

CHAPTER 5: R&D INVESTMENT – INCENTIVES AND IMPEDIMENTS

5.1 This chapter focuses on incentives to encourage investment in R&D and also on possible impediments to such investment, which arise from aspects of taxation and the difficulties of accessing venture capital. Changes to public policy in these areas in recent years are less directly attributable to corporatisation, privatisation, outsourcing and competition policy than the matters discussed in previous chapters. However, they are matters which were of considerable importance to those who provided evidence during the course of the inquiry, and significantly affect the amount and nature of R&D being carried out in Australia and the commercial relevance of the R&D effort.

The R&D tax concession

5.2 The R&D tax concession was introduced in 1985, entitling companies to claim 150 percent of the cost of their R&D as an expense against taxable income. The concession was introduced for a period of six years, but was then extended until June 1993, after which it was to be reduced to 125 percent. In the 1992-93 budget it was announced that the concession would be retained indefinitely at 150 percent. However, the concession was reduced to 125 percent in the 1996-1997 budget.

5.3 To claim the concession, companies must register with the Industry Research and Development (IR&D) Board.²⁹³ Eligible expenditure includes salaries, wages and overhead costs directly related to a company's R&D activities, contract expenditure, and capital expenditure on R&D plant including pilot plant. Special provisions apply to other costs such as core technology, feedstock and interest.²⁹⁴ The official definition of eligible R&D sets out a series of interpretations and a list of excluded activities.²⁹⁵

5.4 Companies can conduct eligible R&D activities in-house, or contract them to other companies or approved Registered Research Agencies (RRAs). A minimum expenditure threshold of \$20 000 applies to companies

293 The role of the IR&D Board is to “increase the level and commercial success of industry research and development undertaken in Australia”. The Board's membership includes representatives from the private sector. The office of AusIndustry, a division of the Department of Industry, Science and Resources (DISR), administers several innovation programs on behalf of the Board, including the R&D tax concession (jointly administered by the Board, DISR and the Australian Taxation Office), the R&D Start program and the Innovation Investment Fund.

294 DIST, submission no. 48, Appendix 2 p. 2 and DIST/AusIndustry, *R&D Tax Concession*, August 1998 (included in exhibit no. 28).

295 For further details, see AusIndustry at <http://www.ausindustry.gov.au> (as at 10 February 1999); DIST, submission no. 48, Appendix 2 p. 2; and DIST/AusIndustry.

undertaking their own R&D. The threshold is waived if the work is contracted to an RRA.

5.5 The tax concession has a number of desirable features:

- it is market-driven, allowing firms to decide for themselves what R&D to undertake and when;
- it has relatively low administrative and compliance costs; and
- the fact that it is available to all firms with eligible R&D means that firms have limited incentives to lobby for special treatment.²⁹⁶

5.6 While the concession does have some disadvantages (it is of no immediate use to companies not making a taxable income, and subsidises R&D that would have been undertaken without the concession), the BIE concluded in 1993 that the concession was "...more likely to have generated a net social benefit for Australia than not".²⁹⁷ The Industry Commission similarly concluded in 1995 that removing the concession (then at 150 percent) would lead to a reduction in GDP.²⁹⁸

5.7 Professor Jane Marceau has noted that the introduction of the concession reversed a decline in Australian manufacturing R&D, which had been reflected in a fall in BERD/GDP of nearly 50 percent in a decade.²⁹⁹ Other participants in the inquiry also emphasised the beneficial effects of the concession. According to the Australian Academy of Science:

*The introduction of the 150% tax rebate in 1985 led to more than a doubling of business expenditure on R&D from about [\$1.5 billion] per annum to \$4.2 billion per annum in 1995-6 – a major change for industry which nevertheless still spends less than the OECD average on R&D. It will be interesting to see the effect of the reduction to 125% tax rebate in the 1997-8 Budget.*³⁰⁰

5.8 Rio Tinto added that:

The symbolic value of the tax concession should not be overlooked. It ensures that R&D is discussed at the highest levels within an organisation and it creates an awareness

296 Industry Commission, *Research and Development*, p. 28 & pp. 651-652.

297 Quoted in *ibid*, p. 29.

298 *ibid*, p. 29 & pp. QC9-QC14. The Commission estimated that reducing the concession from 150 percent to 100 percent would reduce real GDP by 0.08 percent below what it would otherwise have been after a ten-year period, taking into account the offsetting benefits to economic efficiency of not having to fund the concession.

299 Professor Jane Marceau et al, *The High Road or the Low Road?*, Summary Report, pp. 19-20.

300 Australian Academy of Science, submission no. 10 (submitted in December 1997).

*amongst senior management of the need to consider R&D in the total business context.*³⁰¹

5.9 While there are difficulties in attributing the increase in BERD during the decade under review solely to the tax concession,³⁰² there is widespread agreement that the concession has been crucial in changing Australian industry's attitude to R&D.

5.10 Consequently, the reduction of the concession to 125 percent was the most controversial issue of the inquiry. The MTIA's members, for example, "overwhelmingly" cited the reduction in the concession as having the single biggest negative impact on their ability to undertake R&D.³⁰³ Other participants in the inquiry expressed similar views to those noted by the former Chief Scientist, Professor John Stocker, in his June 1997 report *Priority Matters*:

Industry expressed considerable concern over the reduction of the tax concession for industrial R&D from 150% to 125%, and the abolition of the syndication elements of the concession...

In some cases, it was felt that the benefits of the concession now barely exceed the costs of compliance, and the concession now fails to compensate for Australia's disadvantages of scale. Some submissions also pointed out that other changes in the tax concession legislation, which accompanied this reduction in the rate, restricted the range of activities which could be claimed under the concession, based on essentially false understanding of the innovation process, for example by discouraging experimental development in industry, in favour of research. As a consequence, the 'bottleneck' which restricts commercialisation of research results, and transfer of such results from the public to the private sectors, had been aggravated even further. Many submissions called for the reversal of these changes, or at the least for no further restriction of the concession. Submissions from higher education generally agreed with the industry view of the undesirability of the reduction in the concession. They pointed out that the reduction had reduced the incentive to industry to conduct or sponsor longer-term research, and

301 Rio Tinto, submission no. 25, p. 9.

302 The Industry Commission has noted a significant increase in BERD/GDP in the three years immediately prior to the introduction of the concession, and has suggested that reduced protection for Australian industry also played a significant role in stimulating R&D. Industry Commission, *Research and Development*, p. 149 & pp. 489-491.

