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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.