The Parliament of the Commonwealth of Australia

Getting a better return

Inquiry into increasing the value added to Australian raw materials

Second report

House of Representatives
Standing Committee on Industry, Science and Resources

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Foreword

This report completes an inquiry into the prospects of increasing the value added to Australian raw materials, which the Committee carried out at the request of the Minister for Industry, Science and Resources.

The inquiry was carried out in two stages. The first stage, an evaluation of the current state of value-adding in Australia, was the subject of a report to the House of Representatives in March 2000. That report was called *Of material value?*. It indicated that the Committee, in the second stage of the inquiry, would study five industries, the aluminium, magnesium, dairy, grains and wine industries, in order to identify drivers of successful value-adding in Australia and what was needed to overcome any impediments. This report is the result of those case studies.

Both reports relating to this inquiry have been unanimous. This reflects the often bipartisan way in which House of Representatives committees carry out their work. It lends weight to the fourteen recommendations contained in this report and to the more numerous conclusions reached in both reports.

There are actions the Commonwealth Government can take to increase value adding in Australia. For example, the Government should encourage and facilitate increased investment in new value-adding industries, where investors are excessively averse to risk, or too focussed on short-term returns. The Government should aim to raise business expenditure on research and development to 1 per cent of GDP by 2005. Bilateral and multilateral action to reduce tariff and non-tariff barriers must be heightened. High priority should be given to the provision of infrastructure to serve the needs of regional and rural communities and value-adding industries. These and other matters are raised in the Committee's recommendations. The Committee looks forward to the Government's response early in the life of the next Parliament.

I want to thank all the members of the Committee for their participation and cooperation during the course of the inquiry. In particular, I want to thank the Deputy Chair, Mr Allan Morris MP, who has served on the Industry Committee

for most of the last fourteen years and who is leaving the Parliament at the end of the current term.

On behalf of the Committee I would also like to thank all those who contributed their time and knowledge to assisting both stages of this inquiry. The individuals and organisations that prepared submissions or appeared as witnesses at hearings are listed in the appendices to this report. Their input was crucial and is greatly appreciated by the Committee.

Geoff Prosser MP
Chairman

Membership of the Committee

Chair The Hon Geoff Prosser MP

Deputy Chair Mr Allan Morris MP

Members

The Hon Bruce Baird MP (to 21/6/99)

Mr Mal Brough MP (from 21/6/99 to 8/3/00)

The Hon Alan Cadman MP (from 29/3/01)

Mr Michael Hatton MP

Mr Tony Lawler MP (to 22/6/00)

Mr Jim Lloyd MP (Chair from 2/9/99 to 17/2/00)

Mr Ian Macfarlane MP (from 22/6/00 to 8/3/01)

Mr Gary Nairn MP

Ms Nicola Roxon MP

Mr Cameron Thompson MP (from 8/3/00)

Dr Mal Washer MP

Mr Christian Zahra MP

Committee Secretariat

Secretary Mr Paul McMahon

Mr Richard Selth (from 1/7/00 to 22/12/00)

Inquiry Secretary Mr Russell Chafer (to 11/2/01)

Mr Stephen Boyd (from 14/2/01)

Research Officer Ms Margaret Atkin

Administrative Officers Mrs Gaye Milner

Ms Jennifer Cochran

Terms of reference

On 20 April 1999 the Minister for Industry, Science and Resources asked the Committee to:

> inquire into and report on the prospects of increasing value-adding to Australian raw materials. The Committee should start with an evaluation of the current state of value-adding in Australia, and how that compares internationally. This would provide a base from which to evaluate the following topics:
>
> - incentives and impediments to investment;
> - intellectual property rights;
> - national / international marketing factors which may encourage or hinder Australian value-adding;
> - government intervention, both nationally and internationally;
> - the location of value-adding industries and projects in regional Australia;
> - resource licensing / permit arrangements;
> - the impact of vertical integration within particular industries; and
> - the Australian skills base and any associated impediments.

List of abbreviations

AAC	Australian Aluminium Council
ABARE	Australian Bureau of Agricultural and Resource Economics
ADIC	Australian Dairy Industry Council
AFFA	Department of Agriculture, Fisheries and Forestry - Australia
AMC	Australian Magnesium Corporation
ANZFA	Australian and New Zealand Food Authority
APEC	Asia Pacific Economic Cooperation
ARWF	Australian Regional Winemakers Forum
ATO	Australian Taxation Office
AWB	Australian Wheat Board Ltd
AWBC	Australian Wine and Brandy Corporation
AWRI	Australian Wine Research Institute
BCA	Business Council of Australia
BERD	Business Expenditure on Research and Development
BSE	Bovine Spongiform Encephalopathy
CIE	Centre for International Economics

COAG	Council of Australian Governments
CPI	Consumer Price Index
CRCs	Cooperative Research Centres
CRCV	Cooperative Research Centre for Viticulture
DAA	Dairy Adjustment Authority
DFAT	Department of Foreign Affairs and Trade
DISR	Department of Industry, Science and Resources
DRDC	Dairy Research and Development Corporation
DTRS	Department of Transport and Regional Services
EC	European Community
ETMs	Elaborately Transformed Manufactures
EU	European Union
FMD	Foot and mouth disease
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GF	Goodman Fielder
GHG	Greenhouse Gases
GMO	Genetically Modified Organisms
GRDC	Grains Research and Development Corporation
GTR	Golden Triangle Resources
GVP	Gross value of production
GWRDC	Grape and Wine Research and Development Corporation
HEIAA	Heavy Engineering and Infrastructure Industry Sector Action Agenda

IC	Industry Commission
IP	Intellectual Property
ITRDC	Industry, Technology and Regional Development Council
NCC	National Competition Council
NEM	National Electricity Market
NIAC	National Infrastructure Advisory Council
PECA	Process Engineers and Constructors Association
OECD	Organisation for Economic Co-operation and Development
PSEs	Producer support estimates
QMC	Queensland Metals Corporation
R&D	Research and Development
RDCs	Research and Development Corporations
SLG	Strategic Leaders Group
SAMAG	South Australian Magnesium Project
TRIPS	Trade Related Intellectual Property Rights
UNFCCC	United Nations Framework Convention on Climate Change
WEA	Wheat Export Authority
WET	Wine Equalisation Tax
WFA	Wine Federation of Australia
WTO	World Trade Organisation

List of recommendations

Recommendation 1 (paragraph 2.79)

The Committee recommends that the Commonwealth Government take a pro-active role in facilitating investment in new value-adding industries, where excessive risk aversion and the desire of investors for short-term profits may be acting as impediments.

Recommendation 2 (paragraph 2.80)

The Committee recommends that the Department of Industry, Science and Resources include in the final *Light Metals Industries Action Agenda* a requirement to examine, and where possible respond to, support measures by foreign countries which may distort commercial investment decisions.

Recommendation 3 (paragraph 2.84)

The Committee recommends that the Department of Industry, Science and Resources implement a targeted research and development assistance package for the magnesium industry, aimed at ensuring that Australia benefits from expected future world growth of magnesium production.

Recommendation 4 (paragraph 2.90)

The Committee recommends that the Department of Foreign Affairs and Trade, through bilateral trade negotiations and, where possible, multilateral negotiations, seek to eliminate the use of tariffs and other trade barriers in the emerging international magnesium industry.

Recommendation 5 (paragraph 2.122)

The Committee recommends that the Department of Industry, Science and Resources include representatives of State Governments in its Strategic Leadership Group, which is responsible for developing an *Action Agenda* for the light metals industries.

Recommendation 6 (paragraph 2.145)

The Committee recommends that the Australian Greenhouse Office review Australia's needs and the applicability of the Kyoto Protocol. This review must include strategies for including emission targets for developing countries in the existing or future protocols and also the mechanisms by which Australia will transfer emission reduction and abatement technology to developing countries.

Recommendation 7 (paragraph 2.159)

The Committee recommends that the Commonwealth Minister for Transport and Regional Services ensure that, at the next meeting of the Ministerial Council on Regional Development, priority be given to the development of a long-term strategy for the provision of infrastructure to serve the needs of regional and rural communities and value-adding industries.

Recommendation 8 (paragraph 3.48)

The Committee recommends that the Commonwealth Government raise the current dollar-for-dollar funding ceiling (of 0.5 per cent of the industry gross value of production) for industry Research and Development Corporations to 0.7 per cent.

Recommendation 9 (paragraph 3.60)

The Committee recommends that the Minister for Agriculture, Fisheries and Forestry initiate an independent review of the dairy industry adjustment package. This review should assess whether the objectives of the assistance package were met and, if not, then further action should be recommended to ensure that the desired outcomes are achieved.

Recommendation 10 (paragraph 5.36)

The Committee recommends that the Commonwealth Minister for Industry, Science and Resources ensure that the issue of harmonisation of State legislation relating to the wine industry is an agenda item at the next meeting of Australian Industry Ministers.

Recommendation 11 (paragraph 5.45)

The Committee recommends that the Commonwealth Government in 2002 review the combined effect on the wine industry of all taxation impacts, including the wine equalisation tax.

Recommendation 12 (paragraph 5.68)

The Committee recommends that the Department of Industry, Science and Resources review all tariffs on imports that affect the wine industry and, where there is no overriding reason for their continuation, they should be set at zero immediately.

Recommendation 13 (paragraph 6.49)

The Committee recommends that the Commonwealth Government aim to ensure that its research and development programs provide sufficient incentive for business to invest in additional R&D, such that the level of business expenditure on R&D rises to 1.0 per cent of GDP by 2005.

Recommendation 14 (paragraph 6.99)

The Committee recommends that the Treasurer establish a public inquiry into the existing zonal taxation system focusing on:

■ options for developing a business zonal taxation system:

⇒which would encourage investment in value-adding and research and development activities in rural and remote areas; and

⇒which would promote economic growth in rural and remote communities; and

■ options for enhancing the zonal taxation rebate for individual taxpayers.

Executive summary

This report completes the Committee's inquiry into the prospects for value-adding to Australia's raw materials.

A first report, *Of material value?*, was presented to the House of Representatives in March 2000.[1] The first report looked at: the importance of raw materials processing in Australia, the current state of value-adding, factors important to the success of value-adding, and ways of encouraging further raw materials processing.

This second report contains the results of five case studies the Committee conducted into the aluminium, magnesium, dairy, grains and wine industries. These industries were selected because they reflected a range of levels of maturity and of value-adding performance. The Committee has sought to identify lessons to be learnt that would improve performance across industry generally. Fourteen recommendations have been made for Government action. These appear at the front, as well as in the body, of the report. The Committee's main observations are contained in 'Conclusions' sections in each chapter.

Chapter 1: Introduction

This chapter briefly summarises the first report, contains some background information about each of the industry case studies, and outlines two key policy statements, *Investing for Growth* (1997), and *Backing Australia's Ability*.

Chapter 2: Aluminium and magnesium industries

These two light metals industries are at quite different stages of development but have much in common.

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1 The first report may be accessed on the internet at http://www.aph.gov.au/house/committee/isr/Val_Add/contents.htm

Australia is the world's largest miner of bauxite, accounting for about 40 per cent of production. It is also the world's largest producer of alumina with about 30 per cent of production. However, it accounts for only about seven per cent of the world's aluminium production. About 70 per cent of Australia's bauxite is processed into alumina in Australia, but only 20 per cent of Australia's alumina is processed domestically into aluminium.

The total value of export earnings by the aluminium industry in 1998-99 was $6.3 billion—$2.9 billion from alumina and $2.8 billion from aluminium metal. Only $350 million was earned from the export of semi-fabricated products. There is a substantial amount of value-adding that already occurs in the aluminium industry—about $3.1 billion in 1997-98—but there is considerable potential for that to be increased.

The magnesium industry worldwide is very small compared to the aluminium industry—about two per cent of its size in terms of metal production. Australia currently does not produce commercial quantities of magnesium, but there are nine projects under consideration. The potential gains from further processing are very substantial since magnesium raw materials retail for around $50 per tonne while the metal retails for around $1 500 per tonne.

Among the features that the aluminium and magnesium industries have in common are:

- they have a need for large amounts of patient investment capital, particularly the magnesium industry which is at a very early stage of development;
- they have a need to be at the cutting edge in terms of technology, therefore support for research and development is very important;
- they face issues of international competition, including the type and level of assistance provided by foreign governments to their industries;
- they are both highly energy intensive; and
- they face high costs of coastal shipping.

Investment finance

Australia has an excellent opportunity to be at the forefront of expected world growth in magnesium. It has effective infrastructure and microeconomic reforms are advancing to ensure that Australia is sufficiently competitive to attract capital. However, it is insufficient for governments to argue that provided economic settings are competitive then companies will invest in Australia.

The Australian Government, alongside industry, must monitor world market developments to ensure that Australia is best positioned to benefit from

expected future growth. The provision of a loan guarantee for the AMC project, announced in August 2001, provides an example of one way that governments could contribute to the development of new value-adding industries, when investment finance is difficult to obtain.

The Committee recommends that the Commonwealth Government take a more pro-active role in facilitating investment in new value-adding industries (see recommendation 1).

The Committee also recommends that the *Light Metals Industries Action Agenda* include a requirement to examine and respond to support measures by other countries (see recommendation 2).

Research and development

While the 175 per cent premium rate for additional R&D is a positive measure, the Committee is concerned that perceptions exist that the Australian Government is not committed to, or providing, sufficient incentive for R&D. It is essential that Australia provides a competitive R&D framework.

There is a legitimate role for Government in fostering certain industries and the magnesium industry is a strong example. The Government should develop a targeted approach to assisting the magnesium industry to competitive technological and R&D outcomes (see recommendation 3).

International competition

It is essential that the Australian Government monitor the taxation regimes and other industry assistance programs offered by competing countries. The Australian Government must continue to monitor and assess its industry assistance framework against the performance of comparable governments.

The Committee considers tariffs to be a significant potential impediment to the development of the Australian magnesium industry and every effort should be made to encourage the USA, the EU and other countries to eliminate these tariffs and other trade barriers (see recommendation 4).

Energy

One of the key inputs for the aluminium industry is competitive power costs. It is estimated that power accounts for about 25 per cent of total aluminium production costs. The aluminium industry alone consumes 16 per cent of all Australian electricity consumption. Competitively priced energy is absolutely

imperative for the aluminium industry and has been one of the foundation stones of the successful growth of the industry. The availability of competitively priced power is a major factor influencing where industries decide to locate alumina refineries.

The Committee investigated claims that there is a lack of generating capacity in the national electricity market (NEM) which is becoming an impediment to new value-adding investment in minerals processing plants in Australia. The Committee takes seriously the concerns about the NEM. It is unacceptable that there may be problems of supply and extreme price fluctuations. The Committee supports the initiative by the State Governments of NSW and Victoria to create a policy forum to examine the operation and performance of the NEM.

The Committee received expressions of concern about the inconsistent activities of State Governments and the influence this may be having on the NEM. The Committee notes that the Strategic Leaders Group (SLG) which advises on the development of the Action Agenda for the Light Metals Industries does not include State Government representatives. In view of the fact that energy provision is a key input to the light metals industries and the State Governments have important responsibilities in this area, it is not clear why representatives of State Governments are not on the SLG. The Committee recommends that representatives of State Governments be included in the SLG (see recommendation 5).

The Kyoto Protocol

The Kyoto Protocol on greenhouse gas emissions was one of the most contentious issues raised in the inquiry. Agreements to restrict greenhouse gas emissions will have an impact on the light metals industries. In contrast, the use of lightweight metals such as aluminium and magnesium, in the automotive market for example, has significant environmental benefits.

The Kyoto Protocol on greenhouse gas emissions was a useful first step in addressing global warming. However, evidence to the Committee suggests that the Protocol has serious flaws that require attention before Australia should ratify the protocol. The most serious criticisms relate to the exclusion of developing countries from the protocol. The light metals industries suggest that this omission could lead to industry moving to developed countries. DISR suggested that this could lead to a worse greenhouse outcome because Australia is among the most energy efficient producers in the world. The exclusion of developing countries is the major reason for the United States Government rejecting the Protocol.

The Committee also notes that the Protocol does not give enough recognition to countries which produce lightweight materials which, for example, help to improve efficiency in automobiles.

The Committee suggests that reform of the Kyoto Protocol, or the development of a new agreement, is necessary and must include developing countries. In order to persuade developing countries to agree to meet emission targets, those targets will need to be generous. Developed countries must also be prepared to assist developing countries, including through the provision of emission reduction and abatement technology. In the meantime, it is essential that the light metals industries continue to find further efficiencies in their production methods.

The withdrawal of the USA from the Protocol has placed a serious impediment in the way of the Protocol being ratified, and no early conclusion to this problem is expected. The Australian Government should take this delay as an opportunity to review its needs and the applicability of the Protocol, taking into account the concerns raised in this report (see recommendation 6).

Infrastructure

The provision of suitable infrastructure is a major factor when considering investing in the light metals industries. Whether it is provided through public or private means, infrastructure should be seen as an investment rather than short-term financial expenditure. Commonwealth and State Governments should seek to develop flexible and creative responses to industry assistance relating to the provision of infrastructure.

The Committee notes that, through the Council of Australian Governments, infrastructure issues are being examined as part of the ongoing dialogue between regional development ministers. A key objective for this Ministerial Council should be to undertake an audit of government and industry provision of infrastructure, and assess outcomes arising from policy commitments, relating to infrastructure, made in the *Investing for Growth* statement. The Committee recommends that, at the next meeting of the Ministerial Council on Regional Development, priority be given to the development of a long-term strategy for the provision of infrastructure to serve the needs of regional and rural communities and value-adding industries (see recommendation 7).

Microeconomic reform

It is essential that the Government continue with its micro-economic reform agenda. It is essential that industry has access to competitively priced inputs,

and that government regulations and taxes provide for long-term growth. The Committee agrees with the view that microeconomic reform is one of the key areas where the Government can assist industry to respond to competitive challenges.

Cultural barriers

The Committee is concerned that an attitude of avoiding further processing—a form of historical conditioning—may still be present in Australian industry. The Committee suggests that the Department of Industry, Science and Resources note the concerns raised about cultural barriers and ensure that the final *Light Metals Industries Action Agenda* addresses this matter.

Coastal shipping

While the removal of cabotage is a highly sensitive matter, particularly amongst unions and local ship owners, the Committee supports measures to reduce the cost of freight between Australian ports.

Chapter 3: Dairy industry

The dairy industry is a significant value-adding industry. In 1999 farm milk production valued at about $3 billion was converted into ex-factory product worth about $7.5 billion. It is Australia's third largest agricultural industry and the largest processed food export industry with exports totalling about $2.4 billion in 2000. Australia accounts for less than two per cent of world milk production but ranks third in world dairy trade.

In recent times, the industry has been subject to significant change through the impact of deregulation. During the past twenty years, rationalisation of the dairy industry has resulted in fewer farms and increased productivity. Farm numbers declined from about 29 000 in 1976 to about 13 000 in 1999. At the same time, milk yields have almost doubled.

Increasing globalisation has created a more highly competitive trading environment. At the same time, the international market is subject to significant market distortions through the use of subsidies and tariffs, which restrict market access and market competitiveness.

Evidence to the inquiry suggested that value-adding opportunities in the dairy industry will continue to grow. This is mainly a result of projected export growth and the development of new products.

The key challenges to the dairy industry identified in the inquiry include:

- globalisation and trade barriers;
- competitively-priced inputs and infrastructure;
- research and development (R&D); and
- deregulation.

Globalisation and trade barriers

The future prospects of value-adding in the dairy industry are reliant on international markets creating sufficient demand. The domestic market, by itself, is not sufficient to support large-scale, value-adding enterprises.

The outcome from the Uruguay Round of multilateral trade negotiations brought agrifood products more directly within the multilateral trade rules, removing a wide range of trade barriers and placing limits on subsidy use. Notwithstanding this development, while these negotiations were a step forwards and improved access to a range of markets, trade liberalisation for agrifood products has not moved as fast as anticipated and the fundamental need for reform still exists.

The Committee is pleased with the reports of the efficiency and competitiveness of the Australian dairy industry. The effect of tariff barriers and subsidies, however, distorts world prices and affects Australia's access to markets. The Committee notes and supports the government's efforts, through bilateral and multilateral negotiations, to reform the international market for agrifood products. The Department of Foreign Affairs and Trade must continue to place a high priority in achieving reform in this area.

Competitively-priced inputs and infrastructure

There are a range of inputs such as transport, energy and water resources which influence the dairy industry. While the evidence suggested that some improvements in energy and infrastructure have resulted from past microeconomic reforms, further progress is necessary.

The Department of Agriculture, Fisheries and Forestry – Australia (AFFA) drew attention to problems with future access to infrastructure and ageing of existing infrastructure. The provision of effective infrastructure is essential and the concerns raised by the dairy industry are not unlike those raised by the light metals industries examined in Chapter 2. As part of that examination, the Committee recommended that the Commonwealth Minister for Transport and Regional Services ensure that, at the next meeting of the Ministerial Council on Regional Development, priority be given to the development of a long-term

strategy for the provision of infrastructure to serve the needs of regional and rural communities and value-adding industries. Such a strategy should include the needs of the dairy industry.

In relation to energy needs, it is not acceptable that some areas are insufficiently supplied. The Australian Dairy Industry Council (ADIC) identified certain areas in Victoria where this is a problem. The provision of competitively priced energy should be a given. It is unacceptable that in a first-world country such as Australia problems of supply are being reported. In Chapter 2, the Committee examined the energy needs of the light metals industries. The Committee noted that the National Competition Council forwarded a review of the national electricity market to the Treasurer at the end of July 2001 and intends to conduct an examination every year. The Committee suggests that the concerns of the dairy industry should feature in those examinations.

Research and development

R&D in the dairy industry is focused around the work of the Dairy Research and Development Corporation (DRDC), which administers industry funded R&D. The role of the DRDC is to maximise the economic, environmental and social benefits to stakeholders through targeted investment in R&D.

The Australian dairy industry must continue its research and development effort. The Australian Government is making a contribution through such initiatives as the provision of tax concessions on R&D expenditure, and through contributions to R&D corporations generally matching industry levies on a dollar-for-dollar basis up to a maximum of 0.5 per cent of the industry's gross value of production.

The Committee is concerned that, in respect to the DRDC, the 0.5 per cent ceiling may soon be reached and therefore proposes that the Commonwealth Government's dollar-for-dollar funding should continue to 0.7 per cent of the gross value of production. While the Committee has not received evidence on the operation of the ceiling with respect to other R&D corporations this premise should also apply to them (see recommendation 8).

Deregulation

Deregulation has been a major driver of change to the dairy industry in recent times. Prior to deregulation, State governments regulated the milk market to ensure an adequate supply of fresh milk throughout the year. In response to commercial pressures for deregulation, all State Governments by 1 July 2000 had passed legislation removing farmgate pricing arrangements.

In response to industry concerns about the effects of deregulation on producers, the Federal Government introduced an assistance package estimated to cost $1.78 billion.

The Committee received no evidence discussing the effectiveness of the assistance package. This is mainly because the assistance package was introduced towards the end of the inquiry. The Committee suggests that a post-delivery review of the package is necessary. The review should ensure that administration of the scheme has been cost-effective and that the scheme's objectives have been met. Where it is found that some of the scheme's objectives have not been achieved, then the review should recommend ameliorative action (see recommendation 9).

Chapter 4: Grains industry

The examination in this chapter addresses the grains industry in general, with particular focus on the wheat industry reflecting the nature of the evidence received and the size of the wheat industry. The outlook for world wheat trade is promising in the short to medium term, and in the longer term it is expected that world population growth will drive demand for grains such as wheat.

The bulk of grain production occurs in central Queensland, New South Wales, Victoria, South Australia and through the southern part of Western Australia. Wheat is by far the biggest grain crop produced in Australia both in terms of grain produced and value. Approximately 75 per cent of wheat produced is exported in raw form. Wheat makes up approximately 65 per cent of the total value of crop exports.

Wheat exporting and marketing is operated through a single desk arrangement. The Committee notes that a government decision has been made to retain the wheat single desk and that the Wheat Export Authority (WEA) will, before the end of 2004, assess the performance of the Australian Wheat Board (AWB) with regard to its use of sole wheat export rights. The Committee considers that the WEA, as part of its review, should take into consideration the impact of single desk export arrangements upon the domestic food market.

In the domestic and export markets, value is added through product innovation. The focus of wheat exports has been on value-adding through producing special varieties of wheat in response to consumer needs, and through having better quality assurance.

The international market for wheat is extremely competitive and distorted by the actions of tariffs and subsidies. One of the key impediments affecting the wheat industry is the provision of economic subsidies by other countries. The

impact of government subsidies can include lowering world prices and distorting market signals. Governments of the European Community and the USA are the main offenders.

The use of government subsidies, particularly by the USA and EC, to support wheat farmers is a blight upon international trade. The market is distorted, market signals become unclear and ultimately world prices are depressed. The extent of subsidies was particularly high during the 1980s, and it is alarming that current subsidies are again reaching those levels. In response to government subsidies, the Australian Government must continue to argue for an end to subsidies at international fora such as the World Trade Organisation.

Chapter 5: Wine industry

The Australian wine industry is a model industry in that significant production growth and export sales have been achieved, particularly over the last ten years. This success is not just the result of having a quality product, although the quality of Australian wine is extremely good. It is more about having knowledge of, and responding to, consumer needs, applying expert marketing, recognising the importance of R&D, and overall having an innovative approach to winemaking and sales.

The performance of the Australian wine industry provides valuable lessons for other industries. In particular, other industries should note the wine industry's quality approach to production, its organisation and structure, and its marketing and sales strategies.

The Australian wine industry has proven to be a successful value-adding industry. Wine exports have risen from $10.8 million in 1986 to over $1 billion in 1999. The $1 billion export mark was reached five years ahead of schedule. The value of wine exports in 2005 is expected to reach about $3.1 billion.

The quality of purpose or unity of vision is identified as a major feature of the Australian wine industry, which sets it apart from other wine producing countries. The focus on continuous improvement is another feature of the Australian wine industry. The recent successes of the Australian wine industry are not due to geographic, soil or climatic advantages over its competitors. The successes are due more to the contribution of effective R&D, training, and the overall innovative quality of the people in the wine industry. In particular, the industry is renowned for accurately assessing consumer needs and producing new products and styles together with expert marketing. In addition to product quality, Australian wine offers consistently good value for money.

Consistency of State government legislation

The Committee notes industry concerns about the application of inconsistent State Government legislation. Compliance costs can be increased where there are a range of different State regulations. The Australian Industry Ministers' meeting is the appropriate forum for addressing the concerns of the Wine Federation of Australia about inconsistent state legislation (see recommendation 10).

Wine Equalisation Tax

The wine equalisation tax (WET) was introduced as part of the new taxation system on 1 July 2000. Prior to this date, a 41 per cent wholesale sales tax applied to wine and wine products. Under the new taxation system, these products are subject to a 29 per cent wine equalisation tax in addition to the GST of 10 per cent.

A WET rebate scheme will help to ensure that small winemakers are not adversely affected by WET. This will complement the States' schemes to provide winemakers with assistance of 15 per cent of the wholesale value of cellar door and mail order sales to unlicensed people.

While the WET was criticised, it had not been in operation for more than six months when the Committee received evidence about it. Subsequently there have been a number of representations made to the Government concerning the WET. The Committee believes that, in time, the combined effect of the various taxation treatments impacting on the wine industry should be reviewed (see recommendation 11).

Funding for research and development

Research and development have played, and will continue to play, a major role in the success of the Australian wine industry. Two of the key initiatives, partly funded by government, which support R&D are the Cooperative Research Centre for Viticulture (CRCV) and the Grape and Wine Research and Development Corporation.

The Committee notes that the Government has expanded its support for the cooperative research centres program through commitments made in the *Backing Australia's Ability* policy statement. In relation to the RDCs, the Committee has recommended an increase in the current dollar for dollar funding by the Commonwealth (see recommendation 8).

Market access

Tariffs and non-tariff barriers are impediments that affect many industries including the world wine market. While tariffs are relatively low in most countries, the impact of non-tariff barriers is significant. The Government must continue to negotiate reform to tariffs at international fora.

The Committee notes the concerns by the WFA about the adverse impact that Australian tariffs are having on the importation of certain wine-making products such as oak barrels and coopers products. The removal of 'nuisance tariffs' is one area where government can act decisively. A number of such tariffs were removed following a general review in 1999. A further review of tariffs affecting the wine industry should be undertaken (see recommendation 12).

Chapter 6: Summary of the key value-adding issues

A recurring theme in the inquiry was 'quality'. Regardless of industry, consumers are interested in product quality, as well as value for money. Continual improvement in production processes is the key to achieving cost competitiveness and product quality. Quality also underpins, and is essential in, design, process and marketing. Successful industries have all targeted quality in every aspect of their operations. The five industry case studies also all identified competitively priced inputs, such as energy, and good infrastructure, such as means of transport, as essential.

Innovation

The evidence is unanimous in its support for, and the priority that should be placed on, innovation in adding value to Australia's raw materials. Innovation is essential to any successful industry. It arises from human creativity, skill and research that feed the stock of knowledge. The diffusion of knowledge, aided by linkages within industry and within the economy generally, further stimulates creativity and encourages the commercial application of that knowledge. A strong focus on the market—the needs of consumers—and marketing are also essential.

The Committee strongly urges the Government to ensure that its programs and initiatives that support innovation continue to be effective.

The research and development tax concession

The R&D tax concession is a positive initiative that has had a net social benefit for Australia. The major area of concern by industry is the reduction of the R&D tax concession from 150 per cent to 125 per cent. The Committee takes these concerns seriously though it is necessary to note that since these criticisms were made the Government has introduced a premium 175 per cent tax concession for additional R&D activity. Companies will be able to claim the new premium concession in respect to expenditure made in the 2001-02 year.

As the premium concession has only just been introduced, the Committee is reluctant to propose changes to the R&D tax concession system. A thorough policy evaluation, however, should be undertaken at the end of three years from the initiative's commencement to ensure that the combination of the 125 and 175 per cent premium tax concessions are achieving the Government's innovation objectives.

The Committee notes that the Australian National Audit Office has identified the R&D tax concession arrangements as a potential audit for 2001-02.

Business expenditure on research and development

Australian business expenditure on R&D (BERD) fell from 0.86 per cent of GDP in 1995-96 to 0.64 per cent in 1999-00. The CSIRO reported that most OECD countries increased their BERD during the same period. The Committee finds it unacceptable that Australia's BERD is falling. It is essential that the Government ensures that its R&D programs provide effective incentives for private sector investment in R&D.

The Committee suggests that the Government should set itself R&D performance targets, and that a more strategic approach to the R&D framework is needed. For example, the Government should aim to ensure that the level of BERD rises to at least 1.0 per cent of GDP by 2005 (see recommendation 13). If this target is not reached, then the Government should undertake a major review of its programs.

Research and Development Corporations

Research structures such as the Research and Development Corporations (RDCs) provide strong support for rural industries. The RDCs operate within AFFA and are generally funded on the basis of the Government matching industry R&D levies. The Committee restates its previous support for the R&D Corporations model (see recommendation 8).

Gene technology

It is essential that industry conduct research into genetically modified organisms (GMOs). In addition, industry should also monitor the research and trends in marketing of GMOs in overseas markets. Australia must ensure that its competitive position is not undermined and that it can benefit from any value-adding initiatives arising from the safe and controlled development of GMOs, subject to market acceptance.

At the same time, the Committee acknowledges the public apprehension that exists regarding GMOs. The Committee is confident that the *Gene Technology Act 2000* provides a sufficient framework for managing the risks associated with gene technology. The Committee notes that the *Gene Technology Act 2000* will be subject to a Ministerial Council review five years from its commencement. This will provide an opportunity for industry and other interested groups to examine the operation of the Act and ensure that it is achieving its objectives.

Intellectual property

A reliable and effective intellectual property (IP) framework is essential for giving confidence to industry, particularly those involved in conducting R&D. The Committee notes the Government's 2001 *Backing Australia's Ability* statement acknowledged the need for a strong IP protection regime.

The Committee received generally favourable comments about the Government's IP initiatives and the performance of DFAT in managing IP issues in international fora such as the WTO. The Committee suggests that DFAT take note of the Wine Federation of Australia's (WFA) concern relating to the Agreement on Trade Related Intellectual Property Rights (TRIPS). The WFA was concerned that if TRIPS were reopened, based on negotiations to allow recognition of traditional expression as a form of IP, then it would have wide ramifications for the wine industry.

Taxation issues

The taxation framework encompassing corporate taxation rates, deductions, and concessions can have a significant influence on business decisions. As part of the first report, it was noted that the focus of evidence was centred on the claim that competitive fiscal regimes are required to compete internationally and to attract investment to Australia.

The Committee, in its first report, noted that while tax incentives offered by countries could divert investment in raw material processing away from Australia, Commonwealth and State Governments also offer some incentives for potential projects. Industry was generally supportive of the direction of tax reform in recent years including the overall outcome of the recent business tax review. However, some groups, particularly from the mining sector, criticised the elimination of accelerated depreciation.

As part of the first report, the Committee sought additional evidence on proposals for enhancing the taxation regime and, in particular, how certain taxation measures could enhance value-adding outcomes. One of the issues that were debated in the second stage of the inquiry was zonal taxation.

One of the Committee's objectives as part of this inquiry was to examine the issue of value-adding industries and projects in regional Australia. Much of this assessment has been implicit throughout this report. The aluminium and magnesium industries, for example, conduct much of their mining efforts in regional and remote areas. This activity may influence the economic standing of regional communities.

The Committee suggests that the concept of zonal taxation should be examined further to see if there is merit in extending it from individuals to companies.

The Committee notes that zonal taxation systems do have administrative complexities. At the same time, there has not been a public inquiry into zonal taxation since 1981. The Committee suggests that a new inquiry with wide ranging terms of reference is needed (see recommendation 14). Its two key objectives should be to recommend a system that provides incentives for business investment focusing on value-adding and R&D activities and which has growth benefits for rural and regional communities.

1

Introduction

1.1 In March 2000 the Committee tabled the first report on its inquiry into increasing the value added to Australian raw materials. The first report evaluated the current state of value-adding in Australia. In particular, the report examined the importance of raw materials processing in Australia, industry trends, factors which help the success of value-adding, and ways to encourage raw materials processing.