303 MTIA, submission no. 7, p. 2.

*hence the interaction between industry and higher education.*³⁰⁴

5.11 There is no doubt that the value of the concession has substantially declined since its introduction. First, as noted by Professor Stocker, the definition of eligible R&D has been progressively tightened (pages 24 and 100 also refer). Second, in 1985 the 150 percent concession provided a nominal subsidy of 23 cents for every dollar spent on eligible R&D (0.5 multiplied by the company tax rate of 46 percent), whereas the 125 percent concession, in tandem with the present company tax rate of 36 percent, has reduced the subsidy to nine cents for every dollar spent on eligible R&D.³⁰⁵

5.12 As explained by Dr Mark Sceats of the Australian Photonics CRC, the subsequent difficulty for many companies is that:

*...if the marginal benefit is less than, say, 10 per cent, the effort of going through and doing the paperwork and all of that becomes less attractive. The real benefit to people like myself of having 150 per cent up there was that it was easy for our champions in those companies to argue with their accountants that this investment in R&D was a good thing.*³⁰⁶

5.13 Rio Tinto similarly argued that the reduction of the concession from 150 to 125 percent:

...has a much greater negative effect than the reduction per se would seem to indicate. In the eyes of some managers, the scheme does not change from being attractive to being less attractive but to being not attractive at all because the administrative cost of compliance, in time and dollars, is simply too great to justify the taxation return.

Of more importance is the reduction in confidence at senior executive level. We observe that there is less interest in tackling larger, long-term projects with higher risks. Yet these are precisely the projects which have the greatest

304 Professor John Stocker, pp. 43-44. On Professor Stocker's last point, see also AVCC, submission no. 49, p. 12.

305 Industry Commission, *Research and Development*, p. 533. See also AVCC, submission no. 49, p. 12; Academy of Technological Sciences and Engineering, "Submission on the Consultation Paper on Review of Business Taxation", 1999, p. 5 (exhibit no. 31) at <http://www.atse.org.au/publications/government/business-tax.htm> (as at 30 July 1999); and "R&D Tax Carrot Has Lost its Flavour", *The Australian*, 1 May 1998 (exhibit no. 14).

306 Dr Mark Sceats, Australian Photonics CRC, transcript of evidence, p. 140.

*potential to make a significant contribution to Australia's competitiveness.*³⁰⁷

5.14 Other submission writers concurred that the reduction in the concession will have a disproportionate impact on longer-term research. A related concern is that the reduction exacerbates the history of uncertainty referred to at page 93. Throughout the inquiry there was further speculation about the fate of the concession, including:

- suggestions that the government's review of business taxation (see page 116) will lead to various concessions being wound back in return for a substantially lower company tax rate; and
- a May 1999 recommendation from the Productivity Commission that the concession be limited to additional or "incremental" R&D, to remove the public subsidy of activities that would have been undertaken in any case (the government has since rejected this because of "...its complexity and likely administrative cost").³⁰⁸

5.15 The Committee notes that the government has, as recently as March 1999, undertaken to maintain the concession at the current rate of 125 percent.³⁰⁹

Should the concession be increased?

5.16 Virtually every participant in the inquiry advocated the restoration of the 150 percent tax concession. The MTIA and Virbac Pty Ltd went further, advocating a rate of 200 percent in order to match:

*...some of our key competing countries, such as Singapore and Malaysia, which have headline rates of 200 per cent. We [at the MTIA] recognise that the conditions applying to those concessions are somewhat different in those markets, but still – in terms of the simplicity of the scheme and the ability to attract interest – those sorts of numbers are comparable with other areas and other countries in the region.*³¹⁰

5.17 As the MTIA conceded, conditions applying to the 200 percent concession in Malaysia and Singapore are "somewhat different" to the Australian concession. Indeed, what the MTIA and Virbac are asking for

307 Rio Tinto, submission no. 25, p. 8. See also Mr David Brownscombe, Rio Tinto, transcript of evidence, p. 24 & p. 28.

308 Productivity Commission, *Telecommunications Equipment, Systems and Services*, pp. 207-218.

309 DISR, submission no. 48.2, pp. 7-8.

310 Ms Linda Botterill, MTIA, transcript of evidence, p. 88. See also MTIA, submission no. 7 and Virbac, submission no. 11.

would, in practice, be substantially more generous than the concessions in those countries. As noted by the Industry Commission, Australia's tax concession is much more easily accessed:

Under the Malaysian scheme, the 200 per cent deduction is approved on a project-by-project basis – applications are processed by the Malaysian Industrial Development Authority and approved by the Minister of Finance. Similarly, under the Singaporean scheme, projects must be approved prior to commencement, and approval is provided on a case-by-case basis...

In respect of the extent to which the schemes are actually used by the companies, it has been observed that their use in Singapore and Malaysia appears to be limited, due largely to administrative formalities and the overall low level of R&D ... The Malaysian scheme is used by 30 to 40 companies annually, and the amount of R&D claimed appears to be less than 20 per cent of their current expenditure on R&D ... By contrast, around 2000 companies [as at 1995] register annually for the Australian tax concession, and the amount claimed is around 70 per cent of overall business expenditure on R&D.³¹¹

5.18 Also, as noted at page 96 the value of a business tax concession depends on both the rate of deduction and the company tax rate. Australia's company tax rate is 36 percent, while that of Singapore (as at 1995) was 27 percent. A 200 percent tax concession would therefore result in a subsidy in Australia of 36 cents for each dollar spent on R&D, compared with a subsidy in Singapore of 27 cents.³¹²

5.19 The Committee does not recommend that the R&D tax concession be increased to 200 percent. Whether it should be restored to 150 percent (or otherwise amended) could be considered at the forthcoming National Innovation Summit, taking into account the government's review of business taxation. The Committee notes that an R&D tax workshop was held in March 1999 as a lead-in event to the Summit.³¹³

5.20 The Summit could also examine the suggestion by the AVCC, the Academy of Technological Sciences and Engineering and others that the concession be extended to include up-front payments, equivalent to tax relief, to start-up companies recording tax losses. A similar scheme operates in Canada.³¹⁴ Whatever is decided on these matters, the Committee emphasises

311 Industry Commission, *Research and Development*, pp. 510-511.

312 *ibid*, pp. 542-543.

313 Senator the Hon Nick Minchin, *Science and Technology Budget Statement 1999-2000*, p. 2.5.

314 AVCC, submission no. 49, pp. 12-13 and Academy of Technological Sciences and Engineering, "Submission on the Consultation Paper on Review of Business Taxation",

the desirability of bipartisan agreement on a long-term rate for the concession, so that business can plan its R&D spending with some confidence.

5.21 Also, while there are suggestions that the reduction in the concession was responsible for the decline in BERD referred to in Chapter 2, the government has suggested that this might be a short-term effect, attributable to the termination of the “syndication” element and tightening of the definition of eligible activities (pages 23 and 24 refer). The Committee notes the strong view expressed in the submissions that the decline in BERD was due to the reduction of the 150 percent concession. The Committee also notes the further decline in BERD in the latest figures. In the context of the embedded industry perceptions reflected in the submissions, the Committee questions whether BERD will increase substantially if the 150 percent concession is not restored. The reasons for the decline in BERD should be thoroughly investigated by the government when it formulates its response to the review of business taxation arrangements.

