Larry – Fuel Excise Relief	-	-	-	-	-	1.0	0.5
Capital gains tax relief for statutory licences	-	-	-	-	-	20.0	90.0
Fishing Structural Adjustment Package – Onshore Business Restructure Program*	-	-	-	-	-	-	5.7
Home Based Business Seminars	-	-	-	-	-	0.4	0.3
Industry Capability Network Limited	-	-	1.5	1.8	1.5	2.3	-
Industry Cooperative Innovation Program	-	-	-	-	-	-	2.7
Innovation Investment Fund for South Australia*	-	-	-	-	-	-	<0.1
Intermediary Access Program	-	-	-	-	-	-	1.9
Port Kembla Industry Facilitation Fund	-	-	-	-	-	2.4	2.6
Regional assistance program	29.2	21.9	-	-	-	-	-
Regional partnerships program	-	-	27.6	30.4	26.8	17.3	18.6

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Table A.8 (continued)

	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Other measures (continued)							
Small business CG tax 50 percent reduction	130.0	160.0	240.0	320.0	370.0	430.0	560.0
Small business CG tax asset exemption	5.0	10.0	15.0	25.0	35.0	50.0	85.0
Small business CG tax retirement exemption	55.0	85.0	100.0	160.0	180.0	240.0	380.0
Small business capital gains tax exemption	0.5	9.0	9.0	9.6	9.6	12.2	13.1
Small business interest rate subsidy	-	0.1	0.5	0.5	-	-	-
Small business participation in major projects	3.0	-	-	-	-	-	-
Small business programs	<0.1	<0.1	<0.1	<0.1	-	0.5	0.4
Structural Adjustment Fund for South Australia	-	-	-	-	13.1	10.5	7.0
Sustainable regions program	0.4	6.2	20.9	22.6	36.8	7.1	4.7
Tasmanian Freight Equalisation Scheme	0.8	0.8	1.0	0.9	0.9	1.0	1.1
TCF Corporate Wear Program[c]	37.4	41.1	52.2	46.0	50.9	56.4	66.6
Tropical Cyclones Larry and Monica - business assistance	-	-	-	-	136.5	11.8	-
Total outlays	**249.3**	**243.1**	**268.0**	**330.2**	**479.5**	**302.3**	**318.3**
Total tax expenditures	**345.3**	**398.6**	**474.2**	**586.0**	**636.1**	**915.3**	**1 314.9**
Total budgetary assistance	**594.7**	**641.8**	**742.1**	**916.2**	**1 115.6**	**1 217.5**	**1 633.2**

- Nil. Figures may not add to totals due to rounding. [a] The estimates are derived primarily from Australian Government departmental annual reports and Treasury's Tax Expenditure Statements and unpublished information provided by relevant agencies. [b] Includes programs or amounts of funding where the initial benefiting industry is not stated and/or has not been ascertained. [c] Reflecting a more strict concordance with the Commission's 'initial benefiting industry' allocation method, the TCF Corporate Wear Program was reallocated from the 'Textiles, Clothing, Footwear and Leather' category to the 'Unallocated Other' category following last year's edition of *Trade and Assistance Review*.

Source: Commission estimates.

B Anti-dumping and countervailing activity

Dumping is said to occur when an overseas supplier exports a good to Australia at a price below its 'normal value' in the supplier's home market. If dumping causes, or threatens to cause, material injury to local producers of like goods, then remedial action — mainly the imposition of special customs duties — can be taken against the imported goods concerned.

Similarly, countervailing duties can be imposed on imports which benefit from certain subsidies from an overseas government and which cause or threaten injury to a local industry producing like goods.

Australia's anti-dumping and countervailing legislation (contained in the *Customs Act 1901*, the *Customs Tariff (Anti-Dumping) Act 1975* and the Customs Regulations 1926), is based on WTO agreements that, amongst other things, aim to discipline the use of anti-dumping measures as an alternative form of protection. Though WTO members are not obliged to enact such legislation, they are required to comply with the agreed requirements should they wish to take action against dumped imports.

Australia's anti-dumping system is administered by the Australian Customs and Border Protection Service (Customs and Border Protection). It investigates claims of dumping and makes recommendations to the Minister, and also oversees anti-dumping and countervailing measures in force. The investigation process goes through several, time-limited, stages and includes appeal processes.

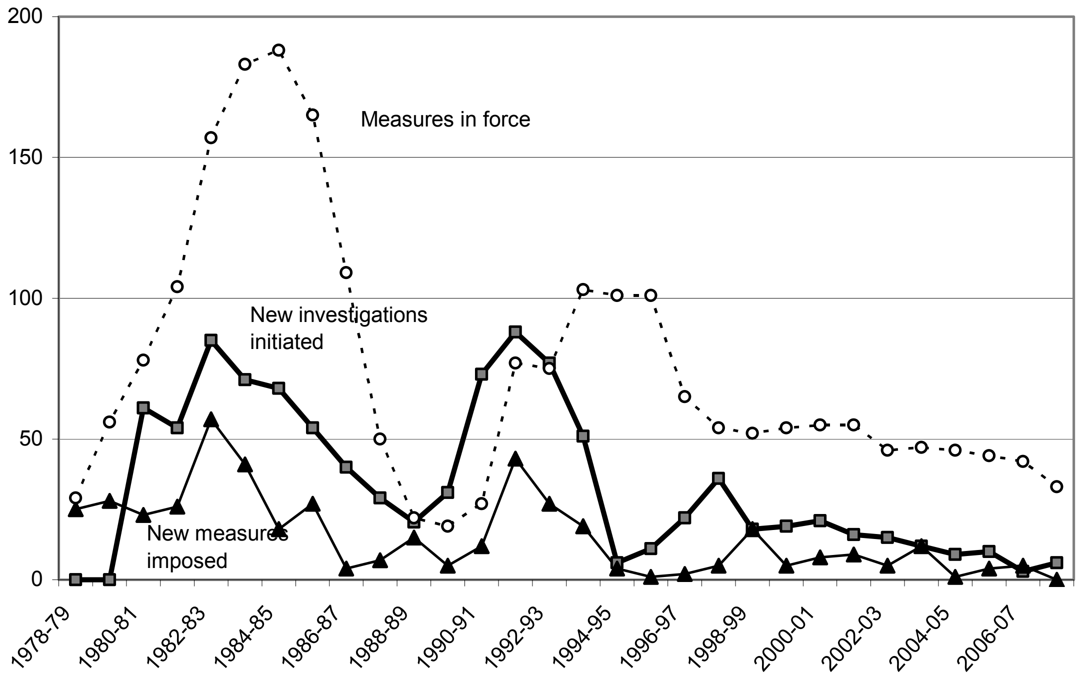
Under Australia's anti-dumping rules, anti-dumping duties may be imposed up to the level of the assessed dumping margin (or the subsidy provided by an overseas government). However, under the 'lesser duty rule', a smaller duty sufficient to increase the price of the overseas good to a 'non-injurious' level may sometimes be imposed. Alternatively, the overseas supplier (and also the overseas government in countervailing cases) can make a formal price undertaking on terms that would remove the injury or the threat of injury.

Once in place, anti-dumping measures typically remain in force for five years, with scope for extensions for additional five year periods, following further review.

B.1 Australian anti-dumping and countervailing activity

Over the decade to 2007-08, antidumping and countervailing activity steadily declined. *Initiation*s of new investigations fell from 18 in 1998-99 to 6 in 2007-08, while measures *in force* fell from 52 to 33 (figure B.1). Over the decade, new measures were *imposed* about 50 per cent of the time in response to investigations.

Figure B.1 **Australian anti-dumping and countervailing activity,[a,b] 1978-79 to 2007-08**



a An investigation or measure is recorded as an action applying to one commodity from one economy. If multiple economies are involved, they are treated as separate actions. **b** New investigations refer to investigations by Customs of complaint cases that have met the screening requirements. The number of complaints raised by industry may be greater.

Source: PC (2008c).

During 2007-08, six new investigations were *initiated* by Customs and Border Protection (table B.1). No new measures were *imposed* by the Government and eight measures expired.

Table B.1 **Australian anti-dumping and countervailing initiations,[a] 2007-08**

Commodity	*Industry grouping*	*Exporting economy*
Mobile garbage bins	Petroleum, coal, chemical & associated products	Thailand
Toilet paper	Wood & paper products	China
Toilet paper	Wood & paper products	Indonesia
Currants, processed dried	Food, beverages & tobacco products	Greece
Pipe, galvanised	Metal products	Thailand
Tubeless steel rims	Machinery and equipment products	China

[a] Formal investigations by Customs. Complaints by industry must meet certain requirement before investigations are initiated. Initiations are recorded as actions applying to one commodity from one economy.

Source: Australian Customs Dumping Notices.

Of the 33 measures *in force* in 2007-08, over 90 per cent related to a relatively narrow range of basic industrial chemicals and plastics, metal products and food and beverages, many of which are inputs to further manufacturing processes (table B.2). Over the decade to 2007-08, around one third of initiated investigations related to products in the *Petroleum, coal, chemical and associated products* industry grouping. The second largest number of initiations related to *Metal products.*

Table B.2 **Australian anti-dumping and countervailing new investigations, 1998-99 to 2007-08**

				1998-99 to 2007-08	
Industry grouping	*2005-06*	*2006-07*	*2007-08*	*Number of cases*	*Per cent of total[b]*
Food, beverages and tobacco	2	1	1	16	12
Textiles, clothing, footwear and leather	–	–	–	5	4
Wood and paper products	–	–	2	14	11
Printing, publishing and recorded media	–	–	–	0	0
Petroleum, coal, chemical and associated products	1	2	1	47	36
Non-metallic mineral products	2	–	–	8	6
Metal product manufacturing	5	–	1	26	20
Machinery and equipment manufacturing	–	–	1	11	9
Other manufacturing	–	–	–	2	2
Total	**10**	**3**	**6**	129	100

– Nil. [a] Formal investigations by Customs. Complaints by industry must meet certain requirements before investigations are initiated. Initiations are recorded as investigations of one commodity from one economy. Cases where dumping and subsidisation are alleged for the same economy and commodity are counted as two distinct initiations. [b] Percentages for individual industries may not sum to the total due to rounding.

Source: Australian Customs Dumping Notices (various years).

The anti-dumping and countervailing activity initiated over the decade to 2007-08 was against more than 25 countries (table B.3). Over this period, there has been an increasing concentration of initiations and measures against suppliers from the Asian region. Of the 13 countries currently subject to antidumping measures, seven are in Asia.

Table B.3 **Australian initiations of anti-dumping and countervailing cases by trading region and economy,[a] 1998-99 to 2007-08**

				1998-99 to 2007-08	
Region/economy	*2005-06*	*2006-07*	*2007-08*	*Total*	*Per cent[b]*
North America	**–**	**–**	**–**	**6**	**5**
Canada	–	–	–	2	2
United States	–	–	–	4	3
European Union	**–**	**1**	**1**	**26**	**20**
Austria	–	–	–	1	1
Belgium/Luxembourg	–	–	–	2	2
Finland	–	–	–	2	2
France	–	1	–	2	2
Germany	–	–	–	3	2
Greece	–	–	1	2	2
Italy	–	–	–	6	5
Sweden	–	–	–	2	2
UK	–	–	–	4	3
Other EU	–	–	–	2	2
Asia	**10**	**2**	**5**	**88**	**68**
China	3	1	2	20	16
Hong Kong	–	–	–	0	0
India	–	–	–	2	2
Indonesia	1	1	1	14	11
Japan	–	–	–	4	3
Korea	1	–	–	15	12
Malaysia	2	–	–	8	6
Philippines	1	–	–	1	1
Singapore	–	–	–	4	3
Thailand	1	–	2	14	11
Taiwan	1	–	–	6	5
Other	**–**	**–**	**–**	**9**	**7**
Saudi Arabia	–	–	–	2	2
South Africa	–	–	–	1	1
Other	–	–	–	6	5
Total	**10**	**3**	**6**	**129**	**100**

– Nil. **a** Cases are defined as actions applying to one commodity from one economy. Cases where dumping and subsidisation are alleged for the same economy and commodity are counted as two distinct initiations. **b** The sum of the percentages for the individual economies may not add to the regional totals due to rounding.