1.2 In the first report, the Committee undertook to examine case studies of the aluminium, magnesium, dairy, grains and wine industries. The objective is to use these case studies to better identify the drivers of successful value-adding in Australia, and the measures needed to overcome any impediments.

1.3 The examination of the case studies, or the second stage of the inquiry, commenced in April 2000. Relevant groups were notified of the new examination and a new round of submissions was sought. Public hearings were conducted between June 2000 and June 2001. The Committee's second report provides the outcome of its examination of the five case studies.

1.4 This Chapter reviews the key findings of the first report and provides an overview of the five case studies, and the objectives of the inquiry. In addition, a summary is provided of the government's key industry policy statements which influence industry performance and value-adding.

The first report – key findings

Background

1.5 On 20 April 1999 the Minister for Industry, Science and Resources requested the Committee to inquire into the prospects of increasing the value added to Australian raw materials. The request from the Minister suggested that the Committee conduct a two-part assessment of the current state of value-adding in Australia and how that compares internationally. The first stage of the inquiry would provide the base from which to examine the five case studies in stage two.

1.6 In conducting its inquiry, the Committee sought information from a wide range of sources including government, industry, and representative organisations. The Committee received 54 submissions and conducted seven public hearings during the first stage of its inquiry.[1]

1.7 An examination of this evidence helped to develop an effective account of value-adding in Australia. The different meanings of value-adding were discussed, and the influence of value-adding on Australia's domestic economy and standing in the international economy was highlighted. In particular, the Committee examined how value-adding influences employment, and industry and trade performance.

1.8 Some of the key findings of the first report related to identifying key factors which underpin successful value-adding, and an examination of the key issues which could encourage further raw materials processing. The key findings of the first report are discussed in the following section.

What is value-adding?

1.9 The initial task undertaken as part of the first report was a discussion of the various meanings of value-adding. Often the term value-adding is misunderstood and used to describe varying levels of processing of raw materials. The Department of Agriculture, Fisheries and Forestry – Australia (AFFA) indicated that the terms value-adding and processing 'are often, incorrectly, used interchangeably'. In contrast, AFFA suggests

1 During the second stage of the inquiry a further 25 submissions were received and another eight hearings were held.

that 'value-adding encompasses any activity that adds to or enhances the value of products to customers'.[2]

1.10 Some of the more complex definitions suggest that value-adding applies at the company level as well as economy wide through the national accounts. For example, the Centre for International Economics (CIE) suggested that value-adding, in relation to an individual firm, 'is the return to the firm's primary factors of production – the labour, capital, natural resources and enterprise from which wages, interest and profits are met'. In relation to the wider economy, the CIE stated that 'value-added is a national income concept because the sum of the value-added of all firms makes up Australia's GDP'.[3]

1.11 The Department of Industry, Science and Resources (DISR) also drew attention to the influence of value-adding on the national accounts. DISR, however, suggested that there is not always a clear link between increased value-adding in one industry and the national accounts. For example, if an increase in value-adding in one industry has resulted in a redistribution of resources from another industry then there may be no overall increase in value-adding at the macro level.[4]

1.12 The Committee's focus throughout the inquiry was the way in which value-adding influences national income and living standards. In particular, the Committee cautioned that while specific measures can assist particular industries to increase their value-adding, 'governments should also take account of the broader impact of these measures'. The Committee, in the first report, suggested that government should take account of the following factors when considering options to enhance value-adding:

- the potential impact on consumers and other industries;
- estimated revenues, royalties and taxes;
- the direct and indirect employment effects;
- the need for training and additional infrastructure;
- the need for imported inputs; and
- the effect on Australia's current account and foreign debt.

2 AFFA, submission no. 34, p. 6.

3 Centre for International Economics, exhibit no. 7, p. 3.

4 DISR, submission no. 28, p. 10.

The importance of raw materials processing in Australia

1.13 The Committee, in examining value-adding to Australia's raw materials, provided an account of the importance of raw material processing in Australia. Historically, Australia has a history of dependence on its raw materials base but now there is significant value-adding undertaken. For example, in 1998–99 raw material processing in Australia accounted for some $45.2 billion of industry value-added. However, the average growth in the raw materials processing industries of 1.2 per cent a year in the decade to 1998–99 suggests the growth in processing has not kept up with the country's increasing raw materials output. The Committee concluded that:

- **Although some areas of raw materials processing in industries have performed better than others, it appears that Australia has had increasing opportunities to develop its raw materials processing industries and has not fully realised these potential benefits.**[5]

International comparisons

1.14 A comparison with other countries shows that Australia relies more heavily on its primary industries than do some other similarly developed economies. In particular, the mining and quarrying sectors account for a more substantial part of the Australian economy than in most OECD countries.

1.15 The manufacturing sector in Australia, however, contributes a relatively small part of the nation's gross value-added when compared to other OECD countries; although, in respect to elaborately transformed manufactures (ETMs), Australia is performing strongly. For example, Australia's average rate of growth in ETMs of some 14.5 per cent a year between 1990 and 1997 was significantly higher than the rate in other developed countries examined. However, on the basis of how ETMs contribute to overall export performance, Australia is considerably behind other countries.

Industry trends

1.16 An examination of Australian industry data shows that Australia's metal industries are among the world leaders in the mining of raw materials and in the processing of some of these materials. For example,

5 House of Representatives Standing Committee on Industry, Science and Resources, *Of Material Value? Inquiry into increasing the value added to Australian raw materials, First Report*, Canberra, 2000, p. xvi.

Australia is the major producer of alumina, bauxite, diamonds, titanium minerals and zircon and ranks second in the world in iron ore, mined lead and uranium.

1.17 The processing of raw minerals has not matched Australia's ability to produce raw minerals; although, as a result of substantial investment in recent years and increased processing capacity, there could be growth in some of the lesser performing products.

1.18 In relation to the various agricultural, fishery and forestry industries, only relatively modest amounts of value-adding activity are being undertaken. For example, around 80 per cent of Australia's wheat crop is exported in bulk form although there have been advances in quality assurance and the creation of certain wheat varieties for particular end products. Similarly, Australia is the world's largest producer and exporter of apparel wool but only limited processing is undertaken.

Factors underlying the success of value-adding activity

1.19 It is evident from industry data that Australia has sufficient raw materials from which to develop value-adding activity. In addition, Australia has relatively low energy costs, mature infrastructure and a stable social and political environment.

1.20 The decision to conduct value-adding activities, however, is still complex. Australian industry must ensure that it has access to relevant international markets and can compete against other international producers. For example, in the first report the Committee stated:

- **It is important to recognise that just because a country could efficiently produce a good it does not necessarily follow that it should. For example, it may not be wise to divert resources from other industries in which the country has an even greater absolute advantage in production**.[6]

1.21 The economic concept of comparative advantage dictates that countries are better off concentrating on producing and exporting those goods in which they have the greatest production advantage, and importing the other goods they need. The Minerals Council of Australia warned against pursuing value-adding at any cost commenting that for 'further processing to maximise national income it must be encouraged in a way which does not detract from the performance of other sectors of the

6 *Of Material Value?, First Report,* p. 50.

economy'.[7] The Committee, in relation to possible government initiatives, stated:

- **Raising the value of a product through further processing is in itself not necessarily synonymous with increased value-adding. Any action by governments to encourage further raw materials processing should be directed at industries that have a comparative advantage and should primarily focus on ensuring there are no policy or institutional impediments hindering their development.[8]**

1.22 Australia has proved that it can develop competitive raw material processing plants. The key issue is that market forces should primarily drive the development of such projects. Government action should focus on encouraging industries that have a comparative advantage in their field.

Encouragement of raw materials processing

1.23 The first report reviewed evidence and discussed a range of measures that could influence the value-adding of Australia's raw materials. These measures range from having effective macroeconomic settings to ensuring that research and development is used wisely to develop more effective systems and maximise outcomes. The key issues raised in evidence and discussed in the first report include:

- enhancing and consolidating the macroeconomic and microeconomic environments;
- delivering a competitive business taxation regime;
- having an open and efficient regulatory framework;
- reducing barriers to free and open trade;
- assisting local companies with information about overseas investment and export opportunities;
- enhancing research and development and skills training; and
- working to remove impediments that may discourage investment, such as:
  - ⇒ environmental regulations;
  - ⇒ resource security and land access; and

7 Minerals Council of Australia, submission no. 13, p. 1.

8 *Of Material Value?, First Report,* p. xix.

⇒ inadequate access to infrastructure.

1.24 The Committee concluded that the prospects of increasing value-adding to Australian raw materials offers significant potential for enhancing national income and welfare.

Reasons for the second report

1.25 The first report of the inquiry achieved solid outcomes by outlining the current state of value-adding in Australia and how that compares internationally. In addition, the report identified some of the factors underlying the success of value-adding, and possible areas for encouraging further value-adding of Australia's raw materials.

1.26 The second report seeks to examine the issues raised in the first report in more detail by undertaking case studies of the aluminium, magnesium, dairy, grains and wine industries. The Chairman, in the first report, stated that we 'will use those case studies to better identify the drivers of successful value-adding in Australia, and the measures needed to overcome any impediments'.

1.27 The examination of these case studies is an effective way to better understand and identify the key issues influencing value-adding of Australia's raw materials.

Objectives, scope and focus

1.28 In selecting the case studies, the Committee sought to examine a range of industries at varying levels of maturity and value-adding performance. For example, the aluminium industry is a high performing industry which offers valuable insight into value-adding. In contrast, the magnesium industry is in relative infancy. The Committee purposely selected these case studies. Some groups in evidence to the Committee questioned why successful mainstream value-adding industries were chosen for the examination. This was deliberate as these industries, through their experience, have much to offer developing industries.

1.29 The key objective of the inquiry is to examine and identify the key issues which have influenced the value-adding performance in each of the case studies so that, where possible, this information can be applied to other

industries. That is, the Committee sought to identify better practice or lessons to be learnt. The Committee has not conducted this examination solely for the purpose of seeking to enhance value-adding in each of the industry case studies. Although, the Committee has commented on particular case study issues where there is a pressing need. Background information about each of the industry case studies is discussed in the following sections.

1.30 An equally important objective is the scrutiny of government policies and programs which influence value-adding. Through this assessment, the Committee sought to identify whether there are any policy or institutional measures which are hindering the development of raw materials processing industries. Some of the key government programs, such as research and development (R&D) tax concessions, were examined to determine whether they are satisfying industry needs and, if not, whether enhancements can be made.

1.31 This report does not comment on matters which involve the commercial considerations of industry. This was alluded to in the first report, when the Committee commented that where a comparative advantage exists it is market forces that 'should primarily drive the development of such projects'. The Committee warned that 'to do otherwise will mean that resources may be attracted away from competitive industries into areas where they will be less productive'. Notwithstanding this, the Committee sees it as totally appropriate to comment on broad industry development issues which are of national interest such as the emerging magnesium industry.

Aluminium

1.32 Australia has a mature aluminium industry. The industry comprises the mining of bauxite and production of alumina and aluminium metal. Australia is the largest producer of alumina and the fifth largest producer of aluminium.[9] Alumina and aluminium together are Australia's third largest export industry worth $5.5 billion a year.[10]

1.33 In relation to value-adding, the Australian Aluminium Council indicates that the value of one tonne of aluminium metal is as much as 100 times greater than the value of one tonne of bauxite.[11]

9 DISR, submission no. 28.4, p. 6.

10 Professor Gordon Dunlop, CRC, transcript of evidence, p. 249.

11 AAC, submission no. 31. p. 3.

1.34 While the aluminium industry is a high performing value-adding industry, evidence to the inquiry suggested that there was more potential, particularly in the area of aluminium metal production. This issue will be examined together with a discussion of any impediments that exist to the industry.

Magnesium

1.35 The magnesium industry is in its infancy and its stage of development is compared to the aluminium industry 70 years ago. Currently, there is no production of magnesium in Australia.[12]

1.36 Worldwide production of magnesium is around 450 thousand tonnes making it a minor metal. It is one of the lightest structural metals and used increasingly in diecast automotive parts. The increasing demand for lightweight automotive metals may result in the global magnesium market expanding from its present base to around 1 million tonnes by 2010.[13]

1.37 In view of the projected growth of the magnesium industry, and Australia's abundance of the natural resources of magnesium, Australia has the potential to be a significant competitor in the world magnesium market. Currently, there are nine magnesium metal projects under consideration for Australia.

1.38 Chapter 2 contains an examination of the potential opportunities for the magnesium industry, and identifies impediments and initiatives that may encourage the development of the industry.

Dairy

1.39 The Australian dairy industry is Australia's largest processed food industry. Australia, with 13 per cent of the world dairy produce market, is the third largest exporter. Over 50 per cent of Australian production is exported, and in 1999 exports amounted to $2.2 billion. The principle export products in both value and volume terms are skim milk powder, cheese, butter and wholemilk powder.[14] From a value-adding perspective, in 1999, 81 per cent of total cows' milk production was used for manufacture of the primary dairy commodities.[15]

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12 Mr Christopher Laughton, GTR, transcript of evidence, p. 227.

13 DISR, submission no. 28.4, p. 19.

14 AFFA, submission no. 34.2, p. 33.

15 ADIC, submission no. 52, p. 4.

1.40 In examining the potential for growth in the Australian dairy industry, comparisons are made with New Zealand's dairy industry. For example, New Zealand exports closer to 90 per cent of its production and ranks second in world markets at 31 per cent. The European Community ranks first and accounts for 37 per cent of world market share.

1.41 Some of the value-adding impediments and opportunities that exist in the Australian dairy industry are examined in Chapter 3.

Grains

1.42 Most of the evidence received by the Committee focused on wheat production. The average annual sale of Australian wheat on world markets is in excess of $3 billion. Wheat is sold to over 70 countries and 100 customers around the world.[16]

1.43 The world market for wheat is extremely competitive. Total world production is about 600 million tonnes and average annual trade is around 100 million tonnes. Australia produces about three per cent of total world production but exports about 18 to 20 per cent of world traded wheat.[17]

1.44 One of the key issues which influence the Australian wheat industry is the distortion of world markets by the impact of government subsidies in other countries. On the domestic front, the evidence suggested that changes to R&D tax concessions have eroded the value of R&D investment. The Committee comments on the key concerns of the wheat industry and, in particular, matters relating to R&D in Chapter 4.

Wine

1.45 The Australian wine industry has recorded significant growth in recent years. For example, Australian wine exports rose from $10.8 million in 1986 to over $1 billion in 1999. The export target figure of $1 billion was reached five years ahead of schedule.[18]

1.46 The wine industry is expecting similar growth in future years and its Strategy 2025 seeks to have Australia's contribution to the world wine

16 Mr Andrew McConville, AWB, transcript of evidence, p. 236.

17 ibid., pp. 236-237.

18 Mr Anthony Battaglene, WFA, transcript of evidence, p. 276.

market increase from two per cent in the early 90s to five per cent by 2025.[19]

1.47 The growing competitive advantage created by the Australian wine industry is considered to stem from: being able to quickly determine consumer trends; providing new products and styles; providing a quality product at a relatively low cost; and, perhaps most importantly, being innovative and having effective marketing strategies.

1.48 However, the evidence suggests that there are still challenges confronting the wine industry, and more can be done to enhance the industry. The Committee examines those features of the industry that have helped it achieve its rapid successes, and discusses those areas where enhancements are possible in Chapter 5.

Government policy statements

1.49 A key objective of the Committee was to consider government policies and programs which influence industry performance and value-adding potential. Government policies are examined in various sections of the report. It is beneficial, however, to review two key government policy statements which influence industry activity. These include the 1997 statement, *Investing for Growth*, and the 2001 statement, *Backing Australia's Ability*.

Investing for growth

1.50 Through *Investing for Growth*, the Government set out a range of policies focusing on: improving innovation; investment; trade performance; developing Australia as a financial centre; and which addressed matters relating to information communications.[20] In particular, *Investing for Growth* discussed R&D tax concessions, tax relief, the provision of infrastructure services, trade reforms and the use of industry action agendas.

1.51 In order to encourage innovation, the statement supported a stronger business focus on R&D through enhancements to the R&D tax concession, and the *R&D Start* program. The R&D tax concession program, which was introduced in 1985, allows companies incorporated

19 WFA, submission no. 51, p. 1.

20 *Investing for Growth, The Howard Government's Plan for Australian Industry*, Commonwealth of Australia, December 1997.

in Australia to claim a deduction from their taxable income of up to $1.25 for every dollar spent on eligible R&D activities. The *R&D Start* program, announced in 1996, provides grants to companies of various sizes to commence R&D projects. As indicated in *Investing for Growth*, the *R&D Start* program comprised three elements:

- a core grants element that provides similar benefits to the existing R&D Start grants program; that is, grants of up to 50 per cent of the project cost;
- R&D Start-Plus provides grants of up to 20 per cent of project cost for companies excluded from the general R&D Start program; that is, companies with a group turnover of more that $50 million; and
- R&D Start Premium that provides additional assistance of up to the equivalent of a 200 per cent R&D tax concession. Assistance provided under R&D Start Premium is repayable upon successful commercialisation through a royalty agreement, or similar arrangement.[21]

1.52 In respect to investment incentives, the Government maintained that the most important factor is ensuring that the key macroeconomic settings such as inflation and interest rates are competitive. In particular, the Government stated that:

> …it is not disposed towards providing across the board investment incentives for major projects or establishing a dedicated fund for that purpose. But the government does acknowledge that in particular limited and special circumstances which meet established criteria there may be a need for some specific assistance.[22]

1.53 The Government indicated that the types of investment assistance 'could include grants, tax relief or the provision of infrastructure services', and these will be considered on a case by case basis, taking account of the following eligibility criteria:

- the investment would not be likely to occur in Australia without the incentive;
- the investment provides significant net economic benefits through:
  - ⇒ substantial increase in employment;
  - ⇒ substantial business investment;

21 ibid, p. ix.

22 ibid, p. 43.

- ⇒ significant boost to Australia's R&D capability;
- ⇒ significant benefit to, or investment by other industries, either users or suppliers; and
- ⇒ ensuring that it does not involve substitution of existing production capacity which would provide an unfair advantage over other competing projects.

- the investment complements areas of Australia's competitive advantage;
- the investment is viable in the long term without subsidy;
- the incentives are open to foreign and domestic investors;
- the quantum of project specific assistance takes into consideration the availability of other assistance from the Commonwealth or State and Territory Governments; and
- any incentives are consistent with our international obligations, including under WTO.[23]

1.54 A further initiative in *Investing for Growth* was the establishment of Action Agendas which are aimed at addressing impediments to growth in specific industry sectors. Each Action Agenda consists of an analysis of current industry performance, identification of impediments to growth, and the development of priorities for reform.[24] Relevant Action Agendas are discussed in the various case study chapters.

Backing Australia's Ability

1.55 *Backing Australia's Ability* was released in January 2001 and builds on the *Investing for Growth* statement. The initiatives focus on promoting research, development and innovation. In relation to R&D tax concessions, the statement provided for a premium rate of 175 per cent for additional R&D activity, and a tax rebate for small companies. The premium targets the labour related components of R&D expenditure.[25] In addition, the R&D Start Program was provided with funding for the next five years.

1.56 The Cooperative Research Centres Program was provided with additional funding and enhanced access for small and medium

23 ibid, p. 44.

24 ibid, p. 79.

25 *Backing Australia's Ability, An Innovation Action Plan for the Future*, Commonwealth of Australia, 2001, pp. 5 and 16.

enterprises. The Government sought to define its role with the following statement:

> Government has two central roles – firstly to provide the best possible economic, tax and educational framework, and secondly to provide targeted direct support in areas where private sector funding is not appropriate or available.[26]

1.57 In relation to intellectual property (IP), the statement indicated that the Government will act on recommendations of both the Intellectual Property & Competition Review, and the Advisory Council on Intellectual Property review of patent enforcement. In seeking to strengthen Australia's IP protection system, the Government will continue to increase awareness and understanding of IP.[27]

Report structure

1.58 The report structure reflects the case studies examined in the inquiry. Chapter 2 reviews the aluminium and magnesium industries. While these industries are at different levels of development, there are similarities in the discussion of infrastructure and energy needs.

1.59 Chapter 3 reviews the dairy industry. The existing production and export status together with value-adding opportunities is examined. A similar examination is undertaken of the grains industry in Chapter 4 and the wine industry in Chapter 5.

1.60 Chapter 6 provides a summary of the key value-adding issues. The issues that are discussed in this chapter are of a general nature and are not industry specific.

26 ibid, p. 7.

27 ibid, p. 19.

2

Aluminium and magnesium industries

Introduction

2.1 Australia's aluminium industry is highly developed and a significant contributor to the national accounts. While the magnesium industry is in its infancy there are issues that it shares with the aluminium industry. Chief amongst these are energy needs and the implications of greenhouse gas emission restrictions.

2.2 This chapter reviews the status of each of these industries, discusses their value-adding opportunities, and comments on impediments that may prevent further growth.

2.3 The Australian Government is still considering the implications of the Kyoto Protocol. The light metals industries have a particular interest in what restrictions may apply, as they are heavy users of energy and emit large quantities of greenhouse gases. Therefore, part of this chapter is dedicated to discussing this matter.

Aluminium industry

2.4 Aluminium production is divided into three stages. These include bauxite mining, alumina refining and aluminium smelting. Aluminium oxide is extracted from the raw material bauxite to produce a fine white powder called alumina. Aluminium is the final stage of production and involves the separation of alumina into aluminium metal and oxygen using electrolytic reduction in a series of furnaces. Molten aluminium is

cast into various forms for transfer to fabricating plants for casting, rolling and extruding.[1]

2.5 The following sections review Australia's aluminium industry and its share of world production. In addition, the key factors affecting the value-adding potential of the industry are examined.

Production and export status

2.6 Australia is the largest miner of bauxite making up about 40 per cent of world production. Similarly, Australia is the largest producer of alumina contributing about 30 per cent of world share. The figures are less impressive for aluminium production. Australia accounts for just over seven per cent of world production.[2] The Department of Industry, Science and Resources (DISR) notes that Australia's production of alumina grew rapidly through the 60s, 70s and 80s 'but little has changed since the mid 1980s'.[3]

2.7 Since the 1970s, Australia has consistently processed above 70 per cent of its bauxite into alumina. However, the proportion of alumina processed domestically into aluminium is much lower and has fluctuated around 20 per cent for the past 15 years.[4]

2.8 Australia's production of aluminium increased through the 1980s and early 90s. During this period, new smelters were constructed at Boyne Island, Tomago and Portland.[5] This growth is attributed to the contraction of the Japanese smelting industry. In addition, Australia's competitive energy costs, close proximity to alumina refineries, and access to the Asian market attracted investment into the aluminium industry. Growth in aluminium production slowed during the 1990s due to a collapse of Russian demand.[6]

2.9 The *Light Metals Industries Action Agenda* highlights the overall economic contribution that the aluminium industry makes to Australia's economy. The key facts include:

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1 IC, Micro Reform — *Impacts on Firms: Aluminium Case Study*, Research Paper, AusInfo, Canberra, March 1998, p. 10.

2 DISR, submission no. 28.4, p. 6.

3 ibid., p. 6.

4 ibid., p. 15.

5 Stevenson, T. 'Aluminium, Australia's Role in the world market', *Outlook 2000,Minerals and Energy*, Vol. 3, Proceedings of the National Outlook Conference, Canberra, 29 February to 2 March 2000, p. 261.

6 ibid., p. 261.

- direct employment 16 212
- indirect employment 50 000 (regional)
- wages and salaries paid $857 million
- turnover $9.1 billion
- exports $6.3 billion
- value added or gross product $3.1 billion.[7]

2.10 The direct employment in the aluminium industry comprises 1 800 in bauxite mining, 5 700 in alumina refining, and 5 500 in aluminium smelting.[8]

2.11 In 1998-99 the total value of export earnings for the aluminium industry was $6.3 billion. This comprised $152 million from bauxite, $2.9 billion from alumina, $2.8 billion from aluminium metal, and $350 million as semifabricated products.[9]

2.12 Australia's bauxite, alumina and aluminium operations are shown in Table 2.1.

2.13 Table 2.1 shows the company ownership of the various bauxite mines, alumina refineries and aluminium smelters. DISR reported that 'Australian ownership in the industry has declined in recent years as assets have been sold to overseas interests'. DISR reported that 'Aluvic was sold to Marubeni and CITIC, Eastern Aluminium has been taken over by Alcoa, Capral's interest in the Kurri Kurri smelter is being sold to VAW, and Comalco, which until recently was an Australian company, is now wholly owned by Rio Tinto which is a joint UK / Australia company'.[10] In addition, DISR commented that 'CSR's share of Gove Aluminium appears likely to be sold to foreign interests'.[11]

7 DISR, *Light Metals Industries Action Agenda,* November 2000, p. 5.
8 DISR, submission no. 28.4, p. 12.
9 AAC, submission no. 31.2, p. 2.
10 DISR, submission no. 28.4, p. 8.
11 ibid., p. 8.

Table 2.1 Australian bauxite, alumina and aluminium operations

Operation	Company	State	Capacity
			kt
Bauxite Mines			
Weipa	100% Comalco	Qld	11 000
Huntly	100% Alcoa World Alumina and Chemical	WA	19 000
Willodale	100% Alcoa World Alumina and Chemical	WA	8 000
Boddington	56% Reynolds, 30% Billiton	WA	6 800
Gove	70% Swiss Aluminium, 30% Gove Aluminium	NT	6 500
Total			**51 300**
Alumina Refineries			
Gladstone	30% Comalco, 28% Kaiser, 20% Pechiney, 21% Alcan	Qld	3 460
Kwinana	Alcoa World Alumina and Chemical	WA	1 900
Pinjarra	Alcoa World Alumina and Chemical	WA	3 200
Wagerup	Alcoa World Alumina and Chemical	WA	2 200
Worsley	56% Reynolds, 30% Billiton	WA	3 100
Gove	70% Swiss Aluminium, 30% Gove Aluminium	NT	1 800
Total			**15 660**
Aluminium Smelters			
Kurri Kurri	100% VAW	NSW	150
Tomago	35% Pechiney, 35% Gove Aluminium, 15% AMP, 12% VAW	NSW	440
Point Henry	100% Alcoa World Alumina and Chemicals	Vic	180
Portland	55% Alcoa World Alumina and Chemicals, 22.5% Marubeni, 22.5% CITIC	Vic	180
Boyne Island	Lines 1&2: 50% Comalco, 17% SLM, 9.5% Kobe, 9.5% Ryowa, 9.5% YKK, 4.5% Simitomo Chemical	Qld	492
Bell Bay	100% Comalco	Tas	137
Total			**1 744**

Source *DISR, submission no. 28.4, p. 7.*

2.14 The foreign-owned companies include those from the:

- USA Alcoa and Kaiser,
- UK Billiton, Rio Tinto,
- Switzerland Swiss Aluminium - also known as Alusuisse,
- Germany VAW,
- France Pechiney,
- Canada Alcan,
- Japan Marubeni, Sumitomo, Kobe, Ryowa, YKK, SLM), and
- China CITIC.[12]

12 DISR, submission no. 28.4, p. 8.

2.15 Australia has four aluminium rolling mills. Three are located in Sydney's western suburbs and the fourth is at Point Henry near Geelong. In addition, Australia has 11 aluminium extrusion mills and 20 aluminium casting operations. DISR noted that Australia 'does not produce marine grade aluminium sheet for use in Australia's fast ferry industry'.[13] This particular quality of aluminium sheet is imported at a cost of $120 million per annum.

2.16 DISR noted that during the past 30 years there has been significant growth of Australian alumina and aluminium industries. However, 'there have been no greenfield alumina refineries or aluminium smelters built in Australia since 1986'.[14] However, there are a range of proposed alumina and aluminium projects for Australia. Table 2.2 shows the proponent and the proposed facilities and location for these projects.

Table 2.2 Proposed alumina and aluminium projects in Australia

Proponent	Proposed facilities and location	Cost	New capacity	Status
		$m	(kt)	
Alcoa World Alumina	Process improvement at Pinjarra alumina refinery	na	165	Committed
Alcoa World Alumina	Wagarup alumina refinery expansion	700	1 100	Feasibility
Comalco	Greenfield alumina refinery at Gladstone	1 400	1 400	Feasibility
Aust-Pac Aluminium	Greenfield aluminium smelter at Lithgow	2 750	450	Feasibility
TOTAL		**4 850**		

Source DISR, submission 28.4, p. 14.

2.17 In relation to exports, Australian-produced alumina is either exported or smelted domestically. Table 2.3 shows the volume and worth of alumina and aluminium exports between 1997 and 2000. While export volumes grew during 1999, export value fell because of lower world prices.[15] As indicated in the introduction, Australia is the world's largest producer of bauxite and alumina but contributes only about 7% of aluminium production.

13 ibid., p. 8.

14 ibid., p. 9.

15 ibid., p. 10.

Table 2.3 Australian alumina and aluminium exports

	1997	1998	1999	2000 p
Alumina export, kt	10 902	10 804	11 128	11 654
Alumina exports, $m	2 735	3 055	2 877	3 568
Aluminium exports, kt	1 156	1 312	1 381	1 365
Aluminium exports, $m	2 527	2 935	2 918	2 990

Source *DISR, submission 28.4, p. 10;* Allen, C., Haine, I., & Curtotti, R. 'Aluminium and alumina, Outlook to 2005-06, *OUTLOOK 2001, Volume 3, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 259. Note: figures for 2000 are preliminary.

2.18 Table 2.4 shows world bauxite, alumina and aluminium production for 1996.

Table 2.4 World bauxite, alumina and aluminium production, 1996

	Bauxite		Alumina		Aluminium	
	(Kt)	*%of world production*	*(Kt)*	*% of world production*	*(Kt)*	*% of world production*
Australia	46 808	36.4	13 334	29.5	1 371	6.6
New Zealand	0		0		285	1.4
North America	33	a	5 884	13.0	5 860	28.1
Latin America	38 019	29.6	9 334	20.7	2 107	10.1
Western Europe	3 013	2.3	5 733	12.7	3 369	16.1
Eastern Europe	7 117	5.5	5073	11.2	3 513	16.8
Africa	18 875	14.7	622	1.4	1 015	4.9
Asia (Middle East)	100	0.1	0		792	3.8
Asia (other)	14 628	11.4	5 157	11.4	2 549	12.2
Western countries	113 676	88.4	37 378	82.8	15 563	74.6
Eastern countries	14 917	11.6	7 758	17.2	5 299	25.4
Total world	**128 593**	**100.0**	**45 136**	**100.0**	**20 862**	**100.0**

Source *Industry Commission, Micro Reform–Impacts on Firms: Aluminium Case Study, AusInfo, 1998, p. 9.*

Value-adding opportunities

2.19 The aluminium industry is a significant value-adding industry. The Australian Aluminium Council (AAC) reported that in 1997–98 the industry had value-added of $3.1 billion.[16] In considering the contribution that each part of the aluminium industry makes, it is

16 AAC, submission no. 31.2, p. 1.

important to note that one tonne of aluminium is worth about 100 times more than a tonne of bauxite.[17]

2.20 In relation to world demand for aluminium there are positive signs for growth. The OUTLOOK 2001 conference heard that 'world aluminium consumption growth is expected to increase in 2002, before stabilising with the assumed higher levels of world economic growth over the medium term'.[18] The main influences on world demand for aluminium are rates of economic growth. It is expected that the downturn in the USA economy may lead to lower consumption of aluminium in 2001.[19] Over the medium term, however, growth is expected to increase to an average of 3.3 per cent over the period 2002-2006. The automotive and construction industries are expected to provide the bulk of the growth.[20]

2.21 In relation to Australia's outlook, the production of primary aluminium is expected to rise by 2.8 per cent in 2000-01 to 1.79 million tonnes. With the achievement of efficiency improvements, Australian production is expected to increase to 1.81 million tonnes in 2003-04 and stabilise around this level for the period to 2005-06.[21] However the OUTLOOK 2001 conference heard that if two new proposed aluminium developments occur then overall Australian production could increase. These include the greenfields smelter at Gladstone, and expansion options for the Kurri Kurri smelter.[22]

2.22 Australian exports of aluminium are forecast to increase by 4.7 per cent in 2001-02 to 1.43 million tonnes. However, this level will slow to about 1.39 million tonnes a year by 2005-06.[23]

2.23 Australia's production of alumina is forecast to rise by 7.5 per cent in 2000-01 to 16.17 million tonnes. The OUTLOOK 2001 conference heard that 'export earnings from alumina are forecast to rise by 25 per cent in 2000-01 to $4.35 billion. This forecast is based on 'increased export volumes and higher Australian dollar alumina export prices'.[24]

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17 ibid., p. 3.

18 Allen, C., Haine, I., & Curtotti, R. 'Aluminium and alumina, Outlook to 2005-06, *OUTLOOK 2001, Volume 3, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 257.

19 ibid., p. 258.

20 ibid., p. 260.

21 ibid., p. 260.

22 ibid., p. 264.

23 ibid., p. 264.

24 ibid., p. 265.

2.24 The evidence to the Committee suggested that there are prospects for further value-adding in the aluminium industry. The AAC commented that there are opportunities 'for further expansion in the value-adding parts of the industry, especially in many regional areas of Australia'.[25] DISR identified the following types of activities that could increase the value-adding performance of the aluminium industry:

- greenfield alumina refineries;
- brownfield expansion of existing alumina refineries;
- greenfield aluminium smelters;
- brownfield expansions of existing aluminium smelters; and
- diecasting of automotive parts.[26]

2.25 The AAC provided more information on the possible greenfield and brownfield developments that could occur. These include:

Bauxite

- expansions at existing mining operations to support refining expansions listed;
- opening up of greenfield bauxite mining is unnecessary for at least ten years and probably much longer. But such greenfield deposits exist in abundance;

Alumina refining

- Worsley, WA, expansion coming on stream in 2000;
- Wagerup, WA, stage 3 is being actively considered and feasibility studies and approval is well advanced;
- QAL, Gladstone, considering major expansion – about 30%;
- Nabalco, NT, considering significant expansion – about 15%;
- Comalco greenfield project at Gladstone in feasibility stage;
- one other greenfield project likely within 10 years – probably WA or Qld;

Aluminium smelting

- expansions possible in NSW at both Tomago and Kurri;
- expansion possible in longer term at Portland, Vic;
- greenfield proposal at Lithgow, NSW;
- greenfield proposal in Latrobe Valley, Vic;
- one other greenfield proposal possible;

Semifabrication

- expansions likely in extrusion capacity;

25 AAC, submission no. 31.2, p. 7.

26 DISR, submission no. 28.4, p. 16.

- expansion being considered in rolling capacity; and
- die cast and other automotive components expansion likely, especially in energy park framework.[27]

2.26 The AAC concluded:

> The above possibilities illustrate the potential for this industry over the next ten years or so and they are profoundly important for the economic development of Australia, especially regional Australia. They add up to an increase in capacity for alumina and aluminium of at last 30% over the next ten years.[28]

2.27 This level of growth was supported by comments in the Government's *Light Metals Industries Action Agenda, November 2000*.[29]

2.28 While the evidence to the Committee suggested that there are opportunities for expansion in the aluminium industry over the medium term, this will be subject to certain challenges being met. The following section reviews some of the key challenges that could influence the growth potential of the aluminium industry.