Recommendation 15:

5.22 The Committee recommends that the government, in its review of business taxation (or as part of the National Innovation Summit deliberations) determine an appropriate policy response to the reduction in BERD from 1996-97 onwards.

Administrative requirements and eligibility criteria

5.23 Some participants in the inquiry expressed concern about the administrative requirements of the R&D tax concession. For example, SRK Consulting (a geoscience, mining and engineering consultancy) advised that:

We no longer intend to utilise this incentive because of the decreased percentage, and because of the obscure and continually changing regulatory requirements.

...Continual changes in the R&D regulations and requirements for more and more minutiae in the information requested leads to a very high compliance cost which is inappropriate for an SME. An annual cost of some \$10,000 to \$20,000 attends preparation of the claim. We believe that it is then unsatisfactory for claims to be vetted by a bureaucracy which demonstrably lacks skills in science and technology. Moreover the regulations allow claims to be challenged up to 4 years after lodgement making it impossible to manage the company's R&D investment on

p. 5. See also discussion in Industry Commission, *Research and Development*, pp. 652-653 & pp. 666-674 and Productivity Commission, *Telecommunications Equipment, Systems and Services*, pp. 210-211 & p. 218.

*the balance sheet. We are also tired of the gratuitous advice continually offered by the taxation authorities which simply reflect the bureaucratic mind and contribute no value to the prime motive of the R&D scheme – to promote innovation in developing Australia’s competitiveness and export markets.*³¹⁵

5.24 The Committee notes that in April 1999 the *Industry Research and Development Amendment Act* was given assent. The Act streamlines the administration of the tax concession and reduces compliance costs for companies. The period for making an application has increased by four months to a total of ten months, while the IR&D Board now has some discretion to consider late applications and to correct minor errors made by companies in their registration applications. The Act also gives the Board the flexibility to require different levels of information from different classes of applicant, potentially reducing the compliance costs of the scheme for companies undertaking smaller dollar amounts of R&D. For companies applying for certification to undertake up to ten percent of their R&D activities overseas, the amendments also make the effective date of Board approval the date on which an application is received. Previously, any such expenditure incurred between the date of application and Board approval – which can take some months – was not eligible for the tax concession.

5.25 The Act should address some major concerns in relation to the administrative requirements of the tax concession. Certainly, those requirements should be kept as “user friendly” as possible without compromising the integrity of the tax system.

5.26 The cut to the rate of the concession was compounded in 1996-97 by changes to the definition of R&D activities eligible for the concession (page 24 refers).³¹⁶ According to the MTIA and others:

*“Tightening up” of the R&D tax concession in 1996-97 through changes to the deduction rules for interest, feedstock, core technology and pilot plant diminished the inducement offered by the R&D concession program.*³¹⁷

However, some participants in the inquiry suggested that the changes to the definition of eligible R&D (together with the removal of syndication) have improved the integrity of the tax concession. For example, Rio Tinto advised that the current definition:

...appears to Rio Tinto to be about right. Rio Tinto was always concerned with the old definition about the growing

315 SRK Consulting, submission no. 38.

316 For further details see the Hon Peter Costello MP and the Hon John Moore MP, “Government Closes R&D Syndication”, 23 July 1996 (exhibit no. 27).

317 MTIA, submission no. 7, p. 8.

*use of syndication. So the changes were welcomed because Rio Tinto wanted to see that this was a credible approach in the eyes of government and the Australian people and could be supported in the long term, because after all that is the key part of it – being able to depend on the R&D concession over the long term. We were, of course, disappointed about the [reduction to 125 percent], but that is another story.*³¹⁸

5.27 Similarly, Dr Mark Sceats of the Australian Photonics CRC stated that:

*...many things were being claimed as being tax deductible R&D expenditure and, if you were to ask some of us whether that should qualify as an expenditure, we would have said no because we would not have been able to recognise it as research and development. To a large extent, some of what people called the rorts were occurring because of the definition of R&D being too broad and because of a difficulty of getting accountability into the system. I think that there was a perception by the incoming government that this scheme was not working for those types of reasons. I think it was a little bit premature to jump to lower [the rate of the concession].*³¹⁹

5.28 The Prime Minister, in his December 1997 *Investing for Growth* industry statement, undertook to consult with industry to clarify the definition of eligible R&D. The Committee endorses the view that in the interests of policy stability, the definition of eligible R&D should not be altered further.

Recommendation 16:

5.29 The Committee recommends that the government maintain the current definition of activities eligible for the R&D tax concession.

The R&D Start program

5.30 The Strategic Assistance for Research and Development (R&D Start) program was introduced in November 1996 to support the development and commercialisation of high risk/high return projects. A major expansion of the program, which had initially been limited to small to medium enterprises (SMEs), was announced in *Investing for Growth*. An additional \$556 million will be provided over four years, bringing total expenditure from July 1998 to

318 Mr David Brownscombe, Rio Tinto, transcript of evidence, p. 27.

319 Dr Mark Sceats, Australian Photonics CRC, transcript of evidence, p. 139.

July 2002 to \$739 million.³²⁰ The IR&D Board approved \$160 million in Start grants from July 1998 to 31 March 1999. Offers between \$170 million and \$200 million are expected to be made in 1999-2000.³²¹

5.31 Virtually all Australian companies are now eligible for assistance under the revised program, which has three main components:

- a core grants element which provides similar benefits to the previous R&D Start program – that is, funding for up to three years covering up to 50 percent of a project’s costs. To be eligible, firms need to demonstrate that group turnover was less than \$50 million in each of the previous three years;
- **R&D Start-Plus:** this new element provides grants of up to 20 percent of a project’s costs for companies with a group turnover of more than \$50 million; and
- **R&D Start-Premium:** this new element provides additional support for projects with “exceptional merit” and “outstanding prospects of commercialisation” (as judged by the IR&D Board), to a maximum of 56.25 percent of project costs. The support provided under R&D Start-Premium is repayable upon successful commercialisation, through a royalty agreement or similar arrangement.³²²

5.32 The revised program aims to increase the number of private sector R&D projects with high commercial potential, encourage the commercialisation of the outcomes of R&D, foster links between industry and research institutions, and increase funding by the finance sector of R&D and commercialisation activities.³²³

5.33 Proposals for funding are assessed by the IR&D Board against published selection criteria. The Board is able to vary the level of support depending on a project’s public benefit, closeness to market, capacity to attract private finance and the nature of the technology. Applicant firms must demonstrate technical expertise as well as the financial viability, management skills and industrial capacity needed to commercialise the product, service or

320 \$40 million of these funds were reallocated in the 1999-2000 budget to the Shipbuilding Innovation Scheme. For further details see Senator the Hon Nick Minchin, *Science and Technology Budget Statement 1999-2000*, p. 2.7 & p. 5.45.