Source: Australian Customs Dumping Notices (various years).

B.2 International anti-dumping and countervailing activity

In 2006-07, there were 167 anti-dumping and countervailing cases initiated worldwide (WTO 2008b). The most were by India (29), followed by the European Union (18), Brazil (15), the United States (12) and China (11). Over 1300 measures were in force at 30 June 2007, of which the United States, India and the European Union accounted for around half. Australia ranked tenth in measures in force, compared with fifth at 30 June 2004.

C Measures related to carbon emission reduction

This appendix provides a stocktake of existing and prospective Australian, State and Territory Government carbon emission reduction measures. Some of the measures listed here are included in the Commission's overall estimates of industry assistance in *Trade & Assistance Review* (appendix A). This stocktake attempts to expand that coverage, particularly in the context of expected future increases in the number and size of government measures aimed at reducing carbon emissions. Chapter 5 provides an analysis of the measures included here.

Full details of this stocktake are available in a spreadsheet on the Commission's website (http://www.pc.gov.au/annualreports/trade-assistance).

C.1 Identifying carbon emission reduction measures

Identifying those measures that target emission levels *and* provide assistance to industry is not straight-forward.

- Determining whether a measure is intended to reduce carbon emissions is not always clear as some measures have multiple objectives, while others are aimed at ameliorating the effects of reforms that reduce carbon emissions.
- Many carbon emission reduction measures do not deliver direct assistance to particular industries but mandate environmental standards, such as energy efficiency ratings for new homes, or provide subsidies to install energy saving devices, such as solar panels.
- Often non-budgetary measures (such as regulations or procurement guidelines) are used to enforce reductions in carbon emissions. Data to determine how much assistance these measures provide is not always available.

Accordingly, the Commission has considered the following questions to guide its classification of carbon emission reduction measures.

- Is an objective of the measure, in whole or in part, to reduce carbon emissions or to assist firms to adjust to a lower carbon economy?

- Does the measure selectively assist particular businesses or activities? In particular, even if the assistance is directed at households, does it *selectively* assist a particular business or activity?
- Can the measure be quantified given practical constraints in measurement and data availability?

C.2 Application of guidelines

Applying these 'filters' has meant that the Commission has exercised judgement in a number of instances where inclusion or non-inclusion of a measure is not clear cut.

First, it has included measures that, in whole or in part, intend to reduce carbon emissions or are aimed at providing selective assistance to firms or activities to adjust to a lower carbon economy. This means that policies that have as *an* objective to reduce carbon emissions are included, even if they have other objectives, or carbon emission reduction is not the primary objective. For example, energy efficiency ratings for new homes are included, as one objective of this measure is to reduce carbon emissions. However, other objectives include lowering energy bills and reducing demands on the electricity network.

Second, the Commission only reports on measures that provide *selective* assistance to particular firms, industries activities or sectors, either directly or indirectly. Selective (as opposed to general) government measures enable assisted firms to gain an advantage, relative to other firms, thereby artificially increasing their returns and influencing the allocation of economic resources. So measures that provide *general* compensation to households to cope with higher energy or transport prices are typically not included. In contrast, government measures that provide subsidies to households to install insulation are included because they *selectively* assist the insulation industry.

Third, the Commission has taken a broader view of assistance measures than it generally does for assistance classifications in other parts of the *Trade & Assistance Review*. Measures relating to budgetary outlays, regulatory interventions, procurement policies and information provision are all included in this stocktake. Because the Commission usually only includes measures that can be quantified, many of these measures would not be included in estimates of assistance reported in the *Trade & Assistance Review*.

Reporting on these broader measures introduces difficulties in quantifying some measures. As a result, the Commission has split the classification of measures into those that can be quantified and those that cannot.

- Measures that can be quantified are reported as *quantifiable measures*. Chapter 5 analyses the details and impact of these measures.
- Measures that cannot be quantified are reported as *non-quantifiable measures*.

Of the measures that can be quantified, the Commission has sought to provide estimates for the last financial year and the next four financial years (that is 2007-08 to 2011-12, inclusive). In some instances, however, it has not been possible to provide annual estimates of the size of a measure. In these instances, the total funds allocated to the measure have been reported. It should be noted that some spending under programs for which annual estimates are not available, as well as other programs identified, may occur beyond 2011-12.

Fourth, some aspects of assistance measures that would normally be reported in *Trade & Assistance Review* have not been estimated for carbon emission reduction measures. For instance, the Commission has not sought to identify the initial benefiting industry of particular measures and has, therefore, not reported detailed industry or sectoral estimates of assistance.

In some respects this stocktake goes further than the normal reporting performed by *Trade & Assistance Review*. This stocktake includes State and Territory Government measures alongside Australian Government measures. Further, this stocktake reports any measures that will be introduced, or have been proposed to be introduced, over the next four financial years. So, for example, it reports on the impact of the Australian Government proposed Carbon Pollution Reduction Scheme.

In sum, this classification generally results in a relatively comprehensive listing of carbon emission reduction measures. Yet, in an exercise of this breadth it is likely that some measures may have been missed. Further, the stocktake only reports on measures that have been announced up to the end of March 2009. Some caution should be exercised in examining this list given the scope for changes to many of these measures, most probably in response to a number of reviews that are occurring (see Chapter 5 for more details).

C.3 Reporting of measures

Tables C.1 to C. 19 report on the identified carbon emission reduction measures for each jurisdiction. The measures are classified into four types:

- *Budgetary assistance* includes financial grants, subsidies or loans to firms, industries or organisations and tax concessions, including exemptions, deductions or preferential tax rates. In general, estimates of the funds allocated (or the tax revenue forgone) have been included for these measures. Where possible, the administration costs of the programs have been excluded.

- *Regulatory interventions* include measures that mandate particular standards, quotas for the use of lower-emission energy sources or prices for the “feed-in” of lower emission energy sources. In some cases, the impact of these measures have been quantified, though these estimates are generally not included in tables below (see chapter 5).
- *Procurement guidelines* include government guidelines relating to the purchase of equipment, capital items or infrastructure that favour lower emission options. The impact of these measures has not been quantified.
- *Information provision* includes measures that provide information to businesses or households on ways to reduce carbon pollution. This encompasses information that governments deliver directly, or information that it requires businesses to give to consumers. The impact of these measures has not been quantified.

Table C.1 **Australian Government quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Funding*					
		2007-08 to 2011-12	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Commonwealth Scientific and Research Organisation (CSIRO)							
CSIRO climate change related research, excluding Flagship activity	Funding for CSIRO's climate change related activities (additional to Flagship activity): includes funding for climate change mitigation through the Agricultural Sustainability Initiative and underpinning climate and atmospheric science.	82.6	11.4	15.2	18.5	18.8	18.7
CSIRO Energy Transformed National Research Flagship	As part of the National Research Flagships program, the Energy Transformed Flagship aims to develop clean affordable energy and transport technologies.	196.1	36.2	38.5	39.4	40.6	41.4
Department of Agriculture, Fisheries & Forestry							
Climate Change Research Program	Four-year program to help prepare Australia's primary industries for climate change by supporting further research and development in the areas of reducing GHG emissions, better soil management and adapting to a changing climate.	46.2	-	10.0	15.0	15.0	6.2
Department of Climate Change							
Assistance to emissions-intensive trade-exposed (EITE) firms	Transitional assistance to emissions-intensive trade-exposed firms at risk of carbon leakage or to adjust to the additional costs in a carbon constrained economy, through the free allocation of a certain proportion of required permits where emissions intensity reaches certain levels and firms are sufficiently trade-exposed.	6 000.0	-	-	-	2 900.0	3 100.0
Assistance to strongly affected industries - Coal-fired electricity generation	Compensation to generators for reductions in asset value as a result of the CPRS, through the provision of a fixed administrative allocation of permits.	1 400.0	-	-	-	700.0	700.0

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Table C.1 **Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Climate Change Action Fund[a]	$2.15 billion over five years from 2009-10 for small and medium enterprises, firms not receiving other assistance and those at the lowest rate of EITE assistance, community sector organisations, workers, regions and communities, totalling: • $130 million for information and advisory services; • $1.37 billion for investment in energy efficiency activities, low emission technologies, processes and products and high energy saving projects; • $200 million for general structural adjustment assistance; and • $750 million for coal sector adjustment.	1 700.0	-	-	300.0	700.0	700.0
Greenhouse Action in Regional Australia	Funding over 2 years to build capacity in the agriculture and land management sectors to reduce GHG emissions. Program lapses from June 2009.	7.8[b]	-	3.9	-	-	-
Department of Environment, Water, Heritage & the Arts							
Alternative Fuels Conversion Program	Support key commercial fleet operators to trial selected alternatively-fuelled or hybrid diesel/electric engines in order to assess the commercial viability and environmental performance of these engine systems in heavy vehicles and to demonstrate their feasibility to the wider transport industry. Program concluded on 30 June 2008.	4.0	4.0	-	-	-	-

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Climate Change Strategy – Local Greenhouse Action	Five year program to engage local government and the community in identifying and implementing practical actions to reduce their GHG emissions. LGA has funded the Cities for Climate Protection (CCP) Australia Program, the Cool Communities and Travel Smart initiatives. Funding has also been provided through Accelerated Action Grants available to groupings of councils in the areas of sustainable transport; sustainable public lighting or greenhouse purchasing; Inventory Grants available to councils required to complete an emissions inventory and for monitoring and reporting of emissions; and Community Abatement Grants available to councils for projects like education initiatives, energy audits, pilot and implementation of energy efficient products, and community greenhouse neutral and renewable energy plans.	17.3	3.0	3.3	-	-	-
Green Loans	Subsidised provision of low-interest loans, of up to $10,000 per home, for the installation of technologies to improve water and energy efficiency, including for solar hot water, insulation, rainwater tanks and grey water recycling (means tested at $250,000). The program aims to encourage wide-scale improvement of energy and water efficiency and provide sound advice and financial assistance to households.	252.9	-	17.2	60.1	87.9	87.7
Green Precincts Program	Funding to establish 10 high profile green precincts that encourage energy and water savings measures at the community level. The program aims to engage the community in increasing energy and water efficiency.	15.0	-	1.0	6.1	7.1	0.8
Greenhouse Gas Abatement Program	The Greenhouse Gas Abatement Program (GGAP) aims to reduce Australia's net greenhouse gas emissions by supporting activities that are likely to result in substantial emissions reductions or activities to offset greenhouse emissions, particularly in the period 2008-2012.	15.5	15.5	-	-	-	-