Key challenges influencing value-adding

2.29 At the February / March OUTLOOK 2001 conference, a senior official of VAW[30] aluminium AG discussed the two most important issues which drive investment decisions in the aluminium industry. First, aluminium smelting is 'capital intensive, requiring a long investment horizon typically of more than twenty years'.[31] Second, aluminium smelting requires large amounts of continuous electricity. Electricity is generally the second highest input cost after alumina. In relation to whether capital investment proceeds in the aluminium industry, the AAC stated:

> The opportunity is there for further expansion in the value-adding parts of the industry, especially in many regional areas of Australia. A major factor in whether that expansion is achieved is the performance of Commonwealth and State Governments to get the right policy settings to encourage the

27 AAC, submission no. 31.2, pp. 2-3.

28 ibid., p. 3.

29 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 1.

30 VAW aluminium AG is one of Europe's largest aluminium companies with annual revenues of around 3 billion and a workforce of 16 000.

31 Schumacher, U. 'VAW aluminium in Australia, Investment in an uncertain energy environment', *OUTLOOK 2001*, Volume 3, p. 273.

> large capital investment that will be needed and which can easily go to competing countries.[32]

2.30 This section focuses on government activities that may influence whether a commercial decision is made to invest in aluminium production. The single most important issue raised in the inquiry was the impact that compliance with possible greenhouse gas emission agreements could have. Greenhouse issues are examined in a separate section at the end of this chapter as they impact generally on the light metals industries. Similarly, the energy and infrastructure needs of both the aluminium and magnesium industries are discussed at the end of the chapter.

2.31 Some of the key challenges facing the aluminium industry include:

- research and development (R&D);
- international competition;
- education;
- coastal shipping; and
- other microeconomic reform issues.

Research and development

2.32 This discussion focuses on the possible use of new technologies, and tax concessions for R&D. DISR reported that a Technology Roadmap is under consideration by the alumina industry and DISR's Energy Efficiency Best Practice Program. The technology roadmap will focus on 'improved technologies especially in relation to energy efficiency'.[33]

2.33 In relation to government support for R&D conducted by industry, the AAC commented that governments 'could help underpin this technology role by giving attention to the research and development incentive and support policies and measures'.[34] The AAC noted that the 'reduction of the taxation concession for R&D to 125 per cent from 150 per cent is a negative signal by the Government and the aluminium industry would look for some review of R&D and concessions in the near future'.[35] It should be noted that the AAC made this observation prior to the Government's *Backing Australia's Ability* policy statement in January 2001 in which modifications were made to the R&D tax concession program. This statement provides for a premium rate of

32 ACC, submission no. 31.2, p. 7.

33 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 8.

34 AAC, submission no. 31, p. 4.

35 ibid., p. 7.

175 per cent for additional R&D activity. A summary of these changes is contained in Chapter One of this report. R&D tax concession issues are discussed in more detail in Chapter Six.

Conclusions

2.34 While the 175 per cent premium rate for additional R&D is a positive measure, the Committee is concerned that perceptions exist that the Australian Government is not committed to or providing sufficient incentive for R&D. It is essential that Australia provides a competitive R&D framework. The final chapter of the report will examine the R&D tax concession in more detail, together with a discussion of other tax issues.

International competition

2.35 International competition is influenced by the type and level of assistance provided by foreign governments to their industries. For example, DISR noted that 'government support is likely to have been a significant factor in recent and proposed new aluminium smelter capacity in South Africa, Mozambique, China and the Middle East.[36]

2.36 The AAC noted that, while recent Australian taxation reforms were positive, 'they still leave Australia behind many competing countries in the aluminium industry, which have lower levels of company taxation and more generous depreciation on capital investment.[37]

Conclusions

2.37 It is essential that the Australian Government monitor the taxation regimes and other industry assistance programs offered by aluminium competing countries. There are broader factors which influence capital investment – for example, Australia has relatively low energy costs, mature infrastructure and a stable social and political environment. While investment capital rates these factors highly, another consideration is the industry assistance framework. The Australian Government must continue to monitor and assess its industry assistance framework against the performance of comparable governments.

36 DISR, *Light Metals Industries Action Agenda,* November 2000, p. 8.

37 AAC, submission no. 31.2, p. 4.

Education

2.38 The draft *Light Metals Industries Action Agenda* suggests that there is a lack of understanding of the use of light metals in transportation, design and construction. DISR suggested that a greater understanding of the uses and benefits of aluminium could be achieved through the aluminium industry working with the education sector. The education sector will 'introduce the use of new materials into courses focusing on training and design to open new products and markets for light metals'.[38]

Coastal shipping

2.39 DISR indicated that the high cost of coastal shipping can make transport from and to Australian ports 'more expensive than transport of Australian bauxite or alumina to foreign refineries and smelters'.[39] DISR reported that every year over six million tonnes of bauxite is shipped from Weipa to Gladstone. A total of 2.5 million tonnes of alumina is shipped every year from Kwinana, Bunbury, Gove and Gladstone to smelters at Newcastle, Bell Bay, Portland and Geelong. The AAC stated:

> The aluminium industry is one of the largest users of coastal shipping, to move bauxite from Weipa to Gladstone and alumina from refineries in WA and Queensland to smelters in Victoria, NSW and Tasmania. Reforms are taking place in the coastal shipping regimes but the costs are still well above those that would apply with full international competition in most cases.[40]

2.40 The Department of Transport and Regional Services (DTRS) reported that about '90 per cent of Australian coastal trade is undertaken by Australian manned ships despite a significant cost disadvantage'.[41] The Government's policy is to wind back cabotage which is the practice of limiting access to a country's coastal trade to national ship operators or national flag vessels with national crews.

2.41 The then Western Australian State Government commented that the Shipping Reform Group found that the 'reform of the cabotage system would provide substantial benefits to the Australian economy by

38 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 8.

39 ibid., p. 8.

40 AAC, submission no. 31.2, p. 4.

41 DTRS, Cross-Modal & Maritime Transport, June 2000, [www.dotrs.gov.au/xmt/sse/sseindex1.htm]

increasing the frequency and reliability of coastal shipping services and reducing freight rates'.[42]

Conclusions

2.42 While the removal of cabotage is a highly sensitive matter, particularly amongst unions and local ship owners, the Committee supports measures to reduce the cost of freight.

Other microeconomic reform issues

2.43 In 1998 the Industry Commission (IC) identified the impact of microeconomic reform as the key way the Government can help the aluminium industry respond to competitive challenges.[43] The IC stated:

> Microeconomic reform has direct impacts on the cost, and quality of major inputs used by the industry – such as electricity, gas, rail freight, coastal shipping and port services. It also affects labour market arrangements and the productivity of workplaces, as well as the industry's use of natural resources and other environment assets. Taxation arrangements and other government regulations also have an impact on industry costs.[44]

2.44 The IC conducted a survey of firms which sought comment on the impact of microeconomic reforms between 1990 and 1996. Firms ranked the four reforms having the most positive impact and the four reforms with the greatest negative impact on the competitiveness of their businesses, as:

Most positive reforms	**Most negative reforms**
industrial relations	air emission regulations
rail freight / waterfront	taxes on inputs (other than labour)
tariff concessions	labour on-costs
policy by-laws	land access / resource security.[45]

42 Western Australian Government, submission no. 56, p. 9.

43 IC, *Micro Reform – Impacts on Firms: Aluminium Case Study*, AusInfo, Canberra, March 1998, p. xvi.

44 ibid., p. xvi.

45 ibid., p. xviii.

Conclusions

2.45 It is essential that the Government continue with its micro-economic reform agenda. It is essential that industry has access to competitively priced inputs, and government regulations and taxes provide for long-term growth. The Committee agrees with the view that microeconomic reform is one of the key areas where the Government can assist industry to respond to competitive challenges.

Magnesium

2.46 Magnesium is one of the lightest structural metals. One of the growing uses for magnesium is in automotive products, which helps to produce lighter weight cars. Magnesium is the eighth most abundant element in the Earth's crust and the third highest dissolved in sea water. DISR noted that the resources from which 'magnesium may be recovered range from large to virtually unlimited and are globally widespread'.[46]

2.47 Magnesium metal is produced by either thermal or electrolytic processes. The electrolytic process requires large-scale plants, with low operating costs, and involves three stages of production. These include preparation and purification of magnesium chloride, dehydration and electrolysis. Thermal processes involve small-scale plants but with higher operating costs.[47]

2.48 The magnesium industry is at a very early stage of development and is compared by many to what the aluminium industry was 70 years ago. Production costs and the price of the metal are impediments to growth although this is expected to change.[48]

2.49 Australia has an abundance of natural resources of magnesium, and world demand is expected to increase during the next decade. The following section examines Australia's current state of magnesium production, and the opportunities that exist for expansion.

46 DISR, submission no. 28.4, p. 19.

47 ibid., p. 20.

48 Professor Gordon Dunlop, Metals CRC, transcript of evidence, p. 258.

Production and export status

2.50 World production of magnesium is about 450 000 tonnes making it a minor metal. This compares to primary aluminium production of about 24.5 million tonnes in 2000. At the present time, Australia does not produce commercial quantities of magnesium. The major producer countries include China, the US, Canada and Norway.[49] Table 2.5 shows world production of magnesium metal by country.

Table 2.5 World production of magnesium metal by country

Country	Plants	Production (thousand tonnes)						
	1998	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
China	200	6	11	11	60	56	92	120
USA	3	137	132	128	142	143	140	117
Canada	2	26	26	29	42	52	54	57
Norway	1	30	27	28	35	38	52	49
Russia	2	40	30	25	35	28	35	35
Israel	1	0	0	0	0	0	7	25
France	1	12	9	9	10	11	16	16
Kazakhstan	1	20	20	0	0	0	1	10
Ukraine	1	10	9	7	13	10	10	10
Brazil	1	7	10	10	10	11	9	9
Serbia	1	3	0	1	1	2	3	3
India	2	1	1	1	1	1	1	1
Japan	0	7	3	0	0	0	0	0
Italy	0	1	0	0	0	0	0	0
Total	216	300	278	264	349	352	433	452

Source *DISR submission no. 28.4, p. 18.*

49 DISR, submission no. 28.4, p. 18; Allen, C., Haine, I., & Curtotti, R. 'Aluminium and alumina, Outlook to 2005-06, *OUTLOOK 2001, Volume 3*, p. 259..

2.51 A recent report by the Australian Geological Survey Office referred to deposits of magnesium at:

- Kunwarara, Qld;
- Arthur River, Tas;
- Thuddungra, NSW;
- Yaamba / Herbert Creek, Qld; and
- Mrytle Springs, SA.[50]

2.52 DISR noted that the Kunwarara deposit 'has the largest economic demonstrated resource of magnesite in Australia'.[51] Magnesite, dolomite and carnalite are minerals from which magnesium can be produced. In 1999 the Queensland Metals Corporation mined 2.4 million tonnes of raw magnesite and produced 280 thousand tonnes of beneficiated magnesite, which was converted into 147 thousand tonnes of refractory magnesia.[52] DISR stated:

> Other deposits of magnesite being considered in magnesium metal projects are at Murrin Murrin in Western Australia and at Batchelor in the Northern Territory. Other projects propose to recover magnesium from the asbestos tailings at Woodsreef (Northern NSW), from brines which are associated with salt production near Dampier in Western Australia and from power station fly ash at the Hazelwood power station in Victoria's Latrobe Valley.[53]

Value-adding opportunities

2.53 The Australian Magnesium Corporation (AMC) indicated that magnesium raw materials retail for around $50 per tonne while magnesium metal retails for around $1 500 per tonne. Currently, magnesium is considered to be a minor metal but there are expectations that this will change. DISR stated:

> Over the next decade, the global magnesium industry may emerge from being a minor metal into the ranks of the major metals. According to one analyst, rising demand for light weight automotive components could see world magnesium production increase from its current level of 450 thousand

50 ibid., p. 19.
51 ibid., p. 19.
52 ibid., p. 19.
53 ibid., p. 19.

> tonnes to 1 million tonnes by 2010 - comparable to current world production of nickel and lead.[54]

2.54 Some of the major uses of magnesium include use in aluminium alloys, 44 per cent, diecasting, 28 per cent, and steel desulphurisation, 14 per cent. The use of magnesium in diecast automotive parts is estimated at 22 per cent 'but this sector is growing fast at about 15 per cent per annum'.[55] In relation to the use of magnesium in the automotive industry, the Cooperative Research Centre for Cast Metals Manufacturing (Metals CRC), stated:

> The main growth for both aluminium and magnesium is in the automotive industry. That is where the main opportunities are for sale of those two metals and for adding value to them. The automotive market is driven by the need to reduce fuel consumption—a very topical issue right now—and also to reduce exhaust emissions. This is accomplished by decreasing vehicle weight. Of course, there are many other ways of decreasing those two things, but vehicle weight is one of the major issues. There are other opportunities in mass transport and in other consumer industries, such as portable electronics.[56]

2.55 While there is merit in the use of magnesium products in the automotive industry, there is some reluctance by the automotive industry to use magnesium products because of the small world supply and high prices. DISR noted that conversely 'the metal industry has been reluctant to install major new capacity without commitments from the automotive manufacturers'. DISR, however, did suggest that this situation may be improving with 'fuel economy legislation leading to the development of business partnerships between automotive companies and magnesium producers'.[57]

2.56 In Australia there are nine magnesium metal projects currently under consideration. The proponent, location, capacity and cost of these projects are shown in Table 2.6.

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54 ibid., p. 19.

55 DISR, *Light Metals Industries Action Agenda,* November 2000, p. 6.

56 Professor Gordon Dunlop, Metals CRC, transcript of evidence, p. 249.

57 DISR, *Light Metals Industries Action Agenda,* November 2000, p. 6.

Table 2.6 Status of magnesium metal projects for Australia as at October 2000

Proponent	Proposed facilities & location		Cost	Capacity
			$m	kt
AMC	Mine	Kunwarara, Qld	1 130	96
	Smelter	Stanwell, Qld		
Anaconda	Mine	40 Kms from Murrin Murrin, WA	1 000	100
Bass Resources	Mine	Main Creek or Savage River	800	80
	Smelter	Bell Bay, Tas		
Crest	Mine	Arthur/Lyons River, Tas	950	95
Golden Triangle	Mine	Woodsreef tailings, NSW	700	80
	Smelter	Woodsreef		
Hazelwood Power	Use of flash ash waste from power station		270	34
HCC	Smelter in Pilbara region of WA based on brine as feedstock		700	50
Mr Grace	Mine	Batchelor, NT	120	50
	Smelter	location to be decided		
SAMAG (Pima)	Mine	Leigh Creek, SA	650	52
	Smelter	Port Pirie, SA		
Total			**6 320**	**617**

Source *DISR, Light Metals Industries Action Agenda, November 2000, p. 6.*

2.57 During public hearings, Golden Triangle Resources (GTR) was asked about its Woodsreef project. It is expected that design and construction will commence in about mid 2003 with the commissioning of the refinery towards the end of 2005.[58] GTR stated:

> We expect to be in production towards the end of 2005, but we are not leaping in to get there before everybody else: we want to be sure that the technology is environmentally friendly. We will slot in with the market as it develops, which will occur in stages. The automotive industry, which is the principal concern, is going to have to re-tool to use magnesium components.[59]

2.58 In November 2000 the Commonwealth Government committed $50 million towards further development of the Australian magnesium process technology.[60] In addition, the Queensland Government will provide $50 million for multi-user infrastructure for the magnesium industry at Stanwell.

58 Mr Christopher Laughton, Golden Triangle Resources, transcript of evidence, p. 230.

59 ibid., p. 230.

60 Senator Nick Minchin, Minister for Industry, Science and Resources, Media Release, *$50 Million Boost for Australian Magnesium Technology*, 14 November 2000.

2.59 The CSIRO and the AMC jointly own the Australian magnesium process technology. Senator the Hon Nick Minchin, the Minister for Industry, Science and Resources, indicated that the 'CSIRO will enter into a commercial agreement with AMC, which has the licence to exploit the technology'. The Minister stated:

> AMC is proposing to develop a $1.2 billion magnesium facility at Stanwell, near Rockhampton in Queensland. The AMC project is based on its extensive magnesite resources at Kunwarara and would initially produce 97 000 tonnes per annum of magnesium metal. AMC is aiming to commission the plant in 2003 and previously received all environmental and planning approvals.[61]

2.60 In relation to potential outcomes, the Minister suggested that a 'new emerging light metals industry in Australia has the potential to generate additional capital investment of $3.5 billion and create a further 7 000 direct and indirect jobs in the downstream and value-adding sectors over the longer term'.[62]

2.61 While there are a number of magnesium projects under consideration the evidence to the inquiry suggested that there may be a number of impediments that need to be addressed. These issues are discussed in the next session.

Key challenges influencing value-adding

2.62 Two key issues influencing the value-adding potential of the magnesium industry are access to reliable competitive energy, and possible greenhouse gas emission requirements. As both these issues affect the aluminium industry as well they are examined in the final part of this chapter.

2.63 Some other key issues affecting the magnesium industry include:

- sufficient sources of investment;
- technology and R&D;
- international competition;
- tariff barriers; and
- possible cultural barriers to development.

61 ibid.

62 ibid.

Investment finance

2.64 As shown in Table 2.6, the cost of developing the various magnesium projects is significant. The total cost for the nine projects is estimated at just over $6 billion. DISR noted that large 'Australian or overseas companies with an interest in magnesium investment are limited'.[63] DISR, however, did note that a 'number of magnesium proponents are well advanced in negotiations regarding prospective equity participation from major international metal companies'.[64]

2.65 DISR noted that all the proponents listed in Table 2.6, other than the Queensland Metals Corporation (QMC) and Anaconda Nickel, have net assets of less than $20 million. In addition, only QMC and Anaconda have a 'track record in developing projects'.[65] Further, DISR commented that the 'absence of large Australian or overseas resource companies is a notable feature of the projects'.[66]

2.66 As part of this debate, the issue of government financial support was raised. Historically, the Commonwealth Government has been involved with the Australian magnesium industry since the late 1980s. In 1990, for example, QMC was not able to purchase suitable technology. QMC, however, with assistance from CSIRO and $20 million Commonwealth funding, was able to develop its own electrolytic process.[67] In addition, the Queensland Government also contributed $5 million to this project.

2.67 GTR indicated that the cost of its Woodsreef Magnesium projects together with the cost of a power station would be close to $1 billion. GTR indicated that it 'would have to raise a large amount of that money offshore'.[68] GTR drew attention to the 'reticence and apparent inability of state and federal governments to provide seed funding to these communities for vital services such as energy, water, natural gas and transport'.[69] GTR commented on the benefits that would accrue to the community from government investment:

> …in return for an expenditure of between $200M and $350M the government and community would receive a 20 – 50 year life industry, delivering 1,000 – 1,600 jobs at construction, 350 permanent multidisciplinary jobs, training and education and

63 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 9.

64 ibid., p. 9.

65 DISR, submission no. 28.4, p. 25.

66 ibid., p. 25.

67 ibid., p. 21.

68 Mr Keven Beck, Golden Triangle Resources, transcript of evidence, p. 232.

69 GTR, submission 49, p. 3.

> apprenticeships and infrastructure that would attract down stream, value added industries. The local injection into the economy would be between $20M and $30M per annum and into the nation - $330M of exports.[70]

2.68 The Metals CRC suggested that, in view of the difficulties associated with raising risk capital, there needed to be more attractive tax write-offs.[71] Metals CRC concluded that 'we need special incentives such as assistance with risk capital to encourage the investment in value-adding industries in Australia'.[72] The Metals CRC also drew attention to the significance of the automotive industry in influencing the magnesium industry. Automotive producers have an objective to reduce the weight of their products. The Metals CRC suggested that the Government should look at ways 'of encouraging, enticing or forcing the Australian car industry to become more fuel efficient'.[73]

2.69 In contrast to direct government support, Teksid drew attention to the political stability and certainty offered by Australia, which is an attractive feature for investors. Teksid commented that 'if you put your capital in here, in 20 years time you will have it, whereas with the other countries in the region you may or may not'.[74]

2.70 There have been a number of measures undertaken by the Commonwealth Government to promote investment. For example, in the early 1990s, the Commonwealth Government established a light metals strategy:

- to promote the use of magnesium to the Australian diecasting industry;
- to produce information booklets on the use of magnesium in automotive components;
- to run seminars promoting the use of the metal in the Australian diecasting industry; and
- to promote investment in magnesium auto-parts manufacture in Australia.[75]

2.71 On 9 August 2001, the Commonwealth and Queensland Governments announced assistance to help overcome difficulties AMC experienced in raising equity for its project at Stanwell. The Minister for Industry,

70 ibid., p. 3.

71 Professor Gordon Dunlop, Metals CRC, transcript of evidence, p. 252.

72 ibid., p. 251.

73 ibid., p. 251.

74 Mr Ian Howard-Smith, Teksid, transcript of evidence, p. 266.

75 DISR, submission no. 28.4, p. 24.

Science and Resources, Senator Minchin, said that the Commonwealth would act as guarantor for a $110 million loan.[76] The Queensland Premier said that his Government would fund a yield enhancement for the first three years of the project at a cost of about $100 million. The money would effectively be provided by way of a repayable loan which would enable participants in the equity raising to receive a dividend guarantee.[77]

2.72 Also on 9 August 2001, Senator Minchin announced that the Commonwealth Government was giving urgent consideration to an application for assistance from the South Australian Magnesium Project (SAMAG) for a refinery proposed for Port Pirie. SAMAG had applied for support under the Strategic Investment Incentive Program.[78]

Conclusions

2.73 Australia has an excellent opportunity to be at the forefront of expected world growth in magnesium. It has effective infrastructure and microeconomic reforms are advancing to ensure that Australia is sufficiently competitive to attract capital.

2.74 However, it is insufficient for governments to argue that provided economic settings are competitive then companies will invest in Australia. The magnesium industry has the potential to be a significant value-adding industry and contributor to Australia's national accounts. The Australian Government must, alongside industry, monitor world market developments to ensure that Australia is best positioned to benefit from expected future growth.

2.75 GTR suggested that, if government invested between $200 and $350 million in its Woodsreef magnesium projects, then significant benefits would accrue to the Australian public through jobs, construction, the attraction of downstream value-added industries, and annual exports of about $330 million. The Committee has insufficient market information to make a recommendation supporting this proposal. However, the provision of a loan guarantee for the AMC project does provide an example of one way that governments could contribute to the development of the magnesium industry when investment finance is difficult to obtain.

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76 Senator N Minchin, media release *Minchin announces Government backing for AMC*, 9 Aug 2001.

77 The Hon P. Beattie MP, ministerial media statements, *Queensland Cabinet commits $100 million to Australian Magnesium project*, 9 Aug 2001.

78 Senator N Minchin, media release *Government considers support for SAMAG*, 9 Aug 2001.

2.76 The Government's *Light Metals Industries Action Agenda*, expected to be considered by Cabinet in September 2001, is a positive start to creating a joint industry-government approach to the future of the magnesium industry.

2.77 The *Action Agenda* 'will explore where the sector should be positioned globally in 5 to 10 years and applies foresight to determine directional trends in products, markets, technologies, innovation, best practice, knowledge, linkages and industry structures. In relation to capturing growth, the *Action Agenda* will analyse, 'the changes that will be required to capture future opportunities and growth for the industries'.

2.78 A further priority of the *Action Agenda* 'sets out measurable outcomes and prioritises specific actions by both industry and government to achieve those outcomes'. The following recommendation will help to ensure that Australian industry and government can respond positively and ensure that the Australian magnesium industry is not disadvantaged during the crucial period ahead.

Recommendation 1

2.79 **The Committee recommends that the Commonwealth Government take a pro-active role in facilitating investment in new value-adding industries, where excessive risk aversion and the desire of investors for short-term profits may be acting as impediments.**

Recommendation 2

2.80 **The Committee recommends that the Department of Industry, Science and Resources include in the final *Light Metals Industries Action Agenda* a requirement to examine, and where possible respond to, support measures by foreign countries which may distort commercial investment decisions.**

Technology and research and development

2.81 DISR commented that 'technology is critical to the success of a magnesium project'.[79] Of the projects listed in Table 2.6, AMC have

79 DISR, submission no. 28.4, p. 25.

proved their technology in a pilot plant, and 'SMAG, Crest and HCC propose to use existing proven technology'.[80]

2.82 The evidence to the inquiry focused on how R&D in the magnesium industry could be encouraged. The Metals CRC suggested that special R&D assistance should be provided 'to encourage metal producers to work with both Australian manufacturers and overseas manufacturers in the area of added value'.[81]

Conclusions

2.83 The Committee agrees with DISR's comment that 'technology is critical to the success of a magnesium project'. The magnesium industry is in its infancy and from evidence presented to the inquiry has the potential to rise from being a minor metal into the ranks of the major metals. The CSIRO concluded that 'there is a legitimate role for Government in fostering certain industries and the magnesium industry is strong example'. Government cannot ignore its role in assisting the magnesium industry to achieve significant value-adding outcomes. The Government should develop a targeted approach to assisting the magnesium industry to competitive technological and R&D outcomes.

Recommendation 3

2.84 **The Committee recommends that the Department of Industry, Science and Resources implement a targeted research and development assistance package for the magnesium industry, aimed at ensuring that Australia benefits from expected future world growth of magnesium production.**

Tariff barriers

2.85 A major consideration in developing magnesium is the issue of tariffs and their effects on international competition. DISR reported:

> The US has an 8% tariff on magnesium and 6.5% on magnesium alloy; the EU [European Union] has tariffs of 5.3% for pure magnesium and 4.3% for magnesium alloys. Two of the major magnesium producing countries, Canada and Israel, have preferential access to the US market. These tariffs will give

80 ibid., p. 25.

81 Professor Gordon Dunlop, Metals CRC, transcript of evidence, p. 251.

> Australian producers a significant disadvantage against competitors.[82]

2.86 The APEC tariff database shows that the Republic of Korea has a tariff of 5 per cent on unwrought magnesium and 8 per cent on magnesium bars and rods.[83]

2.87 The Committee discussed the matter of these tariffs with DISR and sought advice on possible solutions. DISR indicated that it and the Queensland Government had both raised concerns about the tariffs with the Department of Foreign Affairs and Trade (DFAT). DFAT subsequently discussed the issue in bilateral talks with the USA.

2.88 DISR indicated, however, that 'an assessment of our relative negotiating strength suggests that it may be unrealistic to expect the USA to withdraw tariff protection for its domestic magnesium industry on the basis of our request'.[84] On a positive note, DISR suggested that if discussions with the USA about a possible free trade agreement come to fruition then 'it may provide a solution to the magnesium tariff issue in the longer term'.[85]

Conclusions

2.89 The Committee considers tariffs to be a significant potential impediment to the development of the Australian magnesium industry and every effort should be made to encourage the USA, the EU and other countries to abolish these tariffs. The Committee notes that DFAT has raised these concerns in bilateral talks with the USA. Notwithstanding this, the Committee advises that DFAT should continue with its efforts to encourage the USA, the EU and other countries to abolish their tariffs on pure magnesium and magnesium alloys. The Committee urges the Commonwealth Government to pursue these matters forcefully and directly at a government-to-government level and also to embark on a strategy to pursue tariff elimination in the magnesium industry through the WTO.

82 DISR, submission no. 28.4, p. 25.

83 APEC tariff database, http://www.apectariff.org/tdb.cgi/ff31303038/apeccgi.cgi, 17 Aug 2001.

84 DISR, submission no. 28.4, p. 7.

85 ibid., p. 7.

Recommendation 4

2.90 **The Committee recommends that the Department of Foreign Affairs and Trade, through bilateral trade negotiations and, where possible, multilateral negotiations, seek to eliminate the use of tariffs and other trade barriers in the emerging international magnesium industry.**

International competition

2.91 Table 2.5 shows the key magnesium producing countries. Until 1998 the USA was the world's major producer, but production has fallen due to the closure of Dow's 60 000 tonne plant in December 1998. Exports of magnesium from China and Russia have increased from nil in 1990 to about 100 000 tonnes in 2000.[86] DISR notes that this growth is 'despite the imposition of import restrictions in both the USA and the EU'.[87]

2.92 China is estimated to have some 200 magnesium production plants. However, the production capacity of these plants at an average of about 600 tonnes in 1998 compares to average plant production of about 33 000 in western countries. DISR noted that given 'their small scale and the high cost thermal technology they use, it is difficult to see how such production could survive in a market economy'.[88]

2.93 The considerable expansion of exports from China, despite the inefficiency of its plants, implies heavy subsidies. It would seem that foreign subsidies, as well as tariff barriers, will be a problem for Australia.

Cultural barriers

2.94 During public hearings a concern was raised that Australia's opportunity to be a serious competitor in the world magnesium industry could be undermined by cultural barriers. That is, Australia's history of mining and exporting raw materials and less focus on manufacturing, may undermine developments in the magnesium industry. This view was raised by Teksid which indicated that it would be highly desirable if Australia's future magnesium industry has significant downstream production of components. The Metals CRC, in drawing attention to the effects of adverse cultural conditioning, used an example from the aluminium industry:

86 ibid., p. 25.

87 ibid., p. 25.

88 ibid., p. 25.

> …we have seen attempts by one of Australia's major aluminium companies to actually go into downstream manufacture in the automotive industry only to see them eventually pull out. My reading of the situation is that they did not have the culture within the company in order to deal with the issues of manufacturing.[89]

Conclusions

2.95 The Committee is concerned that an attitude of avoiding further processing—a form of historical conditioning—may still be present in Australian industry. The Light Metals *Action Agenda* does emphasise the need for innovation and best practice when considering opportunities for future opportunities and growth. At the same time, the Committee suggests that DISR note the concerns raised about cultural barriers and ensure that the final *Action Agenda* addresses this matter.

Energy

2.96 The aluminium and magnesium industries have significant energy needs and consider the issue of greenhouse gas abatement as one of the most important policy issues they face. DISR commented that in view of the high energy usage of the aluminium industry, for example, 'any moves to limit greenhouse emissions in Australia could have a significant impact on the industry if not handled carefully'.[90] The AAC commented 'that the decisions of the Australian Government on greenhouse policy are of the most critical importance to the aluminium industry'.[91]

2.97 The following section reviews the energy and infrastructure needs of the aluminium and magnesium industries. This is followed by an examination of how the industries view the implications of the Kyoto Protocol on greenhouse gas abatement.

2.98 One of the key inputs for the aluminium industry is competitive power costs. It is estimated that power accounts for about 25 per cent of total aluminium production costs.[92] The aluminium industry alone consumes 16 per cent of all Australian electricity consumption. Bell Bay smelter

89 Professor Gordon Dunlop, Metals CRC, transcript of evidence, p. 250.

90 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 9.

91 AAC, submission no. 31.2, p. 4.

92 Stevenson, T., 'Aluminium, Australia's role in the world market', *OUTLOOK 2000, Volume 3, Proceedings of the National Outlook Conference*, Canberra, 29 February to 2 March 2000, p. 263.

consumes about the same amount of energy as the City of Hobart. The aluminium industry is also the largest consumer of natural gas, fuel oil, coals and distillate in alumina refining.[93] GTR indicated that it, or any other Australian company producing 80 000 tonnes of magnesium, would 'need to pay about $14 million to $16 million a year for electricity and about $10 million for natural gas'.[94]

2.99 In relation to energy efficiency, a November 2000 study commissioned by DISR found that 'the Australian alumina industry was very low in energy intensity by world standards and was within two per cent of world's best practice'.[95]

2.100 The AAC commented that competitively priced energy 'is absolutely imperative for the aluminium industry and has been one of the foundation stones of the successful growth of the industry'.[96]

2.101 DISR noted that the availability of competitively priced power is a major factor influencing where industries decide to locate alumina refineries. For example, a major factor in Comalco's proposed new alumina refinery was the availability of gas at Gladstone.[97] The IC noted that the reason why aluminium smelters are located in the eastern states 'is a reflection of the relatively high electricity charges in Western Australia'.[98]

2.102 The provision of sufficient electricity under reforms arising from the national competition policy was raised. Microeconomic reform of the electricity industry, during the past decade, has involved a combination of commercialisation, corporatisation, privatisation and pricing reforms aimed at 'increasing competition, including initiatives aimed at creating the national electricity market'.[99] In 1998 the IC stated:

> Most firms in the aluminium industry reported that, to date, they have not benefited from electricity reforms because most are locked into long-term contracts and have not been able to take advantage of lower tariffs resulting from reforms.[100]

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93 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 8.

94 Mr Keven Beck, GTR, transcript of evidence, p. 229.

95 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 8.

96 AAC, submission no. 31.2, p. 6.

97 DISR, submission no. 28.4, p. 17.

98 IC, Micro Reform — *Impacts on Firms: Aluminium Case Study*, Research Paper, AusInfo, Canberra, March 1998, p. 68.

99 ibid., p. 71.

100 ibid., p. 71.