321 DIST, submission no. 48, appendix 2 p. 1; DISR, submission no. 48.2, p. 6; and Senator the Hon Nick Minchin, *Science and Technology Budget Statement 1999-2000*, p. 5.42 & p. 5.52.

322 DISR, submission no. 48.2, p. 6 and *Investing for Growth: the Howard Government’s Plan for Australian Industry*, December 1997, pp. 32-33 at <http://www.disr.gov.au/growth/> (as at 10 February 1999).

323 DIST, submission no. 48, Appendix 2 p. 1 and Senate Economics References Committee, *Creating Opportunities*, July 1998, p. 162 at <http://www.aph.gov.au/senate/committee/history/index.htm#Economics> (as at 10 February 1999).

technology. Equally important are a strong market potential for the product and an effective commercialisation strategy.³²⁴

Competitive grants schemes - advantages and disadvantages

5.34 R&D Start grants are disbursed through a competitive process, unlike the tax concession which is an entitlement for all companies undertaking eligible R&D. The government sees the advantages of competition as:

*...ensuring strong support for the best projects, encouraging private sector participation and concentrating on high-value projects. As in the wider marketplace, firms compete against each other for support.*³²⁵

5.35 The R&D Start program has a number of advantages. The level of support can be substantially higher for successful applicants than that provided by the tax concession. This is particularly so for those low-profit companies, including small start-up companies, for which the tax concession is of little use. Also, an “up front” grant might be more successful than the tax concession in inducing R&D that would not otherwise have been performed.³²⁶

5.36 Against this is the fact that the cost of running a competitive grants scheme, relative to its disbursements, is substantially higher than the cost of a generally-available tax concession, while compliance costs for business are also higher. Also, many applicants will inevitably be unsuccessful, despite seeking to undertake R&D that some observers might consider to be as worthy as that of successful applicants.³²⁷ As explained by the Productivity Commission in its report on telecommunications equipment, systems and services:

... companies using the tax concession ultimately decide which projects will go ahead, while in all other support mechanisms there is an additional layer of filtering by external agencies – with the administrative overheads and the dangers of discretion and subjectivity that this can entail. As we note ... the pace of change in telecommunications equipment is particularly rapid – and

324 The Hon John Moore MP, *Science and Technology Budget Statement 1998-1999*, p. 6.76.

325 *ibid*, p. 6.75.

326 Industry Commission, *Research and Development*, p. 32 & pp. 661-666.

327 *ibid*.

*complicates technological assessments by external agencies even further.*³²⁸

5.37 These advantages and disadvantages were noted in the evidence presented to the Committee. Ms Linda Botterill of the MTIA stated that while R&D Start provides an incentive for companies unable to benefit from the tax concession, and partially reverses earlier cuts to government spending:

...in terms of the sorts of numbers of companies that have access to that program, as I indicated, 50 companies have been supported in 18 months under R&D Start [as at March 1998], whereas 3,500 companies per year are accessing the tax concession. So, yes, for those companies that get R&D Start, the effective tax concession is getting up ... but it is only available on a competitive basis – which means that some worthy projects are likely to miss out on support, whereas the tax concession is generally available to all eligible projects.

*...our preference is for broad based support like the tax concession, where projects receive support if they are eligible, rather than two worthy projects having to compete.*³²⁹

5.38 The Australian Academy of Science expressed its preference for the simplicity and lower cost for applicants of the former 150 percent tax concession.³³⁰ The Australian Mineral Industries Research Association (AMIRA) similarly argued that R&D Start is:

...essentially a regressive substitute for the 150 per cent tax concession. It does involve more bureaucracy. It is more of a pick a winner scheme. It is not clear what the process of selection is. It is not correct to compare it in terms of the 150 per cent tax concession. In [Investing for Growth] there were various levels of comparison that [an R&D Start grant is] equivalent to 189 per cent or something like that. That is an incorrect comparison because there is no comparison between a generally available tax concession which anyone can apply for and basically a pick a winner

328 Productivity Commission, *Telecommunications Equipment, Systems and Services*, p. 210.

329 Ms Linda Botterill, MTIA, transcript of evidence, p. 88. See also MTIA, submission no. 7, p. 1 & p. 3.

330 Australian Academy of Science, submission no. 10 and Sir Gustav Nossal, Australian Academy of Science, transcript of evidence, p. 42.

*scheme which is based on a bureaucratic process and a technical committee.*³³¹

5.39 Other participants in the inquiry referred to excessive costs in applying for grants, delays in the selection process, the exclusion of certain important project costs from the list of allowable expenses, the transfer from industry to government of decisions as to what R&D is viable, and difficulties for many SMEs in involving themselves in larger projects³³² (although the AVCC submitted that the reframing of R&D Start to embrace firms of all sizes, together with revised guidelines for joint applications, partially address the problems of “critical mass” and university-industry collaboration referred to elsewhere in this report).³³³

5.40 As DISR noted, whether the government has found the right balance between targeted grants and the generally-available tax concession could be considered by the National Innovation Summit working group on “incentives: assessment of public and private Australian and international mechanisms to increase business innovation”.³³⁴

Recommendation 17:

5.41 The Committee recommends that the government request that the forthcoming National Innovation Summit evaluate the effectiveness of the R&D Start program, and the appropriate balance between targeted assistance and the generally-available tax concession.

Access to venture capital

5.42 Limited access to venture capital is an acknowledged problem for Australia’s small, innovative firms. Dr Paul van Saarloos, who runs a company which sells medical laser systems, informed the Committee that:

For reasons that are hard to explain ... Australian investors seem to prefer to invest in mining ventures rather than technology companies – even if the technology company offers lower risk for higher return. This places another

331 Mr Richard Davies, AMIRA, transcript of evidence, pp. 30-31. See also AMIRA, submission no. 21, attachment p. 2.

332 See Mr George V. Poropat, submission no. 17, p. 2; Dr Paul van Saarloos, submission no. 23, p. 2; Rio Tinto, submission no. 25, p. 9 and submission no. 25.1; and Mr Frank Forster, transcript of evidence, p. 89.

333 AVCC, submission no. 49, pp. 3-4.

334 DISR, submission no. 48.2, p. 8.

*obstacle in the path of funding startup technology companies.*³³⁵

5.43 According to the IR&D Board:

The clear result of the ABS National Innovation Survey was that companies considered the lack of appropriate sources of finance to be the greatest impediment to R&D. Current financial institutions have difficulty in financing R&D projects which have intangible assets and outcomes.

