

## Book Reviews

**Innovation Policy and Canada's Competitiveness** by *Kristian Palda* (The Fraser Institute, Vancouver, British Columbia, 1993), pp. x + 265, ISBN 0-88975-154-4.

Kristian Palda sets himself the task in this book of analysing what he calls "innovativeness" and the policies used by Governments, with particular focus on Canada, to stimulate its increase. By innovativeness is meant not only innovation as commonly defined, but also the adoption of innovation in the economy. Overall, he succeeds in his task and the book is a useful overview of the major issues and principles underlying Government intervention to promote technological innovation.

The book has two broad elements. The first draws together the main empirical and analytical studies of innovation and diffusion which Palda considers relevant to innovativeness. The second examines what he sees as being the myth of poor Canadian capacity to innovate and compete — "le mal Canadian". His analysis of this concern has relevance to many other countries which see themselves as losing in the technology race.

He puts the case in firm and at times provocative language: "The most infamous and notorious indicator of the alleged lack of innovativeness in Canada is the GERD/GDP ratio, or the gross expenditures on research and development divided by the gross domestic product" (p.11). In considering the role of technology in the economy, the reader is informed that "politicians still suffer from a manufacturing fetish", that high technology is a "widely bandied-around and perniciously flexible expression" and finally that "the concept of high-technology industries is, on the whole, detrimental to policy decision-making" (p.81-83, selectively quoted). This selective quotation is designed not to take issue with Palda, but rather to indicate the vigorous language in which his argument is often expressed.

On the matter of indicators and measurement issues he is correct in pointing out the difficulties of international comparisons and the poor quality of analysis based on simple, aggregated indicators. As he observes, "... we should also be hesitant about whole-economy measures and prefer, where available, individual industry or sectoral appraisals." (p.116). The OECD has invested considerable effort in recent years in its Structural Analysis database which is helping to promote understanding of industry performance at the sub-sector level (albeit mainly in manufacturing). It is disappointing that many analyses and statements by Government (and other interested participants in policy debates) still rely on such crude indicators as GERD/GDP.

One of the strengths of the book is the relative emphasis it places on the adoption and diffusion of technological innovations, as well as the international transfer of technology and the role of transnational corporations. This requires a focus on management at the level of the firm and leads ultimately to a conundrum for Government policy. Since successful innovations arise from effective management, public support to promote innovation will be most effective if focused on well-managed and successful firms — the very group which appears least to require Government support. In parallel with this policy conundrum is what Palda calls the Schumpeterian dilemma: "The stimulus to innovation can also be an obstacle to diffusion: a firm innovates the more, the more it can appropriate the benefits of that innovation for itself" (p.245).

So finally we come to the core of Palda's policy argument: if social returns to innovation exceed private ones, is this not a sufficient condition for Government action (and possible subsidy)? He argues that while the logical arguments for Government intervention to promote innovativeness are plausible, their empirical foundations are weaker, and the success-

ful implementation of interventionist policies is very difficult. "Market failure may be converted into non-market failure".

Palda is clearly sceptical of both the "myth" of Canadian lack of innovative capacity and, more generally, of Government support for innovation with its heavy emphasis on subsidy for R&D. Indeed, he argues that there is no evidence to suggest that Government subsidies to business R&D lead to greater innovativeness. So what is left for possible Government intervention in support of innovation? This is apparently "a nuanced, tricky analysis which must first uncover industries that suffer from inappropriability and then find out to what extent the knowledge spilling inside or out of this industry depresses innovative or R&D activity of both the spillers and the receptors sectors or companies. This is a tall order ..." (pp.249-250).

With such a tall order, it might be thought that there is essentially no role for Government action to promote innovation. Palda does not believe so. Along with most business commentators, he identifies the magic missing ingredient as improved "business conditions": stable currency, low interest rates, reasonable tax rates, adequate level of competition and a sound education and training system.

This is, of course, a familiar prescription in all developed economies. Judged by its point of conclusion, therefore, it would be possible to regard Palda's book as a straightforward defence of widely acknowledged (if only rarely practised) principles of good economic management. This would not do the book justice: its value is in the systematic approach by which he reaches that point, the examination of evidence as he proceeds, and the provocative way in which the argument is presented.

#### **Martin Wardrop**

Australian Science and Technology Council

**Research and Development in Tropical Australia and Their Application to the Development of the Region**, Final report of the Australian Science and Technology Council (Australian Government Publishing Service, Canberra, 1993), pp.xii, + 237, ISBN 0 644 32468 6.

I started reading this report with a heavy heart. First, governments for long have dealt with northern issues by commissioning reports rather than by realistic and positive action. Secondly, other recent ASTEC publications on research and technology in tropical Australia have not impressed me. The first (ASTEC 1992) was a very mixed bag of papers describing sectoral issues. While several papers were good, many had little or no new information and were carelessly written and undocumented. The second (ASTEC 1993a), a survey of northern Australian research, was well done and had some interesting but tentative conclusions. However, the constraints of lack of time and finance placed on the consultants diminished the report's value. The conclusions were hardly surprising or very useful as they were intelligently hedged with many caveats. The last two were a draft report and a summary report. The draft report (1993b) contained a number of errors and some very naive recommendations. The summary (1993c) was so full of 'shoulds', vagueness and uncritical hyperbole about the potential of bureaucratic led 'restructuring' that many researchers in the north could not take it seriously.