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Table C.1 **Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Low Emission Assistance Plan for owner-occupiers	From 1 July 2009, provision of $2.7 billion over two and a half years from 2009-10 for the purchase and installation of ceiling insulation in an estimated 2.2 million established homes that are owner-occupied and not currently insulated. The program will meet the costs of installing ceiling insulation up to a cap of $1600 per home, with interim assistance of the same amount, available from 1 July, for eligible owner-occupiers who install ceiling insulation up to 30 June 2009.	2 700.0	-	-	1 080.0	1 080.0	540.0
Low Emission Assistance Plan for Renters, as expanded in the Nation Building and Jobs Plan	Assistance of up to $1,000 for landlords to insulate around 700,000 rental properties. Rebate program from March, full program from 1 July 2009.	785.4	-	10.5	363.0	361.9	50.0
Low Emissions Technology and Abatement (Renewables Program & Strategic Abatement)	Funding over four years to encourage ongoing investment in the development, demonstration and deployment of smaller-scale low emission technologies, and cost-effective abatement activities. The Renewables program aims to support strategically important renewable energy projects that will contribute to a stronger renewable energy industry by addressing barriers to the uptake of renewable energy technologies. The Strategic Abatement sub-program targets greenhouse gas actions in local communities.	6.2	3.7	2.5	-	-	-
National Solar Schools Plan	Over 8 years from 2007-08, provision of grants of up to $50,000 to all eligible Australian primary and secondary schools to install solar and other renewable power systems, solar hot water systems, rainwater tanks and a range of energy efficiency measures including insulation and efficient lighting. Builds on and replaces Green Vouchers for Schools.	361.3	9.0	74.6	119.7	107.2	50.8

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Table C.1 **Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Renewable Remote Power Generation Program (RRPGP1) and Renewable Remote Power Generation Program Extension (RRPGP2)	The RRPGP1 and RRPGP2 aim to increase the uptake of renewable energy technology in remote areas of Australia, to help provide an effective electricity supply to remote users, to assist the development of the Australian renewable energy industry and to help meet the energy infrastructure needs of indigenous communities. *RRPGP1* Jurisdictions were each allocated an amount of funding based on the relevant Diesel Fuel Excise paid by public power generators in the period 1 July 2000 to 30 June 2004. This funding could be used to support approved remote power sub-programs and projects. The Partnership Agreement allows each jurisdiction until 30 June 2010 to commit its allocation and 30 June 2012 to expend. WA is the last jurisdiction with significant RRPGP1 funds left. *RRPGP2* Available to a jurisdiction, once its RRPGP1 allocation was fully committed, the RRPGP2 consisted of four sub-programs. For areas not close to a main grid, the Residential and Medium-scale sub-program provides rebates of up to 50% of the capital cost of renewable generation and essential enabling equipment, to a maximum value of $200,000 for households, communities, not-for-profit businesses, governments and other organisations. The Renewable Energy Water Pumping sub-program provides rebates of 40% minus $1,000 of the capital cost of the renewable energy components of eligible remote water pumps, with a maximum of $30,000 per site or property.	175.2	30.8	59.6	52.2	31.3	1.3
Solar Cities Program	Subsidises specific solar and energy efficient technologies and their installation into residential and commercial buildings, to showcase market viability and energy efficiency gains; also trialling smart metering and energy pricing trials. The program aims to engage the community in demonstrating solar technologies while collecting data on their use and cost.	76.2	9.1	37.5	12.8	11.8	5.0

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Solar Homes and Communities Plan	Provision of rebates of up to $8,000 for the installation of solar power panels on owner occupied homes and grants for up to half the cost of a 2kW system for community buildings. Replaces Photovoltaic rebate program. To be replaced by non means-tested Solar Credits from mid 2009, worth up to $7500 for solar PV systems.	254.3	54.0	157.6	42.7	-	-
Solar Hot Water Rebate Program	Rebates of up to $1,600 for households who do not access insulation assistance to replace electric hot water systems with solar and heat pump hot water systems. The program aims to accelerate the domestic uptake, achieve cost-effective greenhouse gas abatement and assist households to tackle climate change.	727.0	11.3	62.9	192.0	216.0	244.8
Renewable Energy Equity Fund	Specialist venture capital fund operating for 10 years from 1999, open to eligible early-stage companies commercialising renewable energy technology, with funding matched by private sector capital at a 2:1 ratio.	2.1	1.9	0.2	-	-	-
Department of Innovation, Industry, Science & Research							
Clean Energy Innovation Centre	Four-year program to improve the productivity and competitiveness of small and medium sized clean energy enterprises by providing business improvement services. The program aims to help SMEs in the clean energy sector improve their productivity and competitiveness and create more high-income and sustainable jobs in clean energy.	20.0	-	5.0	5.0	5.0	5.0
Climate Ready Program	Four-year $75 million program providing grants of $50,000 to $5 million on a matching funding basis to support small to medium enterprises in the development and commercialisation of innovative products, processes and services that address the effects of climate change. The program provides support for research and development, proof-of-concept and early-stage commercialisation activities.	75.0	-	13.1	22.6	23.8	15.5

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Cooperative Research Centres (CRC) Program	The CRC Program currently provides funding for 48 CRCs, several of which have research programs investigating carbon emissions. Two CRCs with a primary focus in this area are: • The CRC for Greenhouse Gas Technologies (CO2CRC) which is focused on geosequestration and carbon dioxide mitigation technologies. CO2CRC has successfully injected over 10 000 tonnes of carbon dioxide at the CO2CRC Otway Project, providing Australia's first demonstration of geosequestration. • The Antarctic Climate and Ecosystems CRC (ACE CRC) which is central to Australia's efforts to understand Antarctic and Southern Ocean processes and their role in regional and global climate changes. The objective of the CRC Program is to deliver significant economic, environmental and social benefits to Australia by supporting partnerships between researchers and end-users to address clearly articulated, major challenges that require medium to long term collaborative efforts.	23.5[c]	11.6[c]	6.4[c]	5.5[c]	-	-
Green Building Fund	Five-year $90 million program providing grants ranging from $50,000 to $500,000 up to 50% of eligible project costs to reduce GHG emissions through the retro-fitting and retro-commissioning of existing Australian commercial office buildings; grants of up to 50% of eligible project costs, to a maximum of $200,000, to improve the skills and capability of those involved in the operation of commercial office buildings to improve energy efficiency and reduce emissions.	80.0	-	10.0	25.0	30.0	15.0
Green Car Innovation Fund	From 1 July 2009, provision of grants to support the design, development and commercialisation of low-emission fuel-efficient cars, components and technologies in Australia over ten years.	513.7[d]	-	0.8	168.3	104.0	240.5

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Table C.1 **Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Renewable Energy Development Initiative	Matching grants from $50 000 up to $5 million for eligible projects extending up to the three years related to the development of renewable energy technology products, processes or services with strong early stage commercialisation potential and emissions reduction potential. Program was closed to new grants in April 2008.	49.4[e]	17.2	23.2	8.3	0.7	-
Re-tooling for Climate Change	Four-year $75 million program providing grants of $10 000–$500 000 to support Australian manufacturers reducing their environmental footprint through projects that improve the energy and/or water efficiency of their production processes.	75.0	-	2.9	25.3	27.9	18.9
Department of Resources, Energy & Tourism							
Advanced Electricity Storage Technologies Program	Supports the development and demonstration of efficient electricity storage technologies for use with intermittent renewable generation sources such as wind and solar.	20.4	3.1	9.6	7.5	-	-
APEC Tourism and Transport Working Group Research and Economic Model Development Project	The Department is contributing US$25 000 to the joint APEC Tourism Working Group and Transport Working Group titled 'Study of International Visitor Flows and Greenhouse Gas emissions for a Template to examine the Impact on APEC economies of future market based measures applying to International transport'. The project has a total budget of US$75 000.	0.04	-	0.04[f]	-	-	-
Asia-Pacific Partnership on Clean Development and Climate	The Asia-Pacific Partnership on Clean Development and Climate (APP) brings together Australia, Canada, China, India, Japan, South Korea and the United States to address the challenges of climate change, energy security and air pollution in a way that encourages economic development and reduces poverty.	75.8	14.9	33.0	20.0	7.9	-

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Biofuels Capital Grants Program (BCGP)	From 2004, the BCGP provided competitive grants from $800,000 - $10 million to fund one-off capital projects that provided new or expanded biofuels production capacity, with grants subsidising construction at a rate of 16c per litre. As of 2007, the program's funds had been entirely allocated.	7.2	7.2	-	-	-	-
Energy Innovation Fund	Provision of $150 million over four years to support the development of clean energy technologies. Includes the establishment of the $100 million Australian Solar Institute, to expand Australia's solar thermal and solar photovoltaic research capacity, and $50 million for the Clean Energy Program for general clean energy research and development.	150.0	-	40.9	51.2	36.2	21.7
Ethanol Distribution Program	Grants of $10,000 for retail service stations to upgrade existing equipment or install new equipment to supply E10 before 31 March 2008; sales target grants of up to $10,000 for service stations that reach a specific sales target within 12 months of completing the upgrade.	15.0	6.7	8.3	-	-	-
Ethanol Production Grants (EPG)	From September 2002, provision of a subsidy (38.143 cents per litre) for eligible ethanol, providing a zero effective rate of excise tax for these biofuels. The EPG will cease on 30 June 2011 and the Energy Grants (Cleaner Fuels) Scheme, which currently applies to biodiesel, will also apply to ethanol from 2011–2015.	500.4	56.7	100.4	160.0	183.3	-
Geothermal Industry Development Framework and Geothermal and Hydrogen Technology Roadmaps	The Australian Geothermal Industry Development Framework and the Geothermal Technology Roadmap provide detail on the challenges and opportunities for the development of an Australian geothermal industry. Developed in close consultation with industry, the framework identifies the key issues facing the geothermal sector in Australia, and recommends actions to encourage the development of a viable geothermal energy industry in this country. The Geothermal Technology Roadmap and the Hydrogen Technology Roadmap provide detail on the research and development challenges facing both the geothermal industry and the development of hydrogen technologies.	1.4	0.9	0.5	-	-	-

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Table C.1 **Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Global Carbon Capture and Storage Initiative	Funding for a Global Carbon Capture and Storage (CCS) Institute which aims to accelerate the development and deployment of a global portfolio of industrial-scale CCS demonstration projects. It will facilitate demonstration projects, establish information sharing frameworks, remove regulatory and legal impediments to CCS projects globally and, where necessary, identify and support research related to commercial deployment of CCS.	400.0	-	100.0	100.0	100.0	100.0
Low Emissions Technology Demonstration Fund (LETDF)	Funding for Australian firms to demonstrate the commercial potential of new energy technologies or processes, or the application of overseas technologies or processes to Australian circumstances. There will be no further application rounds under the LETDF, though funded projects will continue.	327.7	17.0	89.2	119.5	25.1	76.9
National Low Emissions Coal Initiative	An eight-year program to support clean coal and advanced fossil fuel technology development through initiatives including: $50.0 m for a national carbon mapping and infrastructure plan; $75.0 m for a National Clean Coal Research program (including $25 million to support low emission coal research by the CSIRO); $50.0 m for a pilot coal gasification plant in Queensland; $50.0 m to demonstrate carbon capture and storage; $50.0 m for a large scale post combustion capture plant in the Latrobe Valley (Vic); $15.0 m to fund Australia's Involvement in the FutureGen Alliance; and $20.0 m for the Australia-China Clean Coal Co-ordination Group.	303.0	14.0	25.2	86.1	102.8	74.9
Renewable Energy Fund	The $500 m Renewable Energy Fund is designed to fill the gap between post-research and commercial uptake for renewable energy technologies. The fund comprises the $435 million Renewable Energy Demonstration Program, the $50 million Geothermal Drilling Program, and the $15 million Second Generation (Gen2) Biofuels Research and Development Program.	227.5	-	-	55.5	71.0	101.0

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Table C.1 Australian Government quantifiable carbon emission reduction measures (continued)