*... Over 60% of firms consider it a significant impediment, according to the national ABS survey. Surprisingly, even many very large firms with a substantial asset base feel that they cannot readily access funding for projects that involve technological innovation.*³³⁶

5.44 The Senate's 1997-98 inquiry into promoting Australian industry was told that other countries have structures to promote access to venture capital. For example, the United States has a structure of venture capital companies which helps firms progressively develop in size:

*There is no such strategy available in Australia; small companies might obtain some venture capital assistance enabling them to move up a rung, but that is all.*³³⁷

5.45 Three important initiatives examined during the inquiry were the former "syndication" provisions of the R&D tax concession, the Innovation Investment Fund and the Pooled Development Fund.

Syndication

5.46 Syndication was introduced following a review in 1987 of the R&D tax concession. Syndication enabled two or more companies to jointly register for the concession for projects with R&D expenditure in excess of \$500 000, subject to a range of conditions (including intended commercialisation) set out in the *Industry Research and Development Act 1986*.

5.47 Syndicates generally consisted of investor firms which contracted research firms to undertake R&D. The research firms were often recording tax losses and thus could not benefit from the tax concession. Syndication

335 Dr Paul van Saarloos, submission no. 23, p. 2.

336 IR&D Board, *Scoreboard 97: Business Expenditure on Research and Development*, 1997, p. 20 & p. 23 (exhibit no. 21).

337 Senate Economics References Committee, p. 154.

allowed those firms to bring forward the realisation of their accumulated tax losses, and trade those losses for investors' funds.³³⁸

5.48 For most syndicates, the essence of the arrangement was the sale of "core technology" by a tax-loss research company to a syndicate in which the financier had a substantial interest. The sale of technology created:

- a tax deduction of 100 percent of the value of the core technology which reduced the taxable profits of the investor company; and
- a tax liability of the same amount (generally not sufficient to extinguish tax losses in total) in the research company with tax losses.³³⁹

5.49 The research company's nominal tax deduction had its real value increased by the transfer to the financier, because it could be used immediately by the financier rather than having to be deferred until the company in tax loss started earning profits. As explained in the Industry Commission's 1995 report on R&D:

The tax loss company suffers no immediate change in tax position as a result of the transaction, although it does give up a future tax deduction at the time of the sale. The financier gains a very substantial advantage through obtaining a large tax deduction in virtue of a capital sum which would presumably otherwise be invested without full deduction. The arrangements [for most syndicates] are such that the capital and interest are protected, so that the financier has a guaranteed return.

The asymmetry in the transaction – an immediate tax deduction on one side but no immediate increase in taxable income on the other – creates a net gain which, under the scheme, must be applied to an R&D project. In effect, the tax loss research company sells its tax losses for a sum which finances an investment in R&D.³⁴⁰

5.50 Syndication was thus fundamentally different in intention from the general R&D tax concession, being a financing instrument rather than a tool for lowering the costs of performing R&D.³⁴¹

338 House of Representatives Standing Committee on Industry, Science and Technology, pp. 89-90 and Industry Commission, *Research and Development*, p. 34.

339 Industry Commission, *Research and Development*, p. 551.

340 *ibid.*

341 *ibid.*, p. 550.

5.51 A typical syndication research firm was of medium size, had a high R&D intensity and conducted a large amount of R&D by Australian standards. Financial institutions, particularly banks, were the major suppliers of finance in syndicated projects. Promoting involvement by financial institutions in R&D was one of the aims of syndication, and those institutions accounted for as much as 80 percent of the finance obtained through the scheme.³⁴²

5.52 Syndication was probably effective in inducing new R&D (as distinct from subsidising R&D which would have been carried out anyway) because the research companies which sought syndication funding had typically accumulated substantial tax losses. This made securing traditional forms of finance difficult:

*Because of this 'last resort' nature of syndication finance, most of the R&D carried out under the scheme probably would not have gone ahead otherwise. Survey evidence reported by the BIE ... suggests that around 70 per cent of R&D conducted under syndication would not have proceeded in its absence. This figure is much higher than the amount of additional R&D apparently induced by the general tax concession scheme – estimated to be between 10 and 17 per cent of eligible R&D...*³⁴³

5.53 Balanced against this was the very high public subsidy of syndicated R&D when compared with the general tax concession. The effective subsidy, in the case of the 85 percent of syndicates that were “fully guaranteed”, was around 45 cents for each dollar spent on R&D.³⁴⁴

5.54 Also, the practical arrangements for most syndicates were extremely complex. In 1994 the BIE reported that the trade in tax losses was “...conducted in a very complex way and it loses all transparency in the process”.³⁴⁵

5.55 A number of participants in the Industry Commission’s R&D inquiry expressed serious reservations about syndication. Gradipore Ltd told the Commission that:

Syndication is probably the worst example of that type of arrangement [for using tax losses], where they bring a whole party of unrelated people whose only interest basically is to get the tax deduction out of that structure.

342 House of Representatives Standing Committee on Industry, Science and Technology, p. 90.

343 Industry Commission, *Research and Development*, p. 554. See also pp. 655-656.

344 *ibid*, p. 657. For details on “guaranteed” as distinct from “at risk” syndicates, see pp. 550-551.

345 Quoted in *ibid*, p. 551.

*We have looked at using our tax losses to fund R&D, but because of the various constraints that are in place there, you tend to get the wrong type of investors, interested purely in the tax break. That's all they're there for. They don't care about whether there is going to be any research results or anything else.*³⁴⁶

5.56 A representative of Critec Pty Ltd stated:

*I am sick of merchant bankers and other money men working from mail-lists provided them by Government and touting for R&D tax losses and selling financial schemes based around them. Frankly, this activity, best described as financial telemarketing or spruiking, discredits the whole concept and should be abolished at the earliest possible opportunity.*³⁴⁷

5.57 According to Memtec:

*It is a valiant attempt by those that are constrained as to capitalisation to get money, but [from the government's viewpoint] it's giving away massive tax deductions to intermediaries for very little outcome.*³⁴⁸

5.58 Syndication was terminated at 23 July 1996, principally owing to its high costs and concern over tax minimisation by syndicate partners who had little interest in commercial development of R&D (pages 23 and 24 also refer).³⁴⁹ The IR&D Board may continue to grant extensions to existing syndicates until 2004-05. Around 200 syndicates remain active in order to complete projects.³⁵⁰

5.59 Several participants in this Committee's inquiry criticised the removal of syndication. FASTS, for example, has argued that:

The R&D [Syndication] Scheme was rejected by the Coalition Government without adequate consideration of its many advantages and the positive review by the Bureau of [Industry] Economics. An amended version of the R&D Syndication Scheme should be reinstated, and its benefits made available to Australia's best research teams in the

346 Quoted in *ibid*, p. 556.

347 Quoted in *ibid*.

348 Quoted in *ibid*.

349 DISR, submission no. 48.1, p. 13 and submission no. 48.2, pp. 8-9; the Hon Peter Costello MP and the Hon John Moore MP; and Senator the Hon Nick Minchin, "Australian Business Still Behind International Competitors in R&D Expenditure".

