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The Parliament of the Commonwealth of Australia

# **Of material value?**

**Inquiry into increasing the value added to Australian raw materials**

**First report**

**House of Representatives  
Standing Committee on Industry, Science and Resources**

March 2000  
Canberra

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# Contents

Foreword.....	v
Membership of the Committee.....	vii
Terms of reference.....	ix
List of abbreviations.....	xi
Executive summary.....	xiii

## THE REPORT

<b>1 Introduction.....</b>	<b>1</b>
The need for an examination of value-adding in Australia .....	2
What is value-adding? .....	3
<b>2 The importance of raw materials processing in Australia.....</b>	<b>7</b>
The extent of raw materials processing in Australia .....	9
Employment .....	12
Industry performance.....	13
Trade performance .....	19
<b>3 International comparisons.....</b>	<b>25</b>
Output comparison .....	25
Trend in output contributions .....	28
Comparison of trade performance .....	29
<b>4 Industry trends .....</b>	<b>33</b>
Value-adding in Australia's metal industries.....	33
Agricultural, fishery and forestry industry value-adding .....	41

Dairy .....	41
Meat.....	42
Wheat .....	43
Wool .....	44
Fish.....	45
Forestry .....	46
<b>5 Factors underlying the success of value-adding activity.....</b>	<b>49</b>
Prospects for successful value-adding .....	49
The benefits of encouraging increased value-adding in Australia .....	53
<b>6 Encouragement of raw materials processing .....</b>	<b>59</b>
Conducive economic environment.....	60
Microeconomic reform.....	61
Sovereign risk.....	62
Trade issues.....	63
Research and development.....	65
Labour and skill issues.....	67
Impediments to investment in raw materials processing .....	68
Environmental issues .....	68
Access to resources .....	70
Taxation.....	71
Impact of globalisation.....	74
Regulatory issues .....	76
Infrastructure .....	78
<b>7 Conclusion.....</b>	<b>81</b>

## **APPENDICES**

<b>Appendix A – Conduct of the inquiry.....</b>	<b>85</b>
<b>Appendix B – List of submissions .....</b>	<b>87</b>
<b>Appendix C – List of exhibits.....</b>	<b>91</b>

<b>Appendix D – List of hearings &amp; witnesses.....</b>	<b>95</b>
<b>Appendix E – Reports and studies into adding value to minerals.....</b>	<b>99</b>
<b>Appendix F – Australian non-energy minerals processing facilities commissioned, 1993-1999 .....</b>	<b>101</b>
<b>Appendix G – Major minerals processing projects (November 1999) .....</b>	<b>105</b>
<b>Index .....</b>	<b>111</b>

#### **LIST OF TABLES**

Table 1	Industry gross value-added, 1998-99 .....	10
Table 2	Industry employment 1998-99 .....	13
Table 3	Industry gross value-added per person employed 1988-89 and 1998-99.....	14
Table 4	Industry gross product to total income 1996-97 .....	16
Table 5	Merchandise trade by industry (current prices) .....	21
Table 6	Trends in exports of value-added raw materials products: 1987-88 to 1998-99 .....	24
Table 7	Contribution to gross value-added, by industry and country, 1995 .....	26
Table 8	Contribution to gross value-added, by manufacturing industry and country, 1995 ..	27
Table 9	Contribution to gross value-added, by industry and country, 1985 and 1995 .....	28
Table 10	Australia's world ranking in metals, 1998 .....	34
Table 11	International comparison of selected ores and intermediate products processing ..	38
Table 12	Industry production of selected metal products ('000 tonnes).....	39
Table 13	Production of selected milk products ('000 tonnes) .....	41
Table 14	Production of processed wool ('000 tonnes) .....	44

#### **LIST OF FIGURES**

Figure 1	Processed and unprocessed export shares 1987-88 to 1998-99 .....	22
Figure 2	Rate of growth in ETMs exports, 1990 to 1997 .....	30
Figure 3	Exports of ETMs as a percentage of merchandise exports, 1997 .....	31
Figure 4	Percentage of domestic commodities processed in Australia, 1960 to 1998 .....	35



## Foreword

On 20 April 1999 the Minister for Industry, Science and Resources asked the Committee to inquire into the prospects of increasing the value added to Australian raw materials. The terms of reference for the inquiry specified that it should commence with “an evaluation of the current state of value-adding in Australia, and how that compares internationally”. This first report of the inquiry concludes that evaluation, and provides a base to examine the more detailed issues listed in the terms of reference.

The Committee has so far received mixed signals on how successfully Australia is adding value to its raw materials. We are pleased to note that Australia’s exports of processed raw materials – especially elaborately transformed manufactures – have been increasing at a rate well in excess of industry output. However, growth in the raw materials processing industries (on average, 1.2 per cent a year in the decade to 1998-99) has not kept up with the country’s increasing raw materials output over the same period. Although some processing industries have performed better than others, it appears that Australia has had increasing opportunities to develop these industries and has not fully realised the potential benefits.