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Sustainable Tourism CRC	The Department provided $20,000 to the STCRC to produce a report on the Carbon Footprint of Australian Tourism. The STCRC is also undertaking five regional case studies on the economic impacts of climate change on tourism, which will also identify adaptation strategies. The Department has contributed $40,000 to this project.	0.1	-	0.1	-	-	-
Tourism and Climate Change - A Framework for Action	The Government worked in partnership with the Australian tourism industry and State and Territory Governments to develop the Framework. A set of actions were determined through this process to assist the tourism industry to address and adapt to climate change challenges. A subcommitttee has now been formed to implement these actions. The Department will also contribute to a regional taskforce to address the effects of the UK air passenger duty.	0.2	-	0.2	-	-	-
Wind Energy Forecasting Capability	Five-year program of support to the development and installation of software and systems for the effective forecasting of wind energy generation in Australian electricity markets, including related research and development projects.	4.4	3.2	1.2	-	-	-
Department of Treasury							
Carbon Pollution Reduction Scheme Fuel Tax Adjustment Arrangements	Fuel excise for all liquid fuels currently subject to the general 38.143 cents/litre excise rate will be reduced to offset increases in fuel prices resulting from the CPRS, with the reduction based on the effect of pricing diesel emissions. The transitional fuel tax adjustments are scheduled to cease in 2013. A CPRS fuel tax credit will be introduced for agriculture, fishing and heavy on-road transport that effectively does not pay fuel tax: the credit will be available to agriculture and fishing businesses for three years, and heavy on-road transport businesses for one year; also to CNG and LNG for one year, and to LPG for three years, with credits for LPG, CNG and LNG reflecting the lower emissions of these fuels.	4 400.0	-	-	-	2 400.0	2 000.0

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Table C.1 **Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Luxury car tax concession	The luxury car tax threshold is set higher for fuel efficient cars.	38.8	-	8.5	9.2	10.1	11.0
Tax deductibility of establishment costs for carbon sink forests	Immediate tax deduction available to businesses that plant a forest for the purpose of absorbing carbon dioxide from the atmosphere. Once the measure ends, new expenditure is written off at the same rate as horticulture plants (7 per cent per year for 14 years and 105 days).	38.0	-	5.0	9.0	11.0	13.0

a Various departments and agencies are likely to be responsible for administering funding under this program. **b** This figure represents total funding allocated to the program. Some spending under this program may occur beyond 2011-12. **c** The figures identified under this program allocation are the combined funds provided under the CRC Program for CO2CRC and ACE CRC only. **d** The forecast expenditure amounts reflect the Administrative Funds planned for the Fund. The bulk of the Administered Funds total is expected to be allocated as grants, however a small portion could be expended on activities to support the Fund's implementation. **e** REDI is funded from within the total Commercial Ready allocation. There is no specific annual breakdown; funds are drawn as required from the Commercial Ready allocation to meet REDI commitments. **f** Converted from US dollars using rate published in the Australian Financial Review, 1 April 2009, p. 17.

Table C.2 New South Wales Government quantifiable carbon emission reduction measures

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
NSW Department of Commerce							
Energy Efficiency Skills Development Program for Tradespeople and Professionals	For existing trades and new technologies, to develop skills in delivering energy-efficient design, building and other services, through subsidised short courses, professional development for trainers and partnership projects with industry. This program has an objective of industry development.	20.0[a]	-	-	-	-	-
NSW Department of Environment & Climate Change							
Energy Performance Contracts (EPCs)	EPCs provide loans to budget-funded agencies for the purpose of undertaking large building-related water and energy saving projects (costing over $500,000). Agencies are permitted to re-pay the cost of the loans from energy and water savings. The program aims to improve the energy and water efficiency of government agencies and promote industry development.	44.7[a]	-	-	-	-	-
Expansion of Sustainability Advantage Program	Assist 800 medium to large businesses on identifying and prioritising waste reduction and energy- and water-saving measures.	20.0[a]	-	-	-	-	-
Fleetwise Partnership	Fleet operators are encouraged to improve the sustainability of their fleets by changing vehicle choice, the ways existing fleets are used and the extent of use. As ex-fleet vehicles make up a substantial portion of the used vehicle market, improvements to fleets can have a long-lasting impact on the numbers of fuel efficient vehicles on NSW roads. The heavy vehicles component of the program is currently being developed and tested. The program aims to reduce greenhouse gases and to reduce fuel costs by increasing the numbers of fuel efficient vehicles entering the used vehicle market.	0.7[a]	-	-	-	-	-

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Table C.2 **New South Wales Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Government Energy and Water Efficiency Investment Program	Established under the NSW Treasury Loan Fund, to provide funds for projects to improve energy efficiency of lighting, heating, ventilation and cooling systems, hot water and appliance upgrades. Agencies are permitted to re-pay the cost of the loans from energy and water savings. The program aims to improve the energy and water efficiency of government agencies. This program aims to promote industry development.	4.7[a]	-	-	-	-	-
Green Business Program	As part of a $30 million program over five years, for projects that will save energy and water in business operations in NSW. The program aims to encourage uptake of energy and water efficiency measures. This program has an objective of industry development.	30.0[a]	11.7	-	-	-	-
Greenhouse Innovation Fund	Aims to raise awareness about climate change, promote the adoption of emission reduction, research the impacts of climate change and develop adaptation initiatives. Created to support the 2005 NSW Greenhouse Plan. This program has an objective of industry development and encouraging R&D.	24.0[a]	-	-	-	-	-
Hot water system rebate	As part of a $100m Residential Rebate Program for improved water and energy efficiency, this rebate provides up to $1200 to switch from electric to solar, heat pump or gas hot water systems. The program aims to assist households overcome high upfront costs of achieving energy and water efficiencies. This program has an objective of industry development.	100.0[a]	3.3	-	-	-	-

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Table C.2 **New South Wales Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Insulation rebate	As part of a $100m Residential Rebate Program for improved water and energy efficiency, this rebate provides for half the cost of installing home ceiling insulation, up to a maximum of $300. This rebate will be re-directed in light of the Commonwealth Government's program for free ceiling insulation, to assist in insulating homes which will not receive funding under the Commonwealth Government's Energy Efficient Homes package, e.g. public housing. The program aims to assist households overcome high upfront costs of achieving energy and water efficiencies. This program has an objective of industry development.	-[b]	0.9	-	-	-	-
Low income household refit program	Home energy audits and free energy savings kits such as energy-efficient light bulbs and water saving showerheads, with a target of 220,000 low income households. The program aims to encourage households to take-up of energy efficient technology and reduce their energy bills. This program has an objective of industry development.	63.0[a]	-	-	-	-	-
Public Facilities Program	Provides $30 million for energy and water saving projects in facilities which are open to, and frequently accessed by, the public including schools, community buildings, sporting facilities, museums and art galleries. The program aims to demonstrate good practice for adoption by private industry.	30.0[a]	1.7	10.4	-	-	-
Renewable Energy Development Fund	Provides $40 million over five years under the Climate Change Fund, aimed at stimulating investment in the development or commercialisation of new renewable energy technologies that will generate electricity or displace grid electricity use in NSW for stationary energy purposes, and consequently result in reduced greenhouse gas emissions. The program aims to commercialise and develop new renewable energy. The program aims to demonstrate good practice for adoption by private industry, promote industry development and encourage R&D.	40.0	27.3	12.7	-	-	-

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Table C.2 New South Wales Government quantifiable carbon emission reduction measures (continued)

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Small Business Energy Efficiency Program	Subsidised cost of audits to identify energy savings, for up to 6000 small to medium businesses, and rebates to assist measures such as lighting upgrades and improvements to air-conditioning and refrigeration. The program aims to encourage business take-up of energy efficient technology. This program has an objective of industry development.	15.0[a]	-	-	-	-	-
NSW Department of Environment & Climate Change / Department of Education & Training							
School Energy Efficiency Program	Provides $20 million to help reduce GHG emissions and increase energy efficiency from NSW public high schools, including full lighting retrofit for each participating school. This program aims to promote industry development.	20.0[a]	0.6	-	-	-	-
NSW Department of Planning							
BASIX Multi Unit Cogeneration Demonstration Project	The installation of small-scale, gas-fuelled generators in a seven storey development in western Sydney, and a 25 storey apartment building in northern Sydney, in order to trial and showcase cogeneration technology in a residential setting. This program aims to demonstrate the use of technologies and promote industry development.	0.4[a]	-	-	-	-	-
NSW Department of Primary Industries							
Clean Coal Fund	Provide $100 million to fund research, demonstration and commercialisation of clean coal technologies and to increase public awareness of the importance of reducing GHG emissions through clean coal technologies. This program aims to reduce greenhouse emissions, encourage R&D, promote industry development and demonstrate technologies for adoption by the private sector.	100.0[a]	-	-	-	-	-

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Table C.2 **New South Wales Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Location of geosequestration sites	Funding of work by the Department of Primary Industries to locate geosequestration sites, including a possible site for a demonstration scale carbon capture and storage project. This program has an objective of industry development and encouraging R&D.	6.0[a]	-	-	-	-	-
Pilot carbon capture plant	Post combustion pilot facility to capture GHG emissions from the Munmorah Power Station using ammonia absorption technology, hosting a range of experimental trials to determine the potential to adapt the technology to NSW coal power station conditions. Joint program between Delta Electricity and the CSIRO. This program aims to encourage R&D, promote industry development and demonstrate technologies for adoption by the private sector.	5.0[a]	-	-	-	-	-

a This amount represents the total funding allocated to this program. It may be spent beyond 2011-12. **b** Program allocation included in funding for the hot water system rebate program.

Table C.3 **Victorian Government quantifiable carbon emission reduction measures**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Sustainability Victoria							
Insulation rebates	Rebates of 30% of the total cost of installed insulation, up to $300; 50% of the total cost of the installed insulation for concession card holders, up to $500.	0.4[a]	0.4	-	-	-	-
Vic Department of Innovation, Industry & Regional Development							
Biofuels Infrastructure Grant program	Provides $5 million in grants to assist in the development of infrastructure necessary for the production and distribution of biofuels. Part of the Regional Infrastructure Development Fund (RIDF).	5.0[b]	-	-	-	-	-
Enhancing Sustainability in New Investment	Financial support to companies to bridge the gap between conventional technology and 'best practice', aiming for improved energy efficiency and reduced GHG emissions, water use and waste generation. Grants available for 50 per cent of total project costs, up to a maximum of $100,000.	1.3	-	1.3	-	-	-
Water and Energy Efficiency Initiative	Funding to regional industry to implement energy efficiency measures.	10.0[b]	-	-	-	-	-
Vic Department of Primary Industries							
Clean Coal Victoria	Strategic and regional planning of coal resources, including future mines, infrastructure requirements, carbon storage, new technologies and future coal demands.	13.4	1.0	3.1	3.1	3.1	3.1
Investigating carbon storage sites in the Gippsland basin	Research and modelling of the Gippsland region's geology, to better understand carbon storage potential.	5.2	-	1.8	1.3	1.1	1.1

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Table C.3 Victorian Government quantifiable carbon emission reduction measures (continued)

Program name	Program description and/or stated objectives	Funding 2007-08 to 2011-12	2007-08	2008-09	2009-10	2010-11	2011-12
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Sustainable Energy Research and Development (SERD) Grants Program	$10 million in funding for developing new technologies in sustainable energy to commercial stage.	22.0	-	1.5	3.5	4.5	12.5
Vic Department of Sustainability & Environment							
Solar Hot Water rebates	Rebates for installations within regional Victoria, from $1900 to $2500, and between $900 to $1500 for metro installations, depending on system size and performance (rebate reduced by $1000 where applicant chooses to apply for $1000 Australian Government rebate).	33.1	0.5	11.6	13.1	7.9	-
Vic Department of Transport							
Melbourne Hybrid Bus Trial	The trial (from mid 2008) is part of a $500,000 commitment to trial hybrid electric technology in the State's metropolitan bus fleet as outlined in the 2006 Sustainability Action Statement.	0.5[b]	-	-	-	-	-
Vic not elsewhere classified							
Funding for new solar power station	As announced in March 2009, funding of up to $100 million to develop a new large-scale solar power station in Victoria, with the aim of having the plant operating by 2015. (Project subject to matching funding from the Commonwealth's Renewable Energy Demonstration Program).	100.0[b]	-	-	-	-	-

[a] Estimate based on all insulation rebate recipients receiving the maximum concessional rate. [b] This amount represents the total funding allocated to this program. It may be spent beyond 2011-12.