2.103 The IC reported that 'Comalco Smelting stressed the importance of pushing ahead with electricity reforms in Australia because other countries also are reforming their electricity supply industries'. [101] The IC concluded 'that reforms must continue to take place if the Australian aluminium industry is to maintain its favourable cost position in the international market'.[102]

2.104 DISR reported that the outcomes from electricity reform have been positive across the economy. DISR commented that between 1995-2000 the estimated aggregate economy-wide benefits from electricity reform were around $15.8 billion. Further, this 'represents annual benefits of around $1.5 billion per annum in 2000, increasing to around $2.4 billion per annum by 2010 which will have significantly strengthened international competitiveness and investment in Australia'.[103]

2.105 Evidence to the Committee, however, was mixed on the benefits arising from energy reforms under competition policy. GTR commented that it is 'now nigh on impossible to obtain an agreed price for electricity in any state, due to the nature of the trading and the pool operation and the desire of generators and distributors to recoup their losses'.[104]

2.106 GTR indicated that the 'asking price for a megawatt hour of electricity, of a load such as our need, of 200MWh, can be anywhere between $30/MWh and $75/MWh depending on the location and source of supply'.[105] In view of this situation, GTR proposed that 'some mechanism could be inserted into this model to permit projects of national significance to have set price contracts initially that would enable projects, such as magnesium production, to be launched and given a time period to become competitive'.[106]

2.107 In addition, GTR criticised how governments operate and own assets. GTR criticised the NSW Government 'for having no return requirement on their assets and, therefore, generators in New South Wales were not driven by the same imperatives as the Victorian generators'.[107] In addition, GTR stated:

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101 ibid., p. 74.

102 IC, Micro Reform — *Impacts on Firms: Aluminium Case Study*, Research Paper, AusInfo, Canberra, March 1998, p. 71.

103 DISR submission no. 28.5, p. 3.

104 GTR, submission no. 49, p. 1.

105 ibid., p. 1.

106 ibid., p. 2.

107 Mr Keven Beck, GTR, transcript of evidence, p. 230.

> I think we rushed ahead in the national competition policy and, to some extent, we could probably blame Victoria for heading that rush. We now find generators that cannot get an economic return on their assets, and it will destabilise us for the next five years as they try to sell them or try to recover their investment. They are among the largest pool generators in Australia.[108]

2.108 During hearings, the Committee investigated claims that there is a lack of generating capacity in the national electricity market (NEM) which is becoming an impediment to new value-adding investment in minerals processing plants in Australia. DISR responded that supply capacity in the NEM 'is currently sufficient to meet demand in all but extreme summer peak periods in Victoria and South Australia'. DISR suggested that the NEM relies on market signals to stimulate new generating investment and 'evidence suggests that these signals are working'.[109] DISR identified the following developments as evidence of this:

- Queensland generation capacity was boosted by 840MW in early 2001 with the Callide C generator becoming operational. Queensland has a further 1700MW of committed generation projects to become operational over the next two years;
- the 478 MW gas-fired Pelican Point power station commenced operation in South Australia late last year and is now operating at full capacity;
- on 28 February 2001, AGL announced its intention to construct a 150MW gas peaking plant at Somerton, Victoria. It is planned for completion in time for 2001-2002 summer; and
- Edison Mission is considering the construction of a 300MW gas peaking plant in the LaTrobe Valley.[110]

2.109 In relation to interconnection, DISR suggested that interconnection will become more effective as a 'significant amount of investment in network interconnection is either committed or planned in the NEM'. Interconnection allows more efficient utilisation of existing generating capacity to meet growing demand throughout the NEM.[111]

2.110 There were also concerns raised about inconsistent action between state governments. For example, GTR suggested that the State Governments

108 ibid., p. 230.

109 DISR submission no. 28.5, p. 3.

110 ibid., p. 3.

111 ibid., p. 3.

of Tasmania and South Australia take a more active role in energy negotiations. In contrast, New South Wales and Victoria do not become involved in energy negotiations on the grounds that the negotiations are commercial decisions.[112] In view of these inconsistencies, GTR stated:

> So you have this disparity, this inconsistency, in application of competition policy and what I would call underlying effects of subsidy. It is clear that, should Tasmania and South Australia adopt that line, the US particularly will impose sanctions against us on the basis that they would view that as anti-WTO policy and engaging in some sort of hidden subsidy, given that electricity and natural gas is such a high input. So we are very worried.[113]

2.111 The AAC supported moves to establish competitive interstate markets for energy but suggested that there 'is still some way to go in this regard and the goal should be pursued urgently'.[114] The AAC stated:

> There is a lack of direction in the national scene on energy policy. Given the importance of this commodity to the Australian economy such a national policy is needed without delay. This will help give long term confidence to investors in energy using industries like aluminium and help provide some context for other related policies such as greenhouse.[115]

2.112 GTR called on the federal Government 'to impose some sanity on the national competition policy for electricity because we cannot afford to have those huge, escalating price fluctuations'.[116]

2.113 On 26 March 2001 the State Governments of NSW and Victoria created a policy forum to improve the operation of the NEM. The forum will 'comprise Ministers responsible for energy markets in each of the NEM jurisdictions and will oversee the development of policy in the NEM'. The media release stated that the 'NEM has been operating reasonably effectively since it commenced in 1998, but there are a number of policy issues that need to be resolved to ensure that the market continues to deliver reliable and affordable electricity to the community'.[117]

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112 Mr Keven Beck, GTR, transcript of evidence, p. 229.

113 ibid., p. 229.

114 AAC, submission no, 31.2, p. 6.

115 ibid., p. 6.

116 Mr Keven Beck, GTR, transcript of evidence, p. 229.

117 The Minister for Energy and Resources, State Government of Victoria, *Media Release*, 26 March 2001.

2.114 The NEM, which commenced operation in December 1998, is a product of the National Competition Policy. The participating jurisdictions include NSW, Vic, Qld, SA and the ACT. In 1995 the Commonwealth and State Governments signed the Competition Principles Agreement. The purpose was to remove restrictions on competition on an ongoing basis unless those restrictions could be shown to be in the public interest and would benefit the overall community. Since 1995 government reforms have been assessed every two years. The third formal assessment of the NEM was forwarded to the Treasurer at the end of July 2001 but is not yet publicly available (as at August 2001).

2.115 The National Competition Council (NCC) assessments form the basis of the Commonwealth Treasurer's decision on National Competition Policy Payments in 2001–02. The NCC commented that during 'the five years from 2001–02 an estimated total of $3.8 billion is available to State and Territory Governments – the pre-requisite for full payment is satisfactory reform progress'.[118]

2.116 As part of the third tranche assessment framework, the NEM will be assessed. The NCC noted that reforms agreed to by the Council of Australian Governments (COAG) 'had as their centrepiece the creation of a fully competitive NEM'.[119] The NCC's discussion paper on the NEM commented that 'there are some aspects of the current market arrangements which may be acting to limit competition in the NEM'.[120] The NCC stated:

> Areas in which the Council is concerned that impediments to competition may exist, or emerge, include the transitional and institutional arrangements, the structure of the generation market, the framework underpinning interconnect developments, and the implementation of full retail competition.[121]

2.117 In particular, the NCC noted in its discussion paper that evidence of 'sustained high pool prices raises a question for the Council as to whether the structure of the generation market is ensuring sufficient competition'.[122]

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118 National Competition Council, *National Competition Policy Assessment*, Press Release, 5 February 2001, [www.ncc.gov.au].

119 National Competition Council, NCP – *Third Tranche Assessment Framework, Framework for the Third Tranche Assessment of Government's Progress with Implementing National Competition Policy and Related Reforms*, 5 February 2001, p. 6.1, [www.ncc.gov.au].

120 ibid., p. 6.3.

121 ibid., p. 6.5.

122 ibid., p. 6.7.

Conclusions

2.118 The Committee takes seriously the concerns about the NEM. It is unacceptable that there may be problems of supply and extreme price fluctuations. The Committee supports the initiative by the State Governments of NSW and Victoria to create a policy forum to examine the operation and performance of the NEM.

2.119 In addition, the Committee notes that the National Competition Council has forwarded the third tranche assessment of the NEM to the Treasurer. The Committee will provide a copy of this report to the NCC for consideration in the next annual assessment following the third tranche assessment of the NEM. It is also essential that those light metals industries that have criticisms of the NEM send their concerns to the NCC for consideration in future reviews.

2.120 The Committee also notes that it received expressions of concern about the inconsistent activities of State Governments and the influence this may be having on the NEM. The Committee notes that the Strategic Leaders Group (SLG) which advises on the development of the *Action Agenda* for the Light Metals Industries does not include State Government representatives.

2.121 The SLG comprises industry representatives and Commonwealth Government representatives from DISR and the CSIRO. In view of the fact that energy provision is a key input to the light metals industries and the State Governments have important responsibilities in this area, it is not clear why representatives of State Governments are not on the SLG. This would have provided an opportunity for industry representatives to raise their energy concerns, and develop an *Action Agenda* that provides a more complete response to future energy needs. DISR indicated that the *Action Agenda* is expected to be considered by Cabinet in September 2001. The following recommendation is meant to assist the work of future SLG's in developing and enhancing future *Action Agendas*.

Recommendation 5

2.122 **The Committee recommends that the Department of Industry, Science and Resources include representatives of State Governments in its Strategic Leadership Group, which is responsible for developing an *Action Agenda* for the light metals industries.**

The Kyoto Protocol

2.123 The Kyoto Protocol on greenhouse gas emissions was one of the most contentious issues raised in the inquiry. As shown in the previous section, the light metals industries are large users of energy, with a high dependence on coal as the energy source. Therefore, agreements to restrict greenhouse gas emissions will have an impact on these industries. In contrast, the use of lightweight metals such as aluminium and magnesium, in the automotive market for example, has significant environmental benefits.

2.124 In relation to the aluminium industry, there are various sources of greenhouse gases (GHG). The key GHGs include carbon dioxide, methane, nitrous oxide, hydroflurocarbons, perfluorocarbons, and sulphur hexafluoride. Aluminium smelters emit carbon dioxide and perfluorinated carbon compounds. In addition, a baking process of up to 28 days results in the production of GHG due to the burning of natural gas. The IC concluded that any GHG 'emission abatement activities are also likely to have quite a substantial impact on the operations of the refining industry'.[123]

2.125 The largest source of GHG comes from power generation. Much of the aluminium industry is a large consumer of coal-based electricity. However, Comalco's Bell Bay operation uses hydroelectricity. The IC stated:

> Depending on the type of policy adopted, government efforts to reduce Australia's GHG emissions could result in substantially higher costs of electricity generation, which could flow through into higher inputs prices for the aluminium smelting industry.[124]

2.126 Therefore, directly and indirectly, the aluminium industry is a producer of GHG. Estimates suggest that if Australia did not have an aluminium industry then 'carbon emissions would be reduced by 6.5 million tonnes and average per capita emission from all energy sources would be lower by 8 per cent'. Hence, the IC concluded that 'efforts to reduce GHG emissions have the potential to affect the industry significantly'.[125]

2.127 The magnesium industry also has intense energy needs. At the same time, because magnesium is reactive with the atmosphere it must be protected by an inert gas. The most satisfactory is sulphur hexafluoride,

123 IC, Micro Reform — *Impacts on Firms: Aluminium Case Study*, Research Paper, AusInfo, Canberra, March 1998, p. 153.

124 ibid., p. 154.

125 ibid., p. 154.

which has about 23 000 times the effect of carbon dioxide as a greenhouse gas.[126] The Metals CRC indicated that it has been working with AMC and has invented a replacement gas, which has 20 times less effect on the atmosphere.[127]

2.128 In response to global warming, the Kyoto Protocol to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) was adopted in December 1997. The key outcomes of the Kyoto climate change conference were:

- differential rather than uniform, or flat rate, country targets were accepted as a core principle;
- an overall target reduction in total GHG emissions by developed countries, listed in Annex I to the UNFCCC, of at least 5 per cent of 1990 levels by 2012 was agreed, with different targets for Annex I countries consistent with the overall target;
- Australia's total emissions of GHGs are allowed to rise by 8 per cent by 2012 from the baseline. Two other countries –Iceland and Norway – negotiated targets which permitted increases in GHG emissions over this period, while three countries – New Zealand, Russia and the Ukraine – agreed to stabilise their emissions at the baseline level;
- countries can act jointly to fulfil their commitments. For example, although European Community members have committed jointly to an 8 per cent reduction in their aggregate emissions, they will be required to agree to individual targets and to notify these targets at the time of ratification;
- the change in GHG emissions resulting from human-induced land-use change and forestry activities were included in all Annex I countries' targets. [Land use change and forestry activities account for almost one-fifth of Australia's emissions]; and
- non-Annex I countries (developing and newly industrialising countries) were not set emission reduction targets under the Protocol.[128]

2.129 The OUTLOOK 2001 conference considered the value-added chain of aluminium production and the impact of the emission abatement policies in Annex I countries. This analysis suggested that the abatement

126 Mr Christopher Laughton, GTR, transcript of evidence, p. 231.

127 Professor Gordon Dunlop, Metals CRC, transcript of evidence, pp. 253-54.

128 IC, Micro Reform — *Impacts on Firms: Aluminium Case Study*, Research Paper, AusInfo, Canberra, March 1998, p. 158.

policies in Annex I countries would lead to an international quota price that would be equivalent to a penalty on each tonne of greenhouse gas emitted during the production process.[129] This in turn is expected to result in an increase in price for fossil based fuel in Annex I countries and a lowering of price for non-Annex I countries 'as reduced Annex I demand lowers world prices, particularly for coal'.[130] The OUTLOOK 2001 conference heard that this chain of events would result in the following outcomes:

> The increase in fossil fuel based energy increases the production costs of aluminium smelting and alumina refining in Annex B regions, reducing competitiveness with non-Annex B regions. The change in competitiveness results in a contraction of aluminium and alumina production in Annex I regions and an expansion in non-Annex I regions.
>
> As a result of the decline in alumina refining in Annex I regions, bauxite production in Annex I regions also declines. Conversely, non-Annex I production would tend to increase.[131]
>
> [Note: Annex B refers to Annex B of the Kyoto Protocol. That Annex sets the emission reduction targets for the listed countries]

2.130 In 2000 the Senate Environment, Communications, Information Technology and the Arts Reference Committee suggested that 'Australia has a legitimate interest in ensuring that key features of the Protocol are well designed, and that developing countries agree to take on binding targets at an appropriate time'.[132] The Senate Committee stated that the Protocol 'is widely recognised as a first step towards stabilising the climate system and these issues do not, in themselves, justify a delay in ratification'.[133]

2.131 The Joint Standing Committee on Treaties is also reviewing the Kyoto Protocol and released a discussion paper in April 2001. At that time, it concluded that 'it would be imprudent to provide definitive advice to Parliament on whether Australia should ratify the Protocol' until the

129 Allen, C., Haine, I., & Curtotti, R. 'Appendix: Impacts of climate change policy response on the Australian aluminium industry, *OUTLOOK 2001, Volume 3, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 267.

130 ibid., p. 267.

131 ibid., p. 267.

132 Senate Environment, Communications, Information Technology and the Arts Reference Committee, *The Heat Is On: Australia's Greenhouse Future*, Senate Printing Unit, Canberra, 2000, p. xxv.

133 ibid., p. xxv.

design, scope and implementation of the Protocol have been resolved.[134] The report of the Treaties Committee commented that the Government should continue to put the national interest first in these negotiations by ensuring that:

- Australia's economic growth, employment and industry competitiveness are not jeopardised;
- any abatement measures agreed to are cost-effective from a domestic perspective; and
- any agreed abatement measures are environmentally effective.[135]

2.132 Australia signed the Kyoto Protocol in 1998 but has not undertaken ratification. The Protocol remains to be ratified and will only come into force when 55 parties to the convention, incorporating parties which were responsible for 55 percent of GHG emissions from Annex I countries in 1990, ratify the protocol.[136] A significant event influencing the future of the Protocol was the declaration by the US Government that it will not ratify the Protocol. In a press briefing in March 2001, a White House spokesman stated:

> The President has been unequivocal. He does not support the Kyoto treaty. It exempts the developing nations around the world, and it is not in the United States' economic best interest. The President has directed his Cabinet Secretaries to begin a review so we can, as a nation, address a serious problem, which is global warming. That Cabinet-level review is underway, and the President looks forward to receiving the results.[137]

2.133 The Federal Minister for the Environment and Heritage, Senator the Hon Robert Hill, stated that, without ratification of the Protocol by the United States, it will not come into legal effect. Senator Hill stated:

> If the United States does withdraw and the protocol collapses, Australia would wish it to be overtaken by some other process that will continue the global community towards a better outcome in terms of greenhouse gas abatement, and we would operate and contribute constructively to that goal. That is the position we are in. We are pleased at what we have been able to

134 Joint Standing Committee on Treaties, *Report 38, The Kyoto Protocol – Discussion Paper*, Canberra, 2001, p. 2.

135 ibid., p. v.

136 IC, Micro Reform — *Impacts on Firms: Aluminium Case Study*, Research Paper, AusInfo, Canberra, March 1998, p. 161.

137 Mr Ari Fleischer, Office of the Press Secretary, The White House, 28 March 2001.

> achieve in this country since late 1997. We are doing it not only because of the Kyoto protocol but because we believe it is the right thing to do, and we intend to continue along that path.[138]

2.134 Evidence to the inquiry generally supports the view that the Kyoto Protocol could result in a shift of some aluminium production away from Annex I countries to developing countries, which are not subject to the protocol. At the same time, it was suggested that this outcome would make little impact on global emissions because developing countries do not have the efficiency standards of the developed countries.

2.135 DISR indicated that the Australian aluminium industry has participated in the Greenhouse Challenge.[139] Between 1990 and 1998, the alumina sector achieved a reduction of 8.9 per cent in greenhouse gas emissions per tonne of product. For aluminium smelting, the 'comparable figure is 22 per cent including emissions from externally generated electricity'.[140]

2.136 In relation to the Kyoto Protocol, DISR stated:

> …moves to limit greenhouse emissions in Australia could have a significant impact on the industry if not handled carefully. Whilst developing countries remain outside the Kyoto Protocol, severe greenhouse restrictions could see capacity move offshore and this paradoxically could lead to a worse greenhouse outcome on a global basis, since Australia is among the most energy efficient producers.[141]

2.137 The AAC suggested that if the Kyoto Protocol does result in increased energy prices then Australia's value-added sectors could be compromised. The AAC stated:

> If the response to the greenhouse targets agreed at Kyoto is to substantially increase energy prices to the Australian aluminium industry then the value added sectors will become uncompetitive and the industry will be forced back to exporting basically the raw material. This is unlikely to have any global

138 Senator the Hon Robert Hill, *Senate Hansard*, 2 April 2001, p. 23284.

139 The Greenhouse Challenge - launched in 1995 - is a joint voluntary initiative between the national Government and industry to abate greenhouse gas emissions. Participating organisations sign agreements with the Government that provide a framework for undertaking and reporting on actions to abate emissions.

140 DISR, *Light Metals Industries Action Agenda*, November 2000, p. 9.

141 ibid. p. 9.

> greenhouse benefit as the investment in the aluminium industry will go mainly to countries not covered by the Kyoto targets.[142]

2.138 The AAC did conclude that if the protocol is ratified then 'Australia must find ways to work with it while allowing a fair and equitable contribution from industries such as aluminium'.[143]

2.139 In addition, the AAC brought attention to the point that the Protocol does not recognise the contribution that countries make in producing lightweight material, for example, in automobiles. The AAC stated:

> The Kyoto Protocol is seriously flawed because it doesn't include developing countries and because it doesn't recognise the greenhouse benefits of commodities such as aluminium that move in world trade. In that regard, the costs of producing the material fall entirely on the producing country (embodied energy) and the benefits in end use (light weighting of transport vehicles for example) and recycling (only 5% of primary energy) go entirely to the importing country.[144]

2.140 During inspections, Queensland Alumina Ltd suggested that new legislation requiring 2 per cent electricity to be derived from renewable sources also presents a problem for the industry.

Conclusions

2.141 The Kyoto Protocol on greenhouse gas emissions was a useful first step in addressing global warming. However, evidence to the Committee suggests that the Protocol has serious flaws that require attention before Australia should ratify the protocol. The most serious criticisms relate to the exclusion of developing countries from the protocol. The light metals industries suggest that this omission could lead to industry moving to developed countries. DISR suggested that this could lead to a worse greenhouse outcome because Australia is among the most energy efficient producers in the world. The exclusion of developing countries is the major reason for the United States Government rejecting the Protocol.

2.142 The Committee also notes that the Protocol does not give enough recognition to countries that produce lightweight materials which, for example, help to improve efficiency in automobiles.

142 AAC, submission no. 31, p. 3.

143 ibid., p. 5.

144 ibid., p. 5.

2.143 The Committee suggests that reform of the Kyoto Protocol, or the development of a new agreement, is necessary and must include developing countries. In order to persuade developing countries to agree to meet emission targets, those targets will need to be generous. Developed countries must also be prepared to assist developing countries, including through the provision of emission reduction and abatement technology. Australia should already be examining the mechanisms by which it could transfer such technology. In the meantime, it is essential that the light metals industries continue to find further efficiencies in their production methods.

2.144 The withdrawal of the USA from the Protocol has placed a serious impediment in the way of the Protocol being ratified, and no early conclusion to this problem is expected. The Australian Government should take this delay as an opportunity to review its needs and the applicability of the Protocol, taking into account the concerns raised in this report.

Recommendation 6

2.145 **The Committee recommends that the Australian Greenhouse Office review Australia's needs and the applicability of the Kyoto Protocol. This review must include strategies for including emission targets for developing countries in the existing or future protocols and also the mechanisms by which Australia will transfer emission reduction and abatement technology to developing countries.**

Infrastructure

2.146 In addition to energy needs, evidence to the inquiry indicated that the provision of suitable infrastructure is also a major factor when considering investing in the light metals industries. The Commonwealth Government is in the process of developing the Heavy Engineering and Infrastructure Industry Sector *Action Agenda* (HEIAA). The purpose of the HEIAA 'is to identify obstacles to the growth and international competitiveness of the heavy engineering and infrastructure sectors and, in concordance with government and industry, make recommendations for possible resolution of issues'.[145]

145 DISR, Heavy Engineering & Infrastructure, Action Agendas, [www.isr.gov.au/agendas]

2.147 In addition, the Commonwealth Government made statements about possible incentives for major projects as part of its 1997 *Investing for Growth* statement. The Government stated:

> The Government is not disposed towards providing across the board investment incentives for major projects or establishing a dedicated fund for that purpose. But the Government does acknowledge that in particular limited and special circumstances which meet established criteria there may be a need for some specific assistance.
>
> Such incentives, which could include grants, tax relief or the provision of infrastructure services, will be considered on a case by case basis…[146]

2.148 GTR commented, in its inquiry evidence, that the 'key factors affecting our ability to carry out a definitive feasibility lie in the apparent inability of state development bodies to deal quickly with decisions on transport, energy and water'.[147]

2.149 GTR, however, did suggest that the NSW Government 'was very good to deal with in that they have admitted that perhaps their department should have looked at infrastructure development some time ago in areas where there were known to be resources such as coal methane gas in northern New South Wales, the serpentinite, and other areas of resource development, but they have tended to concentrate on the cities or the Hunter Valley'.[148]

2.150 The WA Government acknowledged that infrastructure needs are a critical factor and, as such, supported some government assistance. The WA Government stated:

> The private sector is being encouraged to play a greater role in the provision of infrastructure to users. It is nevertheless recognised that the time horizon for private sector returns from infrastructure provision may be shorter than that of the government. In this circumstance some government contribution to the provision of infrastructure may be justified.[149]

2.151 In its first submission, the WA Government noted that the Commonwealth Government's *Investing for Growth* statement mentions

146 Commonwealth Government, *Investing for Growth*, 1997, p. 43.

147 GTR, submission no. 49, p. 1.

148 Mr Kevin Beck, GTR, transcript of evidence, p. 234.

149 Western Australian Government, submission no. 37, p. 13.

that 'incentives for industry could include grants, tax relief or the provision of infrastructure services'.[150] The WA Government, however, reported that to date, 'the provision of infrastructure services has not been a favoured form of assistance'. The WA Government indicated that its preference 'is for any project assistance to be provided in the form of multi-user infrastructure, rather than direct financial assistance or tax relief'.[151] The WA Government outlined its reasons for this preferred form of investment:

> One reason for this preference is that it reduces the level of risk borne by taxpayers, while still providing significant direct assistance to individual projects. For example, a government contribution to improving infrastructure in a region will have the effect of improving the overall attractiveness of that region for investment as well as lowering costs for existing businesses. Considerable economic benefits are likely to be generated even if the original project which was the catalyst for the investment fails. This is not the case with direct, project specific financial assistance which is effectively an all or nothing bet on a single project.[152]

2.152 As part of the inquiry, the Committee held discussions with local government and business representatives in Gladstone. The representatives noted that there are difficulties in financing infrastructure projects in regional areas. In particular, there was concern at the increasing emphasis on the short-term commercial returns from infrastructure provision. In contrast, community representatives suggested that infrastructure provision should be more associated with nation building particularly in regional areas.

2.153 In a February 2000 report, the House of Representatives Standing Committee on Primary Industries and Regional Services addressed the issue of regional infrastructure. The Primary Industries Committee heard that infrastructure provision should be less associated with short-term budgetary expenditure and more associated with investment for future generations.[153]

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150 ibid., p. 8.

151 ibid., p. 9.

152 ibid., p. 9.

153 House of Representatives Standing Committee on Primary Industries and Regional Services, *Time running out: Shaping Regional Australia's Future*, CanPrint, Canberra, February 2000, p. 45.

2.154 The Primary Industries Committee made a series of recommendations addressing the provision of infrastructure in regional areas. In particular, it recommended the establishment of 'a National Infrastructure Advisory Council (NIAC), with expertise from the public and private sectors, to facilitate the efficient and equitable provision of national infrastructure by both public and private sector stakeholders'.[154] In conjunction with this recommendation, the Primary Industries Committee recommended that the NIAC should report through COAG to ministers responsible for regional development.

2.155 In the Government's response to the report, dated 23 May 2000, the recommendation was rejected. The Government argued that the NIAC would duplicate effort by the COAG, the Australian Transport Council and the National Transport Council in advancing infrastructure planning. In addition, the 'Regional Minerals Program, managed by DISR, encourages a coordinated regional approach to development of new mines, processing and related infrastructure in an effort to improve opportunities and the international competitiveness of Australia's mineral industry'.[155]

2.156 In response to the proposal that the NIAC report to the COAG, the Government responded that 'infrastructure issues are being examined as part of the ongoing dialogue between regional development ministers'.

Conclusions

2.157 The Committee agrees with evidence made to the inquiry that the provision of infrastructure, through public or private means, should be seen as an investment rather than short term financial expenditure. Commonwealth and State Governments should seek to develop flexible and creative responses to industry assistance relating to the provision of infrastructure.

2.158 The Committee notes that, through COAG, infrastructure issues are being examined as part of the ongoing dialogue between regional development ministers. A key objective for this Ministerial Council should be to undertake an audit of government and industry provision of infrastructure, and assess outcomes arising from policy commitments, relating to infrastructure, made in the *Investing for Growth* statement.

154 ibid., p. xxii.

155 Government Response to the report by the House of Representatives Standing Committee on Primary Industries and Regional Services, *Time running out: Shaping Regional Australia's Future*, 23 May 2000, p. 12

Recommendation 7

2.159 **The Committee recommends that the Commonwealth Minister for Transport and Regional Services ensure that, at the next meeting of the Ministerial Council on Regional Development, priority be given to the development of a long-term strategy for the provision of infrastructure to serve the needs of regional and rural communities and value-adding industries.**

3

Dairy industry

Introduction

3.1 The dairy industry is a significant value-adding industry. It is Australia's third largest agricultural industry and the largest processed food export industry with exports totalling about $2.4 billion in 2000.[1]

3.2 In recent times, the industry has been subject to significant change through the impact of deregulation. Increasing globalisation has created a more highly competitive trading environment. At the same time, the international market is subject to significant market distortions through the use of subsidies and tariffs, which restrict market access and market competitiveness.

3.3 The following discussion examines the status of the dairy industry and the growth and export opportunities that exist in the short to medium term. In addition, the various impediments to growth are assessed.

Production and export status

3.4 Australia accounts for less than two per cent of world milk production but ranks third in world dairy trade accounting for 13 per cent of dairy products. The European Community (EC) accounts for 37 per cent and New Zealand 31 per cent of world dairy trade.[2]

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1 ACCC, *Impact of farmgate deregulation on the Australian milk industry: study of prices, costs and profits*, Table 4.12, p. 40.

2 ADIC, submission no. 52, p. 3.

3.5 In 1999 farm milk production valued at about $3 billion was converted into ex-factory product worth about $7.5 billion. Australia's dairy exports in 1999 were about $2.2 billion.[3] The Australian Dairy Industry Council (ADIC) stated:

> This level and proportion of value-adding far exceeds the ex-factory value of the wool (approximately $3.0bn), beef (less than $6.0 billion), wheat (just over $6.0 billion) or sugar (approximately $2.5 billion) industries. The proportion of exports that are value added and highly-value added also far exceeds that of any other food crop.[4]

3.6 The principal export dairy products in both value and volume terms are skim milk powder, cheese, butter and wholemilk powder. The principal destination for Australian dairy exports is the Asian region, which accounts for around 80 per cent of total exports. Exports to Japan make up the largest export destination 'taking around 46 per cent of total Australian cheese exports and 13 per cent of skim milk powder exports in 1997-98'. The other key Asian countries which consume Australian dairy products include the Philippines, Malaysia, Singapore and Thailand.[5]

3.7 During the past twenty years, rationalisation of the dairy industry has resulted in fewer farms and increased productivity. Table 3.1 shows some of the key changes in the dairy industry during the past twenty years.

Table 3.1 Key changes in the Australian dairy industry during the past 20 years

	1976	1986	1996	1999
farm numbers	29 199	18 496	13 888	13 156
average herd size	–	96	136	161
milk yield (litres/cow)	2 533	3 416	4 616	4 867
value of exports ($m)	–	427	1 692	2 173
milk output (millions of litres)	6 248	6 038	8 716	10 178

Source AFFA submission no 34.2, p. 32.

3.8 Table 3.1 shows the decline in farm numbers from about 29 000 in 1976 to about 13 000 in 1999. At the same time, milk yields have almost doubled 'reflecting improvements in farm productivity through the

3 ibid., p. 3.

4 ibid., p. 3.

5 AFFA, submission no. 34.2, p. 33.

uptake of new technologies and better farm management practices'.[6] The Department of Agriculture, Fisheries and Forestry – Australia (AFFA) commented that the 'adoption of animal health programs, supplementary feeding, herd breeding programs, improved irrigation techniques, soil testing and pasture management have all contributed to higher production per cow'.[7]

3.9 There are 18 major firms that manufacture dairy products. Most of these are producer-owned cooperatives. The five largest cooperatives account for around 70 per cent of Australia's milk production. Within the domestic market, the major firms include Murray Goulburn, Bonlac, the Dairyfarmers Group, National Foods Ltd and Parmalat. The main exporters are Murray Goulburn and Bonlac.[8]

Value-adding opportunities

3.10 Evidence to the inquiry suggested that value-adding opportunities in the dairy industry will continue to grow. This is mainly a result of projected export growth. The ADIC commented that the 'rate of growth that we have seen in this industry for well over a decade—four to five per cent in production and output—is consistent with the rate of value added growth only to the extent that our final prices are rising'.[9] AFFA suggested that diversification was leading to the development of new products. AFFA stated:

> The dairy industry has identified the need for diversification to increase sales of milk-based products. As a result, R&D undertaken by value adders has been focussed on the development of a broad range of new products covering an increasing number of market segments. Additionally, through scientific advancements, raw milk is being broken down into component parts, thereby enabling the dairy industry to branch into a variety of non-traditional markets such as pharmaceutical products and sport dietary additives.[10]

6 ibid., p. 32.
7 ibid., p. 32.
8 ibid., pp. 32-33.
9 Mr Peter Gallagher, ADIC, transcript of evidence, p. 217.
10 AFFA, submission no. 34.2, p. 22.

3.11 In addition, AFFA suggested that quality assurance programs have been an important factor in 'maintaining and growing market share in an increasingly competitive global market'.[11]

3.12 The OUTLOOK 2001 conference heard that the biggest challenge for the dairy industry is to maintain export growth. In recent times this growth has mainly been based on the Asian market and 'it seems likely that the Asian region will remain the focus for future export opportunities'.[12]

3.13 Over the medium term there are expectations that the outlook for international dairy prices will be positive. This is based on the view that 'strong demand for dairy products as a result of rising consumer incomes and favourable consumption patterns are expected to result in higher cheese prices'.[13]

3.14 In addition, it is expected that demand for dairy products will continue to grow in developing countries particularly in southeast Asia. This growth is based on 'growing consumer interest in dairy products, for health and taste reasons, improving infrastructure, and improved dairy product packaging and shelf life'.[14]

3.15 During evidence to the inquiry, the foot and mouth disease (FMD) epidemic in Europe and any implications that it may have for the Australian dairy industry were examined. While the Australian Bureau of Agricultural Research Economics (ABARE) is examining the effect of the FMD epidemic on world meat markets there is less certainty on its effect on the world dairy industry.

3.16 AFFA concluded that 'with regard to the possibility that demand for Australian product may increase due to shortage of supply following the FMD epidemic, it is unlikely that any drop in production will be significant'. AFFA, however, did suggest that 'some opportunities are likely for Australia to expand its dairy exports due to our FMD and BSE – free status, and general 'clean and green' image'.[15]

3.17 While the medium-term outlook for the dairy industry is considered to be favourable, there are a number of challenges ahead. These issues are examined in the next section.

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11 ibid., p. 22.

12 Ashton, D., Brittle, S. & Shaw, I., 'Dairy, Outlook to 2005-06', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 281.

13 ibid, p. 281.

14 ibid, p. 282.