While decisions to encourage certain industries must not divert national resources from where they can most efficiently be used, the Committee believes that there is much that governments and industry can do to enhance Australia’s prospects of adding further value to our raw materials.

**The Committee will now undertake case studies of the aluminium, magnesium, wine, dairy and grains industries. 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. We are now seeking further public input on these matters.**

At this early stage of the inquiry, our intention is to record the Committee’s impressions of the current state of value-adding in Australia and to stimulate further discussion. We therefore have not made formal recommendations to the

government in this first report. Such recommendations will, however, be made in our final report.

As noted in Chapter 6 of this report, issues debated in the inquiry to date include business taxation, the provision of infrastructure in rural and regional Australia, transport systems, government policies in support of research and development, environmental legislation, Australia's greenhouse obligations, protectionist trade policies in overseas markets, marketing efforts, assistance to local companies in identifying export and investment opportunities, distribution chains, resource licensing and permit arrangements, and the ongoing reforms in the energy sector.

As the Committee's Chairman I thank Deputy Chair Mr Allan Morris MP and our fellow members for their assistance during this first stage of the inquiry.

I particularly thank my colleague Mr Jim Lloyd MP, who in my absence chaired the Committee during the public hearings and the early drafting of this report. On behalf of the Committee I also extend our gratitude to our adviser from the Department of Industry, Science and Resources, Mr Paul Bellchambers. Mr Bellchambers' expertise was invaluable in the preparation of this report and the timely conduct of the first stage of the inquiry.

The Committee is, of course, particularly grateful to those organisations and individuals who have made submissions to the inquiry and appeared as witnesses at public hearings. The Committee looks forward to further public input during the forthcoming case studies.

**Geoff Prosser MP**  
**Chairman**



## **Membership of the Committee**

**Chairman**      The Hon Geoff Prosser MP

**Deputy Chair**   Mr Allan Morris MP

**Members**

The Hon Bruce Baird MP (to 21/6/99)	Mr Gary Nairn MP
Mr Mal Brough MP (from 21/6/99 to 8/3/00)	Ms Nicola Roxon MP
Mr Michael Hatton MP	Mr Cameron Thompson MP (from 8/3/00)
Mr Tony Lawler MP	Dr Mal Washer MP
Mr Jim Lloyd MP (Chair from 2/9/99 to 17/2/00)	Mr Christian Zahra MP

## **Committee secretariat**

<b>Secretary</b>	Mr Paul McMahon
<b>Inquiry Secretary</b>	Mr Russell Chafer
<b>Adviser</b> (courtesy of the Department of Industry, Science and Resources)	Mr Paul Bellchambers
<b>Administrative staff</b>	Mrs Gaye Milner
	Ms Lisa Kaida





## **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 will start with an evaluation of the current state of value adding in Australia, and how that compares internationally. This will 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

AATSE	Australian Academy of Technological Sciences and Engineering
ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
AFFA	Department of Agriculture, Fisheries and Forestry – Australia
AMEC	Association of Mining and Exploration Companies
ANZMEC	Australian and New Zealand Minerals and Energy Council
APEC	Asia Pacific Economic Cooperation
CIE	Centre for International Economics
CMEWA	Chamber of Minerals and Energy of Western Australia Inc
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DFAT	Department of Foreign Affairs and Trade
DPIE	Department of Primary Industries and Energy
EPAC	Economic Planning Advisory Council
ESAA	Electricity Supply Association of Australia
ETMs	Elaborately Transformed Manufactures

EU	European Union
GDP	Gross Domestic Product
HBI	Hot Briquetted Iron
ISR	Department of Industry, Science and Resources
MERCOSUR	The Southern Common Market comprising Argentina, Paraguay, Uruguay and Brazil
MOU	Memorandum of Understanding
OECD	Organisation for Economic Co-operation and Development
PECA	Process Engineers and Constructors Association
PPPs	Processed Primary Products
R&D	Research and Development
RFA	Regional Forest Agreement
Stars	Statistical analysis and retrieval system
STMs	Simply Transformed Manufactures
TCF	Textiles, clothing and footwear
TREC	Trade Export Classification
UN	United Nations
UPPs	Unprocessed Primary Products
USA	United States of America
WAPIS	Wood and Paper Industry Strategy



## **Executive summary**

This summary briefly outlines the issues considered by the Committee in each section of its first report on increasing the value added to Australian raw materials. It provides a precis of the main questions examined by the Committee and of the reasons for its principal findings. The Committee's main observations have been highlighted.

