

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

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 too 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.

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

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.

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:

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:

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:

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

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