

For those concerned with union bargaining, particularly when related to product and process innovations, Fisher provides a wealth of researched data. Further, the author provides a particularly interesting historical approach to the relationships of wages, productivity and technological change. This should be of interest to economists concerned with the mainsprings of post-war wage bargaining up to and including the experiment with indexation.

Fisher has tilled some new ground and in so doing gives us cause to reassess the effectiveness of the formal system we have created and which receives an almost religious devotion from unions, employers, governments and teachers of industrial relations. For this reason the book deserves to be widely read and taken seriously by policy-makers — though I suppose they will be the last to read it.

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Developing High Technology Enterprises for Australia (Espie Report) by the Australian Academy of Technological Sciences
(Australian Academy of Technological Sciences, Canberra, 1983) pp. ix + 132, \$10.00.

Just three years ago was published the Myers Report, *Technological Change in Australia*, a set of four sizeable volumes displaying such striking incompetence that they have had no impact whatsoever on the process of technological change in Australia. In contrast, *Developing High Technology Industries for Australia*, the Espie Report, is a slim volume and may well have a profound effect on Australia's technological future. This is not to say that Espie has all the answers — the Report candidly admits that so much is wrong in Australia that a universal solution is impossible — but Espie has at least come to grips with one issue. Everything was beyond the grasp of Myers.

The Espie Report deals with venture capital, the absence of which is seen by many to have stunted the development of high technology in Australia. It recommends the formation of new venture capital companies, called Growth Business Investment and Management Companies (with the unpronounceable acronym GBIMC), licensed by government and affording their investors 100 per cent tax deduction on investments. These venture capital companies are to select a portfolio of promising high technology companies, are to take equity in these companies and play an active part in their management. The recommendations of the Espie Report have been warmly welcomed by those interested in the development of high technology in Australia as an obvious first step in that development, so obvious, in fact, that one wonders why a prestigious committee had to deliberate for two years before they could be suggested. The answer probably has little to do with high technology *per se* and more to do with the threat it poses as a claimant in the redistribution of resources that will accompany any restructuring of the economy. Despite resolute

opposition from some government departments, Cabinet has, at the time of writing, accepted the Espie recommendations in principle, and the Minister for Science and Technology has promised an announcement accepting the bulk of the proposals in September.

While the conclusions of the Espie Report are fuel to warm the hearts of those anxious to stimulate change in the Australian economy, the means by which the Report reaches those conclusions will chill the soul of those with an old-fashioned attachment to intellectual rigour. The Report was prematurely delivered — in draft form — just before the last election to a government suddenly desperate to show an interest in high technology, and its ultimate birth is hardly likely to have been assisted by that earlier, hasty delivery. But even the Report's conception is shrouded in mystery: the Academy was apparently invited to examine "the issues" by the previous Minister for Science and Technology and there are indications that his Department executed some of the survey work, but no terms of reference are presented and whatever there might have been were apparently broadened during the investigation.

The Academy started its work from the premise that there is nothing wrong with Australian invention or technology; innovation, however, is weak and the problem lies in financial and managerial inadequacies (pp. 41-2). Some support of that stance would have been welcome, as would further investigation of just why it is that community attitudes are not conducive to technological change in Australia (p. 43). Without presenting a shred of evidence, the Report declares that government technology policy has "certainly" been successful (p. 26), but that more policy is needed. Indeed, the whole Report is woefully lacking in anything smacking of evidence, and is at its strongest and most honest when it simply reproduces opinions. This reviewer can cope with the regurgitated, and apparently unpublished, convictions of Stanley Pratt, President of the Capital Publishing Corporation, and of Norman Fast, MBA (New York) PhD (Harvard). He can even tolerate

"A US venture capitalist stated to the Committee that . . . The Committee wishes to emphasise the importance of these findings . . ." (p. 24)

without so much as a name being given in evidence. But he will not stomach the detailed analysis of studies by American chartered accountants (p. 25) or the University of New Hampshire (p. 108) without adequate citation to permit verification. Such a serious failing in the Report can mean only that the Academy has been inept or has sought to deceive.

Much more serious is a conceptual problem. Although the Academy is considering the problem of venture capital for high technology enterprises in Australia, it is clearly thinking mainly — and often only — of those in manufacturing industry. This is a Report "to develop a more competitive and forward looking manufacturing industry" (p. iii), concerned with "the decline in Australian manufacturing" (p. 26) and recommending incentives for enterprises which "are mainly engaged in manufacturing" (p. 73). The engineers of the Academy have a strange notion of high technology limited largely to the manufacturing sector, especially strange as the survey of 255

Australian high technology firms carried out for the Espie Committee showed by far the largest group to be in the computer software industry (p. 93).

The survey itself provides more grounds for concern. It is mandatory upon those responsible for such a Report to provide some survey methodology: this Report leaves the reader foundering. Details of the survey appear in a lengthy Attachment 2. No mention is made of "the 18 surviving enterprises examined in detail by the Committee" (p. 26) from which examination unfettered generalisations are made in the text. Have these 18 anything in common with the "21 high technology case studies" (pp. 70, 84) mentioned, in passing, elsewhere in the text? The whole sample of 255 had apparently experienced a 12 per cent growth in employment between June 1981 and June 1982. Although no figures are presented for previous years, it is admitted that "the employment growth record could only be described as moderate" (p. 32), which suggests a rather selective use of figures. The Report is determined to show that high technology enterprises create lots of jobs (at all skill levels) and in its enthusiasm falls into the trap, already occupied by several American studies, of comparing employment generation in all established firms with that in only surviving high technology firms. Inevitably, the conclusion is that "nearly all the net new jobs in the private sector are created by young, high growth companies" (p. 24).

There are also some oddities in the detail of the report's recommendations. New Australian high technology companies are not only to use high technology, but will preferably develop it in-house (p. 67). New venture capital companies are not to be really new at all, but rather specialised offshoots of existing financial institutions (pp. 56, 75). Nor does the Report really consider how its recommendations might fit in with other developments in the conservative confusion of technology and industry policy in Australia — the Campbell Report, for example, is not mentioned until page 40. What, one wonders, will be the impact of tax concessions for venture capital companies on the most common sources of start up capital for high technology entrepreneurs — friends, family and acquaintances (p. 126)? Time will tell, and in a very short time the amateurish scribbles of the Espie Committee will be forgot. Its recommendations seem destined to leave a more enduring mark, but they should be seen for what they are — good ideas derived from instinct and experience, not the result of research and logic.

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