### **Chapter 1: Introduction**

The report has been prepared following a request from the Minister for Industry, Science and Resources for a two-part assessment of the value-adding issue starting with an evaluation of the current state of play in Australia, and how that compares internationally. It has been prepared following the completion of this first stage of the inquiry.

**The evidence the Committee has received to date clearly indicates that its examination of the state of value-adding in Australia is timely. There appears to be strong potential for enhanced value-adding in Australia.**

Given that it believes the fundamental aim of its work should be to enhance national income and living standards, the Committee has approached its evaluation of this question from a broad national perspective.

### **Chapter 2: The importance of raw materials processing in Australia**

While Australia has a history of dependence on its raw materials base, the economy has moved well beyond a reliance on its primary industries and it is now undertaking significant raw materials value-adding activity.

Raw materials processing in Australia accounted for some \$45.2 billion of industry value-added in 1998-99. This equates to around 9.2 per cent of total industry output in that year or slightly more than the combined value-added of the agriculture, forestry and fishing and mining sectors.

The average growth in the raw materials processing industries of 1.2 per cent a year in the decade to 1998-99, however, suggests that the growth in processing has not kept up with the country's increasing raw materials output. The agriculture, forestry and fishing and mining sectors achieved average real growth of 3.5 per cent and 4.8 per cent growth a year respectively over the same period.

**Although some areas of raw materials processing 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.**

The raw materials processing industries, however, are responsible for a significant proportion of Australia's current industry employment. These industries contributed some 566,100 jobs in 1998-99 or 6.6 per cent of the workforce, which is again more than the agriculture, forestry and fishing and mining sectors.

It is notable that the level of employment provided by all these sectors has been declining over the last decade. Employment in the raw materials processing industries, for example, declined by an average 0.8 per cent a year in the ten years to 1998-99.

One positive aspect of this situation is these industries appear to have been increasing their labour productivity. This trend has been confirmed by a number of recent studies into this issue which indicate that the growth in multifactor productivity in Australia's market sector has increased during the 1990s.

**The processing of raw materials has provided a clear and robust benefit for Australia through a growth in exports. Australia's exports of processed raw materials have been increasing at a rate well in excess of industry output. The strongest growth in exports has been in elaborately transformed manufactures.**

### **Chapter 3: International comparisons**

**From the international data examined by the Committee, it is clear that the Australian economy relies more heavily on its primary industries than do some other similarly developed economies around the world.** The mining and quarrying sector accounts for a more substantial part of the Australian economy than in most of the other OECD countries examined and the agriculture, hunting, forestry and fishing sector in Australia is also relatively important compared to these countries.

**The manufacturing sector in Australia, on the other hand, provides a relatively small part of the nation's gross value-added when compared to the contribution provided by the same sector in the other OECD countries examined.** The main

reason for this difference is Australia's relatively limited involvement in producing machinery and equipment.

The services and mining sectors in Australia increased in relative importance over the decade to 1995, while the relative size of the agriculture, hunting, forestry and fishing sector and the manufacturing sector declined. This trend, however, is not unique to Australia. Although the growth in the relative size of the mining sector in Australia has not been reflected in the other countries examined, the trends in the other Australian sectors are broadly similar to those in the other countries.

While the basis on which the data is collected prevents an international comparison of the trends in exports of unprocessed and processed raw materials, Australia is performing strongly in manufactures, particularly elaborately transformed manufactures (ETMs). 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 other developed countries examined. Indeed, Australia compared relatively favourably with some of the fastest growing export oriented manufacturing economies in East Asia.

Despite this strong performance, the total contribution of ETMs to Australia's overall export performance lags considerably behind many other countries.

## **Chapter 4: Industry trends**

The Committee also examined some of the industry level data available on the value-adding activity being undertaken in Australia to enhance its understanding of the current nature and trends in raw materials processing.

**It is clear that Australia's metal industries undertake a large number of activities in which Australia has an apparent competitive advantage. Australia is a major player on the world scene in the metals area, both in terms of the mining of raw metals and in the processing of some of these materials.**

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. It is also a significant producer of gold, mined zinc, mined nickel, refined nickel and mined tin.

**The level of local processing of Australian raw materials, however, varies considerably from commodity to commodity.** While the percentage of bauxite, copper, mined lead and gold processed in Australia has been historically relatively high, the level of processing of alumina, iron ore and titanium has been less significant.

Although Australia's overall performance in processing its minerals has not generally matched its ability to produce raw minerals, the growth in some of the

lesser performing products is likely to receive a significant boost from the substantial investment that has occurred in new processing capacity over the past few years.