350 Senator the Hon Nick Minchin, *Science and Technology Budget Statement 1999-2000*, p. 5.51.

*public and private non-profit sectors on the same taxation basis as the private sector.*³⁵¹

5.60 Dr Paul van Saarloos stated that:

*I personally believe [syndication] was the best scheme introduced. Scrapping this scheme has taken a huge amount of research dollars out of Australia. Letting the investor choose which research to fund is how it should be. It is the only scheme that could provide the bridge from basic research to commercial success. It did have major problems. The investor got too much benefit so he didn't always do the due diligence that he should have (because he got a major benefit even [if] he choose a poor project). It should have been fixed not discarded.*³⁵²

5.61 Other participants in the inquiry were more doubtful about the merits of syndication. AMIRA submitted that the syndication provisions "...were inherently unstable and were correctly scrapped".³⁵³ Mr Peter Laver of the Academy of Technological Sciences and Engineering stated that:

*I think the government was right to be concerned with some of the fairly imaginative taxation schemes ... and I think that gives research a bad name.*³⁵⁴

5.62 Mr George Poropat, a CSIRO officer submitting in a private capacity, stated that:

...the decision to end the syndication of research and development is possibly a step in the right direction. It appears that in too many cases syndication may have become a focus for financial engineering and at times embodied gross distortions of the description of the research and development being carried out in order to achieve financial objectives rather than technical objectives. It is unlikely that the real value of syndication or the degree to which it was misused can be assessed but it is probable that it has not substantially improved the

351 FASTS, *A Science Policy for Australia in the 21st Century*, pp. 17-18. Tax-exempt research bodies such as universities and government research agencies could not participate in the former syndication arrangements unless the investors were fully at risk. See also Australian Academy of Science, submission no. 10, attachment titled "Syndicated Research and Development".

352 Dr Paul van Saarloos, submission no. 23, p. 2.

353 AMIRA, submission no. 21, attachment p. 2.

354 Mr Peter Laver, Academy of Technological Sciences and Engineering, transcript of evidence, p. 17.

*effectiveness of the conduct of research and development in Australia.*³⁵⁵

5.63 In light of the above, the Committee does not recommend that syndication be restored. The Committee notes that the Senate's inquiry into promoting Australian industry similarly concluded that R&D projects should not "...be used simply as a means of tax avoidance by otherwise disinterested parties".³⁵⁶

5.64 It remains desirable of course for small, innovative companies to have access to affordable venture capital. An important policy initiative to this end was the establishment in 1997 of the Innovation Investment Fund (IIF).

The Innovation Investment Fund

5.65 The IIF is a venture capital program announced in the government's March 1997 *More Time for Business* statement. The IIF is designed to:

- improve the commercialisation of Australia's R&D capabilities by encouraging the growth of early stage technology-based companies;
- create a self-sustaining early stage, technology-based venture capital industry;
- develop fund managers with experience in the early stage venture capital industry; and
- establish in the medium term a "revolving" or self-funding program.³⁵⁷

5.66 The IIF program will establish eight or nine venture capital funds in two stages, with total Commonwealth funding of \$230 million. Those funds are to be provided on a 2:1 basis with private capital, creating a potential investment pool of about \$345 million. Several early stage investment funds in the range of \$30 million to \$50 million will be established. The funds, to be operated by private-sector funds managers, will invest in technology companies with an annual revenue of \$4 million or less averaged over the previous two years.³⁵⁸

355 Mr George V. Poropat, submission no. 17, p. 3.

356 Senate Economics References Committee, p. 40.

357 DISR, submission no. 48.2, p. 9; the Hon John Moore MP, *Science and Technology Budget Statement 1998-1999*, p. 5.37; and Senator the Hon Nick Minchin, *Science and Technology Budget Statement 1999-2000*, p. 1.11, p. 2.5, pp. 5.42-5.43 & p. 5.52.

358 The Hon John Moore MP, *Science and Technology Budget Statement 1998-1999*, p. 2.7.

There is some debate about the efficacy of the \$4 million cap, which is intended to ensure a good spread of investments. IIF managers reportedly argue that it is difficult

5.67 Five fund managers were licensed by the IR&D Board in the first round.³⁵⁹ Applications for the remaining three to four fund managers will be called in 1999. It is anticipated that each licensed fund will invest in between 15 and 20 companies over the ten-year life of the IIF.³⁶⁰

5.68 An additional IIF – the Renewable Energy Equity Fund (REEF; page 39 also refers) – has also been established. The REEF will provide \$30 million for the commercialisation and application of renewable energy technologies. As with the IIF, the government will provide two-thirds of the capital, with the remainder to be sourced from private capital raised by the fund manager. Applications for a REEF national fund manager were called in April 1999.³⁶¹

5.69 The role and operation of the IIF have been explained further by DIST:

A significant proportion of a fund's investment would involve early stage activities such as seed, start-up and first round funding. The fund will be driven by market mechanisms in all respects.

[The IIF and other programs] are not intended to meet the full funding needs of the many small innovative firms seeking equity capital. Rather they are expected to develop within the venture capital industry the skills and experience necessary to support early stage venture capital investment. They are also expected to provide a demonstration effect to attract other venture capital firms and investors to this part of the market (provided they prove successful).³⁶²

to retain expanding Australian companies when many of them can get higher capital injections from foreign sources. See “Investment Cap ‘Will Drive Talent Offshore’”, *The Australian Financial Review*, 22 June 1999.

359 For profiles of the five IIF managers appointed in the first round, see *AusIndustry Magazine*, No. 9, June/July 1998, pp. 9-11 (included in exhibit no. 28).

This Committee’s April 1999 discussion paper, which summarised the evidence to the inquiry, cited (p. 59) media reports from the latter half of 1998 suggesting that two of the five funds – Momentum Funds Management and Coates Myer & Co – were having difficulty attracting institutional investor support. The Committee notes that after being granted extensions by the IR&D Board, both funds secured the requisite monies and were operational by November 1998.

360 The Hon John Moore MP, *Science and Technology Budget Statement 1998-1999*, p. 5.37.

361 DISR, submission no. 48.2, p. 9 and Senator the Hon Nick Minchin, *Science and Technology Budget Statement 1999-2000*, p. 2.6 & p. 5.52.