15 AFFA, submission no. 34.3, p. 3.

Key challenges influencing value-adding

3.18 The OUTLOOK 2001 conference heard that the Australian and New Zealand dairy industries are 'leading the way' in deregulating their industries, and have the lowest levels of government support of any country. In addition, growing competition and merger and acquisition opportunities have resulted 'in one of the most efficient dairy industries in the world'.[16] In particular, the OUTLOOK 2001 conference heard that:

> The large Australian manufacturing companies continue to concentrate on converting their bulk commodity output into higher value added products, as is the trend around the world. In the longer term, this focus will continue to drive growth and the ability to improve and stabilise returns back to the farm sector.[17]

3.19 Notwithstanding these positive comments, evidence to the inquiry suggested that there were a number of impediments that could impact on future growth opportunities. The key challenges to the dairy industry identified in the inquiry include:

- globalisation and trade barriers;
- competitively priced inputs and infrastructure;
- research and development (R&D); and
- deregulation.

Globalisation and trade barriers

3.20 AFFA indicated that the future prospects of value-adding in the dairy industry are reliant on international markets creating sufficient demand. The domestic market, by itself, is not sufficient to support large-scale, value-adding enterprises.[18] The ADIC stated:

> If you look at us now, we are a major exporter with over 50 per cent of our production being exported. We are now obviously subject to world prices. If we cannot compete on the world market, we cannot sell our product. On 1 July this year, on our domestic market, we removed the last vestiges of regulation that

16 Perkins, D. 'Dairy, 'Globalisation, Implications for the dairy industry, *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 292.

17 ibid., p. 295.

18 AFFA, submission no. 34.2, p. 26.

> our industry has on the market milk sector, so now our industry is a totally deregulated industry, very much dependent on the world export price.[19]

3.21 New Zealand is even more export-oriented with exports accounting for about 90 per cent of its production.[20] The ADIC pointed out that while the export market is essential to growth, the most remunerative market is the domestic market. In relation to both the domestic and export markets, the ADIC stated:

> The Australian industry has been able to take advantage of both of those to some extent, but the domestic market is highly competitive. In general, returns on the domestic market are better than on export markets—significantly better—and that is partially because distribution costs are somewhat lower. There is a whole range of other things affecting returns on the domestic market. It is also a slightly higher priced market, it must be admitted, than world markets, and there is a different product mix which gives the industry better returns on the domestic market.[21]

3.22 In view of the importance of the export market to the dairy industry, evidence to the inquiry focused on barriers that reduced market access or competitiveness. The ADIC commented that the most significant barriers to expansion in the high value-adding end of the dairy market 'are trade barriers in the major export markets of the EU, USA, Japan and, to a lesser extent, in other East and North Asian countries'.[22] The ADIC stated:

> Barriers to dairy products in these markets are equal to tariffs of 60 – 200% of the world price. Furthermore, the barriers rise as the level of value-adding in the product increases, sometimes more than proportionately to the value added.[23]

3.23 AFFA indicated that 'tariffs tend to increase strongly in line with the level of processing necessary for a product'. Part of the reason for this is that countries, particularly in the immediate region, are also strongly encouraging growth in their own value-adding industries.[24]

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19 Ms Helen Dornom, ADIC, transcript of evidence, p. 215.

20 ibid., p. 220.

21 Mr Peter Gallagher, ADIC, transcript of evidence, p. 222.

22 ADIC, submission no. 52, p. 6.

23 ibid., p. 6.

24 AFFA, submission no. 34.3, p. 3.

3.24 In addition, the ADIC criticised the use of export subsidies by some countries which affects world prices and distorts market conditions. The ADIC commented that the 'use of subsidies by EU and USA pushes down export market prices for final products and quickly results in lower prices for all milk in Australia – whether the milk is ultimately destined for domestic or export markets, manufacture or drinking milk'.[25] The ADIC stressed that the elimination of subsidies was essential, particularly as the Australian industry was deregulated and, as such, did not receive 'government handouts or export subsidies like the rest of the world'.[26]

3.25 The government's response to trade barriers was outlined by AFFA:

> In securing greater market access for Australian agricultural products, the Commonwealth Government actively participates in and promotes the global move towards an international agrifood trade system which is free from subsidies and other non-tariff barriers. The government's approach to trade policy has been to adopt a three-prong approach combining multilateral, regional and bilateral approaches to seek improvements in the opportunities for Australian exporters including for exporters of agrifood products. The principal vehicle has been through multilateral negotiations which have been seen as the best way to deliver real reform of the international market for agrifood products.[27]

3.26 AFFA noted that the 'outcome from the Uruguay Round of multilateral trade negotiations brought agrifood products more directly within the multilateral trade rules, removing a wide range of trade barriers and placing limits on subsidy use'. Notwithstanding this development, AFFA commented that 'while these negotiations were a step forwards and improved access to a range of markets, trade liberalisation for agrifood products has not moved as fast as anticipated and the fundamental need for reform still exists'.[28]

3.27 In conclusion, AFFA commented that 'bilateral and multilateral negotiations and arrangements continue to have a crucial role in building exports of processed products, thereby increasing value-adding in Australia'.[29]

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25 ADIC, submission no. 52, p. 7.

26 Mr Peter Gallagher, ADIC, transcript of evidence, p. 222.

27 AFFA, submission no. 34.2, p. 26.

28 ibid., p. 27.

29 ibid., p. 27.

Conclusions

3.28 The Committee is pleased with the reports of the efficiency and competitiveness of the Australian dairy industry. The effect of tariff barriers and subsidies, however, distorts world prices and affects Australia's access to markets. The Committee notes and supports the government's efforts, through bilateral and multilateral negotiations, to reform the international market for agrifood products. The Department of Foreign Affairs and Trade must continue to place a high priority in achieving reform in this area.

Competitively-priced inputs and infrastructure

3.29 There are a range of inputs such as transport, energy and water resources which influence the dairy industry. AFFA commented that 'the process of microeconomic reform in Australia over the course of the 1990s has increased the competitiveness of some of the inputs required for value-adding'.[30] AFFA cited research conducted by the Productivity Commission in 1999 which found that rural and regional Australia has benefited from competition policy with prices for:

- gas falling by 22 per cent on average;
- rail freight falling 16 per cent;
- port authority services down by 23 per cent; and
- STD phone calls down 25 per cent.[31]

3.30 AFFA, however, indicated that there are some concerns with these findings, stating:

> There is some debate about the effective value of some of these savings. For example, although rail freight costs may have dropped, the winding back of rail services during the 1990s to increase efficiency has reduced access for many rural and regional centres. Similarly, while the cost of utilities such as power has decreased in rural areas as a result of the reforms there is growing concern about future access to infrastructure. In some cases existing infrastructure is aging and replacement costs are prohibitive. A recent report found that the emphasis on securing a commercial rate of return or full cost recovery on infrastructure investment is perceived to have created a bias

30 ibid., p. 11.

31 ibid., pp. 11-12.

> against future provision of infrastructure by the public sector, particularly in the rural areas.[32]

3.31 AFFA also reported that the 'cost, availability and quality of packaging is also likely to remain an issue of concern' with minimisation of these costs a key objective.[33]

3.32 The ADIC commented that the dairy industry has benefited from 'many phases of the microeconomic reform efforts of the past decade' but more progress is needed. In particular, the ADIC raised concerns about the delivery of energy to the industry, particularly in Victoria. The ADIC stated:

> The average herd size is now about 160 cows, but we have herds with 500 and 800 cows and rotary sheds that can milk 60 cows at a time. We are also finding that, while the companies are merging and consolidating, they are also differentiating so that a particular product is produced in one area. That requires massive updating of equipment, and we are finding that the power supply is not keeping up with requirements. In fact, we are hearing anecdotally that in some communities people know when the farmer switches on his dairy shed because they get a blip in their power supply. That single-phase delivery of power to country regions is a major restriction on a lot of development in those areas—particularly in the western district.[34]

3.33 The ADIC concluded that the type of help it would like to see from government 'is general support, infrastructure and microeconomic reform'.

Conclusions

3.34 While the evidence suggested that some improvements in energy and infrastructure have resulted from past microeconomic reforms, further progress is necessary. AFFA drew attention to problems with future access to infrastructure and ageing of existing infrastructure. The provision of effective infrastructure is essential and the concerns raised by the dairy industry are not unlike those raised by the light metals industries examined in Chapter 2. As part of that examination, the Committee recommended that the Commonwealth Minister for Transport and Regional Services ensure that, at the next meeting of the

32 ibid., p. 12.

33 ibid., p. 12.

34 Ms Helen Dornom, ADIC, transcript of evidence, pp. 216-17.

Ministerial Council on Regional Development, priority be given to the development of a long-term strategy for the provision of infrastructure to serve the needs of regional and rural communities and value-adding industries. Such a strategy should include the needs of the dairy industry.

3.35 In relation to energy needs, it is not acceptable that some areas are insufficiently supplied. The ADIC identified certain areas in Victoria where this is a problem. The provision of competitively priced energy should be a given and it is unacceptable that in a first-world country such as Australia, problems of supply are being reported. In Chapter 2, the Committee examined the energy needs of the light metals industries. The Committee noted that the National Competition Council forwarded a review of the national electricity market to the Treasurer at the end of July 2001 and intends to conduct an examination every year. The Committee suggests that the concerns of the dairy industry should feature in those examinations.

Research and development

3.36 R&D in the dairy industry is focused around the work of the Dairy Research and Development Corporation (DRDC), which administers industry funded R&D. Industry-funded R&D comes from a levy on farmers, which raises about $14 million a year and is matched dollar for dollar by the Commonwealth Government up to 0.5 per cent of the gross value of milk production. In 1999-2000 the DRDC's revenue and expenditure was $29.7 million and $26.9 million respectively.[35]

3.37 The ADIC commented that 'we are almost up to the ceiling of 0.5 per cent of GVP where the matching dollar for dollar drops out'.[36] The ADIC stated:

> It would be disastrous, however, if the Federal matching funds for the industry R&D effort were limited in any way in the future. As Australia's largest processed food export industry, Dairy returns billions of export dollars every year to the economy: any diminution of its R&D underpinnings would harm that unique value.[37]

35 DRDC, *Annual Report, 1999-2000,* p. 12.

36 Ms Helen Dornom, ADIC, transcript of evidence, p. 225.

37 ADIC, submission no. 52, p. 10.

3.38 The role of the DRDC 'is to maximise the economic, environmental and social benefits to stakeholders through targeted investment in R&D'.[38] The DRDC provides R&D funding to:

- improve productivity and prosperity in farm management;
- improve efficiency, product quality and product development;
- foster international competitiveness and profitability through industry performance; and
- facilitate industry leadership and management.[39]

3.39 The R&D Corporation model 'is an alliance between industry and government that seeks to increase the economic, environmental and social benefits to industry and the general community with innovation through R&D'. The DRDC, and the other RDCs covering the wool, cotton, fisheries, forest and wood products, grains, grape and wine, horticultural, meat, pig, sugar, tobacco, and dried fruits industries, as well as the Rural Industries and Land and Water Resources RDCs, received Commonwealth funding of $150.97 million in the 1999-2000 year.[40]

3.40 Most RDCs are jointly funded by industry and the Commonwealth, with Commonwealth contributions generally matching levies (or export charges) on a dollar-for-dollar basis up to a maximum of 0.5 per cent of the industry's gross value of production (GVP)'[41]

3.41 The exceptions to these arrangements 'are the Fisheries R&D Corporation which, in addition to appropriation funding of 0.5 per cent of GVP, has dollar-for-dollar matching up to 0.25 per cent of GVP, and the Forest and Wood Product R&D Corporation which receives one Commonwealth dollar for every two industry dollars matching up to 0.25 per cent of GVP'.[42] In addition, the Rural Industries RDC and the Land and Water Resources RDC receive about $11 million each in Commonwealth funding from general appropriations.

3.42 The Committee, in a previous report, commented that the dollar-for-dollar subsidy provides an incentive for the primary sector to increase its own R&D funding and to become more involved in R&D priority

38 DISR, *Science and Technology Budget Statement, 2000-01*, Canberra, 2000, p. 6.6.

39 AFFA, submission no. 34.2, p. 22.

40 http://www.affa.gov.au/docs/innovation/gov_portfolio_agencies/rual_corp_model/randd_finances.html.

41 DISR, *Science and Technology Budget Statement, 2000-01*, Canberra, 2000, p. 5.4

42 DISR, *Science and Technology Budget Statement, 2000-01*, Canberra, 2000, pp. 5.4-5.5.

setting. At the same time, the Government contribution also recognises that activities funded by the R&D corporations generate a mix of public and private benefits.[43]

3.43 The ADIC criticised the reduction in the R&D tax concession from 150 to 125 per cent. At the 125 per cent level, the ADIC commented that it 'is marginal at the moment as to whether companies receive a better return with the industry being funded with a dollar for dollar matching or doing their own research and seeking the 125 per cent tax deductibility'.[44]

3.44 The ADIC concluded that in 'order to remain globally competitive in a marketplace dominated by firms whose dairy foods divisions alone are twice to ten-times the size of Australia's largest dairy cooperatives, it is essential that the industry collectively and firms individually continue the research and development effort'.[45]

Conclusions

3.45 The Committee agrees with the conclusion of the ADIC that the Australian dairy industry must continue its research and development effort. The Australian Government is making a contribution through such initiatives as the provision of tax concessions on R&D expenditure, and through contributions to R&D corporations generally matching industry levies on a dollar-for-dollar basis up to a maximum of 0.5 per cent of the industry's gross value of production.

3.46 The Committee is concerned that, in respect to the DRDC, the 0.5 per cent ceiling may soon be reached and therefore proposes that the Commonwealth Government's dollar-for-dollar funding should continue and not be restricted by the current 0.5 per cent ceiling. While the Committee has not received evidence on the operation of the other R&D corporations this premise should also apply to them. The following recommendation will help to address this matter.

3.47 Using AFFA's 1999-2000 budget figures the RDCs received Commonwealth funding of about $151 million. As mentioned above, this included some funds provided out of general appropriations as well as dollar for dollar matching funds. Raising the current dollar-for-dollar funding ceiling of 0.5 per cent of GVP to 0.7 per cent would pose an

43 House of Representatives Standing Committee on Industry, Science and Resources, *The Effect of Certain Public Policy Changes on Australia's R&D*, Canberra, August 1999, p. 36.

44 Ms Helen Dornom, ADIC, transcript of evidence, p. 225.

45 ADIC, submission no. 52, p. 9.

additional impost on both industry and government. The additional commitment by the Commonwealth Government would amount to about $50 million.

Recommendation 8

3.48 **The Committee recommends that the Commonwealth Government raise the current dollar-for-dollar funding ceiling (of 0.5 per cent of the industry gross value of production) for industry Research and Development Corporations to 0.7 per cent.**

Deregulation

3.49 Deregulation has been a major driver of change to the dairy industry in recent times. Prior to deregulation, State governments regulated the milk market to ensure an adequate supply of fresh milk throughout the year. The ADIC commented that by 'artificially raising the price of more than half of the milk at the farmgate and the price of all packaged milk, the regulations had the effect of making the value-adding contribution of farm and processor investments – in NSW and Qld in particular - seem much larger than would have been the case under market prices for drinking milk products'.[46]

3.50 In response to commercial pressures for deregulation, all State Governments by 1 July 2000 had passed legislation removing farmgate pricing arrangements.[47] The Australian Dairy Corporation reported:

> Deregulation is likely to lead to further rationalisation of the dairy processing and manufacturing sectors. Milk production may fall in some regions as farmers adjust to commercial market pricing for drinking milk. However, in the south-eastern states these impacts will be offset by the improvement in returns on manufactured product sales.[48]

3.51 Similarly, the DRDC reported that deregulation 'has lowered farmgate prices for market milk in some States, adding to the considerable pressure facing family farm businesses'. The DRDC suggested that 'developing skills in farm business management can make a substantial

46 ibid., p. 5.

47 AFFA, submission no. 34.2, p. 16.

48 Australian Dairy Corporation, *Annual Report, 2000*, p. 18.

difference to the capacity of many farms to deal with these pressures'.[49] AFFA stated:

> The move to a deregulated environment will assist in lowering costs of production and creating more efficient scale of operations, thereby providing value-adding firms with access to more competitive, lower cost dairy inputs…By deregulating, the Australian Government aims to encourage the dairy industry to develop into a more robust, competitive sector able to respond quickly and efficiently to changing market forces.[50]

3.52 In response to industry concerns about the effects of deregulation on producers, the Federal Government introduced an assistance package estimated to cost $1.78 billion. The framework for the assistance package is provided through the *Dairy Industry Adjustment Act 2000*. The Commonwealth Minister for Agriculture, Fisheries and Forestry, the Hon Mr Warren Truss, MP, commented that deregulation of the dairy industry 'represents the single largest deregulation and adjustment process of any rural sector'.[51]

3.53 The Minister suggested that the industry assistance package is about providing assistance that 'will lead to better industry performance than would otherwise be possible and which in turn will assist in maintaining and, in the long term, increasing job opportunities and income in regional dairying areas'.[52] To emphasise the point that the package of assistance is about structural adjustment, each producer is required to undertake a farm business assessment before they are eligible for payment.

3.54 The Minister stated that deregulation 'without a package would be devastating for some regions'. The package will ensure that areas that have high concentrations of dairy enterprises will be assisted. It is estimated the States will receive the following funding:

- WA $108 million
- SA $127 million
- Tas $76 million
- Qld $220 million

49 DRDC, *Annual Report, 1999-2000,* p. 15.

50 AFFA, submission no. 34.2, p. 16.

51 The Hon Mr Warren Truss, Minister for Agriculture, Fisheries and Forestry, Second Reading Speech, Dairy Industry Adjustment Bill 2000, House of Representatives, *Hansard*, 16 February 2000, p. 13 532.

52 ibid., p. 13 532.

- NSW $337 million
- Vic $765 million.[53]

3.55 AFFA indicated that the package 'provides eligible dairy farmers with quarterly structural adjustment payments over eight years or the option of a tax free exit payment of up to $45 000 where farmers wish to leave agriculture'.[54]

3.56 The Dairy Adjustment Authority (DAA) has been established to administer the scheme. The DAA assesses applications for assistance and advises the Australian Dairy Corporation in delivering payments. The Minister, in his second reading speech, concluded with the view that 'the results of this adjustment will be that the Australian dairy industry production base will be more efficient and more competitive and our dairy export prospects further enhanced'.[55]

3.57 The assistance package is to be totally funded through a Commonwealth levy of 11 cents per litre on sales of liquid milk products over a target period of 8 years.[56] Minister Truss, in a media statement on 28 September 1999, suggested that the 'levy is unlikely to have any impact on retail prices as farmgate prices are expected to fall after deregulation by at least this amount'.[57] In April 2001, the Australian Competition and Consumer Commission (ACCC) reported that:

> Australian supermarket prices for plain, reduced fat and low-fat milk decreased by an average of 22 cents, 6 cents and 9 cents per litre respectively across all pack sizes and brands from the June quarter to the December 2000 quarter. These products make up 81 per cent of total milk sold in supermarkets….Across all categories of milk stocked by Australian supermarkets, the average price decrease in the six months to December 2000 was 12 cents per litre.[58]

3.58 During discussions with AFFA, the Committee sought details on the impact of deregulation. AFFA reported that provisional figures for

53 ibid., p. 13 532.

54 AFFA, submission no. 34.2, p. 16.

55 The Hon Mr Warren Truss, Minister for Agriculture, Fisheries and Forestry, Second Reading Speech, Dairy Industry Adjustment Bill 2000, House of Representatives, *Hansard*, 16 February 2000, p. 13 535.

56 ibid, p. 13 536.

57 Hon Warren Truss, MP, Minister for Agriculture, Fisheries and Forestry, *Media Release*, 28 September 1999.

58 ACCC, *Impact of farmgate deregulation on the Australian milk industry: study of prices, costs and profits*, April 2001 p. xvii.

30 June 2000 show that there were 12 888 registered dairy farms. Following deregulation, its is estimated that 'fewer than 400 farms have exited the industry'.[59]

Conclusions

3.59 The evidence to the Committee commented on the reasons for deregulation of the dairy industry, and the industry assistance package to help structural adjustment. The Committee received no evidence discussing the effectiveness of the assistance package. This is mainly because the assistance package was introduced towards the end of the inquiry. The Committee suggests that a post-delivery review of the package is necessary. The review should ensure that administration of the scheme has been cost-effective and that the scheme's objectives have been met. Where it is found that some of the scheme's objectives have not been achieved, then the review should recommend ameliorative action.

Recommendation 9

3.60 **The Committee recommends that the Minister for Agriculture, Fisheries and Forestry initiate an independent review of the dairy industry adjustment package. This review should assess whether the objectives of the assistance package were met and, if not, then further action should be recommended to ensure that the desired outcomes are achieved.**

59 AFFA, submission no. 34.3, p. 2.

4

Grains industry

Introduction

4.1 The grains industry pursues value-adding opportunities where this meets customer needs. This chapter reviews the status of the grains industry and the opportunities and impediments to value-adding.

4.2 The examination addresses the grains industry in general, with particular focus on the wheat industry reflecting the nature of the evidence received and the size of the wheat industry. The outlook for world wheat trade is promising in the short to medium term, and in the longer term it is expected that world population growth will drive demand for grains such as wheat.

4.3 Australia's position in world wheat trade is examined together with its responses for meeting demand and producing specialised wheat varieties in order to meet changing consumer needs. Government policies and programs that influence marketing and value-adding opportunities are reviewed.

Production and export status

4.4 The bulk of grain production occurs in central Queensland, New South Wales, Victoria, South Australia and through the southern part of Western Australia. Between 1995 and 2000 the average annual grain production was 37.2 million tonnes. Western Australia was the largest producer with an average during the same period of 13.19 million

tonnes and New South Wales was next with an average annual production of 10.72 million tonnes.[1]

4.5 The average area sown to grains is about 19.72 million hectares. Department of Agriculture, Fisheries and Foresty - Australia (AFFA) reports that wheat 'is by far the biggest grain crop produced in Australia both in terms of grain produced and value'.[2] The average annual production during the past five years was 21 159 kt at a value of $4 236 million. The next largest grain crop is barley with an average of 5 792 kt produced at an average gross value of $1 066 million.[3]

4.6 Approximately 75 per cent, or about 15 800kt, of wheat produced is exported in raw form. AFFA commented that the 'large amount of wheat being exported allows wheat to take its place as the largest crop export making up approximately 65 per cent of the total value of crop exports'.[4]

4.7 The Australian Wheat Board Limited (AWB) reported that in the ten years to 2000, world wheat trade has remained fairly static at about 100 million tonnes. During this same period, Australia's wheat production has grown from around 12-14 million tonnes per annum to about 22-24 million tonnes per annum. The AWB stated:

> …the export task has increased from around 10 million tonnes per annum to around 18 million tonnes per annum. This additional tonnage has been placed into a static market, showing a strong increase in Australia's market share. This success has come through branding and value-adding to promote the quality and reliability of Australian wheat and AWB.[5]

4.8 The AWB suggested that the international wheat market 'is the most competitive food commodity market in the world' with a total production of about 600 million tonnes and average annual trade of about 100 million tonnes. The five major wheat exporting countries and their export volumes in 2000 were:

- United States 35 million tonnes
- Canada 26 million tonnes
- **Australia** 18 million tonnes

1 AFFA, submission no. 34.2, p. 34.
2 ibid., p. 34.
3 ibid., p. 34.
4 ibid., p. 34.
5 AWB, submission no. 50. p. 1.

- European Union 14 million tonnes
- Argentina 10 million tonnes.[6]

Single desk exporting

4.9 Wheat exporting and marketing is operated through single desk arrangements. The AWB is the sole exporting and marketing authority. The single desk arrangements have been subject to review—the most recent was by the National Competition Council (NCC) in 2000. In response to the results of this review, the Minister for Agriculture, Fisheries and Forestry, the Hon Warren Truss, MP, stated that the 'single desk arrangements for exporting wheat, held by the AWB, will remain, but that improvements will be made to the consent system operated by the Wheat Export Authority (WEA)'.[7] The WEA is a statutory authority that controls the export of wheat through the issue of permits. It is independent and separate from the holder of the single desk, the AWB.[8]

4.10 In addition, the Minister indicated that the WEA will have until the end of 2004 to assess the performance of the AWB with regard to its use of the wheat export rights. The Minister specified that the WEA will be asked to 'develop rigorous and transparent performance indicators to ensure its review accurately measures the benefits to industry and the wider community'.[9]

4.11 Evidence to the inquiry about the operation of the single desk was received during the NCC review and prior to the Minister's confirmation that the arrangements would remain. The AWB was consistent in its support for the continuation of the single desk commenting that the informational advantages, and the economies of scope and scale attributable to a mechanism like the single desk, 'are very important in ensuring that Australian growers continue to have a competitive advantage in the market'.[10]

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6 Mr Andrew McConville, AWB, transcript of evidence, pp. 236-37.

7 Minister for Agriculture, Fisheries and Forestry, the Hon Warren Truss, MP, Media Release, *Wheat Single Desk to Remain*, 4 April 2001.

8 AFFA, submission no. 34.2, p. 16.

9 Minister for Agriculture, Fisheries and Forestry, the Hon Warren Truss, MP, Media Release, *Wheat Single Desk to Remain*, 4 April 2001.

10 Mr Andrew McConville, AWB, transcript of evidence, p. 237.

4.12 AFFA reported that while the focus of the AWB is not on value-adding through processing, the AWB has 'clearly added value through a significant improvement in quality, consistency and satisfaction of client expectations'.[11]

4.13 Goodman Fielder (GF) was not so supportive of the single desk arrangements commenting that 'statutory marketing arrangements, including the single desk and grain pooling activities, and the translation effects of foreign exchange dealings, create price lags which distort market signals to domestic food manufacturers'.[12] GF, however, commented that it did 'not oppose the single-desk arrangements that are in place at the moment but we do support proposals to partially deregulate wheat marketing before 2004'.[13]

4.14 GF accepted the objectives of the federal wheat marketing arrangements in aiming to get an export premium for growers. However, GF suggested that these arrangements place additional costs on the domestic food market. GF stated:

> …they do impose additional costs on domestic food manufacturers and therefore Australian consumers. We believe they act as an anchor to value-adding and exports by other producers. For example, under current wheat marketing arrangements, the tender system is very cumbersome for domestic food producers like GF; it places priority on the export market and therefore the domestic market comes a distant second. Post-harvest access to wheat is restricted, and that poses additional constraints on our flexibility as producers and exporters. The Australian Wheat Board has a veto power over bulk exports, and that constrains us in shipping wheat to places like New Zealand and the Pacific Islands. The Australian Wheat Board has sole responsibility for setting standards and typically does so without consultation with domestic users, and we find that very difficult to deal with at times when we are trying to juggle a wide variety of grains.[14]

Conclusions

4.15 The Committee notes that a government decision has been made to retain the wheat single desk. In addition, the WEA will, before the end

11 AFFA, submission no. 34.3,. p. 4.

12 Goodman Fielder, submission no. 3, p. 3.

13 Mr Robert Hadler, Goodman Fielder, transcript of evidence, p. 291.

14 ibid., p. 290.

of 2004, assess the performance of the AWB with regard to its use of sole wheat export rights. The Committee asserts that the WEA, as part of its review, should take into consideration the impact of single desk export arrangements upon the domestic food market.

Value-adding opportunities

4.16 The Grains Research and Development Corporation (GRDC) suggested that key value-adding activities 'span from biotechnology, to farming systems knowledge and technology, plant breeding, grading and varietal segregation, other agricultural technology such as precision agriculture and farm machinery, through to human resource development and knowledge-based products and services'.[15] In particular, the GRDC commented that 'segregating for discriminating end use has been fundamental to the development of Australia's grain markets'.[16]

4.17 In the wheat industry, value-adding is not necessarily about processing. As indicated above, the bulk of Australian wheat is exported in raw form. The export of flour has decreased during recent years. In 1997 the Senate Rural and Regional Affairs and Transport References Committee made some comments on this trend:

> The changing nature of value-adding in the wheat industry is demonstrated by the increasing shift from the export of flour production to the export of bulk wheat. Despite support in the grains industry for the processing of wheat in Australia for export, as expressed at the Grains 2000 conference held in 1991, hundreds of flour mills have closed down in Australia in recent times. These mills closed because overseas buyers want to buy wheat in bulk not in the form of flour. Flour exports fell by over 90 per cent between 1952-53 and 1990-91. As of 1993 cereal and flour preparations, including starch and gluten, accounted for only 0.5 per cent of Australia's merchandise exports.[17]

4.18 The focus of wheat exports has been on value-adding through producing special varieties of wheat in response to consumer needs, and through having better quality assurance. AFFA, as quoted in the

15 GRDC, submission no. 2.1, p. 3.

16 ibid., p. 12.

17 Senate Rural and Regional Affairs and Transport References Committee, *Value-adding in Agricultural Production*, Senate Printing Office, Canberra, 1997, pp. 39-40.

Committee's first report, commented that 'in recent years the AWB have added value to bulk wheat through better quality assurance (protein, moisture, residue levels), development and segregation of varieties suited to particular end products, especially noodles, training in milling and baking programs for buyers of Australian wheat, and joint ventures with research bodies to develop wheats suited to customer requirements'.[18] The AWB stated:

> The value added by AWB is essentially taking that commodity, segregating it, matching it with market demand and then shipping that product to meet that market demand. What we are trying to do is focus on the needs of the customer and ensure that we have a demand driven rather than a supply driven industry. That can be contrasted to the situation that we might see in the United States, Argentina or the European Union.[19]

4.19 The AWB suggested that its approach to wheat value-adding was a strategy of wheat differentiation. At the same time, the AWB guarantees the quality and consistent supply of its product, which is more than other countries can do.[20] The AWB suggested that value-adding should not just be judged from the point of view of whether additional processing is occurring. The AWB commented that the 'principal focus remains on maintaining product integrity such that we can receive a higher end use price for that product'.[21]

4.20 The OUTLOOK 2001 conference heard that 'Australia has achieved a reputation for being a reliable supplier of mainly medium protein content wheat better suited to Asian food products'.[22] In particular, the conference heard that 'Australia has now moved to a point where we are recognised internationally as the supplier of the widest range of quality types of wheat, comparable with, and often superior to, those supplied by our competitors'.[23]

4.21 Some of the speciality wheat of the current export crop includes Prime Hard, Hard, Noodles, Soft and Durum. The OUTLOOK 2001 conference heard that all 'these varieties have been produced to meet quality guidelines based on detailed market knowledge, and it is in this area

18 AFFA, submission no. 34, p. 18.

19 Mr Andrew McConville, AWB, transcript of evidence, p. 237.

20 ibid., p. 237 and 246.

21 ibid., p. 247.

22 Lindberg, A., 'Grain marketing, Competing in the domestic and international grain markets', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 247.

23 ibid., p. 247.

where we have established an enviable reputation'.[24] The AWB indicated that it had established a seeds business with a charter to 'develop new commercial varieties that will add value to the growers' bottom line through developing a better quality product'.[25]

4.22 The GRDC drew attention to an Australian success story – the production of Japanese noodles. In 1990 the then Australian Wheat Board and an Australian food company decided not to produce Japanese noodles as it was considered that the product would not be competitive with the Japanese produce. The GRDC indicated that from 1996-1999 it invested some $550 000 in the Asian Noodle Products Market Analysis Program, which developed an Asian noodle market research strategy. As a result of this program, a Japanese company established a factory in Ballarat and is producing and exporting five types of noodles under different brand names to Japan.[26]

4.23 Goodman Fielder indicated that it purchases about one third of the Australian wheat crop produced for the domestic market. GF suggests that it achieves value-adding outcomes through product innovation. GF commented that 'we have been bringing out new products—value-adding wheat, rice and edible oils to produce ingredients or products such as Hi-maize, which is a resistant starch that adds fibre to white bread without changing the colour or texture'.[27]

4.24 The Australian lupin industry is an interesting success story. Lupins were reported to be grown at the end of the 19th century near Lynton, North of Geraldton. The produce was mainly used to fatten sheep in the region. Harvesting and deliberate seeding became common in the decade after 1910.

4.25 In 1971-72 Cooperative Bulk Handling received its first lupins amounting to 1 453 tonnes.[28] By 1998-99 the area sown to lupins was 1.2 million hectares, the yield was 1.17 tonnes per hectare, and the total production was 1.4 million tonnes.[29]

4.26 During the 1990s, the lupin industry focused on market development and 'backed research into the use of lupins for human consumption'.[30] It

24 ibid., p. 247.

25 Mr Andrew McConville, AWB, transcript of evidence, p. 246.

26 GRDC, submission no. 2.1, p. 13.

27 Mr Robert Hadler, Goodman Fielder, transcript of evidence, p. 289.

28 Zekulich, Michael, *The Grain Journey, The History of the Grain Pool of WA*, PK Print, Beaconsfield, 1997, p. 61.

29 AWB, *Final Report of the Australian Wheat Board, 1 October 1998-30 June 1999*, 1999, p. 86.

30 ibid., p. 65.

was in 1987 that the use of lupins for human consumption was approved.

4.27 The various stages of development and investment in the lupin industry has resulted in a successful product and made Western Australia a world leader. Zekulich states:

> …Western Australia, through its own resources, was to become the world pioneer and leader in the commercial production of sweet white lupins—a valuable stockfeed protein and a source of flour for people who are gluten-intolerant.
>
> Today lupins are embraced enthusiastically by wheatbelt farmers, especially on light lands. They produce their own nitrogen, reducing the farmer's costly fertiliser burden, and are a valuable rotation crop for wheat and barley.[31]

4.28 In relation to the long-term outlook for the grains sector, world population growth projections provide signals about the level of demand that may occur. World population is currently about 6 billion and by 2030 the population is projected to increase to about 10 billion. Much of this growth is expected to occur in the Asian region. At the same time, recent analysis suggests that as standards of living improve so will patterns of food consumption. The OUTLOOK 2001 conference heard that as 'larger portions of the population reach middle class incomes, the demand for rice is expected to continue to fall in favour of other foods, including wheat and wheat basket products'.[32]

4.29 In the medium term to 2005, the Food and Agriculture Organisation projects that global trade in wheat will increase to about 115 million tonnes, an increase of 15 per cent on current levels. Asia is expected to account for about 46 per cent of this increased production. The OUTLOOK 2001 conference heard that these trends and patterns appear 'to present an excellent supply opportunity for Australia as a wheat producer'.[33]

4.30 However, the international market for wheat is extremely competitive and distorted by the actions of tariffs and subsidies. Australia will need to ensure that it has effective strategies for dealing with these issues so

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31 Zekulich, Michael, *The Grain Journey, The History of the Grain Pool of WA*, PK Print, Beaconsfield, 1997, p. 63.