Table C.4 Queensland Government quantifiable carbon emission reduction measures

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Qld Department of Employment, Economic Development and Innovation							
Carbon Geostorage Initiative	Funding for the assessment, evaluation and categorisation of geological sites in Queensland with the potential for long-term, safe and secure storage of carbon dioxide emissions.	10.0	0.04	3.1	2.3	2.4	2.2
Clean Coal Fund	$300 million allocated from the Queensland Future Growth Fund to develop carbon capture and storage technologies. Combined project with the state's coal industry.	300.0[a]	-	-	-	-	-
Clean coal levy offset to liability for mining royalty	Allowance of levy under the Clean Coal Technology Special Agreement Act 2007 as a deduction in determining coal mining royalty.	17.5	-	7.0	3.5	3.5	3.5
Energy Choices Program: (including Residential Gas Installation Rebate; and Energy Wise program)	The program includes residential gas installation rebates, energy audit service, school energy efficiency action plans and an EnergyWise off-peak campaign.	14.3[a]	-	-	-	-	-
Research & development into emissions reducing and biosequestration opportunities in Qld agriculture	Improved agricultural practices including methane emissions from livestock; reduced nitrous oxide emissions from fertilisers; improved biosequestration in vegetation; and reduced emissions from energy efficiency in agriculture and fishing.	2.6	0.8	1.8	-	-	-
Qld Department of Environment and Resource Management							
EcoFund	An offsets exchange facility to assist developers to find offsets for vegetation clearing.	7.0[a]	-	1.2	1.8	1.7	-

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Table C.4 **Queensland Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Queensland Sustainable Energy Innovation Fund	Since 1999, funding energy and water projects. Currently, grants of up to 80% of project costs (up to $200,000) are available through competitive merit based assessment.	1.5	0.4	1.1	-	-	-
Qld Department of Public Works							
Energy Smart Buildings Program (Government)	A whole-of-government program to promote and facilitate energy efficiencies in government buildings. (Previously known as GEMS – Government Energy Management Strategy)	5.3	1.8	1.8	1.8	-	-
Qfleet ClimateSmart Action Plan 2007-2010	Offsetting 50% of emissions from the Queensland Government vehicle fleet by 2010 and 100 per cent by 2020.	0.2	0.2	-	-	-	-
Renewable Energy program for Government Buildings	A centralised purchase to meet the Government's ClimateSmart 2050 commitment that at least 5% of electricity used in government buildings will be from renewable sources.	4.2	1.4	1.4	1.4	-	-
Qld Office of Clean Energy							
Climate Smart Homes Rebate Program	Rebates for energy conservation measures by households and small businesses located in isolated and remote areas	7.2[a]	-	-	-	-	-
Cloncurry Solar Thermal Power Station	Funding of $7 million towards the $30 million development, based on solar energy and a conventional stream turbine electricity generator.	7.0	7.0	-	-	-	-
Geothermal Centre of Excellence	$15 million allocated over five years, in partnership with the University of Queensland.	15.0[a]	-	-	-	-	-
Queensland Renewable Energy Fund	Funds allocated annually as grants and loans to support proven renewable energy technologies statewide.	50.0[a]	-	-	-	-	-

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Table C.4 **Queensland Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Smart Energy Savings Fund	Support for cost-effective energy improvements by Queensland businesses to buildings, appliances and industrial processes, through grants and loans where projects cannot be funded internally or attract traditional funding sources.	50.0[a]	-	-	-	-	-
Smart Energy Savings Program	Under the Clean Energy Act 2008, large energy using businesses (100-500 terajoules per annum) not registered or required to be registered under the Energy Efficiency Opportunities Act 2006 (Cwth) are required to undertake mandatory energy efficiency audits, development of energy savings plan and publication of their implementation.	5.0	5.0	-	-	-	-
Qld Office of Clean Energy / Qld Department of Environment and Resource Management							
Solar Schools Project	$60 million package over three years for solar panels, energy efficient light bulbs, and circuit timers to turn off non-essential power at night.	60.0[a]	-	-	-	-	-
Qld Office of Climate Change							
Climate Smart Homes Service	Funding to assist householders with tools to monitor and reduce their energy use	60.0	-	20.0	25.0	15.0	-
ClimateSmart Living education campaign	Funding to promote actions to reduce greenhouse gas emissions at home and work	2.5	2.5	-	-	-	-
National Climate Change Adaptation Research Flagship	A partnership with the Australian Government, Griffith University and other tertiary institutions to coordinate Australia's climate change adaptation research agenda to deliver key research evidence for Australian policy makers. Includes $2 million investment from the Queensland Climate Change Fund from 2008 to 2013.	2.0[a]	-	0.4	0.4	0.4	0.4

[a] This amount represents the total funding allocated to this program. It may be spent beyond 2011-12.

Table C.5 Western Australian Government quantifiable carbon emission reduction measures

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
WA Department for Planning and Infrastructure							
Household Sustainability and Education Program	Under the Climate Change Action Statement, the program provides practical information on how GHG emissions can be reduced in the household. 10,000 homes will be provided with free audits to identify opportunities to reduce emissions. Includes energy and water saving kit.	1.5	0.8	0.8	-	-	-
WA Department of Environment & Conservation							
Low Emissions Energy Development Fund	Funding under the Climate Change Action Statement of May 2007 to provide financial incentives to support technological advances that cut GHG emissions.	35.5[a]	-	8.5	8.5	9.3	9.3
WA Sustainable Energy Development Office							
Energy Smart Enterprise	Assist small to medium sized business to improve energy efficiency and environmental outcomes and reduce energy costs, through grants and technical assistance.	6.1	-	-	2.7	2.7	0.8
Facilitation Grants for Government agencies	Funding under the Climate Change Action Statement of May 2007 to provide financial incentives to support technological advances that cut GHG emissions.	2.0	0.4	0.4	0.4	0.4	0.4
Solar Schools Program	Provides up to $12,500 for metropolitan schools (up to $13,000 for regional schools), above a minimum school contribution of $1,000, for new systems and additions to existing ones.	3.3	0.3	1.9	1.1	-	-
Solar Water Heater Subsidy	Rebates of $500 for natural gas-boosted solar water heaters ($700 for bottled LP gas-boosted solar hot water heaters in areas without reticulated gas): program to run for four years or until funds are fully committed.	4.7	1.5	1.2	2.0	-	-

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Table C.5 **Western Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Sustainable Energy Development Office (SEDO) Grants Program	Provides grants of up to $50,000 for community-based sustainable energy projects and sustainable energy research and development projects.	2.0	0.4	0.4	0.4	0.4	0.4

a Funding allocations are notional as actual disbursements are linked to the attainment of objectives which will spread over several years beyond the year in which funding was awarded.

Table C.6 South Australian Government quantifiable carbon emission reduction measures

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
SA Department for Transport, Energy & Infrastructure							
Solar hot water rebates	A rebate of $500 for low income owner-occupiers on the cost of a new solar or electric heat pump water heater system installed on or after 1 July 2008.	9.3	2.1	1.8	1.8	1.8	1.8
Use of biodiesel on public transport/purchase of diesel-powered buses	Since March 2006, all metropolitan buses and trains have run on 5% biodiesel; over 2008-09, 80 new diesel-powered buses for the Adelaide passenger transport network.	0.5	0.1	0.1	0.1	0.1	0.1
SA Department of Further Education, Employment, Science & Technology							
Biofuels from microalgae	Support for a joint project by SARDI and Flinders University to initiate development of new capabilities in the area of biofuels from microalgae. Funding is provided through via the Premier's Science and Research Fund.	0.1	0.1	-	-	-	-
SA Department of Premier & Cabinet							
Art Gallery of South Australia - improved energy efficiency	A staged program to reduce Art gallery energy use and GHG emissions by 20 per cent.	2.5	0.1	0.8	1.6	-	-
Building Tune-ups Project	A four-year project to improve the performance of commercial buildings through upgrading buildings to reduce GHG emissions.	2.4	-	0.6	0.6	0.6	0.6
Provision of a solar power station at Coober Pedy	Upgrade to the solar power station at Coober Pedy	0.6	-	0.6	-	-	-
Renewable Energy	Installation of mini wind turbines for SA Government buildings.	0.3	0.3	-	-	-	-

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Table C.6 **South Australian Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Solar Power Grant to the Royal Agricultural and Horticultural Society (RAHS)	An $8 million grant to the RAHS to facilitate the installation of solar power at the Goyder Pavilion at the Wayville Showground.	8.0	8.0	-	-	-	-
Solar power station upgrade - Umawa	Upgrade to the Umawa solar power station in the far north-west of SA, which will more than double electricity output from 335 MWh to 715 MWh	0.6	0.6	-	-	-	-
University of Adelaide - Chair of Climate Change	Funding for the Sir Hubert Wilkins Chair of Climate Change at the University of Adelaide	0.8	0.3	0.3	0.3	-	-
SA not elsewhere classified							
Green School Grants	Supports measures that improve energy and water use efficiency.	5.0	1.0	1.0	1.0	1.0	1.0
Solar Schools Program	Support for schools to switch into solar power, with a goal of solar power for 250 schools by 2014.	12.3[a]	-	-	-	-	-

[a] This amount represents the total funding allocated to this program. It may be spent beyond 2011-12.

Table C.7 **Tasmanian Government quantifiable carbon emission reduction measures**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Tas Climate Change Office							
Climate Change community grants program (ClimateConnect)	Incorporated and not-for-profit community organisations are eligible for grants of up to $50,000 for projects that encourage people to work together to reduce emissions or conserve energy.	1.5	-	0.5	0.5	0.5	-
Tas Department of Education							
Climate Change Minor Works Program	Schools will be able to apply for funding assistance to undertake small capital projects to address efficiency and climate change concerns.	0.8	-	0.8	-	-	-
Tas Department of Environment, Parks, Heritage & the Arts							
CleanBiz sustainability program	Funding to help Tasmanian enterprises reduce operating costs and environmental impacts by encouraging more resource efficient practices.	1.1	0.3	0.2	0.2	0.2	0.2
Tas Department of Infrastructure, Energy & Resources							
Extra Low Voltage/ Light Emitting Diode Technology	This initiative will, over four years, roll out a sustainable and power efficient traffic signals system using ELV/LED technology which will deliver a significant reduction in carbon emissions.	3.1	-	1.1	1.0	0.8	0.2