362 DIST submission dated 10 October 1997 to the Senate Economics References Committee’s inquiry into promoting Australian industry (submissions page 781).

5.70 The Australian Academy of Science endorsed the IIF as “very good”,³⁶³ while the MTIA welcomed the additional funding announced in *Investing for Growth*:

*This was a positive move, amounting to an increase of about 30 per cent. A number of reports have indicated that lack of access to venture capital is a major impediment to innovation in Australia, and this program has the potential to be very valuable.*³⁶⁴

5.71 The Committee agrees that the IIF could be a valuable program, particularly if it succeeds in its stated aim of developing a self-sustaining early stage venture capital industry. The importance of this was emphasised by Dr Mark Sceats of the Australian Photonics CRC:

... in two or three years time every telephone call you make from Australia is going to go through a component researched in our centre and licensed to our start-up company [Indx Pty Ltd]. That is a great achievement when you think that years ago people said, ‘Don’t bother in Australia. It will never happen.’...

The biggest [barrier was] the lack of access to seed venture capital. We had to rob the research funds – take a loan on the research funds, looking three years out – to invest in that company as seed capital and get it going. Then we had to sell the equity in order to pay back the loan. That was not our preferred strategy for a long time. We tried for 18 months to raise seed venture capital.

*But here’s the rub: you are trying to get seed venture capital into a company to make a technology for which a market does not yet exist. It is not a replacement for anything that exists. It is something new. It is very hard to get the Australian investment community used to that. The way that they evaluate risk in these ventures is not conducive to that type of innovative technology. We believe that the Innovation Investment Fund will assist that. It has been a good initiative of the government, but it is still a very small amount of money compared with what is really required. I guess we hope that the success of [Indx] will show the way to others – that there are good marketing opportunities.*³⁶⁵

363 Sir Gustav Nossal, Australian Academy of Science, transcript of evidence, p. 42.

364 Ms Linda Botterill, MTIA, transcript of evidence, p. 83. See also MTIA, submission no. 7, pp. 3-4.

365 Dr Mark Sceats, Australian Photonics CRC, transcript of evidence, pp. 142-143.

5.72 DIST submitted that it is too early to quantify the IIF's success, or to know if it is supporting those same "ideas rich, cash poor" start-up companies that formerly had access to syndication.³⁶⁶ While the IIF will be evaluated by the government in 2001-2002,³⁶⁷ the Committee feels that its performance to date should at least be discussed at the National Innovation Summit.

Recommendation 18:

5.73 The Committee recommends that the government request that the forthcoming National Innovation Summit evaluate (a) the extent to which the IIF is developing a self-sustaining venture capital market, and (b) whether the IIF is successfully targeting the projects and companies which should be supported.

5.74 The National Innovation Summit could also discuss measures to complement the IIF. For example, the RMIT suggested that more attention needs to be given to pre-venture capital "...to enable an innovation to be taken from proof of technical concept to proof of market".³⁶⁸ FASTS has referred to the importance of government purchasing policies – such as the "initially highly successful" Factor (f) scheme for pharmaceutical products – and has suggested that the R&D tax concession be extended to interest and dividends paid by trusts and/or funds set up specifically to invest in R&D and high technology.³⁶⁹

5.75 Mr Peter Laver of the Academy of Technological Sciences and Engineering suggested that an insurance scheme be established, to offset the risk of investing in new Australian technology:

... someone may have cobbled together a prototype and you do not know whether it is going to work or not. Your heart says, 'Hey, it would be terrific to support this but the risk is too high. I might put a lot of money in it and it fails. I can get second-class technology from somewhere else but it is basically risk free.'

We have to look at the risk in the hands of the purchaser like [a] scheme for new technology that basically says, 'Okay, if this is a registered new technology of some description' – you can probably go through the IR&D Board to get registration – 'I can actually take out

366 Mr Michael Holthuyzen & Mr John Spasojevic, DIST, transcript of evidence, p. 223 & p. 229. See also DISR, submission no. 48.1, p. 14.

367 Government response to Senate Economics References Committee.

368 RMIT, submission no. 24.1.

369 FASTS, *A Science Policy for Australia in the 21st Century*, p. 17. See also House of Representatives Standing Committee on Industry, Science and Technology, p. 48. For more details on the Factor (f) scheme, see DISR, submission no. 48.1, pp. 7-8.

*insurance that it will meet the specifications that it claims.’
Then the inventor has an easy way of raising money
because he has an order sitting up there. Until they sell
something, they do not know whether they are able to repay.*

*...Both sides win: the inventor gets the incentives to go
through to development and the purchaser of the technology
either gets a superb piece of technology, which hopefully it
will be, or if it doesn’t turn out to be superb, he has laid off
his risk by some sort of insurance scheme.³⁷⁰*

Recommendation 19:

5.76 Further to Recommendation 18, the Committee recommends that the government ensure that the evaluation canvasses whether additional measures are required to complement the Innovation Investment Fund.

Pooled Development Funds

5.77 Pooled Development Funds (PDFs) are private companies which pool investors’ funds to provide patient equity capital for SMEs. The PDFs receive a favourable 15 percent tax rate on income earned from their investments. For investors, dividends from PDFs and any capital gains from the sale of PDF shares are tax-free.³⁷¹

5.78 In the 1999-2000 federal budget the PDF program was amended to:

- permit Australian superannuation funds, and similar overseas pension funds and limited partnerships of such funds, to wholly own a PDF;
- permit PDFs to buy back their own shares and allow PDFs to return capital to their shareholders;
- permit PDFs to make loans to equity investees, subject to a maximum 20 percent of the value of each PDF’s capital base; and
- permit the merger of PDFs.³⁷²

370 Mr Peter Laver, Academy of Technological Sciences and Engineering, transcript of evidence, pp. 21-22.

371 Senator the Hon Nick Minchin, “Improved Access to Capital For Small and Medium Enterprises” (media release), 11 May 1999 at http://www.disr.gov.au/media/1999/minchin/minchin99_38.html (as at 30 July 1999) and DISR, submission no. 48.2, p. 9.

372 Senator the Hon Nick Minchin, “Improved Access to Capital For Small and Medium Enterprises”.

5.79 The changes do not improve the tax situation of overseas pension funds, which are commonly tax exempt in their home countries and unable to use any credits for the 15 percent tax they would pay on PDF earnings in Australia.³⁷³ The tax treatment of overseas pension funds has been raised in the increasing debate about Australia's capital gains tax regime.