32 Lindberg, A., 'Grain marketing, Competing in the domestic and international grain markets', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 246.

33 ibid., p. 246.

that it can benefit from the increasing demand that is projected to occur. The following section examines some immediate issues.

Key challenges influencing value-adding

4.31 The major issues that are considered to have a significant impact on the wheat industry include:

- USA and EC government subsidies; and
- government policies influencing R&D.

United States and European Community government subsidies

4.32 One of the key impediments affecting the wheat industry is the provision of economic subsidies by other countries. The impact of government subsidies can include lowering world prices and distorting market signals.

4.33 Governments of the EC and the USA are the main offenders. The OUTLOOK 2001 conference heard that governments in the EC and USA 'have sought to intervene in an attempt to correct poor outcomes for farmers, but they have only succeeded in making the situation worse for the taxpayer, for the farmer and for competitors'.[34]

4.34 A recent study by the OECD estimated that 'production support per farmer in the United States rose from US$12 000 in 1997 to US$21 000 in 1999 compared to an OECD average of US$10 000 in 1997 to US$11 000 in 1999'.[35] For the period 1997-99 producer support estimates (PSEs) for European farmers was US$801 a hectare, for the US farmers it was US$85 a hectare and for Australian farmers it was only US$3 a hectare.

4.35 The AWB reported that OECD estimates show that total government support to USA farmers will be in excess of $US26 billion and for European farmers the figure is $US40 billion.[36] The overall conclusion is that recent government assistance to USA farmers is reaching the levels attained in the 1980s under the Export Enhancement Program.

4.36 It was reported at the OUTLOOK 2001 conference that 'in Australia, support to agricultural producers is the second lowest in the OECD, behind New Zealand, and at 6 per cent of farm production value, is less

34 ibid., p. 248.

35 ibid., p. 248.

36 Mr Andrew McConville, AWB, transcript of evidence, p. 237.

than one sixth the OECD average'. In contrast, 'percentage PSE levels in the United States reached almost 25 per cent in 1999 and 49 per cent in the European Union'.[37]

4.37 The OUTLOOK 2001 concluded that 'replacing legitimate commercial sales simply distorts market signals by dampening demand and can create a culture of reliance, doing long-term damage to commercial buying and consumption patterns, the net effect of which is to depress world prices'.[38] A similar conclusion was reached by the AWB which stated:

> What does all that mean? It means that the farmers' production and risk decision making environment is distorted. He or she is continuing to receive payments from the government when, if based solely with the market price, the market price might dictate that they in fact go into some other business or do not produce as much. In the absence of that we are seeing farmers essentially respond to the government—oversupply—and that supply has to find a place somewhere. It finds its place in the world market or, alternatively, it goes into stocks. We now see stocks in the US at record levels, in excess of 20 million tonnes. That has a substantial overhang on the market.[39]

4.38 In response to the impact of subsidies, the AWB's general approach was to ensure that the 'Australian wheat industry and its system of marketing is at the forefront of product differentiation and customer focused strategies to differentiate Australian wheat and capture full value'.[40]

4.39 While there is no direct solution for the use of government subsidies by other countries, the view was expressed that the Australian Government should continue to raise these matters at international fora. The AWB stated:

> In terms of what the Australian Government can do, it is a bit like water on a stone: if you keep dripping water on the stone, eventually the stone will crack. It is very important that we maintain the pressure through the likes of the Cairns Group, which is a very effective mechanism to highlight the regional

37 ibid., p. 248.

38 ibid., p. 249.

39 Mr Andrew McConville, AWB, transcript of evidence, p. 244.

40 Lindberg, A., 'Grain marketing, Competing in the domestic and international grain markets', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 249.

> inequities in support that is paid to farmers around the world and the impact that that has on Australia, Canada and Argentina, to take the wheat industry as an example. Obviously we must continue to push for progress through the WTO and to try and get the next WTO round off the ground. The failure in Seattle was unfortunate.[41]

Conclusions

4.40 The use of government subsidies, particularly by the USA and EC, to support wheat farmers is a blight upon international trade. The market is distorted, market signals become unclear and ultimately world prices are depressed. The extent of subsidies was particularly high during the 1980s, and it is alarming that current subsidies are again reaching those levels. There is no easy solution to the problems created by subsidies.

4.41 The Australian Wheat Board is pursuing product differentiation and customer-focused strategies to differentiate Australian wheat and capture full value. In response to government subsidies, the Australian Government must continue to argue for an end to subsidies at international fora such as the World Trade Organisation.

Research and development

4.42 Evidence to the inquiry about government support for R&D was mixed. The AWB stressed that R&D was 'absolutely essential to our industry's successful continuation'.[42] Similarly, GF commented that 'product innovation supported by commercialisation of research and development is a key area for value-adding'.[43]

4.43 Consistent with this view, the AWB commented that the GRDC is a positive initiative and the current dollar-for-dollar funding by the Commonwealth Government should continue.[44] In 1999-2000 the GRDC committed payments of $92 million to R&D. The GRDC's revenue was sourced mainly from industry contributions which amounted to $50.5 million, Commonwealth contributions valued at $31.8 million, and interest payments of $7.8 million.[45]

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41 Mr Andrew McConville, AWB, transcript of evidence, p. 245.

42 ibid., p. 243.

43 Mr Robert Hadler, Goodman Fielder, transcript of evidence, p. 291.

44 Mr Andrew McConville, AWB, transcript of evidence, p. 240.

45 GRDC, *Annual Report, 1999-2000*, p. 69.

4.44 The GRDC suggested that R&D is an essential part of the wheat industry's development and performance. The GRDC indicated that, mostly as a result of R&D, wheat yields during the 1990s have been around 30 per cent higher than those in the 1980s. Where higher wheat yields can be achieved there are significant benefits to producers. The GRDC stated:

> The Centre for International Economics (2000) estimates that for each 1 per cent increase in wheat yield, around $37 million dollars is added to annual income, spread across farmers, processors and consumers. Similarly, for each 1 per cent increase in wheat quality, around $56 million is added to national income. The research indicated strong benefit-cost ratios for R&D in wheat breeding and R&D in downstream processing of wheat.

4.45 The GRDC, however, commented that 'business incentives for R&D need to be reviewed and enhanced'.[46] The GRDC stated:

> A return to a higher R&D tax deduction incentive or some other equivalent mechanism needs to be considered. With the implementation of a new tax system on July 1, and a lower company tax rate, the incentive value of the 125% concession will be further eroded.[47]

4.46 In relation to the 125 per cent tax concession, GF suggested that the reduction from the previous 150 per cent level had a significant impact on its R&D budget. GF commented that when 'we originally did our submissions to the government on the reduction from 150 per cent to 125 per cent, our estimates then were that we spent about $25 million a year on pure research and development and that the reduction in the tax concession cost us about $1 million out of that $25 million of expenditure that we could claim back on tax'.[48]Consequently, GF is calling for the Government to reconsider its position on the R&D tax concession.

4.47 From a more industry-wide perspective, GF noted that survey figures by the Australian Bureau of Statistics show that 'company R&D has fallen following the decision to reduce the taxation incentive for corporate R&D from 150 per cent to 125 per cent'.[49]

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46 GRDC, submission no. 2.1, p. 5.

47 ibid., p. 5.

48 Mr Robert Hadler, Goodman Fielder, transcript of evidence, p. 298.

49 Goodman Fielder, submission no. 3, p. 7.

Conclusions

4.48 In the previous chapter, the Committee commented on the Dairy RDC. In particular, the Committee made a recommendation relating to the funding mechanism. This recommendation also applies to the GRDC. In the final chapter, the Committee will examine the research and development corporation model in more detail and the R&D tax concessions from an industry-wide perspective.

5

Wine industry

Introduction

5.1 The Australian wine industry is a model industry in that significant production growth and export sales have been achieved, particularly over the last ten years. This success is not just the result of having a quality product, although the quality of Australian wine is extremely good. It is more about having knowledge of, and responding to, consumer needs, applying expert marketing, recognising the importance of R&D, and overall having an innovative approach to winemaking and sales.

5.2 This chapter outlines some of the general features of the Australian wine industry focusing on its export and production status. In particular, the examination sought to identify some of the reasons for the recent successes of the Australian wine industry.

5.3 The performance of the Australian wine industry provides valuable lessons for other industries. In particular, other industries should note the wine industry's quality approach to production, its organisation and structure, and its marketing and sales strategies.

Production and export status

5.4 The Australian wine industry has proven to be a successful value-adding industry. Wine exports, for example, have risen from $10.8 million in 1986 to over $1 billion in 1999. The $1 billion export mark is five years ahead of schedule.[1] In 1986 Australia exported 9.3 million litres of wine compared to 310 million in 2000. The nature of wine exports has also changed dramatically during this time. In 1986 only 47 per cent of wine exports were in the form of 750ml bottles. The remaining 53 per cent consisted of bulk wine, flagons and soft packs. In 2000 nearly 85 per cent of exports were in the form of 750ml bottles.[2]

5.5 The period since 1995 has shown the most growth. During this period the average annual value growth rate was 29.5 per cent, while the growth in volume was a compounded annual growth rate of 21.5 per cent.[3]

5.6 Wine exports were forecast to exceed domestic sales for the first time in 2000-01.[4] The Wine Federation of Australia (WFA) stated:

> The wine industry has a reputation of going along pretty well. It is fair to say that this year exports look to be growing at around 25 per cent by volume and about 20 per cent by value. That has been pretty consistent over the last few years. There has been a little bit of a slowdown from last year in the export market, and we are seeing a much tighter domestic market at the moment. It looks like business as usual, but we are running into a lot of pressure at the price points. We have seen a great increase in plantings, particularly of red wine grapes. Last year was the first year that we could actually meet our red wine grape demand for a decade, and that has been very good.[5]

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1 Mr Anthony Battaglene, WFA, transcript of evidence, p. 276.

2 Scott, J. 'Wine export growth, Is quality the key?', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 393.

3 ibid., p. 394.

4 Shepherd, A., & Claringbull, J., 'Wine Grapes, Outlook to 2005-06', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 385.

5 Mr Anthony Battaglene, WFA, transcript of evidence, p. 271.

5.7 The OUTLOOK 2001 conference heard that 'wine grape production is forecast to increase by more than 20 per cent between 2001-02 and 2005-06'. However, because other countries are also expected to increase their production, 'Australian wine grape prices are forecast to continue falling in real terms over the medium term'.[6] The price for red grapes, particularly low quality, is expected to continue falling, although white grape prices and production are expected to stabilise.[7]

5.8 Australia's bearing area continued to expand with an additional 9000 hectares or eight per cent of vines in 1999-2000. This was expected to lead to increased production of 1.4 million tonnes in 2001-02.[8] Australian wine exports were forecast to rise by 16 per cent in 2001-02 to 377 million litres with a value close to $1.8 billion.[9]

5.9 Total wine grape production is expected to reach 1.7 million tonnes by 2006. Red wine grape production is expected to constitute over 1 million tonnes and white grapes will make up about 550 thousand tonnes. Table 5.1 shows Australian production of major wine grapes in 1999-2000 and projections for 2005-06.

Table 5.1 Australian production of major wine grape varieties

Variety	1999-2000	2005-2006
	kt	*kt*
Shiraz	228	394
Cabernet sauvignon	159	311
Merlot	54	102
Chardonnay	205	231
Semillon	79	91
Columbard	41	70

Source Shepherd, A., & Claringbull, J., 'Wine Grapes, Outlook to 2005-06', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 390.

5.10 The total bearing area is projected to reach 150 000 hectares by 2005 which would make Australia the seventh largest area under wine grapes in the world. Table 5.2 shows the worldwide area of grapevines in 2000.

6 Shepherd, A., & Claringbull, J., 'Wine Grapes, Outlook to 2005-06', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 385.

7 ibid., p. 387.

8 ibid., p. 386.

9 ibid., p. 386.

Table 5.2 Areas of grape vines, 2000

Country	Area under vines
	ha
Spain	1 100 000
France [a]	886 170
Italy	830 000
United States of America [a]	364 000
Argentina	210 000
Chile [a]	144 000
South Africa	116 000
Australia	115 068
Germany	104 200
New Zealand	9 097
Canada	7 000

Source Shepherd, A., & Claringbull, J., 'Wine Grapes, Outlook to 2005-06', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 389.
a = Areas in 1999

Value-adding opportunities

5.11 In the five years to 2005-06 the export of Australian wine is projected to more than double to reach 682 million litres or 59 per cent of total wine production. The value of wine exports in 2005 is expected to reach about $3.1 billion. The OUTLOOK 2001 conference heard that the 'proportion of wine sold to the United Kingdom is expected to fall as exports to Germany, the United States, Canada, and the Netherlands increase'.[10]

5.12 During the period to 2005-06 wine industry growth and export volumes will be influenced by macroeconomic factors. Slowing economic growth rates are expected to result in reduced demand for wine.[11] On a regional basis, the Asian region 'represents an export destination with significant long-term prospects due to the potential for substantial increases in per person consumption and the region's proximity to Australian suppliers'.[12]

5.13 For example, wine consumption per person in Japan increased from 1.4 litres in 1996 to 2.5 litres in 1998. While it is noted that these are small amounts, consumption is increasing. As a comparison, per person wine

10 ibid., p. 387.
11 ibid., p. 385.
12 ibid., p. 388.

consumption in New Zealand and Australia is 16.1 litres and 20.1 litres respectively. The OUTLOOK 2001 conference heard:

> The increasing trend of consumption is evident in other Asian countries, including China and Chinese Taipei. China's large population means even a small increase in per person consumption translates into a large increase in total wine consumption. A significant increase in the demand for Australian wine from Asia is likely to occur over the long term rather than in the short to medium term.[13]

5.14 During the past two years, Australian wine companies have increased their sales efforts in the Asian region. For example, Southcorp is seeking to boost its sales of the Lindemans wine range particularly in Hong Kong, Malaysia and Chinese Taipei. At the same time, Rosemount 'expects sales to Malaysia to increase by 30 per cent in 2001'.[14]

5.15 Part of the wine industry's vision for the future is set out in *Strategy 2025*. A key target of this strategy is for Australia to provide five per cent of the world's wine market by 2025, which would be up from less than two per cent in the early 1990s.[15] The WFA suggested that this export focus came about through the objectives of some of the large wine companies and conglomerates which accepted that the domestic market is not growing.[16]

5.16 Some of the key factors for the export success of the Australian wine industry relate to the quality of the product and effective marketing. For example, the WFA noted that the labels of Australian wines are often creative and support marketing objectives.[17]

5.17 From a broader marketing perspective, the Australian Wine Research Institute (AWRI) commented that 'the export value of Australian wine can be enhanced further through sophisticated marketing and it could be argued that Australia as a nation is not value-adding enough by enhancing the image of its products through trade offices and trade fairs'.

5.18 The OUTLOOK 2001 conference examined some of the reasons for the Australian wine industry's strong performance. These reasons focus on the quality aspects of the industry and include:

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13 ibid., p. 388.

14 ibid., p. 388.

15 WFA, submission no. 51, p. 1.

16 Mr Anthony Battaglene, WFA, transcript of evidence, p. 276.

17 ibid., p. 286.

- quality of product;
- quality of offer – value and price;
- quality of consistency;
- quality of purpose – industry unity; and
- quality of structure.[18]

5.19 In relation to the quality of Australian wine, it was suggested that 'Australian wines enjoy success overseas because our wines, at almost every price point, offer approachable yet richly flavoured wines with style and finesse'.[19] Australia is fortunate in that over 70 per cent of total wine grape plantings is made up of the twelve major premium varieties. This is the highest of any wine producing country.

5.20 In addition to the quality of Australian wine, it is also considered to offer consistently good value for money. Australia offers 'wines of all styles and price points in an uncomplicated, consumer-friendly package'.[20] The consistency of quality and cost is also raised as a major advantage of the Australian wine industry. Australian wine makers, for example, are not restricted in the blending of material from different regions and varieties which helps to create a high level of consistency. The OUTLOOK 2001 conference heard:

> These blending practices lessen the impact of vintage variation, particularly in the mass market popular brands, such as Lindemans Bin 65, Jacobs Creek and Nottage Hill — brands that continue to be market leaders in our export push.[21]

5.21 The quality of purpose or unity of vision is identified as a major feature of the Australian wine industry, which sets it apart from other wine producing countries. For example, Australia was the first wine industry 'to develop and enunciate a strategic vision, with the launch of *Strategy 2025* in 1996'.[22]

5.22 The structures which helped give rise to this industry unity include the formation of the Australian Regional Winemakers Forum (ARWF), and the Australian Wine and Brandy Corporation (AWBC). The ARWF provides a forum for smaller winemakers. The AWBC seeks 'to provide an enhanced administrative and regulatory framework which, among other things, introduced mandatory testing to ensure that all exported

18 Scott, J. 'Wine export growth, Is quality the key?', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 394.

19 ibid., p. 394.

20 ibid., p. 394.

21 ibid., p. 394.

22 ibid., p. 394.

wine is sound and merchantable – another world first for the Australian wine industry'.[23] In relation to the AWBC, the WFA stated:

> It is a statutory body. It has an industry board with a government member and it answers to the Minister for Agriculture, Fisheries and Forestry. It controls the regulation of the industry. What we see as vitally important is that we keep the quality perception and the quality of the product high, because, on the export market, if you lose that quality perception, you are dead in the water. That is run very much with direction from industry, although it coincides with broader government policy. That is another key plank.[24]

5.23 The focus on continuous improvement and quality enhancement is another feature of the Australian wine industry. This means enhancing, where possible, 'viticultural and oenological practices as well as marketing and distribution'.[25] The research and development organisations, which support continuous improvement, include the Australian Wine Research Institute, the Grape and Wine Research and Development Corporation (GWRDC), and the Australian Council of Viticulture.

5.24 In addition, educational institutions such as Adelaide University, the Charles Sturt Campus at Wagga and the Edith Cowan University in Western Australia conduct research and training in viticulture.

5.25 The immediate future of the wine industry is about quality enhancement, and how to deal with a forecast wine surplus. While this will have implications for all wine producing countries, Australia may be less affected because most of the world's current surplus production resides in the basic wine segment where bottles of wine sell for less than A$5. This is a segment that Australia does not operate in. The OUTLOOK 2001 conference heard that while the medium priced segment will also grow, it is unlikely that there will ever be a surplus in the higher priced market segment. It was suggested that while the Australian wine industry will not abandon its current export market entry price points, it should be striving for continuous improvement in quality.

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23 ibid., p. 395.

24 Mr Anthony Battaglene, Wine Federation of Australia, transcript of evidence, p. 276.

25 Scott, J. 'Wine export growth, Is quality the key?', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 395.

5.26 While the issue of a possible global wine surplus is a challenge for the wine industry, the following section identifies those challenges that are domestic and can be influenced by government action.

Key challenges influencing value-adding

5.27 The WFA suggested that the recent successes of the Australian wine industry are not due to geographic, soil or climatic advantages over its competitors. The successes are due more to the contribution of effective R&D, training, and the overall innovativeness of the people in the wine industry. In particular, the industry is renowned for accurately assessing consumer needs and producing new products and styles together with expert marketing. The WFA stated:

> In the medium to longer term, the key distinguishing competitive advantage for Australia will only be the quality of its human resources and its ability to innovate (which is strongly linked to the former). Human resources and innovation will be the key drivers behind the industry's ability to: interpret trends and react quickly to them; develop new products and styles; and improve quality and lower costs.[26]

5.28 While evidence, in general, to the inquiry was positive about the performance and long-term goals of the wine industry, it was suggested that the Government could address certain matters. These issues relate to:

- the impact of inconsistent State Government legislation;
- the impact of the Wine Equalisation Tax;
- funding for R&D; and
- market access.

The impact of inconsistent State Government legislation

5.29 The WFA brought attention to a 'major industry frustration' involving different legislation between the states. The WFA noted that in relation to Liquor Licensing Acts and the introduction of the National Environment Protection Measure, no two states have the same legislation. The WFA stated:

26 WFA, submission no. 51, p. 15.

> This creates enormous compliance difficulty for the large number of wineries that operate across different states. Whilst the Ministerial Council process attempts to address these issues, the process is cumbersome, is time consuming and lacks either political will or jurisdictional power in some instances.[27]

5.30 The most likely forum for addressing jurisdictional differences is through the relevant Ministerial Council. The Industry, Technology and Regional Development Council (ITRDC) would have carriage for addressing the matters raised by the WFA. The objectives of the ITRDC 'are to promote a national, consistent and coordinated approach to the development of industry, technology and regional development'.[28]

5.31 The composition of the ITRDC includes Commonwealth, New Zealand, State and Territory Ministers for industry, technology and regional development. Published information about the ITRDC indicates that it meets 'nominally at least once a year', although it has not met formally since 1995. Commonwealth, State and Territory Industry Ministers, however, do meet. The most recent meetings were in February 2000 and April 2001. The agenda for these meetings focused around efforts to strengthen Australia's industry competitiveness, innovation and investment.[29]

5.32 The WFA brought attention to the location of alcohol volume statements on wine labels which are required to be placed on the front label. The WFA reported that in 'South Australia they have started to prosecute our winemakers for putting the volume statement on the back label and not on the front label, as is required under the legislation'.[30] The WFA explained that while this issue may sound trivial it does have significant cost implications. The WFA stated:

> …the reason winemakers do it is that you only have to change one label for all your markets. If you are a Southcorp, you can save millions of dollars; if you are a small company with small runs, you can save a heck of a lot of money and time. It seems trivial, but we cannot get the states to agree on this. We are currently doing some work in the international fora, at the New World Group, on getting a harmonised labelling system. We

27 ibid., p. 2.

28 Department of the Prime Minister and Cabinet, *Commonwealth-State Ministerial Councils, A Compendium*, December 1999, p. 36.

29 Australian Industry Ministers' Meeting, Communiques, 2 February 2000 and 27 April 2001.

30 Mr Anthony Battaglene, WFA, transcript of evidence, p. 283.

> will be looking at this issue again and trying to convince our states as well as the other countries that this is a good thing.[31]

5.33 The WFA suggested that the wine industry should be given more flexibility and be permitted to place alcohol volume information on the front or back label. The WFA commented that this would allow the 'industry to use more creativity in labelling and allows the development of a single label for domestic and export markets' because back label labelling is mandatory in some markets.[32]

Conclusions

5.34 The Committee notes industry concerns about the application of inconsistent State Government legislation. Compliance costs can be increased where there are a range of different State regulations. The Committee is not in a position to make a blanket recommendation that there should be harmonisation between the States until the reasons for the differences are fully understood.

5.35 The Australian Industry Ministers' meeting is the appropriate forum for addressing the concerns of the WFA about inconsistent state legislation. At recent Ministerial meetings, Australian Industry Ministers have agreed to 'work together to strengthen industry competitiveness, innovation and investment'. The Committee believes that industry competitiveness could be enhanced through the harmonisation of State industry legislation and regulations.

Recommendation 10

5.36 **The Committee recommends that the Commonwealth Minister for Industry, Science and Resources ensure that the issue of harmonisation of State legislation relating to the wine industry is an agenda item at the next meeting of Australian Industry Ministers.**

The impact of the Wine Equalisation Tax

5.37 One of the more recent concerns of the wine industry is the wine equalisation tax (WET). WET was introduced as part of the new taxation system on 1 July 2000. Prior to this date, a 41 per cent wholesale sales tax applied to wine and wine products. Under the new taxation system,

31 ibid., p. 283.

32 WFA, submission no. 51, p. 7.

these products are subject to a 29 per cent wine equalisation tax in addition to the GST of 10 per cent.

5.38 The Department of Agriculture, Fisheries and Forestry - Australia (AFFA) indicated that a WET rebate scheme will help to ensure that small winemakers are not adversely affected by WET. This will complement the States' schemes to provide winemakers with assistance of 15 per cent of the wholesale value of cellar door and mail order sales to unlicensed people.

5.39 The WET rebate scheme consists of the following components:

- a 14% rebate on cellar door and mail order sales up to a wholesale value of $300 000 per year.
  - ⇒ this rebate then tapers to zero for sales with a wholesale value between $300 000 and $580 000 per year. Sales with a wholesale value above $580 000 attract the 15% State subsidy alone.

5.40 AFFA concluded that 'the combination of the previous State subsidy and the new Commonwealth assistance will mean that cellar door and mail order sales up to a wholesale value of $300 000 per year are effectively WET free'.[33]The WFA supported the introduction of the cellar door rebate scheme but was concerned that the rebate was not linked to CPI increases.

5.41 In relation to WET, in general, the wine industry was highly critical. The WFA argues that WET did not equalise the amount of taxation between the old and new taxation system but resulted in 'an effective increase in the rate of tax'.[34] The WFA commented that the Australian wine producers are at a disadvantage because 'they are the most heavily taxed in the world'.[35]

5.42 However, the WFA acknowledged that probably 70 per cent of wineries are not worse off under the new tax treatment because they are mostly selling through the cellar door and mail order. The WFA stated:

> Quite frankly, we are still waiting to see the final impacts of the tax. It is more the pay-as-you-go effects that we are worried about. We did not like to see a tax increase, but we were grateful for what happened with the rebate.[36]

33 AFFA, submission no. 34.2, p. 18.

34 WFA, submission no. 51, p. 7.

35 ibid., p. 9.

36 Mr Anthony Battaglene, WFA, transcript of evidence, p. 272.

5.43 Mr Colin Gaetjens, in evidence to the inquiry, suggested that WET could undermine the wine industry's export success. Mr Gaetjens commented that 'what government and Treasury have failed to understand is that there can be no export success without strong domestic markets'.[37]

Conclusions

5.44 While the WET was criticised, it had not been in operation for more than six months when the Committee received evidence about it. Subsequently there have been a number of representations made to the Government concerning the WET. The Committee believes that, in time, the combined effect of the various taxation treatments impacting on the wine industry should be reviewed.

Recommendation 11

5.45 **The Committee recommends that the Commonwealth Government in 2002 review the combined effect on the wine industry of all taxation impacts, including the wine equalisation tax.**

Funding for research and development

5.46 Evidence to the inquiry confirmed that R&D has played, and will continue to play, a major role in the success of the Australian wine industry. AFFA commented that the 'Australian industry has a strong reputation for technical R&D and is acknowledged as being at the forefront of innovation in the world wine industry'.[38] The WFA stated:

> We see R&D as probably the biggest reason for the success of the wine industry. We have a great product and a great climate, but why we are so successful is the innovative production and marketing techniques.[39]

5.47 Two of the key initiatives, partly funded by government, which support R&D are the Cooperative Research Centre for Viticulture (CRCV) and the GWRDC. The GWRDC, as is the case with the RDCs examined in previous chapters, is partly funded by industry levies and matched by

37 Colin Gaetjens and Co., submission no. 53, p. 1.

38 AFFA, submission no. 34.2, p. 21.

39 Mr Anthony Battaglene, WFA, transcript of evidence, p. 274.

government funding up to a maximum of 0.5 per cent of industry gross value of production. The functions of the GWRDC include:

- investigating and evaluating requirements for research and development in the wine industry;
- coordinating or funding the carrying out of research and development activities; and
- facilitating the dissemination, adoption and commercialisation of the results of research and development.

5.48 In 2000 the total operating revenue for the GWRDC was $10.2 million which consisted of $5.6 million of industry contributions and $4.5 million from Commonwealth contributions.[40]

5.49 The WFA was overwhelmingly in support of the GWRDC commenting that the purpose of the GWRDC should not be tampered with.[41] The WFA was seeking to have funding for the GWRDC increased. The WFA stated:

> We continually vote for the Grape and Wine Research and Development Corporation and we are continually asking for an increase in the levies. In fact, we will be going to the government to ask for them to amend the legislation shortly to increase those levies so we can levy our members more so that collectively we can use that money in a better way.[42]

5.50 The WFA suggested that the majority of winemakers would support an increase in the levies because they are based on a percentage of tonnage. Therefore, the smaller winemakers will pay less.[43]

5.51 The CRC program is another initiative which brings together government and business in advancing R&D. CRCs are established under formal contracts with the Commonwealth Government, normally for seven years, to undertake long-term strategic research. The CRCV has four programs which are designed to deliver:

- improved wine quality and security of supply;
- enhanced sustainability of vineyard production systems;
- new and beneficial grapevine varieties via genetic engineering; and
- training and development of industry and professional staff.

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40 GWRDC, *Annual Report 1999-2000*, p. 36.

41 Mr Anthony Battaglene, WFA, transcript of evidence, p. 274.

42 ibid., p. 274.

43 ibid., p. 275.

5.52 The GWRDC will 'invest around $2.5 million per annum in the new CRC over the Centre's seven-year lifespan, providing the major share of the wine industry's contribution to the Centre'.[44]

5.53 The Department of Industry, Science and Resources (DISR) 'estimated that Australia has earned close to $1.5 billion from the CRC Program [there are 67 CRCs covering a range of industry sectors], nearly matching direct government investment in the program'. [45] The *Backing Australia's Ability* policy statement 'provides additional funding of $227 million to 2005-06, bringing total funding to over $947 million over five years'.[46]

5.54 The WFA indicated that the Australian Wine Research Institute (AWRI), located in Adelaide, is an integral part of the CRCV. The WFA commented that the AWRI, which helps to coordinate research, 'is taking great steps on some of the flavour and quality aspects of wine and on how to determine these beforehand'. In addition, the AWRI has conducted effective research on irrigation and environmental issues.[47]

5.55 During evidence to the inquiry, the WFA noted its support for the CRCV. The WFA stated:

> What we are looking at is that the CRC is due to run out in seven years, or however many years it is, and we are starting to look already at how we can maximise the research effort that is currently going on that was established through it. CRC is great. … The question is: how do we keep going with the existing CRC process, because it is working very well, and how do we leverage more funds? Probably we will be doing that through a joint venture with other industries and commercialising aspects of the research and so forth.[48]

5.56 In 1999 the Committee noted the wide support for the CRC program, and recommended that the Government at least maintain real funding for the program at current levels.[49]

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44 DISR, *Science and Technology Budget Statement, 2000-01,* p. 2.32.

45 DISR, *Backing Australia's Ability, Expansion of the Cooperative Research Centres Program Information Sheet*, 2001.

46 ibid.

47 Mr Anthony Battaglene, WFA, transcript of evidence, p. 275.

48 ibid., p. 277.

49 House of Representatives Standing Committee on Industry, Science and Resources, *The Effects of Certain Public Policy Changes on Australia's R&D*, Canberra, 1999, p. 41.

Conclusions

5.57 It is evident that R&D is a significant factor in the success of the Australian wine industry. The WFA indicated that it fully supports the activities of the various wine and viticulture research organisations such as the CRCV, and the GWRDC.

5.58 The WFA commented that the majority of Australian winemakers would support an increase in the levies to support the GWRDC. As part of the Committee's examination of the Dairy Research and Development Corporation, the Committee proposed in recommendation 8 that the levy for all RDCs be increased from 0.5 to 0.7 of gross industry value.

5.59 In relation to the cooperative research centres program, the Committee notes that the Government has expanded its support for the program through commitments made in the *Backing Australia's Ability* policy statement.

Market access

5.60 The OUTLOOK 2001 conference heard that if the Australian wine industry is to achieve its export sales objectives then 'the industry will require improved access to markets'.[50] Enhanced market access will be sought though international trade fora such as the World Trade Organisation, bilateral and multilateral trade talks, the International Office of Vine and Wine, and the New World Wine Producers forum consisting of the non-European producers.[51]

5.61 Subsidies and tariffs affect the world wine market. For example, international competition will be influenced by the effect of economic subsidies used by other countries. Over the medium term, EU subsidies are likely to increase investment in vineyards and the quality of grapes grown.[52]

5.62 While tariffs are relatively low in most countries, the impact of non-tariff barriers is significant. For example, Australia is 'negotiating wine agreements to reduce disputes over labelling and wine-making issues, as well as other technical barriers' relating to wine making practices.[53]

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50 Shepherd, A., & Claringbull, J., 'Wine Grapes, Outlook to 2005-06', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 385.

51 ibid., p. 390.

52 ibid., p. 388.

53 ibid., p. 391.

5.63 From an alternative perspective, the WFA drew attention to the negative impact of Australian tariffs that apply to the importation of certain wine-making products. The WFA stated:

> Currently, the Australian wine industry faces higher costs than our international competitors through the presence of tariffs on inputs. These tariffs place an unnecessary cost to Australian producers and in most cases there is no domestic industry producing these products. Of key concern to the industry are tariffs on oak barrels and coopers products, agglomerated cork and stainless steel. Import tariffs add substantially to the cost of wine production. WFA estimates that in 2000 the cost of tariffs could be around $5million. In addition, there is currently an import tariff for wine and brandy. WFA would submit that all input tariffs should be removed as they place an unnecessary cost on production. WFA has a policy position of zero tariffs on wine and brandy imports.[54]

5.64 In 1999 DISR conducted an exhaustive study of tariff items which individually collected less than $100 000. In addition, the study identified items for which there was no local manufacture. As a result, from 15 December 1999 the tariff on 268 'nuisance tariff items' was set at zero.[55]

Conclusions

5.65 Tariffs and non-tariff barriers are impediments that affect many industries. The Committee has discussed these matters as part of its examination of the other industry case studies used in this report. The Committee maintains that the Government must continue to negotiate reform to tariffs at international fora.

5.66 In relation to the wine industry, the Committee notes the concerns by the WFA about the adverse impact that Australian tariffs are having on the importation of certain wine-making products such as oak barrels and coopers products.

5.67 One of the Committee's key objectives is to ensure that any unnecessary impediments on Australian industry are removed. The removal of 'nuisance tariffs' is one area where government can act decisively. The Committee notes that during 1999 DISR reviewed a range of tariffs and, as a result, set 268 'nuisance tariffs' at zero. Based on the evidence

54 WFA, submission no. 51, p. 21.

55 DISR, *Annual Report, 1999-2000*, p. 60.

received by the Committee from the WFA, a further review of tariffs affecting the wine industry should be undertaken.