Table C.8 **Northern Territory Government quantifiable carbon emission reduction measures**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
NT Department of Natural Resources, Environment, the Arts & Sport (NRETAS)							
$5 million package of incentives under the proposed climate change strategy	A range of climate change initiatives for businesses and households, under the climate change strategy are being developed in 2009. Initiatives include: Energy Smart Building Policy for the NT Government; energy efficiency hardware rebate; energy efficiency solar hot water rebate (retrofit) scheme; Ecobiz NT (business energy efficiency program), and Energy Smart Schools Program.	5.0	-	2.0	2.0	1.0	-
Continued funding of COOLMob community initiative	COOLmob are community based groups in Darwin and Alice Springs, established to reduce greenhouse gas emissions through improved home energy efficiency and reduced car usage as well as reduced water consumption and waste going to landfill. Staff and volunteers conduct energy audits on households, and information campaigns.	0.4	0.1	0.1	0.1	0.1	-
Environment Grants	Grants available to individuals, community groups, local government and industry associations for environmental projects and education activities in the Territory.	2.3	0.5	0.6	0.6	0.6	-
NT Department of Planning & Infrastructure							
Public bus network expansion	More bus services and free bus travel for seniors and youth to meet the growing transport needs of Darwin, Palmerston and the Rural Area. Aimed at increasing the number of people using public transport to reduce pollution and greenhouse gas emissions.	7.2	-	1.8	1.8	1.8	1.8
School Energy Blitz	Assisting with the costs of building improvements which will lower electricity consumption, reduce GHG emissions and save energy costs.	0.04	0.04	-	-	-	-

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Table C.8 **Northern Territory Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
NT Department of Regional Development, Primary Industry, Fisheries and Resources							
Solar Cities renewable energy program	This is a joint program between the Commonwealth, the Northern Territory Government and other partners. The funding recorded here represents the Northern Territory Government's contribution to the Alice Springs Solar City, which is one of five solar cities in Australia. The Australian Government's Solar Cities Program is designed to demonstrate how solar power, smart meters, energy efficiency and new approaches to electricity pricing can combine to provide a sustainable energy future in urban locations. Includes support for a feed-in tariff for generators with small photovoltaic systems (up to 2 kW) supplying to the grid, for all electricity supplied (gross supply) at a rate of 45.76 cents per kWh, capped at $5 per day.	2.3	0.5	1.9	0.4	0.3	0.2
NT Department of the Chief Minister							
Climate change website	Maintain a whole of government climate change website to give the community access to the climate change information relevant to the NT. Similar focus to the Australian Government 'One Stop Green Shop' web portal for climate change activities and programs.	0.02	-	0.02	-	-	-
Tourism NT							
'Make the Switch' grants program	Provides grants to tourism operations, not connected to the NT electricity grid, to assist with the costs associated with replacing fossil fuel generations with renewable energy technology.	0.5	0.2	0.1	-	-	-
Outback Offsets	Pilot program which aims for the operations of participating tour companies to be carbon neutral for 2008-09, with Tourism NT purchasing 5000 tonnes of carbon credits as part of the pilot, to test the importance of providing a carbon offset facility for travellers.	0.2	-	0.2	-	-	-

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Table C.8 **Northern Territory Government quantifiable carbon emission reduction measures (continued)**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
Tourism Electricity Support Program (TESP)	The TESP provides grants to qualifying applicants to fund electricity infrastructure outside the Territory's major regional centres. Priority is placed on applications that incorporate renewable energy generation systems or other energy efficiency initiatives.	0.2	-	0.2	-	-	-

Table C.9 ACT Government quantifiable carbon emission reduction measures

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
ACT Department of Disability, Housing and Community Services							
Energy efficiency improvements in public housing	A $20 million initiative over 10 years, including improvements such as wall insulation, draught sealers and more efficient heating.	10.0	1.0	2.3	2.3	2.3	2.0
ACT Department of Education & Training							
Greens Schools Initiatives	$20 m will be invested over 10 years to assist government and non-government schools to become carbon neutral by 2017, through the development of emissions reduction and energy efficiency initiatives.	1.6	-	0.4	0.4	0.4	0.4
ACT Department of Territory and Municipal Services							
CNG Bus Fleet replacement	Progressive change-over of the ACTION bus fleet to CNG.	8.0	5.0	3.0	-	-	-
Energy efficient street light replacement	Replacement of public street lights with more efficient lamps.	3.0	-	3.0	-	-	-
Free bus travel for bicycle riders using on-bus bike racks	Free bus travel for bicycle riders using on-bus bike racks.	0.01	0.01	-	-	-	-
One Million Trees initiative	Aims to plant one million new trees over ten years as part of the ACT Climate Change Strategy.	3.3	-	0.6	1.1	0.8	0.8
ACT Department of the Environment, Climate Change, Energy and Water							
ACT Energy Efficiency Fund	$1m energy efficiency loan fund accessible to ACT government agencies for the purposes of identifying and implementing energy savings and greenhouse gas reduction initiatives: loans range from $20,000 to $150,000, repayable within 3 years.	1.0	1.0	-	-	-	-

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Table C.9 **ACT Government quantifiable carbon emission reduction measures**

		Funding					
Program name	*Program description and/or stated objectives*	*2007-08 to 2011-12*	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
		$m	$m	$m (est)	$m (est)	$m (est)	$m (est)
ACT Energy Wise Program	For houses and semi-detached houses built before 1996, homeowners who spend at least $2,000 on energy efficient improvements, identified during an audit by the ACT Government's Home Energy Advice Team, will be eligible to receive a $500 rebate plus a refund of the $30 audit fee.	0.9	0.4	0.4	-	-	-
Grant Program for Community Groups	$1 million fund to enable grants to be made to community and not-for-profit groups to assess and improve the energy performance of buildings and to promote energy efficiency to their stakeholders.	1.0	0.3	0.7	-	-	-

Table C.10 **Australian Government non-quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Department of Climate Change				
Climate Change Action Fund: Additional coal sector adjustment assistance	Provision of $300 million over the period 2013-14 to 2014-15 for industry adjustment	Budgetary outlay	2013	2015
Greenhouse Friendly Program	Labelling of products and services as carbon neutral if their ‘cradle-to-grave’ GHG emissions are fully offset by approved abatement which itself must be approved under the program as being additional, permanent and verifiable. Current abatement projects will continue until the conclusion of their deeds or 1 July 2010, whichever occurs first.	Information provision	2001	2010
Mandatory GHG emissions and energy use reporting	The National Greenhouse and Energy Reporting Act 2007 introduces a national mandatory reporting system for corporations that meet specified thresholds to report greenhouse gas emissions and energy consumption and production from 1 July 2008. Introducing a single national reporting system ensures the collection of consistent and comparable data to inform government policy formulation and the Australian public. The system underpins the development and operation of a Carbon Pollution Reduction Scheme and also provides the basis for ongoing work with Commonwealth, State and Territory Government programs to better streamline reporting obligations and reduce the reporting burden placed on Australian business.	Regulation	2008	
Mandatory Renewable Energy Target	To encourage the deployment of renewable energy technologies, legal liability is imposed on wholesale purchasers of electricity (retailers and large users) to contribute proportionately towards annual targets, to achieve a target of 9,500 gigawatt hours (GWh) by 2010 and remain at that level until 2020. The scheme also regulates the market for tradeable Renewable Energy Certificates, equivalent to one megawatt hour (MWh) of renewable energy. (See proposed Renewable Energy Target under COAG)	Regulation	2001	2020
Renewable Energy Target	An expanded, renewable energy target scheme, which is intended to amalgamate the MRET (see Department of Climate Change) and existing and proposed state and territory government targets into a single national Renewable Energy Target (RET) scheme. The proposed scheme is to include a legislated target of 45,000 GWh of renewable energy in Australia’s electricity supply by 2020, to be achieved through interim targets. The scheme is intended to operate as a transitional measure in the context of the Carbon Pollution Reduction Scheme phasing out by 2030.	Regulation	2010	2030

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Table C.10 **Australian Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Department of Environment, Water, Heritage & the Arts				
Amended fuel quality standards	Under the Fuel Quality Standards Act 2000, a cap of 10% by volume of ethanol, for ethanol petrol blends, was introduced on 1 July 2003.	Regulation	2003	
Global Warming Cool It (brochure)	A home guide to reducing energy costs and greenhouse gases: provides information on heating and cooling, appliances and equipment, electricity use, lighting and energy saving tips. (Brochure to be updated.)	Information provision		
Greenhouse Challenge/Challenge Plus - Industry Partnerships	The Greenhouse Challenge Plus program is a partnership between industry and the Australian Government to: reduce greenhouse gas emissions (including promotion of awareness of greenhouse gas abatement opportunities in industry); accelerate the uptake of energy efficiency; integrate greenhouse issues into business decision-making and provide more consistent reporting of greenhouse gas emissions levels. A mandatory element of GCP is under the Fuel Tax Act (2006), companies that receive more than $3 million in fuel tax credits are required to join the GCP program.	Regulation	2006	2009
Online Portal	Establishment of a government portal to link schools, businesses and families to all Commonwealth, State and local government household energy, water and other resource efficiency programs.	Information provision	2008	2011
Phase out of energy-inefficient light bulbs	Phase out of inefficient incandescent globes over 4 years, accelerated by publishing standards in March 2008 and bringing forward to February 2009 a ban on imported inefficient incandescent general lighting service (GLS) lamps. The phase out will be implemented by adopting MEPS for lighting products with a staged approach to implementation of point of sale restrictions planned to commence from November 2009.	Regulation		
Phase out of inefficient hot water systems[a]	Development of nationally-consistent greenhouse performance standards for domestic hot water products to meet new performance requirements and introduce check testing for hot water products to ensure suppliers are providing products that meet the new performance requirements.	Regulation		
Windows Energy Rating Scheme (WERS)	Since 2001, a system of energy performance labelling for window products, developed by the window and glazing industry and supported by the Australian Government.	Information provision	2001	
Your Development	A joint initiative of the Australian Government and developed in partnership with CSIRO and urban planners around Australia. Your Development is a dynamic website providing information on sustainable urban development, including fact sheets and case studies.	Information provision	2008	

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Table C.10 **Australian Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Your Home resources for environmentally sustainable housing	A joint initiative of the Australian Government and the design and construction industries. Your Home is a suite of consumer and technical guide materials and tools developed to encourage the design, construction or renovation of homes to be comfortable, healthy and more environmentally sustainable.	Information provision	2001	
Department of Infrastructure, Transport, Regional Development & Local Government				
Expansion and revision of Vehicle Fuel Consumption Labelling Standard	Vehicle labelling requirement commenced in January 2001. Since January 2004, expanded requirements for vehicle fuel consumption labelling including requirement to label carbon dioxide emissions as well as fuel consumption, to include all new vehicles up to 3.5 tonnes gross vehicle mass; and to use fuel consumption and carbon emissions figures from a UN test procedure. From April 2009, revised label will improve level of information to consumers by providing a breakdown of test results reflecting both urban and non-urban driving conditions.	Regulation	2001	
Green Vehicle Guide	An internet based searchable database providing information and environmental performance ratings (air pollution and GHG emissions data) for all new road vehicles sold in Australia since 2004 weighing 3.5 tonnes gross vehicle mass or less.	Information provision	2004	
Department of Resources, Energy & Tourism				
Energy Efficiency Exchange website	Website to provide best practice energy efficiency information for industry (delivered through the Commonwealth-State jointly funded National Framework for Energy Efficiency).	Information provision	2004	2011
Energy Efficiency Opportunities Programme	The Energy Efficiency Opportunities Act 2006 (Cwth) mandates energy efficiency opportunities assessments and public reporting of outcomes by large energy using businesses, with the aim of increased take-up of energy efficiency measures that are privately cost-effective.	Regulation	2006	2009

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Table C.10 **Australian Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Department of Treasury				
Cleaner Fuels Grants Scheme	The Energy Grants (Cleaner Fuels) Scheme Act 2004 established the cleaner fuels grants scheme for importers and manufacturers of cleaner fuels, these being renewable fuels such as biodiesel and renewable diesel, and low sulphur conventional fuels, ensuring that the excise tax for biofuels is zero until 1 July 2011. The Scheme will also progressively introduce fuel tax to alternative fuels from 1 July 2011 to 30 June 2015.	Budgetary outlay	2003	2015
Energy Grants Credits Scheme	Fuel grant for businesses using alternative fuels for road transport, including biodiesel, ethanol, liquefied petroleum gas (LPG), liquefied natural gas (LNG) and compressed natural gas (CNG). Rates depend on fuel type, and are gradually being reduced to zero by 1 July 2010.	Budgetary outlay	2003	2010

a No funding allocated against this program as it is being absorbed within a another program.

