contemplating a move to Western Australia). The real worth of the publication will be revealed when future information technology policy is formulated by the Western Australian government. Will the findings of the study be considered or will the report be ignored? The latter has been the fate of many such publications purporting to contain important implications for the development of government policy.

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Technology, Innovation and Economic Policy *edited by Peter Hall*
(Philip Allan, Oxford, 1986) pp viii + 248,
ISBN 0-86003-062-8, 0-86003-171-3 Pbk.

This book is a collection of essays that first appeared in a special number of the *Greek Economic Review*. In his Introduction, the editor, Peter Hall, states that the objective of publication is to give the reader some idea of the diversity of current research into the process of technological innovation and the policies appropriate for its stimulation and direction.

The first essay, contributed by the editor, and entitled 'The theory and practice of innovation policy', is a very well written survey of a number of issues in welfare economics and market failure that have been at the centre of economists' arguments either for or against government intervention in the process of technological change. In a brief thirty pages, nearly all the major topics are either touched upon or explored in some depth. It is to me a welcome addition to the list of references for my undergraduates, although those readers with little background in economics may find its compactness rather daunting. I must point out, however, that the survey is marred by one rather obvious but crucial error. On page 5 at the end of paragraph 2, Hall states that ". . . firms, in the main assumed risk averse, shy away from innovatory projects when compared with those associated with greater uncertainty." This should of course read, "when compared with those associated with greater certainty," or, to quote Arrow, "any unwillingness . . . to bear risks will give rise to . . . discrimination against risky enterprises as compared with the optimum."[1] I might suggest the inclusion of an erratum slip in future copies.

The second essay, by Stan Metcalfe, explores the processes of diffusion and selection, and is a fine example of how a whole body of work on technological change, post Nelson and Winter, is now proceeding. The key suggestion arising from the paper is that the diffusion of a technology and the development of that technology are simultaneously determined within any competitive market economy.

Following on these two theoretical papers, Rothwell presents a more impressionistic view of public policy problems, giving a personal view of the appropriate design of innovation policies to stimulate reindustrialisation. The

contrast between this approach and the theoretical approach of Hall is noticeable.

After a paper by Bruce Williams, which points out major landmarks in the treatment of the employment impact of technological change, Michele Ledic and Aubrey Silbertson consider what can be learnt from published data on flows of payments for technological transfers between countries. The issue in this paper that really caught my eye concerns payments between parent companies and affiliates, which the authors frequently suggest may have more to do with tax regimes than the inherent value of a technology. This reinforces for me a view that I have held for some time, that much further research is needed on how the behaviour of multinational companies may distort the relationship between technological innovation and economic performance by breaking the link between the location of research and the location of production.

The next three essays are ostensibly directed at the problems of developing countries. A paper by Bhalla and James considers the problems of integrating new technologies (specifically microelectronics, biotechnology and solar energy) into developing countries; Hazell and Anderson review technological change in agriculture, and Enos provides a game theoretic model of public policy when private agents differ. The last, although stated in terms of a developing country, seems more widely applicable. Again the three essays illustrate a mixture of theory and empiricism.

Finally, the volume includes an essay by Lamberton, Macdonald and Mandeville on the history, research, trials and tribulations of the Information Research Unit at Queensland. It is written with due reference to 'warts an'all'. This is an interesting paper and represents good advertising, but I am not sure it really merits a place in a volume of this kind.

Overall, this is a useful collection of essays (some more useful than others). In one volume, it is, of course, impossible to cover completely such a wide field as technological innovation and technology policy, but in its avowed intent of giving a flavour of current debates, the volume succeeds. Whether it is desirable to purchase the volume when the essays are available in the *Greek Economic Review* is quite another matter.

REFERENCES

1. K. Arrow, 'Economic welfare and the allocation of resources for invention' in *The Rate and Direction of Inventive Activity*, Princeton University Press, 1962, pp.609-25.

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