Recommendation 12

5.68 **The Committee recommends that the Department of Industry, Science and Resources review all tariffs on imports that affect the wine industry and, where there is no overriding reason for their continuation, they should be set at zero immediately.**

6

Summary of the key value-adding issues

Introduction

6.1 The previous chapters examined the five industry case studies, aluminium, magnesium, dairy, wheat and wine. The production and export status of each of these industries were examined together with a discussion of possible value-adding opportunities. The examinations also sought to identify impediments to value-adding, particularly those that could be influenced by government action.

6.2 Where possible, the Committee has made conclusions or recommendations specific to each of the industry case studies based on issues or concerns raised in industry evidence to the inquiry.

6.3 A broader objective of this inquiry, however, was to identify issues that may have an impact across industry sectors and therefore may serve broader outcomes. A recurring theme in the inquiry was ‘quality’. Regardless of industry, consumers are interested in product quality, as well as value for money. Continual improvement in production processes is the key to achieving cost competitiveness and product quality. Quality also underpins, and is essential in, design, process and marketing. Successful industries have all targeted quality in every aspect of their operations. The five industry case studies all identified competitively priced inputs, such as energy, and good infrastructure, such as means of transport, as essential.

6.4 In conducting the case study examinations, the following issues seemed to be universal, and are therefore discussed in more detail in this concluding chapter:

- innovation
- research and development (R&D)
  - ⇒ the R&D tax concession
  - ⇒ business expenditure on R&D (BERD)
  - ⇒ R&D Corporations
- gene technology
- intellectual property
- taxation issues
  - ⇒ zonal taxation and rural and remote Australia.

Innovation

6.5 One of the key issues that influences value-adding is innovation. In a 1995 report on innovation, a predecessor to the current House of Representatives Industry Committee quoted the Business Council of Australia (BCA) as follows:

> In business, innovation is something that is new or improved done by an enterprise to create significantly added value either directly for the enterprise or indirectly for its customers.[1]

6.6 The BCA's definition of innovation encompassed 'new or improved products, processes, management methods, supply and distribution systems, et cetera'.[2] In another publication, the Business Council emphasised the link between innovation and being customer-focussed:

> Becoming much more customer-driven—aiming to meet customer needs in a competitive market—should be a key aim of everyone involved in innovation…Understanding what is driving those customers needs in the future, and using those insights to drive a forwarding-looking agenda for improvement…are two other vital disciplines.[3]

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1 BCA, *Managing the Innovating Enterprise*, 1994, p. 3.

2 House of Representatives Standing Committee on Industry, Science and Technology, *Innovation: A concept to market*, 1995, p. 2.

3 BCA, *Australia 2010: Creating the future Australia (education edition)*, prepared by Ted Hook and Tim Riley for the BCA, 1995, p. 90.

6.7 The Australian Manufacturing Council (AMC), in its 1994 report, *The wealth of ideas*, similarly commented on the importance of customer expectations as a reason for innovation. As the AMC put it, today's consumers expect more—they look for products designed to meet their specific needs. With increased international competition, consumers can pick and choose and will be less loyal to suppliers. At the same time, product cycles are getting shorter, with 'constant pressure to come up with something new or better'.[4] Market knowledge, and innovation in marketing and products, are crucial to commercial success and closely tied to successful value-adding.

6.8 The Department of Agriculture, Fisheries and Forestry - Australia (AFFA) commented that innovation 'is one of the areas which hold the most promise for increased value-adding of Australia's raw materials'.[5] Similarly, the Australian Wine Research Institute (AWRI) commented that 'increased expenditure on innovation and innovative behaviour, including education, is a key and perhaps the single most important prerequisite for further value-adding to Australia's raw materials'.[6]

6.9 In relation to the grains industry, enhancements have been made to grain processing qualities and storage. The Australian wheat industry commented that its approach to value adding is a strategy of wheat differentiation. The Australian wheat industry, for example, is producing specific wheat varieties for the production of Japanese noodles. The Australian dairy industry has similarly identified the need for product diversification to increase sales of milk-based products.

6.10 AFFA stated:

> Firms in the wine and dairy industries have shown themselves to be adept at introducing and adopting innovative products, production processes and marketing practices. A key to successful innovation in the wine industry has been the willingness of each element of the value chain to invest in development focussed on other elements of the chain in the knowledge that an increase in competitiveness anywhere in the process will have a flow on effect to every member of the chain.[7]

6.11 The Australian wine industry, in discussing its own recent performance, focused on the importance of innovation to its successes. AWRI stated:

4 AMC and McKinsey & Co., *The wealth of ideas: How linkages help sustain innovation and growth*, Melbourne, 1994, p. 3.

5 AFFA, submission no. 34.2, p. 18.

6 AWRI, submission no. 47, p. 2.

7 AFFA, submission no. 34.2, p. 3.

> Innovative behaviour is an absolute requirement for effective value addition to raw materials. Culture changes and sustained investment in infrastructure, education and research are prerequisites for an enhancement of innovative behaviour.[8]

6.12 In discussing the concept of 'innovation', the AWRI disagreed with perceptions that innovation was only confined to cutting edge science and technology. The AWRI stressed that innovation 'should more appropriately and simply be defined as new approaches to achieving outcomes in a smarter fashion'.[9] For example, AFFA suggested that the use of the internet has helped produce efficiencies such as internet marketing 'which offers a significant cost saving, because there are fewer overheads involved'.[10]

6.13 In assessing the performance of the Australian wine industry, for example, the Winemakers' Federation of Australia (WFA) commented that the industry, 'has no significant natural geographic, soil or climatic advantages over its competitors'.[11] The WFA highlighted that the success of the Australian wine industry is due to innovative approaches to such things as marketing and promotion. The WFA noted that the labels of Australian wines are often creative and support marketing objectives.

6.14 The WFA commented that the wine industry's 'competitive advantage is based on its ability to: quickly determine consumer trends; provide new products and styles to influence consumer preferences; and to provide a quality product at relatively low cost'.[12] The WFA stressed the link between innovation and having quality human resources:

> In the medium to longer term, the key distinguishing competitive advantage for Australia will only be the quality of its human resources and its ability to innovate (which is strongly linked to the former). Human resources and innovation will be the key drivers behind the industry's ability to: interpret trends and react quickly to them; develop new products and styles; and improve quality and lower costs.[13]

6.15 AFFA noted, however, that because of the 'outlay in time and or money required, Australian agrifood producers typically under-invest in

8 AWRI, submission no. 47, p. 1.
9 ibid., p. 1.
10 AFFA, submission no. 34.2, p. 18.
11 WFA, submission no. 51, p. 14.
12 ibid., p. 14.
13 ibid., p. 15.

innovation, including R&D'.[14] AFFA therefore suggested that 'Australia's agrifood industries need to develop a more innovative culture including an enhanced understanding and awareness of innovation, the improvement of links between firms and the national innovation system and an increased focus on meeting customer and consumer demands'.[15]

6.16 The importance of linkage mechanisms in promoting innovation has been noted in many studies.[16] Linkage formation has clearly been important in the wine industry, reflected in the work of the Australian Winemakers Forum and the Australian Wine and Brandy Corporation in raising product quality and promoting a sense of industry unity and common purpose.

6.17 The WFA suggested that the role of government in promoting innovation should be to recognise that our human resources and ability to innovate are crucial to long term competitiveness. The WFA proposed that government must 'provide the infrastructure that facilitates human capital development and innovation' through having quality universities, providing adequate research grants, and through joint investment with industry in R&D.[17] This view was supported by the AWRI which commented that 'increased expenditure on innovation and innovative behaviour, including education, is a key and perhaps the single most important prerequisite for further value-adding to Australia's raw materials'.[18]

6.18 AFFA, in commenting on the role of government, stated:

> The government has recognised the potential of innovation in increasing the competitiveness and profitability of Australian agricultural, food, fisheries and forestry industries by establishing programs like the Farm Innovation Program under the Agriculture –Advancing Australia Package, the New Industries Development Program and the Food and Fibre Chains Program.[19]

6.19 The Farm Innovation Program, introduced in the May 2000 Budget, 'encourages the adoption of innovation in the rural sector by providing

14 AFFA, submission no. 34.2, p. 19.

15 ibid., p. 3.

16 House of Representatives Standing Committee on Industry, Science and Technology, *Innovation: A concept to market*, 1995, pp. 51-65.

17 ibid., p. 15.

18 AWRI, submission no. 47, p. 2.

19 AFFA, submission no. 34.2, p. 20.

grants to eligible farming, food, fishing and forestry businesses to adopt innovative practices, processes and products'.[20]

6.20 In February 2000, a meeting of Commonwealth, State and Territory Industry Ministers addressed the importance of innovation to Australian industry. The Ministers agreed that innovation must be accelerated for the nation to maintain strong economic growth. It was suggested 'that with more cooperation between industry, government and the research sectors, Australia should improve its ability to commercialise research and capitalise on opportunities for growth and job creation'.[21]

6.21 In addition, the Ministers agreed to the establishment of a Commonwealth, State and Territory Advisory Council on Innovation to enhance innovative activity throughout Australia. The new Council will replace the existing Joint Advisory Group on Science and Technology.

Conclusions

6.22 The evidence is unanimous in its support for, and the priority that should be placed on, innovation in adding value to Australia's raw materials. Innovation is essential to any successful industry. It arises from human creativity, skill and research that feed the stock of knowledge. The diffusion of knowledge, aided by linkages within industry and within the economy generally, further stimulates creativity and encourages the commercial application of that knowledge. A strong focus on the market—the needs of consumers—and marketing are also essential.

6.23 The WFA commented that the key distinguishing competitive advantage for Australia will only be the quality of its human resources and its ability to innovate, which is strongly linked to the former. The Committee agrees with this conclusion, and strongly urges the Government to ensure that its programs and initiatives that support innovation continue to be effective.

6.24 The majority of evidence suggested that one of the most significant factors influencing innovation is the level of and quality of R&D conducted. The next section examines some of the factors that influence R&D.

20 ibid., p. 20.

21 Communique from Australian Industry Ministers Meeting, 2 February 2000.

The research and development tax concession

6.25 The R&D tax concession is described as the 'principal Commonwealth Government incentive to improve and increase the level of private sector funded R&D being conducted in Australia'.[22] The scheme is administered jointly by the Industry Research and Development Board through AusIndustry within the Department of Industry, Science and Resources (DISR), and the Australian Taxation Office (ATO).

6.26 The scheme 'allows companies incorporated in Australia, and public trading trusts, to claim a deduction from their taxable income of up to $1.25 for every dollar spent on eligible R&D activities'.[23] At 30 June 2000 there were 2 955 companies registered for the 1998-99 financial year with reported R&D expenditure of $4.8 billion.[24]

6.27 One of the longstanding criticisms of the 125 per cent R&D tax concession is that it applies the concession to a company's total R&D spending. Alternative theory suggests that the Government should only provide assistance to new R&D spending over and above a company's normal spending level. The Productivity Commission proposed this approach and suggested that under the current system, taxpayers are subsidising R&D that would have occurred anyway.[25] The Mortimer Review examined this approach to R&D funding and concluded that it would be to difficult to administer. The Mortimer Review stated:

> The Review rejected this approach on the basis that it is not practicable to determine what companies may or may not have done in this area. Furthermore, designing an administrative framework which seeks to direct funding on an additionality basis would be extremely complex and involve significant compliance and overhead costs. Such a scheme would require frequent adjustment of assistance levels, which increases uncertainty for business.[26]

6.28 The Committee, as part of its report on *The Effect of Certain Public Policy Changes on Australia's R&D*, examined the R&D tax concession. The evidence suggested that the R&D tax concession provided net social

22 AusIndustry, Industry Research and Development Board, Annual Report, 1999-2000, 2000, p. 41.

23 ibid., p. 41.

24 ibid., p. 43.

25 Productivity Commission, *Telecommunications Equipment, Systems and Services*, pp. 207-18.

26 Mortimer, D. *Going for Growth, Business Programs for Investment, Innovation and Export*, 1997, pp. 106-07.

benefits for Australia, and had reversed a decline in Australian manufacturing R&D.[27] The most controversial matter examined was the reduction in the concession from 150 per cent to 125 per cent. The Committee concluded that the level of the tax concession should be considered at the then forthcoming National Innovation Summit.[28]

6.29 Similarly, during the current inquiry there was general criticism of the reduction of the R&D tax concession from the previous 150 per cent to 125 per cent. It should be noted that these criticisms were made during 2000 which was before the Government introduced its 2001 *Backing Australia's Ability* statement which, among other things, made amendments to the R&D tax concession system.

6.30 It is useful, however, to review some of the comments that were made about the reduction to the R&D tax concession. The reduction was criticised unanimously across the five case study industry sectors. The AWRI commented that 'the recent reduction of the R&D tax concession from 150% to 125% is likely to be detrimental to business expenditure on R&D (BERD) – at a time where Australia appears to be falling further behind the first world in regard to BERD and patenting activity'.[29]

6.31 The Australian Aluminium Council commented that the 'reduction of the taxation concession for R&D to 125% is a negative signal by the Government and the aluminium industry would look for some review of R&D policy and concessions in the near future'.[30] The Australian Dairy Industry Council (ADIC) commented that the reduction undermined the attractiveness of research investments by firms in the industry.[31]

6.32 Similarly, the WFA commented that the 'industry is very concerned that the government's decision to reduce the R&D concession from 150% to 125% is likely to be detrimental to the wine industry - particularly as the major driver of its success has been its innovation and propensity to develop and rapidly implement new technology'.[32] The Grains Research and Development Corporation (GRDC) stated:

> Business incentives for R&D need to be reviewed and enhanced. A return to a higher R&D tax deduction incentive or some other

27 House of Representatives Standing Committee on Industry, Science and Resources, *The Effect of Certain Public Policy Changes on Australia's R&D*, Canberra, 1999, p. 94.

28 ibid., p. 98.

29 AWRI, submission no. 47, p. 2.

30 AAC, submission no. 31, p. 4.

31 ADIC, submission no. 52, p. 10.

32 WFA, submission no. 51, p. 13.

> equivalent mechanism needs to be considered. With the implementation of a new tax system on July 1, and a lower company tax rate, the incentive value of the 125 per cent concession will be further eroded.[33]

6.33 In January 2001, the Government released the *Backing Australia's Ability* innovation action statement. The package consists of a number of components and commits an additional $2.9 billion over five years to science, research and innovation. In particular, the statement reforms the R&D tax concession through the provision of a premium rate of 175 per cent for additional R&D activity, and a tax rebate for small companies.

6.34 The premium 175 per cent tax concession is in addition to the existing 125 per cent tax concession. The premium level will apply to companies that increase their level of R&D expenditure relative to their overall performance. Increases in R&D intensity will be judged against a company's previous level of R&D. The previous level, over which any increases will attract the premium rate, will be the company's average R&D intensity over the preceding three years.

6.35 The statement explains that 'companies will be able to claim the new Premium with respect to expenditure made in their 2001-02 income year, with their 1998-99, 1999-00 and 2000-01 income year expenditures and turnover being used to determine the base level of R&D intensity for the first year of operation of this initiative'. The existing 125 per cent tax concession will apply to expenditure up to the base level while the 175 per cent concession will apply to expenditure over the base level. In addition, the premium rate targets the 'labour related components of R&D expenditure where the greatest benefits for the whole economy occur'. The policy states:

> By focussing on additional R&D, this initiative will encourage Australian companies to become more R&D intensive, lifting their levels of R&D activity above and beyond their current R&D efforts. This will have a direct effect on Australia's Business Expenditure on R&D (BERD) and lead to a more innovative and productive culture in Australia.[34]

6.36 The Australian National Audit Office has identified the R&D tax concession arrangements as a potential audit for 2001-02. The audit may 'address compliance of claims with research contribution and taxation

33 GRDC, submission no. 2.1, p. 5.

34 Backing Australia's Ability, 175% R&D Tax Concession 'Premium' for Additional R&D Information Sheet.

requirements, the quality of service delivery and client focus, the "one stop shop" and multi-message approaches to provide better service for customers'.[35]

Conclusions

6.37 The Committee restates its previous findings that the R&D tax concession is a positive initiative that has had a net social benefit for Australia. As with our previous inquiry, the major area of concern by industry is the reduction of the R&D tax concession from 150 per cent to 125 per cent. The Australian Dairy Industry Council, for example, commented that the reduction undermined the attractiveness of research investments by firms in the industry.

6.38 The Committee takes these concerns seriously though it is necessary to note that since these criticisms were made the Government has introduced a premium 175 per cent tax concession for additional R&D activity. Companies will be able to claim the new premium concession in respect to expenditure made in the 2001-02 year.

6.39 As the premium concession has only just been introduced, the Committee is reluctant to propose changes to the R&D tax concession system. A thorough policy evaluation, however, should be undertaken at the end of three years from the initiative's commencement to ensure that the combination of the 125 and 175 per cent premium tax concessions are achieving the Government's innovation objectives.

6.40 The Committee notes that the Australian National Audit Office has identified the R&D tax concession arrangements as a potential audit for 2001-02.

Business expenditure on research and development

6.41 The Mortimer Report on the review of business programs commented that business expenditure on research and development (BERD) 'is the universal standard for measuring a nation's R&D performance'.[36] The Mortimer Report noted that the 1995-96 BERD level of 0.86 per cent of GDP remained significantly below the then OECD average of 1.19 per cent.

35 Australian National Audit Office, *Audit Work Program*, July 2001, p. 89.

36 ibid., p. 102.

6.42 The Committee, as part of its report on *The Effect of Certain Public Policy Changes on Australia's R&D*, examined the level of BERD. The Committee noted the strong views in evidence that suggested the decline in the level of BERD was due to the reduction of the 150 per cent R&D tax concession. The Committee recommended that the Government, in its review of business taxation, determine an appropriate policy response to the reduction in BERD from 1996-97 onwards.[37]

6.43 During the inquiry, the declining level of BERD was criticised. The Grains Research and Development Corporation (GRDC) noted that figures by the Australian Bureau of Statistics 'indicate that BERD has been falling significantly and successively since financial year 1995-96'.[38] In contrast, most of Australia's trading partners have increasing levels of BERD to GDP ratios.

6.44 In view of these trends, the CSIRO commented that there 'is an urgent need to address the decline in business expenditure on R&D'. The CSIRO indicated that BERD as a proportion of GDP fell from 0.86 per cent in 1995-96 to 0.67 per cent in 1998-99.[39] It fell to 0.64 per cent in 1999-00.[40] The GRDC stated:

> This does not appear to be a picture consistent with the stated aspirations of any of the major political parties. Specifically, declining BERD is not consistent with a nation aspiring to be good at the business and commercialisation end as well as the science end of R&D and innovation.[41]

Conclusions

6.45 Australian business expenditure on R&D (BERD) fell from 0.86 per cent of GDP in 1995-96 to 0.64 per cent in 1999-00. The CSIRO reported that most OECD countries increased their BERD during the same period. The Committee finds it unacceptable that Australia's BERD is falling. It is essential that the Government ensures that its R&D programs provide effective incentives for private sector investment in R&D.

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37 House of Representatives Standing Committee on Industry, Science and Resources, *The Effect of Certain Public Policy Changes on Australia's R&D*, Canberra, 1999, p. 99.

38 GRDC, submission no. 2.1, p. 4.

39 CSIRO, submission no. 22.2, p. 3.

40 ABS, 8104.1 *Research and Experimental Development, Businesses, Australia*, 11/7/2001.

41 GRDC, submission no. 2.1, p. 5.

6.46 The Committee is aware of claims that government investment in R&D can have the effect of reducing BERD by reducing the necessity of business to make its own investment. Alternatively, it is suggested that the market may fail to see the need for expenditure on R&D, and this is where government is required to promote investment through a range of incentives. These scenarios reveal the dilemmas in developing government R&D programs.

6.47 The Committee suggests that the Government should set itself R&D performance targets, and that a more strategic approach to the R&D framework is needed. For example, the Government should aim to ensure that the level of BERD rises to at least 1.0 per cent of GDP by 2005. If this target is not reached, then the Government should undertake a major review of its programs to find out why BERD has not reached the target.

6.48 In making this proposal, the Committee acknowledges that there is a range of factors that will influence BERD that are outside the control of government. These can include market conditions and levels of competitiveness. In addition, the degree to which multinational companies centralise their R&D initiatives in other countries will influence BERD in Australia. Notwithstanding these influences, the Government's R&D programs can shape and influence levels of BERD. It is essential, therefore, that the Government's settings are the most appropriate and provide maximum incentive for business to commit to R&D.

Recommendation 13

6.49 **The Committee recommends that the Commonwealth Government aim to ensure that its research and development programs provide sufficient incentive for business to invest in additional R&D, such that the level of business expenditure on R&D rises to 1.0 per cent of GDP by 2005.**

Research and Development Corporations

6.50 Research structures such as the Research and Development Corporations (RDCs) provide strong support for rural industries. The RDCs operate within AFFA and are generally funded on the basis of the Government matching industry R&D levies.

6.51 In the previous chapters, the Committee discussed the work of the Dairy Research and Development Corporation, the Grape and Wine Research and Development Corporation, and the Grains Research and Development Corporation. There were fifteen Research and Development Corporations or Councils (RDCs) which received Commonwealth funding in 1999-2000.[42] Funding is through Commonwealth contributions which generally match, on a dollar-for-dollar basis, levies (or export charges) up to a maximum of 0.5 per cent of the industry's gross value of production (GVP).

6.52 DISR reported that 'exceptions to these arrangements are the Fisheries R&D Corporation which, in addition to appropriation funding of 0.5 per cent of GVP, has dollar-for-dollar matching up to 0.25 per cent of GVP, and the Forest and Wood Products R&D Corporation which receives one Commonwealth dollar for every two industry dollars matching up to 0.25 per cent of GVP'.[43] In addition, in 1999-00 the Rural Industries RDC and the Land and Water Resources RDC received about $11 million each in Commonwealth funding from general appropriations.

6.53 The R&D Corporations were established to:

- attract a higher level of industry expenditure on R&D by providing funding incentives for statutory levies;
- achieve effective transfer of technology and a high rate of adoption and commercialisation of research by placing an emphasis on the total innovation process;
- cause the research undertaken to be demand-driven by involving industry in the setting of R&D priorities; and
- allow R&D Corporations to operate in a commercial environment relatively free from government control of their R&D investment, while making research managers fully accountable to both industry and government.[44]

6.54 The Committee, as part of its report on *The Effect of Certain Public Policy Changes on Australia's R&D*, examined sectoral research bodies including RDCs. The Committee noted that the dollar-for-dollar subsidy provides an incentive for the primary sector to increase its own R&D funding and to become more involved in R&D priority setting. In addition, the

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42 The fifteen that received funding in the 1999-2000 year are listed at http://www.affa.gov.au/docs/innovation/gov_portfolio_agencies/rual_corp_model/randd_finances.html. The Australian Wool Research and Promotion Organisation listed there has since become Wool Services Ltd. The Australian Pork Corporation has become Australian Pork Ltd and the Horticulture RDC has become Horticulture Australia Ltd.

43 DISR, Science and Technology, *Budget Statement, 2000-01*, Canberra, pp. 5.4-5.5.

44 ibid., p. 5.4.

government contribution also recognises that activities funded by the RDCs generate a mix of public and private benefits.[45] The Committee concluded that the evidence supports the view that the RDC structure is an internationally admired success story.

6.55 In 1997 the Mortimer Review examined rural RDCs. While the Mortimer Report accepted the need for government funding of rural RDCs, it proposed a rationalisation of the administration. The Mortimer Report noted that each of the rural RDCs has its own office and administration costs. In order to reduce costs, the Report called for the creation of a single RDC, which would cover all rural sectors. The Mortimer Report stated:

> Rationalisation of government support for rural R&D into a single new Rural R&D Corporation under one piece of legislation would achieve substantial administrative savings and so focus on outcomes, not institutions. The new R&D Corporation would submit a single claim for the rebate on behalf of all rural industry sectors.[46]

Conclusions

6.56 The Committee restates its previous support for the R&D Corporations model. As part of the case studies examination, there was support by industry for their respective R&D corporations. The Government has not taken up the proposals of the Mortimer Report made in 1997. While it is correct that some administrative savings could be achieved through having one 'super' RDC, which would act for all rural sectors, the Committee does not agree with this proposal.

6.57 Having separate RDCs for various rural sectors helps to ensure that each RDC develops expertise in the research and development needs of its particular industry. It also allows for creativity and alternative solutions. If a single RDC were created for all rural sectors then the danger would be that this detailed knowledge would be lost. A further advantage of the current system is that industry levies are tied to a specific industry. Companies can feel confident that their contributions for R&D will assist in advancing outcomes for their industry.

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45 House of Representatives Standing Committee on Industry, Science and Resources, *The Effect of Certain Public Policy Changes on Australia's R&D,* Canberra, 1999, p. 36.

46 Mortimer, D. *Going for Growth, Business Programs for Investment, Innovation and Export*, 1997, p. 111.

6.58 In recommendation 8 of this report, the Committee recommended that the levy for all RDCs be increased to 0.7 per cent of industry gross value of production, and that the Government provide matching funds at this new level.

Gene technology

6.59 An issue of growing public interest is the use of genetically modified organisms (GMOs). The use of GMOs is relevant to the food case studies selected for this report. While there was only a limited amount of information received on this matter, the key message that came across was the need for caution. In particular, industries need to be responsive to consumer needs and preferences regarding GMOs. The ADIC, for example, stated:

> At the moment, as an industry, we have a policy that we need to continue investing in R&D in that area [GMOs] to make sure that our industry is kept fully abreast of where those changes are going. Whether or not individual companies decide to take up that technology, that is a commercial decision they will make, depending on the market acceptance of that product. But there is also the impact on the producer side, with gene technology on such things as pasture production, et cetera, which will help producers to retain the competitive advantage that they have with lower costs of production.[47]

6.60 The ADIC drew attention to the possible consequences of failing to research or examine developments with GMOs. For example, the use of terminator genes may prevent farmers from regenerating and resowing pastures. The ADIC commented that if farmers end up being locked out of that technology then 'that could have a major bearing on our commercial competitiveness compared with that of our overseas competitors'.[48]

6.61 The Dairy Research and Development Corporation (DRDC) reported that additional funding will be applied to gene technology. The DRDC commented that 'we are working with our research and industry partners to intensify efforts in these areas and capitalise on the potentially large benefits for the industry and consumers'.[49]

47 Ms Helen Dornom, ADIC, transcript of evidence, pp. 223-24.

48 ibid., pp. 223-24.

49 DRDC, *Annual Report, 1999-2000*, p. 15.

6.62 In relation to the grains industry, the GRDC commented that, while 'conventional breeding is still the main avenue for providing new varieties, Australian industries see modern biotechnology involving genetic manipulation as an important additional source of opportunity for increasing significantly the value which can be added to the nation's agricultural raw materials'.[50] The GRDC suggested that the risk associated with consumer concern and possible technology deficits, resulting in market loss, must be addressed equally. The GRDC stated:

> With respect to risks, one of the greatest for the grains industry might be the consequences of excessive constraints on genetic technology. Should this technology be widely adopted and accepted elsewhere but relatively stalled in Australia, the result could be a rapid erosion of Australia's quality advantages in premium markets and the consequent decimation of Australia's grain exports. This risk needs to be juxtaposed with the risk of losing access to markets because of a sustained consumer aversion to GMO products. Both of these risks must be managed – not just the latter risk.[51]

6.63 The CSIRO suggested that the use of GMOs could be useful in developing disease resistant strains. The CSIRO commented that when 'GMOs are judged to be safe and beneficial there will be modifications to existing varieties that make them resistant to diseases, pests and stresses caused by salinity or other factors'.[52] The OUTLOOK 2001 conference heard:

> Genetically modified crops have the potential to affect future yields and may present some market opportunities where consumers are accepting. The Australian industry's approach to this issue will be particularly important because genetically modified crops have been rapidly adopted in the United States and Canada, which are two major competitors.[53]

6.64 From an industry perspective, Goodman Fielder indicated that it has 'made a corporate decision to minimise our exposure to genetically modified organisms in our products' although this may be difficult to avoid in the future.[54] Goodman Fielder stated:

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50 GRDC, submission no. 2.2, p. 9.

51 ibid., p. 10.

52 CSIRO, submission no. 22.2, p. 11.

53 Turner, S., Barrett, D. & Beasley, A. Grains, 'Outlook to 2005-06', *OUTLOOK 2001, Volume 2, Proceedings of the National Outlook Conference*, Canberra, 27 February to 1 March 2001, p. 239.

54 Mr Robert Hadler, Goodman Fielder, transcript of evidence, p. 295.

> Fortunately, we source nearly all of our raw material from Australia, and that is non-GMO, or we source from suppliers who can give us a guarantee that we are not exposed to GMOs in our products. We are still completing an audit and still waiting for the ANZFA health ministers to finalise the guidelines on labelling and what goes into GMO products. But, essentially, we have minimal exposure. That is a satisfactory position in the short run, but ANZFA is approving the use of GMO crops in Australia and, unless segregation of crops is effective and is brought in, it will be very difficult to avoid using GMOs in the future.[55]

6.65 The *Gene Technology Act 2000* is designed to 'protect the health and safety of people, and to protect the environment, by identifying risks posed by or as a result of gene technology, and by managing those risks through regulating certain dealings with GMOs'.[56] The Minister's second reading speech introducing the Bill stated that 'the need for the protection of the health of the community and the protection of the Australian environment are to come before all other considerations'.[57] In relation to managing the costs and benefits associated with gene technology, the Minister stated:

> There is no doubt that biotechnology holds great potential for this country. In terms of health, agriculture, industry, primary production and environmental benefits we have seen only the prelude to the possibilities. Nevertheless it is appropriate that this new regulatory system has the driving imperative of identifying and managing any risks associated with the technology before all other matters, only then can we be truly confident about reaping the broader benefits. The bill establishes the framework for the most comprehensive risk assessment and risk management system it has been possible to develop.[58]

6.66 In November 2000, the Senate Community Affairs References Committee tabled its report on the Gene Technology Bill 2000. While the Senate Committee made a number of recommendations, the Committee supported the broad objectives of the bill. The Senate Committee was advised by the Interim Office of the Gene Technology Regulator that it

55 ibid., p. 295.

56 Section 3, Gene Technology Act 2000.

57 The Hon Dr Wooldridge, Minister for Health and Aged Care, Second Reading Speech, House of Representatives, *Hansard*, 22 June 2000, p. 18 104.

58 The Hon Dr Wooldridge, Minister for Health and Aged Care, Second Reading Speech, House of Representatives, *Hansard*, 22 June 2000, p. 18 105.

proposed that the relevant Ministerial Council undertake a comprehensive review of the legislative scheme no later than five years after the commencement of the scheme.[59]

Conclusions

6.67 The Committee agrees with the ADIC and GRDC that it is essential that industry conduct research into genetically modified organisms. In addition, industry should also monitor the research and trends in marketing of GMOs in overseas markets. Australia must ensure that its competitive position is not undermined and it can benefit from any value-adding initiatives arising from the safe and controlled development of GMOs, subject to market acceptance.

6.68 At the same time, the Committee acknowledges the public apprehension that exists regarding GMOs. The Committee is confident that the *Gene Technology Act 2000* provides a sufficient framework for managing the risks associated with gene technology.

6.69 The Committee notes that the *Gene Technology Act 2000* will be subject to a Ministerial Council review five years from its commencement. This will provide an opportunity for industry and other interested groups to examine the operation of the Act and ensure that it is achieving its objectives.

Intellectual property

6.70 A reliable and effective framework for governing intellectual property (IP) is an essential part of giving confidence to business, particularly with investments involving R&D. The Department of Foreign Affairs and Trade (DFAT) commented that the effective 'use of the intellectual property system is an integral part of increasing the added value of raw material exports'.[60]

6.71 The relevance of IP to R&D and managing innovation was noted in the Government's 2001 *Backing Australia's Ability* statement. The policy stated:

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59 Senate Community Affairs References Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes, Report on the Gene Technology Bill 2000*, Senate Printing Unit, Canberra, 2000, p. 77.

60 DFAT, submission no. 32, p. 8.

> A strong intellectual property (IP) protection regime including easy access to information on IP protection is central to building a strong national innovation system in Australia. It promotes research and development through helping to better capture returns from commercialising Australian ideas and products. A strong IP system will also help create spin-off of new firms, especially from public sector research institutions and universities.[61]

6.72 Through *Backing Australia's Ability*, the Government indicated that it will

> act on recommendations of both the Intellectual Property & Competition Review, and the Advisory Council on Intellectual Property review of patent enforcement, to strengthen the patent system through amendments to the *Patents Act 1990* including:
>
> - implementing a 12 month 'grace period' to protect a patent application against invalidation by self-publication and prior public use; and
> - strengthening the examination of patent novelty and inventive step so that these criteria for patentability are more closely aligned with international standards.[62]

6.73 In addition, the Government indicated that it would promote awareness of IP through a range of initiatives such as establishing an internet IP portal, and boosting tertiary and research sector awareness.

6.74 The inquiry evidence also stressed the importance of IP. The GRDC commented that the management of IP was an increasingly complex area. Consequently, the GRDC indicated that it 'has allocated investment of $3.4 million over five years to establishing the Australian Centre for Intellectual Property in Agriculture within the Australian National University's Faculty of Law, with support also from the Commonwealth Government through Biotechnology Australia (via Agriculture, Fisheries and Forestry Australia)'.[63]

6.75 The WFA commented that 'IP issues have emerged as a major issue of concern as any weakening of the system can impact significantly on brand differentiation'. The WFA noted that 'the Agreement on Trade Related Intellectual Property Rights (TRIPS) is a critical international agreement for the wine industry'. The WFA stated:

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61 Backing Australia's Ability, Intellectual Property, Information Sheet.

62 ibid.