Table C.11 **New South Wales Government non-quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
NSW Department of Commerce				
Cleaner NSW Government Fleet Program	Efficiency targets for Government Fleets. Cars with V8 engines no longer available for purchase through Government Contract. Encourages the use of smaller, cleaner and less polluting vehicles. This program has objectives of industry development and the demonstration of good practice.	Procurement	2005	
NSW Department of Environment & Climate Change				
Carbon Neutral NSW Government	In May 2008, the NSW Government announced that it will become 'carbon neutral' by 2020. The operations of the NSW Cabinet are to become carbon neutral from mid-2009. This program aims to demonstrate good practice.	Procurement		
Energy Efficiency Community Awareness Program	Community awareness program which will provide practical advice on how to save energy at home and work. The program aims to demonstrate good practice and stimulate green industry development.	Information provision	2009	2011
Mandating energy savings measures (Energy Savings Action Plans)	For high energy users, cost-effective energy savings measures to be implemented by the end of 2010. The program aims to increase the implementation of energy savings measures, increase energy efficiency and remove barriers to the uptake of cost effective investment in energy efficiency technologies.	Regulation		2010
NSW Energy Savings Scheme (ESS)	New energy efficiency targets will be imposed on NSW electricity retailers, in relation to energy used in the residential, commercial and industrial sectors; with demand-side abatement activities under the GGAS to be eligible to create the new class of abatement certificates that represent GHG savings from reduced consumption of electricity, with the exception of activities relating to the reduction of emissions from on-site generation (embedded generation and cogeneration), as this will be covered by the CPRS. The Scheme will continue until 2020 or until a national energy efficiency trading scheme is in place, and will be subject to five yearly reviews. The scheme aims to create financial incentives to overcome market failures and barriers to energy efficiency activities so as to help reduce electricity use and costs, complement the CPRS and reduce the cost of, or need for, additional electricity infrastructure. This program aims to promote industry development.	Regulation	2009	2020

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Table C.11 **New South Wales Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
NSW Government Sustainability Policy	In May 2008, the policy announced targets and strategies for NSW Government budget-dependent agencies including on reducing GHG emissions from energy, waste and fleet management, and sustainable purchasing: includes a state-wide target for NSW Government agencies to reduce GHG emissions from building energy use to 2000 levels by 2019-20 (using interim targets); plus compliance with the Cleaner NSW Government Fleet Policy. This program aims to reduce greenhouse gases and demonstrate good practice.	Procurement	2008	2020
Public sector energy savings	Target for reduced emissions from energy use in government-owned or tenanted buildings to 2000 levels by 2019-20. The program aims to demonstrate good practice.	Procurement		
NSW Department of Lands				
Mandatory proportion of ethanol in total petrol volume sold	Under the Biofuel (Ethanol Content) Act 2007, primary wholesalers of petrol are required to ensure that ethanol sales (in petrol-ethanol blends) comprise no less than 2 per cent of the total volume of petrol they sell (including petrol-ethanol blends). Among other things, the program aims to improve air quality. This program aims to promote industry development.	Regulation	2007	
NSW Department of Planning				
Building Sustainability Index (BASIX)	Requirement for all residential developments with a total estimated cost of works of $50,000 or more to comply with energy and water reduction targets. Uses an online program to assess building applications. This program aims to promote industry development.	Regulation	2004	
NSW Department of Water & Energy				
Energy efficiency licence conditions on gas suppliers	Under the Gas Supply Act 1996, gas suppliers distributing more than 100 terajoules of natural gas a year are required to prepare a three-year plan to promote the adoption of thermally efficient gas appliances and efficient energy-use practices, plus preparing and publishing an annual report on implementation of the plan. This program aims to promote industry development.	Regulation	2004	

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Table C.11 **New South Wales Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Greenhouse Gas Reduction Scheme (GGAS)	Mandatory benchmarks for electricity retailers for GHG reduction, based on their market share; to reduce emissions and to develop and encourage activities to offset the production of emissions. GGAS is expected to end on the commencement of the Carbon Pollution Reduction Scheme.	Regulation	2003	2010
Renewable energy requirement as licence conditions on electricity suppliers	Under the Electricity Supply (General) Regulation 2001, all electricity suppliers that supply or offer to supply electricity to residential premises are required, as a condition of licence, to make an offer to each potential new or moving customer that the equivalent of a minimum of 10 per cent of their electricity will be obtained from accredited renewable energy sources. The conditions aim to encourage household support for renewable energy. This program aims to promote industry development.	Regulation	2006	

Table C.12 Victorian Government non-quantifiable carbon emission reduction measures

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Sustainability Victoria				
ResourceSmart Buildings - Commercial	A program aimed at improving the environmental performance of commercial buildings.	Budgetary outlay	2006	
ResourceSmart Business Program	Provides information and financial support to SMEs for projects that reduce carbon emissions.	Budgetary outlay	2002	
Trades and Professional Training	Develops training and accreditation systems for tradespeople and professionals to overcome knowledge gap in sustainability skills.	Budgetary outlay	2005	
Vic Department of Human Services				
Sustainability in Healthcare Capital Works	Part of capital works budget for 'lead' and 'demonstration' Ecologically Sustainable Development (ESD) initiatives.	Budgetary outlay	2004	
Vic Department of Innovation, Industry & Regional Development				
Clean Technology Industry Capability Mission	Building on MOU (2007), encouraging collaboration between Victoria and California to encourage the development of clean and renewable energy technologies	Information provision	2009	
Vic Department of Planning & Community Development				
Victorian planning provisions	Planning provisions to manage land use, including renewable energy sites etc.	Regulation	2002	
Vic Department of Primary Industries				
Energy Technology Innovation Strategy (ETIS) – Brown Coal Research and Development, Large Scale Demonstration Projects and Renewables	$370 million in funding has been committed to facilitating investment in sustainable energy supply sources and low emission technology to support Victoria's industrial competitiveness.	Budgetary outlay	2004	
Greenhouse in Agriculture	Research and development work to reduce GHG from agricultural processes	Budgetary outlay		
Premium feed-in tariffs	Payments to households that provide excess energy, from small-scale photovoltaic systems, back into the electricity grid.	Regulation	2009	2024

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Table C.12 **Victorian Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Victorian Energy Efficiency Target Scheme	From 2009, creates a legal liability for energy retailers (both electricity and gas) to meet a share of an annual carbon emissions reduction target, based on their proportional share of the markets, by providing households with energy saving products and services at little or no cost: to continue to 2029, or end earlier if the national ETS delivers lower cost GHG abatement.	Regulation	2009	2029
Victorian Renewable Energy Target (VRET)	Electricity retailers and wholesale purchasers of electricity are required to contribute towards the generation of additional renewable energy by acquiring Victorian renewable energy certificates. It is proposed that in 2010 VRET will be incorporated into the Commonwealth Government's expanded Renewable Energy Target.	Regulation	2009	2030
Vic Department of Sustainability & Environment				
BushBroker	Aimed at providing a market for environmental services.	Information provision		
BushTender	Aimed at providing a market for environmental services.	Procurement		
EcoMarkets	Aimed at providing a market for environmental services.	Procurement		
Government Sustainable Energy Targets	Reduce by 2010 energy use in Government buildings by a further five per cent to 20 per cent of 1999/2000 levels and increase use of Green Power to 25 per cent.	Procurement		
Greenhouse Regional Partnership Program	The regional partnerships provide a means for local organisations to work together on reducing greenhouse emissions while at the same time building stronger links with relevant local and State government programs.	Budgetary outlay	2003	
Victorian Advanced Resource Recovery Initiative (VARRI)	A $10 million partnership between government and industry to explore high technology waste recovery infrastructure.	Budgetary outlay		
Victorian Government Fleet Offsets Purchase	Carbon offsets purchased to offset the emissions of the government fleet. Encouraging the development of a market for carbon offsets in Victoria.	Procurement	2002	
Vic Department of Sustainability & Environment / Vic Environment Protection Authority				
Carbon Innovators Network	Aims to stimulate debate and innovation in carbon management and provide the support and tools businesses require to develop appropriate carbon management strategies.	Information provision	2006	
Carbon Management Information and Tools	Provides information to businesses (among others) to develop GHG emission strategies to reduce emissions (through energy efficiency and new technology)	Information provision	2006	

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Table C.12 **Victorian Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Vic Department of Transport				
Hybrid Taxi and Hire Car Fleet Trial	Lower taxi and hire car licence fees to encourage uptake of hybrid cars	Regulation	2008	
Vic Environment Protection Authority				
Environment and Resource Efficiency Plans	Under the Environment Protection (Environment and Resource Efficiency Plans) Regulations 2007, commercial and industrial sites using more than 100 terajoules of energy/or 120 megalitres of water per year are required to prepare and implement a plan that identifies actions with a 3 year or less payback period to reduce energy and water use, and waste generation.	Regulation	2008	
Vic Urban				
AURORA	A 6-Star energy rated community developed to demonstrate best practice, affordable living.	Information provision	2006	
Sustainable Community Rating	A tool for developers to use to raise the standard of planning of residential estates - to reduce building/operating environmental impacts.	Information provision		

Table C.13 Queensland Government non-quantifiable carbon emission reduction measures

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Qld Department of Employment, Economic Development and Innovation				
Alternative Fuels Policy	The policy seeks to provide a framework for strategies which will encourage the continued development of alternative fuels.	Regulation	2008	2013
Queensland Gas Scheme	Requirement on electricity retailers to source a minimum percentage of their electricity from eligible gas-fired electricity provided above a baseline production amount: the % to increase from 13% in 2008 and 2009, to 15% in 2010 and not more than 18% for any year after 2010.	Regulation	2005	2020
Qld Department of Environment and Resource Management				
Queensland Solar Homes Program	Providing cheaper solar power systems for 1000 households. The measure also underwrites the program to a maximum of $10 million.	Procurement	2008	2009
Vegetation Management Act 1999	To regulate vegetation clearing in a way that conserves vegetation, prevents biodiversity loss and reduces greenhouse gas emissions.	Regulation		
Qld Department of Infrastructure & Planning				
4-star commercial buildings	New commercial buildings required to achieve 4-star energy equivalence rating.	Regulation	2010	
5-star housing[a]	New houses and townhouses required to achieve 5-star energy equivalence.	Regulation	2009	
5-star units[a]	New units required to achieve 5-star energy equivalence.	Regulation	2010	
Energy efficiency in Residential Covenants and Body Corporate[a]	Prevention of residential estate covenants and body corporates that restrict the use of energy efficient design features and fixtures e.g. roof-mounted solar hot water systems.	Regulation		
Energy Efficient Air Conditioners[a]	Hard-wired air-conditioners installed or replaced in houses and units need to have an Energy Efficiency Ratio (EER) of at least 2.9 (equivalent to a current 4-star energy rated system).	Regulation	2009	
Energy Efficient Lighting[a]	New houses and units must have energy efficient lighting to 80% of total fixed internal lights.	Regulation	2009	
Greenhouse-efficient Hot Water Systems[a]	New houses (not units) are required to install a greenhouse-efficient option-gas, solar or heat pump.	Regulation	2006	

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Table C.13 Queensland Government non-quantifiable carbon emission reduction measures (continued)