Capital gains tax

5.80 A number of submissions suggested that Australia's capital gains tax (CGT) discourages the growth of local high-technology industries. Compared with a rate of 20 percent in the US, the CGT rate for many Australian investors – assuming low inflation and a correspondingly small “indexation index” – is the top marginal income tax rate of 47 percent (or for Australian and foreign companies, the company tax rate of 36 percent).³⁷⁴

5.81 Professor Ashley Goldsworthy, who chaired the government's Information Industries Taskforce, has noted that participants in his inquiry rated the CGT as “the number one obstacle” to overseas investment.³⁷⁵ More recently there was consensus at the National Innovation Summit tax workshop (page 98 refers) on the need for CGT relief targeted at venture capital.³⁷⁶

5.82 The government has appointed prominent businessman Mr John Ralph AO to conduct a review of business taxation arrangements. His report was presented to the government on 2 August 1999, as this Committee's report was being finalised.

5.83 As the Academy of Technological Sciences and Engineering stated in its submission to the Ralph review:

Particularly in the case of small, rapidly growing technology based companies which will eschew dividends in early years to retain earnings to invest in growth, the present Capital Gains Tax (CGT) system is a massive deterrent to investors. For such high risk companies investors inevitably realise their returns through selling their shares to another company or into a public offering. In Australia, for private investors, this means losing nearly half of their potential returns while being restricted to writing off any loss they make (not an uncommon outcome)

373 “‘Flexibility’ Bid to Boost Investment Funds”, *The Australian Financial Review*, 12 May 1999.

374 See Mr Geoffrey Ashton (Chairman, Catalyst Investment Managers) quoted in Senate Economics References Committee, p. 187. See also AVCC, submission no. 49, pp. 13-14.

375 Quoted in “Anxious Industry Awaits Budget Tax Rulings”, *The Australian*, 12 May 1998.

376 DISR, submission no. 48.2, p. 10.

against more successful gains they make elsewhere [Australia's tax system only allows capital losses to be written off against current or future capital gains]. It is no wonder that international investors shun Australian technology stocks and Australian investors find blue chip shares and property more attractive.

What makes the current CGT regime even more nonsensical is the relatively high investment the Australian Government makes in R&D in organisations such as CSIRO and the RIRDCs, and through programmes such as the CRCs and START. To encourage research yet discourage the commercialisation of the outcomes of this research through a penal taxation system is mystifying.³⁷⁷

5.84 The Academy added that it is “impossible” to explain to an international venture capitalist why they should invest in Australia instead of Singapore, Israel or the USA.³⁷⁸

5.85 The Ralph review has generated much discussion about Australia's failure to attract venture capital from US pension funds in particular. Income earned by those funds on venture capital investments in the US is exempt from tax.³⁷⁹ As explained by Mr Roger Allen, co-principal of Allen & Buckeridge (one of the five fund managers appointed in the first round of the IIF):

The largest source of venture capital in the world is US pension funds. There is about US\$80 billion globally in venture capital, of which US\$55 billion is in the USA ... they are the most experienced investors in this sector. Not one cent of that money has come into Australia, and that is because Australia has a hostile capital gains tax regime...

The pension funds and endowments in the USA do not pay capital gains tax when they invest in Israel or England, or in the USA itself, so why would they invest in Australia, which has this barrier?³⁸⁰

5.86 Mr Allen referred to the potential effects of the CGT on employment growth:

... in the USA there have been some 44 million jobs shed since 1980. Many of the new jobs in the USA, which has

377 Academy of Technological Sciences and Engineering, “Submission on the Consultation Paper on Review of Business Taxation”, p. 3.

378 *ibid.*

379 AVCC, submission no. 49, pp. 13-14.

380 “How Australia Can Build High Technology Companies: An Interview With Roger Allen”, *ASX Perspective*, 1st Quarter 1999, p. 55.

seen about 73 million new jobs created in the same period, have been in companies backed by venture capital ... It is instructive that in European countries with high unemployment such as France and Germany, funding of early-stage companies is much more difficult to achieve than in the USA. Capital gains tax rates go to the core of the problem.

... One of the problems we are finding, in building management teams in early-phase companies, is how do you motivate people to leave their well-paying jobs, take a modest salary or no salary and starve for years, making their money out of the growth in the value of the business. That model has worked so brilliantly in the USA. It has provided the greatest wealth creation, with people stepping out of very large jobs, taking low salaries in these start-ups, in exchange for equity. If you are going to lose nearly half of it in tax, it is just not competitive. We are shooting ourselves in the foot, because we need these young companies to come through to generate the jobs. Most of these companies also have much greater export ratios than our largest companies – which are also shrinking in number through acquisition.³⁸¹

5.87 A related problem is Australia's unsympathetic treatment of share options. Options are a remuneration tool used extensively by, for example, start-up information technology companies in the US. Unlike the US, where employees pay tax on gains only when share options are exercised, Australians are liable for CGT when shares are granted, based on an estimation of the value of the shares. The tax is payable even if the company in question suffers a reversal sufficient to render the options worthless.³⁸² The frustration caused by these rules was expressed by the chief executive of a small software developer that has moved from Sydney to San Francisco:

I'm not trying to avoid tax, I'm just trying to give people an incentive to work for me, in a way that isn't completely ludicrous. Tax me when I get the reward, not when I take the risk. That's the core of the problem.³⁸³

5.88 A 1999 survey of 32 UK and US venture capital providers, which manage combined funds of \$49 billion, by Deloitte Touche Tohmatsu concluded that an additional \$600 million to \$1.9 billion would be invested in Australia if the CGT rate was internationally competitive. The survey noted

381 *ibid*, pp. 55-56.

382 "Exodus ... Why Australia's IT Champions Are Leaving the Country", *The Australian Financial Review*, 29 May 1999.

383 Mr Brett Adam, Chief Executive of Verve, quoted in *ibid*.

that in 1998 only 12 percent of the Australian venture capital market came from overseas, compared with 57 percent of the UK market.³⁸⁴

5.89 In addition to lowering the CGT rate, other options for reform might be to exempt certain investments in high technology SMEs from CGT, an exemption from CGT for US pension funds, and “time weighting” of CGT so that less tax is payable the longer an asset is held. The Committee has taken insufficient evidence to make recommendations on this matter. However, the Committee will be strongly interested in the outcome of the review of business taxation and the impact that hopefully will have for innovation and long-term investment.³⁸⁵

384 Mr Chris Blaxall, Director of Corporate Finance Deloitte Touche Tohmatsu, quoted in “Capital Gains And Not a Lot Being Ventured, Says Survey”, *The Australian Financial Review*, May 1999. See Deloitte Touche Tohmatsu, *Venture Capital in Australia*, April 1999.

385 See also Senate Economics References Committee, p. 157 and Review of Business Taxation, *A Platform for Consultation: Discussion Paper 2 Building on a Strong Foundation*, February 1999 at <http://www.rbt.treasury.gov.au> (as at 1 March 1999).