63 GRDC, submission no. 2.1, p. 15.

> The TRIPS agreement seeks to reduce distortions in international trade by promoting the effective protection of intellectual property and ensuring that the enforcement of this protection does not create barriers to trade. In the wine industry, the specific intellectual property rights subject to TRIPS are Geographical Indications and Trademarks.[64]

6.76 The WFA suggested that none of the WTO agreements such as TRIPS and GATT 'accord individual "traditional expressions" any special status, including intellectual property rights, in international law'.[65] However, the WFA suggested that the 'EU is seeking to reopen the TRIPS agreement within the context of the WTO negotiations to allow explicit recognition of traditional expression as a form of intellectual property'. The WFA concluded that if this occurred it 'would have wide ramifications for the wine industry'.[66] In relation to TRIPS, DFAT stated:

> To safeguard our export markets in value-added raw materials and the associated know-how and expertise, we are continuing our efforts to enhance the protection of intellectual property in overseas markets, in line with current international standards, particularly the Agreement on Trade-Related Intellectual Property Rights (TRIPS) administered by the World Trade Organisation. The progressive implementation of TRIPS-standard intellectual property systems in our trading partners will create a more secure and receptive environment for our value-added exports.[67]

6.77 The WFA was positive about the performance of DFAT in managing IP issues in international fora such as the WTO. However, there was still concern that increasingly Australian industries would 'be affected by the use of common usage terminology being taken as being IP'.

6.78 As part of the inquiry, the Committee examined the intellectual property arrangements used by Cooperative Research Centres (CRCs). DISR stated:

> When established, each centre puts in place a Commonwealth-approved Centre Agreement, which includes arrangements for management of intellectual property. While Agreements may differ in detail from centre to centre, most state that the IP

64 WFA, submission no. 51, p. 16.

65 ibid., p. 16.

66 ibid., p. 16.

67 DFAT, submission no. 32, p. 32.

> developed within the CRC will be held for the participants as tenants in common, in proportion to their participating shares.[68]

6.79 The Committee also investigated claims that large companies are using funds from CRCs to bypass private sector investment, while retaining the intellectual property rights. DISR reported that it 'is not aware of any anecdotal or quantitative information suggesting that large companies are choosing to participate in CRCs or use CRCs for contract research rather than business enterprise in order to reap unwarranted benefits'.[69] DISR concluded that commercialisation of outcomes is a major focus of the CRC program and 'the generation and use of intellectual property in these centres is an integral part of the life of each centre'.[70]

Conclusions

6.80 A reliable and effective intellectual property (IP) framework is essential for giving confidence to industry, particularly those involved in conducting R&D. The Committee notes the Government's 2001 *Backing Australia's Ability* statement acknowledged the need for a strong IP protection regime.

6.81 The Committee received generally favourable comments about the Government's IP initiatives and the performance of DFAT in managing IP issues in international fora such as the WTO. The Committee suggests that DFAT take note of the Wine Federation of Australia's (WFA) concern relating to the Agreement on Trade Related Intellectual Property Rights (TRIPS). The WFA was concerned that if TRIPS were reopened, based on negotiations to allow recognition of traditional expression as a form of IP, then it would have wide ramifications for the wine industry.

Taxation issues

6.82 The taxation framework encompassing corporate taxation rates, deductions, and concessions can have a significant influence on business decisions. As part of the first report, it was noted that the focus of evidence was centred on the claim that competitive fiscal regimes are

68 DISR, submission no. 28.5, p. 2.

69 ibid., p. 2.

70 ibid., p. 2.

required to compete internationally and to attract investment to Australia. The Process Engineers and Constructors Association (PECA) stated that 'our current direct taxation system is high by international standards, and therefore remains an impediment to global investment in the country'.[71] In particular, PECA stated:

> In the competition for investment funds, Australia is competing against many countries that have strong investment incentives. In particular, many countries in Asia, against whom we compete directly, offer tax concessions for new investments.[72]

6.83 The Committee, in its first report, noted that while tax incentives offered by countries could divert investment in raw material processing away from Australia, Commonwealth and State Governments also offer some incentives for potential projects.

6.84 In general, however, industry was generally supportive of the direction of tax reform in recent years including the overall outcome of the recent business tax review. However, some groups, particularly from the mining sector, criticised the elimination of accelerated depreciation.[73]

6.85 On the question of whether taxation changes arising from the business tax review will assist with value-adding, the Minerals Council of Australia commented that 'the balance that has been struck will still encourage investment here in Australia'.[74]

6.86 As part of the first report, the Committee sought additional evidence on proposals for enhancing the taxation regime and, in particular, how certain taxation measures could enhance value-adding outcomes.

6.87 One of the issues that was debated in the second stage of the inquiry was zonal taxation.

Zonal taxation and rural and remote Australia

6.88 The *Income Tax Assessment Act 1936*, under section 79A, provides special income tax concessions for people residing in certain zones of Australia for more than one-half of an income year. This is the only form of zonal taxation applied under Australian law.[75]

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71 PECA, submission no. 16, p. 2.

72 ibid., p. 6.

73 Mr Savell, Association of Mining and Exploration Companies, transcript of evidence, p. 108.

74 Mr Wells, Minerals Council of Australia, transcript of evidence, p. 35.

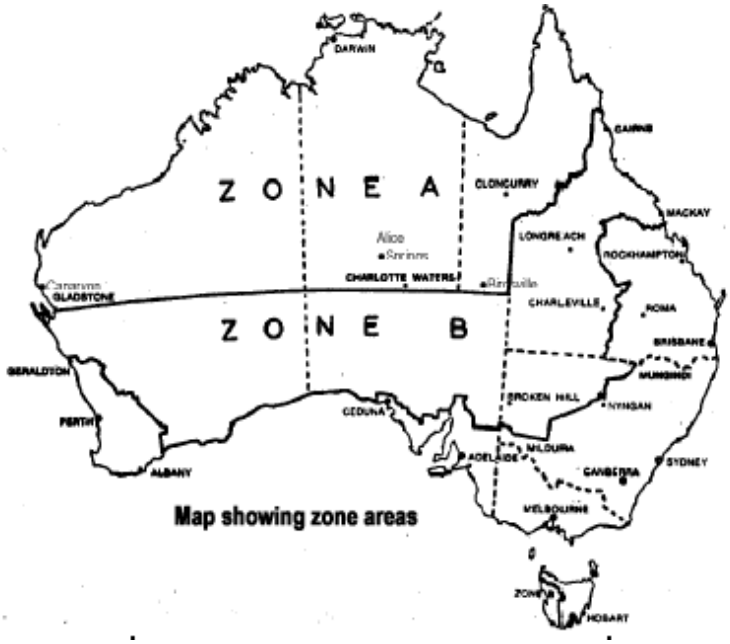
75 ATO, submission no. 59, p. 3.

6.89 The rebate is available to taxpayers resident in certain prescribed areas 'in recognition of the disadvantages that taxpayers are subject to because of the uncongenial climatic conditions, isolation and high costs of living in comparison to other areas of Australia'.[76]

6.90 The zone rebate comprises a base amount plus a percentage of other applicable rebates. Boundaries for the rebate were drawn up in 1945 and remain virtually the same. The criteria used to determine the boundaries include 'latitude, rainfall, distance from centres of population, density of population, predominant industries, access to rail and road service, and the cost of food and groceries'.[77]

6.91 Under the zonal rebate system there are two zones, A and B, which are shown in the map at figure 6.1.

Figure 6.1 Map showing zone rebate areas



Source *Department of the Parliamentary Library, Research Note, History of the Zone Rebate, No. 26, 2000-01.*

6.92 The Committee explored the concept of zonal taxation as a possible measure for further assisting value-adding in regional and remote areas. Under examination, the ATO advised that the last public inquiry into the income tax zone allowance was in 1980-81. The *Report of the Public Inquiry into Income Tax Zone Allowances*, or the Cox Report, made the following main, but not unanimous, recommendations:

76 ATO cited in Department of the Parliamentary Library, Research Note, *History of the Zone Rebate*, No. 26, 2000-01.

77 ibid.

- creation of 'special areas' for particularly isolated areas in each zone, with higher rebates available to residents;
- these special areas to be defined as being 250 km or more from a population centre of 2500 or more;
- the basic allowance to be unchanged but the proportion of the rebate allowed for dependants be increased to 50 per cent in Zone A and 20 per cent in Zone B;
- only minor adjustments to boundaries, with towns with a population over 25 000 in Zone A being changed to Zone B, and those in Zone B being excluded from the zone area;
- reviews of the quantum and boundaries to be undertaken every five years after the census year; and
- the six months period for eligibility should be able to be accrued over two years.[78]

6.93 As part of the 1981-82 Budget, the then Treasurer, the Hon John Howard, MP, announced that 'the Government had largely accepted the recommendations of the Cox Report with changes to take effect from 1 November 1981'.[79]

6.94 In relation to the administrative challenges of managing a zonal rebate system, the Cox Report commented that:

- the nature of a zonal rebate meant that regular reviews and constant monitoring would be required to ensure the zonal delineation continues to reflect the original policy intention;
- determination of the exact boundary lines for a zonal system will always prove difficult, especially where the zonal concession is driven by a desire to compensate certain taxpayers for conditions that cannot be measured precisely; and
- the arbitrariness of the zonal boundaries has in the past caused taxpayer's to rely on the Commissioner of Taxation's discretion in borderline cases;
- unlike most other personal income tax concessions, zone allowances are available irrespective of actual expenditure;
- the self-assessment system requires taxpayers to be fully informed as to the claims they may make in their income tax return; and
- the inquiry also felt that providing a tax allowance concealed the effect the allowance has on recipients, because it was obscured by other information included in a taxpayer's return.[80]

78 ibid.

79 ibid.

80 ATO, submission no. 59, pp. 3-4.

Conclusions

6.95 One of the Committee's objectives as part of this inquiry was to examine the issue of value-adding industries and projects in regional Australia. Much of this assessment has been implicit throughout this report. The aluminium and magnesium industries, for example, conduct much of their mining efforts in regional and remote areas. This activity may influence the economic standing of regional communities.

6.96 The Committee is interested in seeing Australian industry develop its value-adding potential. At the same time, it is hoped that rural and regional communities will benefit. The zonal taxation system that is in operation applies to individuals. The Committee suggests that the concept of zonal taxation should be examined further to see if there is merit in enhancing the current system by extending the system to companies. For example, if a company establishes or enhances an existing operation in a rural or regional area, in which employment and other economic multiplier outcomes derive for the local community, then it should be eligible for some kind of zone rebate.

6.97 The Committee notes that zonal taxation systems do have administrative complexities. At the same time, the Committee notes that there has not been a public inquiry into zonal taxation since 1981. The Committee suggests that a new inquiry with wide ranging terms of reference is needed. Its two key objectives should be to recommend a system that provides incentives for business investment focusing on value-adding and R&D activities and which has growth benefits for rural and regional communities.

6.98 While the Committee's focus is on adding value to Australian raw materials, the Committee asserts that it is appropriate that any review of zonal taxation should review the application of the existing scheme that applies to individuals.

Recommendation 14

6.99 **The Committee recommends that the Treasurer establish a public inquiry into the existing zonal taxation system focusing on:**

- **options for developing a business zonal taxation system:**
  - ⇒ **which would encourage investment in value-adding and research and development activities in rural and remote areas; and**
  - ⇒ **which would promote economic growth in rural and remote communities; and**
- **options for enhancing the zonal taxation rebate for individual taxpayers.**

Geoff Prosser, MP
Chairman
September 2001

A

Appendix A — Conduct of the inquiry

Terms of reference

On 20 April 1999, the Minister for Industry, Science and Resources, Senator the Hon Nick Minchin, wrote to the Chairman of the Committee, the Hon Geoff Prosser MP, asking the Committee to inquire into and report on the prospects of increasing value-adding to Australian raw materials. The specific terms of reference for the inquiry have been included in this report at page xi.

Advertising the inquiry

The inquiry was advertised in a number of national newspapers during the period 22 to 24 May 1999. The Committee wrote to the relevant Commonwealth Ministers and to the State and Territory Governments. In addition, over 400 potential stakeholders, including industry associations, received invitations to make submissions to the inquiry.

The second stage of the inquiry was launched in April/May 2000 through advertisements in national and regional newspapers and specialist journals. There was an extensive mail-out to stakeholders. The Department of Agriculture, Fisheries and Forestry-Australia kindly provided the Committee with a mailing list of contacts in the wine, diary and grains industry. All Senators and Members of the House of Representatives were also notified.

Evidence to the inquiry

The Committee received 79 submissions from 60 parties during the course of both stages of the inquiry. These submissions are listed in Appendix B.

The Committee also received 100 exhibits to the inquiry, which were provided as attachments to written submissions, offered during the public hearings or sent to the Committee by other parties. These are listed in Appendix C.

The Committee took evidence at public hearings in Canberra, Perth, Melbourne, Brisbane and Sydney. The Committee called 66 witnesses to give evidence at public hearings and 415 pages of evidence were recorded by Hansard. Details of the hearings and witnesses appearing are in Appendix D.

The transcript of evidence taken at public hearings and copies of all written submissions on public record will be made available for inspection at the Committee Office of the House of Representatives and at the National Library of Australia. The transcripts and most of the submissions are also available on the inquiry website at www.aph.gov.au/house/committee/isr/Val_Add.

B

Appendix B – List of submissions

Submission no.	Individual/Organisation
1	Cooperative Research Centre for Black Coal Utilisation
2	Grains Research and Development Corporation
2.1	Grains Research and Development Corporation
3	Goodman Fielder Limited
4	Australian Academy of Technological Sciences and Engineering
4.1	Australian Academy of Technological Sciences and Engineering
5	Pine Australia Limited
6	Tate & Lyle Bundaberg Ltd
7	Esso Australia Limited
8	ACT Government
9	ARISA Limited
10	National Association of Forest Industries Ltd
11	Chamber of Minerals and Energy of WA Inc
12	Heathgate Resources Pty Ltd
13	Minerals Council of Australia
14	Dr Charles Lawson
15	Fisheries Research & Development Corporation
16	Process Engineers and Constructors Association
17	Pulp and Paper Manufacturers Federation of Australia

Submission no.	Individual/Organisation
18	Centre for Value Chain Studies, Macquarie University
19	Cooperative Research Centres Association Inc
20	Sugar Research and Development Corporation
21	Woodside Energy Ltd
22	CSIRO
22.1	CSIRO
22.2	CSIRO
23	Timor Sea Petroleum NL
24	Horticultural Research and Development Corporation
25	Association of Mining and Exploration Companies
26	Cotton Australia
27	Mr Jim Stewart
28	Department of Industry, Science and Resources
28.1	Department of Industry, Science and Resources
28.2	Department of Industry, Science and Resources
28.3	Confidential
28.4	Department of Industry, Science and Resources
28.5	Department of Industry, Science and Resources
28.6	Department of Industry, Science and Resources
29	A.C.T.E.D. Consultants
29.1	A.C.T.E.D. Consultants
29.2	A.C.T.E.D. Consultants
30	Electricity Supply Association of Australia
31	Australian Aluminium Council
31.1	Australian Aluminium Council
31.2	Australian Aluminium Council
32	Department of Foreign Affairs and Trade
32.1	Department of Foreign Affairs and Trade

Submission no.	Individual/Organisation
33	Iluka Resources Ltd
34	Department of Agriculture, Fisheries and Forestry - Australia
34.1	Department of Agriculture, Fisheries and Forestry - Australia
34.2	Department of Agriculture, Fisheries and Forestry - Australia
34.3	Department of Agriculture, Fisheries and Forestry - Australia
35	Fuel Ethanol Association of Australia
36	Tasmanian Government
36.1	Tasmanian Government
37	Western Australian Department of Resources Development
38	Active Pharmaceutical Ingredient Manufacturers' Association of Australia
39	Australian Institute of Marine Science
40	Cooperative Research Centre for Premium Quality Wool
41	Confidential
42	Australian Bureau of Agricultural and Resource Economics
43	Queensland Government
44	Australian Greenhouse Office
45	Confidential
46	Australian and New Zealand Minerals and Energy Council (ANZMEC)
47	The Australian Wine Research Institute
48	Australian Business Limited
49	Golden Triangle Resources
50	Australian Wheat Board Limited
51	Winemakers' Federation of Australia Inc
52	Australian Dairy Industry Council Inc
53	Colin Gaetjens and Co Pty Ltd
54	Food Taskforce, Queensland Department of State Development

Submission no.	Individual/Organisation
55	Australian Coal Association
56	Western Australian Government
57	Australian Manufacturing Workers' Union
58	Australian Food and Grocery Council
59	Australian Taxation Office
60	The Treasury

C

Appendix C – List of exhibits

No	From	Exhibit title
1	Dr Ye Qiang	How Different is Mining from Mineral Processing? - A general equilibrium analysis of new resources projects in WA, September 1997.
2	Plastics and Chemicals Industries Association	Chemical Industry Investment Study, Canberra, May 1998. Prepared by Access Economics.
3	Confidential	
4	Australian Academy of Technological Sciences and Engineering	The Competitiveness of Australian Industry - Report No.1, The Processed Food Industry, June 1994.
5	Australian Academy of Technological Sciences and Engineering	The Competitiveness of Australian Industry - Report No.3, The Minerals Industry, July 1997.
6	Australian Academy of Technological Sciences and Engineering	Water and the Australian Economy. A joint study project of the AATSE and the Institution of Engineers, Australia, April 1999.
7	Minerals Council of Australia	Value Adding in the Minerals Sector. A paper by the Centre for International Economics.
8	Fisheries Research & Development Corporation	Investing for Tomorrow's Catch. FRDC Research and Development Plan, 1996 to 2001.
9	Fisheries Research & Development Corporation	Extract from FRDC Annual Report 1997-98. Industry Development Projects (pp75-81).
10	Fisheries Research & Development Corporation	From Antarctica to the Tropics: A Snapshot of the Australian Fishing Industry, 1999.

No	From	Exhibit title
11	Fisheries Research & Development Corporation	Bibliography.
12	Fisheries Research & Development Corporation	FRDC Annual Reports extracts and ex-post/cost benefit analysis of Grow-Out of Southern Bluefin Tuna project.
13	Cooperative Research Centres Association Inc	CRC Association Information Pack.
14	CSIRO	Recent Outcomes of CSIRO Research for Australia: a briefing to Government, November 1998.
15	CSIRO	CSIRO Strategic Research Plan 1997-98 to 1999-2000, August 1997.
16	CSIRO	Beyond Science: Managing Projects for Success, 1998.
17	CSIRO	Commitment, Collaboration and Impact: CSIRO Minerals and Energy Research, Part 1 - Overview, 1998.
18	CSIRO	Commitment, Collaboration and Impact: CSIRO Minerals and Energy Research, Part 2 - Case Studies, 1998.
19	Association of Mining and Exploration Companies	Yes - There is a Workable Solution to the Current Unemployment Levels Experienced by Geoscientists. A Submission to Hon. Warren Entsch, June 1999.
20	Association of Mining and Exploration Companies	Submission to the Review of Business Taxation, April 1999.
21	Association of Mining and Exploration Companies	The Importance to Australia of Implementing a Mineral Exploration Incentive Scheme. Submission to the Prime Minister, June 1999.
22	Department of Industry, Science and Resources	1999 Industry Outcomes & Outlook Statement.
23	Department of Industry, Science and Resources	What Drives Australia's Effective Advantage? A Centre for International Economics Report, October 1998.
24	Department of Industry, Science and Resources	Action Agenda background papers.

No	From	Exhibit title
25	Department of Agriculture, Fisheries and Forestry – Australia	Chains of Success: Case Studies on International and Australian Food Businesses Cooperating to Compete in the Global Market, 1998.
26	Department of Agriculture, Fisheries and Forestry - Australia	Supermarket to Asia Delicatessen Program: Developing Successful Niche Agribusiness Exports, May 1999.
27	Department of Agriculture, Fisheries and Forestry - Australia	New Industries Development Programme: Assisting Australian Agribusiness Commercialise New Products, Services and Technology.
28	CSIRO	Australian Biotechnology Report 1999.
29	CSIRO	Agri-food Biotechnology: Towards an Australian Strategy, September 1999.
30	CSIRO	Developing Australia's Biotechnology Future: Discussion Paper, September 1999.
31	Western Australian Department of Resources Development	In Agreement: How major developers obtain project security through State Agreement Acts, August 1997.
32	Western Australian Department of Resources Development	A Background Paper for a State Heavy Industry Policy: A submission to Government. Prepared by Dover consultants, September 1995.
33	Western Australian Department of Resource Development	Downstream Processing: An overview of resource processing in Western Australia, May 1998.
34	Electricity Supply Association of Australia	Market Regulation Task Force Report, Regulation of Australian Electricity Supply Businesses, 6 November 1998.
35	Woodside Energy Ltd	Slides on North West Shelf Gas, 25 October 1999.
36	A.C.T.E.D. Consultants	Green Competitiveness by Michael Porter, New York Times, 5 April 1991, ad excerpted from April 1991 Scientific American.
37	Association of Mining and Exploration Companies	AMEC Briefing Note No. 2 on The Native Title Act 1993: A Crippling Burden on Industry, 4 Industry Case Studies, March 1998.
38	Cooperative Research Centres Association Inc.	Adding Value in Hydrometallurgy, by Professor Ian Ritchie, 1995.

No	From	Exhibit title
39	Australian Aluminium Council	Aluminium Industry (map).
40	Department of Foreign Affairs and Trade	Australia and Climate Change Negotiations: An issues paper, September 1997.
41	Department of Foreign Affairs and Trade	Foreign Direct Investment: The Benefits for Australia, 1999.
42	Department of Foreign Affairs and Trade	Trade Liberalisation: Opportunities for Australia, 1997.
43	Department of Foreign Affairs and Trade	Tradewinds, The Transformation of World Trade: Changing Patterns of Global Import Demand and Australia's Response, October 1999.
44	Department of Foreign Affairs and Trade	Exports of Primary and Manufactured Products Australia 1998, August 1999.
45	A.C.T.E.D. Consultants	Asia's Chemical Industry and Role of Government (draft), 30 November 1999.
46	Confidential	
47	The Australian Wine Research Institute	The Australian Wine Industry: Success Through Innovation, Occasional Paper Number 3, 26 November 1999.
48	School of Economics and Centre for International Economic Studies	Lessons for other Industries from Australia's Booming Wine Industry, May 2000.
49	Australian Aluminium Council	Australian Aluminium Industry: Contribution to the National Economy, May 2000.
50	Department of Agriculture, Fisheries and Forestry - Australia	Australian Food Statistics 2000.
51	Australian Dairy Industry Council Inc	Flow of funds in the Australian dairy industry: report prepared for the Dairy Research and Development Corporation, May 1998.
52	Department of Industry, Science & Resources	Magnesium: Opportunities in Australia, 1999.
53	Department of Industry, Science & Resources	Energy efficiency best practice in the Australian aluminium industry: Sector study, May 2000.

No	From	Exhibit title
54	Department of Industry, Science & Resources	Invest Australia: Australia - leading advantages for the global automotive industry.
55	Department of Industry, Science & Resources	Invest Australia: Australia - your Asia-Pacific casting location.
56	Department of Industry, Science & Resources	Ascent technology magazine No. 36, March 2000.
57	CSIRO	Draft: CSIRO Strategic Research Plan 2000-01 to 2002-03, Section Two: 22 Sector Plans, July 2000.
58	CSIRO	Investing in the Future: CSIRO's strategic directions for the 2000-01 to 2002-03 Triennium.
59	CSIRO	Creating wealth in Australia's regions.
60	CSIRO	CSIRO - Solutions for Greenhouse: An overview prepared for the Australian Greenhouse Office (AGO), June 1999.
61	CSIRO	Delivering the goods: returns in Australia's investment in CSIRO.
62	CSIRO	Prime Minister's Science, Engineering and Innovation Council: The Australian Wine Industry - Success through Industry Leadership, Planning and Innovation, Executive Summary, 26 November 1999.
63	Australian Dairy Industry Council Inc	Flow of funds in the Australian dairy industry, May 1998.
64	Food and Meat Taskforce Queensland Department of State Development	Briefing: Food and Meat Taskforce, May 2000.
65	Food and Meat Taskforce Queensland Department of State Development	Compendium of Queensland Industry Exports 1988/89 to 1998/99.
66	Australian Trade Commission	Information regarding the Australian Trade Commission.
67	Australian Wheat Board Limited	Submission by AWB (International) Ltd, Review of the Wheat Marketing Act 1989, and Appendices, 17 July 2000.

No	From	Exhibit title
68	Confidential	
69	Alcoa World Alumina Australia	Alcoa briefing papers for Committee inspection, 22 August 2000.
70	Alcoa World Alumina Australia	Alcoa World Alumina Annual Review 1998.
71	Alcoa World Alumina Australia	Alcoa World Alumina 1999 Annual Report.
72	Kaal Australia Pty Limited	Kaal Australia: Information booklet and fact sheet.
73	Food Science Australia	Information pamphlets.
74	Cooperative Research Centre for Cast Metals Manufacturing	Creating a Future for Australian Light Metals through Vertical Integration.
75	Tek Services Pty Ltd	Teksid S.p.A./Tek Services overview.
76	Tek Services Pty Ltd	AMM Online, Roskill Metals Analysis 8 January 1999 and 5 December 1997.
77	Tek Services Pty Ltd	Keynote address by Mr Ian Howard-Smith, Diecasting and Toolmaking Technology International Conference, 23 June 1997.
78	Tek Services Pty Ltd	Teksid S.p.A./Tek Services, A Snapshot Overview of Aluminium, Magnesium and Automotive, October 2000.
79	Confidential	
80	Australian Wheat Board Limited	Presentation to SAFF Grains Council Executive, 4 August 2000.
81	Minister of the Premier and Cabinet, Western Australian Government	Agriculture and the Western Australian Economy: Value Added Contribution of Agricultural Commodities, December 1997.
82	Electricity Supply Association of Australia Ltd	Electricity Australia 2000.
83	Electricity Supply Association of Australia Ltd	Electricity Prices in Australia 2000/2001.

No	From	Exhibit title
84	Canberra Wine Bureau, Winemakers' Federation of Australia Incorporated Inc	Correspondence and The Marketing Decade: Setting the Australian Wine Marketing Agenda 2000 >> 2010.
85	Australian Coal Association	Cooperative Research Centre for Coal in Sustainable Development (summary of the proposal to the Commonwealth for a new black coal CRC), 23 August 2000.
86	Australian Coal Association	Performance Improvement at Banshan Coal Fired Power Plant (summary of a project funded by the Australian Government in China).
87	Department of Industry, Science and Resources	Light metals industries action agenda - background paper on aluminium, magnesium and titanium issues, November 2000.
88	Department of Industry, Science and Resources	Energy for Australia's light metals sectors - A one-day workshop, Tuesday 20 March 2001 Parliament House, Canberra.
89	Department of Industry, Science and Resources	Structural Change in Australian Industry, 2001.
90	Department of Industry, Science & Resources	List of Action Agendas.
91	Department of Industry, Science & Resources	A Guide for Developing and Implementing Action Agendas.
92	Department of Industry, Science & Resources	Guide to Developing an Action Agenda Industry Export Strategy, April 2001.
93	Department of Industry, Science & Resources	List of Projects approved through the Strategic Investment Coordinator process.
94	Department of Industry, Science & Resources	Senator Minchin's press release on the $50 million to be provided towards the boost for Australian Magnesium Technology, 14 November 2000.
95	Department of Industry, Science & Resources	Your Guide to Investment by Invest Australia, 2000.
96	Department of Industry, Science & Resources	Changing direction of the Textile, Clothing & Footwear (TCF) industries in an environment of reducing assistance levels.

No	From	Exhibit title
97	Department of Industry, Science & Resources	E-Commerce in Rural Areas - Case studies by F Papandrea and M Wade, December 2000.
98	Department of Industry, Science & Resources	E-Commerce and the food chain, paper by P Smith and R Van Hilst prepared for OUTLOOK 2001 Conference.
99	Department of Industry, Science & Resources	Media release from the Minister of Trade, WTO Rules for Australia Again on Lamb, 2 May 2001.
100	Department of Industry, Science & Resources	Inside Intelligence - Building an Investors Guide, June 2001.

D

Appendix D – List of hearings & witnesses

Thursday, 23 September 1999 - Canberra

Department of Industry, Science and Resources

Mr Paul Bellchambers, Manager, Industry Outlook Section

Dr Peter Ferber, Assistant Manager, Mineral Industries Section, Coal and Mineral Industries Division

Mr Barry Jones, Acting Head of Division, Industry Policy Division

Mr Paul Kay, Acting General Manager, Petroleum Industry Branch

Ms Jess McDonald, Manager, Minerals Industries Section, Minerals Development Branch, Coal and Minerals Division

Mr Donald Smale, General Manager, Minerals Development Branch, Coal and Mineral Industries Division

Thursday, 30 September 1999 - Canberra

Process Engineers and Constructors Association

Mr Christopher Rodwell, Executive Officer

Ms Elizabeth Toussaint, Economic Consultant

Monday, 18 October 1999 - Canberra

CSIRO

Mr Denis Daly, Principal Policy Adviser

Dr Roderick Hill, Chief of Division, Minerals

Dr John Oakeshott, Program Leader, Biotechnology

Mr Howard Upstill, Principal Adviser, Planning

Department of Agriculture, Fisheries and Forestry - Australia

Dr Simon Hearn, First Assistant Secretary, Portfolio Policy and International

Ms Paulette Quang, Assistant Secretary - Economic Policy Branch

Mr Michael Wilson, Assistant Secretary, Food and Agribusiness Policy Branch

Electricity Supply Association of Australia Ltd

Mr Keith Orchison, Managing Director

Minerals Council of Australia

Mr Damian Dwyer, Senior Policy Adviser, Economics

Mr Richard Wells, Executive Director

Pulp and Paper Manufacturers Federation of Australia

Mr Bridson Cribb, Executive Director

Thursday, 21 October 1999 - Canberra

National Association of Forest Industries Ltd

Mr Richard Stanton, Director, Economic and Resource Policy

Monday, 25 October 1999 - Perth

A.C.T.E.D. Consultants

Mr Ron Van Santen, Director

Association of Mining and Exploration Companies (AMEC)

Dr Anthony Bagshaw, Member, Exploration & Technical Committee

Mr George Savell, Chief Executive Officer

Mrs Tamara Stevens, Assistant Director

Chamber of Minerals and Energy of WA Inc

Mr Charles Crouch, Executive Officer, Economic Affairs

Mr Mark Eames, Manager, Commercial Gold, WMC Resources

Mr Ian Satchwell, Chief Executive Officer

Iluka Resources Ltd

Mr Malcolm Macpherson, Managing Director

Woodside Energy Ltd

Mr Akos Gyarmathy, General Manager, North West Shelf Gas

Mr Steven Gerhardy, Commonwealth Approvals Coordinator

Ms Erica Smyth, Manager, External Affairs

Monday, 22 November 1999 - Canberra

Fuel Ethanol Association of Australia

Mr Robert Gordon, Executive Director

Thursday, 25 November 1999 - Canberra

Australian Aluminium Council

Mr David Coutts, Executive Director

Cooperative Research Centres Association

Dr Barry Harrowfield, Former Program Manager, Cooperative Research Centre for Premium Quality Wool

Professor Ian Ritchie, Chief Executive Officer, A J Parker Cooperative Research Centre for Hydrometallurgy

Department of Foreign Affairs and Trade

Mr Neil Batty, Director, Market Information and Analysis Unit, Trade Development Branch, Market Development Division

Mr Michael Carney, Director, WTO Industrials and Market Access Section, Trade Negotiations Division

Mr Matthew Hyndes, Executive Officer, Trade and Economic Analysis Branch

Mr Michael Mugliston, Assistant Secretary, Trade & Economic Analysis Branch

Ms Catherine Raper, Executive Officer, Climate Change Section

Tuesday, 22 August 2000 - Melbourne

Australian Dairy Industry Council Inc

Ms Helen Dornom, Chief Executive Officer

Mr Peter Gallager, Trade Adviser

Australian Wheat Board Limited

Mr Andrew McConville, Manager Government Relations

Golden Triangle Resources

Mr Kevin Beck, Principal Negotiator

Mr Chris Laughton, General Manager

Monday, 16 October 2000 - Brisbane

Cooperative Research Centre for Cast Metals Manufacturing

Professor Gordon Dunlop, Chief Executive Officer

Tek Services Pty Ltd

Mr Ian Howard-Smith, Managing Director

Thursday, 9 November 2000 - Canberra

Winemakers' Federation of Australia Inc

Mr Tony Battaglene, Director, Canberra Wine Bureau

Tuesday, 21 November 2000 - Sydney

Australian Coal Association

Mr Tony Haraldson, Chairman

Mr Denis Porter, Joint Executive Director

Electricity Supply Association of Australia

Mr Keith Orchison, Managing Director

Goodman Fielder Limited

Mr Warren Burden, Commodities Director

Mr Robert Hadler, Corporate Affairs Manager

Thursday, 8 March 2001 - Canberra

Department of Industry, Science and Resources

Mr Paul Bellchambers, Manager, Industry Outlook Section

Dr Peter Ferber, Assistant Manager, Mineral Industries Section, Coal and Mineral Industries Division

Mr Barry Jones, Acting Executive General Manager, Invest Australia

Ms Jess McDonald, Acting General Manager, Minerals Development Branch, Coal and Minerals Division

Thursday, 29 March 2001 - Canberra

Department of Agriculture, Fisheries and Forestry - Australia

Ms Bev Clarke, Executive Manager, Food Business Group

Mr Mike Macnamara, Acting General Manager, Horticulture and Wine, Industry Development

Mr Andrew Pearson, General Manager, Science and Economic Policy

Dr Cliff Samson, General Manager, Field Crops

Mr Greg Williamson, Section Head, Wool and Dairy Branch

Thursday, 5 April 2001 - Canberra

Australian Taxation Office

Mr Ian Cooper, Segment Leader, Innovation Segment, Large Business and International Business Line

Mr Geoff Miller, Assistant Commissioner, Law Design and Development

Thursday, 28 June 2001 - Canberra

Australian Taxation Office

Mr Ian Cooper, Segment Leader, Innovation Segment, Large Business and International Business Line

Mr Geoff Miller, Assistant Commissioner, Law Design and Development

Department of Industry, Science & Resources

Dr Russell Edwards, General Manager, Program Management

Ms Carolyn Jenkins, Manager, Tax Task Force, Innovation Policy Branch

Mr Terry Lowndes, Division Head, Industry Policy

Dr Les Rymer, General Manager, Minerals Development Branch

The Treasury

Mr Gerry Antioch, Manager, Business Income Unit

Mr David Tune, General Manager, Business Income and Industry Policy Division

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