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Phase-out of electric storage hot water systems[a]	Phase-out electric hot water systems from existing houses (not units) in gas reticulated areas with a greenhouse-efficient option-gas, solar or heat pump (ClimateSmart 2050).	Regulation	2010	
Recognition of outdoor living areas in Queensland's building standards[a]	New houses and townhouses (Class 1 buildings) in BCA climate zones 1 and 2 can gain optional credit of up to 1 star towards their 5-star energy equivalence requirement by including a veranda, deck, etc.	Regulation	2009	
Sustainability Declaration[a]	When selling a house or unit a sustainability declaration must be provided informing prospective buyers of the sustainability features of the dwelling.	Regulation	2010	
Qld Department of Public Works				
Carbon Reduction Strategy for Government Office Buildings	By 2020, government-owned office buildings required to achieve 'carbon neutral' status (zero net greenhouse gas emissions). This will be achieved through: i) energy savings eg. mandating minimum air-conditioning temperatures; ii) sourcing renewable energy; and iii) purchasing carbon offsets. Also, all new and major refurbished office buildings to have at least a 4.5 star energy rating.	Procurement	2008	2020
Offset government domestic and international air travel and hire vehicles	A purchasing framework that ensures carbon offsets are purchased to negate the GHG emissions associated with air travel and vehicle hire by government departments.	Procurement	2007	ongoing
QFleet ClimateSmart Action Plan 2007-2010	Minimum CO2 emissions standards for QFleet vehicles, based on Green Vehicle Guide (GVG) Greenhouse Ratings (5.5 for Passenger vehicles and 3.5 for all Light Commercial vehicles), unless approved by the agency CEO.	Procurement	2008	2010
Strategic Energy Efficiency Policy for Government Buildings	Requirement for each department to develop and implement a Strategic Energy Management Plan for its building portfolio and achieve energy reduction targets of 5% by 2010 and 20% by 2015.	Procurement	2008	2015
Qld Office of Clean Energy				
Solar Bonus Scheme (feed-in tariff)	The Queensland Government Solar Bonus Scheme pays households and other small customers 44 cents per kWh (net metered) for surplus electricity generated from roof-top solar photovoltaic panel systems that is fed into the Queensland electricity grid.	Regulation	2008	

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Table C.13 **Queensland Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Qld Office of Climate Change				
Queensland Climate Change Fund	Part of the ClimateSmart 2050 initiative. $430 million fund. Interest earned on the fund provides an ongoing funding source of $30 million each year for climate change initiatives (including some of those listed herein).	Budgetary outlay		
Qld Office of State Revenue				
Reduced motor vehicle transfer duty for smaller vehicles	From 1 January 2008, graduated scale for motor vehicle transfer duty based on the number of cylinders.	Tax concession	2008	

a Program funding is allocated on a yearly/mid year review basis, i.e. budget submissions.

Table C.14 **Western Australian Government non-quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
WA State Fleet				
Greening the WA government fleet	Program involves replacement of six-cylinder vehicles with four-cylinder alternatives, requirement that a proportion of six-cylinder vehicles be LPG-powered and a set of environmental programs including revegetation and tree planting to offset the carbon emissions of the vehicle fleet.	Procurement	2007	

Table C.15 South Australian Government non-quantifiable carbon emission reduction measures

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
SA Department for Transport, Energy & Infrastructure				
Government building leasing preferences	Since July 2006, preference in leasing to office accommodation that achieves a 5-star Australian building greenhouse energy rating.	Procurement	2006	
Performance Standards for Domestic Water Heater Installation	From 1 July 2008, water heaters installed in new or established dwellings need to meet performance standards that increase the proportion of low emissions/high efficiency water heaters and water efficient showerheads.	Regulation	2008	
Residential Energy Efficiency Scheme	The scheme requires electricity and gas providers to deliver energy audits and energy efficiency measures to households, such as ceiling insulation, draught proofing and more efficient appliances, with a certain proportion of measures delivered to low-income households. Aims to improve residential sector energy efficiency and lower energy costs for households, particularly low income households, assist households to get prepared for the CPRS, and to support industry development.	Regulation	2009	
SA Department of Further Education, Employment, Science & Technology				
Community awareness and behaviour change program	Awareness program aimed to encourage individuals, households and the community to reduce their GHG emissions. Includes a 'black balloons' media campaign.	Information provision	2008	2009
SA Department of Premier & Cabinet				
Solar feed-in tariff	A subsidy of 44 cents per kWh (net metered) for electricity generated by the solar photovoltaic system (up to 10 kW capacity) of households and small customers (less than 160 MWh per annum) that are fed back into the state electricity grid. The premium tariff arrangements will apply until 2028.	Regulation	2008	2028
SA not elsewhere classified				
Alternative fuel requirement for State Government fleet	Requirement that half of South Australia's government fleet be alternatively fuelled by 2010.	Procurement		

Table C.16 **Tasmanian Government non-quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Hobart City Council				
Hobart City Solar and Heat Pump Hot Water Rebate Scheme	Offers Hobart ratepayers a $500 incentive to install a solar or heat pump hot water system into their homes. Scheme began July 2007 and will continue until December 2011	Budgetary outlay	2007	2011
Tas Climate Change Office				
Procurement requirements on Government purchases and projects	The impact of climate change to be included in the evaluation criteria for all major purchases of goods and services and to be taken into consideration in the selection of goods and services for all minor purchases of relevant goods and services, also to be taken into account in the planning design, specification, construction, operation and ongoing maintenance of all relevant major building and construction/roads and bridges projects; and the evaluation criteria for the selection of consultants and contractors to also include commitment to and capacity to deliver effective climate change outcomes.	Procurement	2008	2012
Tas Department of Treasury & Finance				
Government Vehicle Emission Policy	Mandating of GHG emissions of all fleet vehicles.	Procurement	2008	2012
Tas not elsewhere classified				
Carbon neutral government vehicle fleet	From March 2008, all new Tasmanian Government vehicles will have to meet minimum Green Star ratings. Government will also increase the number of hybrid and alternative fuel vehicles in the Government fleet.	Procurement	2008	2012
Tasmanian Government air travel fully carbon offset	From March 2008 a proportion of all Tasmanian Government air travel will be invested towards a biodiverse carbon sequestration research project in Tasmania.	Procurement	2008	2012

Table C.17 **Northern Territory Government non-quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
NT Department of Business and Employment				
Green Fleet Plan	Aimed at reducing GHGs produced by the Government's light commercial and passenger vehicle fleet - a 20% reduction target over five years has been set. Working with agencies to acquire a more environmentally friendly fleet.	Procurement	2008	
NT Department of Natural Resources, Environment, the Arts & Sport				
Carbon accounting and land research	The NRETAS Division of Environment, Heritage and the Arts supports a 3-year CDU research proposal on greenhouse gas emissions and land use in the NT, which has successfully gained an Australian Research Council Linkage Grant. Other related research proposals are being considered.	Budgetary outlay	2006	2011
NT Department of Planning & Infrastructure				
Target reductions in Government energy use	Target reduction of 10% by 2011 in NT Government department's building portfolio energy use, applying to all departments and government business divisions with more than fifty full-time employees; covering each department's total owned and leased building portfolio; involving audits for all medium to large government buildings, monitoring and annual reporting.	Procurement		

Table C.18 **ACT Government non-quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
ACT Department of Territory & Municipal Services				
Stamp duty concessions for low emissions vehicles	From 3 September 2008, stamp duty on fuel-efficient vehicles has been cut: all new light vehicles will have a Green Vehicle Rating on which duty rates will be based, with a lesser rate of stamp duty for vehicles with better environmental performance based on carbon emissions and air pollution ratings.	Tax concession	2008	
ACT Department of the Environment, Climate Change, Energy and Water				
ACT Greenhouse Gas Abatement Scheme	Mirrors the NSW Greenhouse Gas Abatement Scheme. The NSW and ACT schemes are, in many respects, operated as a single scheme. Under this arrangement, the NSW Independent Pricing and Regulatory Tribunal administers the overall scheme and accredits abatement projects, while the ACT Independent Competition and Regulatory Commission is the regulator of the Scheme in the ACT.	Regulation	2005	2020
Feed-in tariff	Under the Electricity Feed-in (Renewable Energy Premium) Act 2008, generators of electricity using solar and other renewable energy sources (of up to 30 kW installation capacity) are paid 50.05 cents per kWh (gross metered) for systems up to 10kW, and 40.04 cents per kWh for systems between 10kW and 30kW. The premium rate of 50.05 cents per kWh is set at 3.88 times the most common price paid by the ACT electricity users. Access to the premium rate is to apply for a period of 20 years after connection to the grid.	Regulation		2009
Offer of GreenPower to all new electricity customers	Requirement on electricity suppliers that GreenPower be offered to all new electricity customers.	Regulation	2009	
Requirement for fuel sales data to be provided by service stations	To improve the accuracy of data on emissions from transport fuels.	Regulation	2008	
Showcase renewable and energy efficient technologies	Showcase low-emissions or renewable energy technologies as an example of how individuals, property owners and businesses can adapt older buildings to reduce their energy impacts or incorporate energy efficient design in new buildings.	Information provision		
Support for sustainable schools	Development of a curriculum package and Best Practice Guide to support schools to integrate sustainability into the school curriculum.	Information provision	2007	
Switch Your Thinking (water, energy and waste programs)	Extends and expands existing sustainability programs relating to water, energy and waste, and streamlines these into a one-stop-shop delivery vehicle. Aimed at encouraging the ACT community to reduce water usage, energy consumption and waste production.	Information provision	2008	

(Continued next page)

Table C.18 **ACT Government non-quantifiable carbon emission reduction measures (continued)**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
ACT Planning and Land Authority				
Disclosure of NatHERS rating on existing houses	Disclosure of rating under the ACT House Energy Rating Scheme during the sale or lease of a house	Regulation		

Table C.19 **Inter-governmental non-quantifiable carbon emission reduction measures**

Program name	*Program description and/or stated objectives*	*Type of measure*	*Start year*	*End year*
Department of Environment, Water, Heritage & the Arts (Secretariat)				
Nationwide House Energy Rating Scheme (NatHERS) - assessor and software accreditation	Nationwide House Energy Rating Scheme (NatHERS) sets national standards for professionals offering assessment services as well as the software they use and the minimum set of information required.	Regulation		
Ministerial Council on Energy				
Mandatory energy efficiency labelling	Prescribes labelling of comparative energy consumption for air-conditioners, dishwashers, clothes washers and dryers, and refrigerators and freezers.	Regulation	1999	
Minimum Energy Performance Standards (MEPS)	Prescribes minimum energy use standards for specific types of major energy-using devices in the residential, commercial and industrial sector.	Regulation	2001	
Performance standards for buildings (Building Code of Australia)	On 1 January 2003, the ABCB introduced energy efficiency standards into volume two of the Building Code, covering new houses and additions to existing houses. From May 2006, energy efficiency provisions for detached and semi-detached dwellings increased to a nominal 5 star rating under the Nation-wide House Energy Rating Scheme (NatHERS).	Regulation	2003	
NSW Department of Environment & Climate Change (Secretariat)				
National Australian Built Environment Rating System (NABERS)	NABERS is a performance-based rating system which rates a building on the basis of its measured operational impacts on the environment. NABERS is a national initiative managed by the NSW government.	Information provision		
NSW Department of Water & Energy				
GreenPower Accreditation Program	National accreditation program for products offered by energy providers, setting environmental and reporting standards	Regulation	1997	
WA Office of Energy				
Mandatory Energy Efficiency Program	Under the Climate Change Action Statement, mandatory energy efficiency program that requires large and medium energy users to invest in cost-effective energy efficiency measures. Being progressed through MCE.	Regulation		

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