**The Committee also received a range of evidence on the level of value-adding in various agricultural, fishery and forestry industries. For most of these products, only relatively modest amounts of value-adding activity are being undertaken.**

Only a small proportion of the dairy industry's output, for example, is processed beyond the basic milk stage. It is encouraging to see, however, that most of the output of higher value-added products has grown at an even faster rate than the relatively healthy 5.2 per cent a year average growth in milk output achieved over the five years to 1997. The value of Australia's exports of dairy products has almost doubled over the past seven years and is expected to have reached around \$2 billion in 1998-99. The principal export products are skim milk powder and cheese.

Around 80 per cent of Australia's wheat crop is exported in bulk form, although there have been significant advances in adding value to this product in recent years through, for example, better quality assurance and the segregation of varieties suited to particular end products. There have also been some modest exports of flour (around \$75 million in 1998-99) and gluten (\$60-80 million).

While Australia is the world's largest producer and exporter of apparel wool, only limited processing is undertaken. Although early stage production has increased from around 20.4 per cent of wool production in 1980 to about 38.9 per cent in 1997, there has only been limited processing in the significantly higher value-adding activities beyond this stage. It appears that most of the other leading producers of wool have similar value-adding profiles.

## **Chapter 5: Factors underlying the success of value-adding activity**

**There is little doubt that Australia's significant raw materials base provides it with a strong prospect of enhancing its national welfare through the processing of its resources.**

**The country's potential success in translating its world efficient processes in these industries further up the production chain, however, is dependent on a much broader range of factors than its access to raw materials. To be successful in this area, Australia also needs access to a wider range of factors of production at competitive prices.**

**In examining Australia's prospects, the Committee received significant evidence from a variety of witnesses indicating that Australia has a number of**

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**underlying advantages that can contribute to its competitiveness as a location for raw materials processing. In particular, processing in Australia can benefit from the country's relatively low energy costs, the generally capital intensive nature of these industries, its mature infrastructure and its stable social and political environment.**

Whether these underlying advantages warrant the active pursuit of further value-adding in Australia, however, is another question. Although the Australian economy can clearly realise substantial advantages from additional raw materials processing, a number of potential problems can also arise if additional processing is pursued at any cost.

**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.**

While this approach appears to limit the range of options available to government in encouraging value-adding activity, there is evidence that Australia can still benefit from increased raw materials processing and that much can still be done to encourage this development.

## **Chapter 6: Encouragement of raw materials processing**

The Committee received substantial evidence on measures that could be implemented to help realise Australia's full raw materials processing potential.

**The options available for fostering this activity include:**

- Providing a **sound macroeconomic environment** that is conducive to business and facilitates change. It is important for Australia to provide a favourable economic environment that offers factors such as competitive interest rates, a stable exchange rate, low inflation, a healthy capital market and a well-developed competition policy to ensure it is seen as an attractive place to invest;
- Delivering a **business taxation regime** that gives appropriate recognition to Australia's technological and economic development and to the needs of companies considering investment in Australia;
- Continuing with **microeconomic reform** aimed at lowering input costs, increasing productivity and increasing competition in supplier industries. Any underlying comparative advantage in raw materials processing will only be fully realised if industries have access to inputs at world competitive prices;



- **Providing an open and efficient regulatory framework and transparent and consistent ground rules.** While there are good reasons for planning, access and environmental controls, a balanced and consistent approach is needed to help promote investment in Australia;
- **Seizing all the opportunities available to Australia in its endeavours to reduce all the barriers to free and open trade,** including through multilateral negotiations, regional forums and bilateral relations;
- **Assisting local companies to identify export and investment opportunities** and to establish themselves in overseas markets;
- **Recognising the vital role that research and development can play in promoting the development of raw materials processing;**
- **Encouraging productive labour relations** and the continuing development of **workforce skills;** and
- **Working to remove the range of impediments** that act to discourage investment in raw materials processing, such as :
  - ⇒ **Environmental regulations** which do not achieve the appropriate balance between the needs of business and the necessary environmental protection;
  - ⇒ **Resource security and land access** concerns;
  - ⇒ Some impacts of **globalisation;**
  - ⇒ Inappropriate and inefficient **Government regulations;** and
  - ⇒ Inadequate access to efficient **infrastructure,** particularly in rural areas.

## **Chapter 7: Conclusion**

**In concluding the first stage of its inquiry into the prospect of increasing value-adding to Australian raw materials, the Committee agrees that the issue offers significant potential for enhancing national income and welfare.**

**There is much that governments and industry can do to enhance Australia's competitive position in this area.** Witnesses to this inquiry identified a range of possible actions that can be used to encourage competitive, outwardly-oriented processing industries in Australia.

While the Committee does not necessarily agree with all these suggestions, it agrees that there is a need for sound and robust action in many of these areas and will use the opportunity provided by the next stage of its inquiry to investigate these suggestions in more detail.

Any further encouragement of raw materials processing should take account of the broad economic and social context.