

allocating the limited supply of telecommunications services. Usage sensitive pricing may not be justifiable in LDCs on account of skewed income distribution. This is the stand taken by the authors.

In the concluding chapter, strong emphasis has been laid on under-investment in the communications infrastructure and the reasons for this trend in the developing world. The sustainability of what is viewed as a natural monopoly becomes problematic in developing countries, but the authors do not offer any Ramsey-pricing type of solution. They prefer private sector competition and they have put forward several alternative methods of providing such competition side by side with regulation.

On the whole, the book is carefully documented and provides a wealth of information on the economic aspects of telecommunications services for the use of government policy makers, planners, and students of economic development.

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The Phone Book. The Future of Australia's Communications on the Line by Ian Reinecke and Julianne Schultz

(Penguin Books, Ringwood, 1983) pp. 270, \$6.95, ISBN: 0-140-06710-8.

The *Phone Book* is an account of recent developments in the Australian telecommunications industry, focussing in particular on the emergence of pressures for the introduction of competition. It is a very useful book, certainly better than Reinecke's *Micro Invaders*, which is marred by a fairly simplistic argument with respect to the introduction of technology.

The authors review the split of the Australian Post Office into Telecom and Australia Post and follow the recent administrative changes within Telecom. They discuss government intervention in Telecom's operations in terms of the usual 'pork-barrel politics' approach of the Country Party, as well as in terms of the Liberal government's ideological commitment to free enterprise. The push for competition is examined in the context of developments in the US and the UK. In addition, the issues surrounding the satellite and cable television inquiries are examined; in particular, separation of control of the satellite system from Telecom meant that some competition was inevitable. The shift of the telecommunications unions from a fairly passive role towards an active participation in the political process is an important aspect of the industry.

These preliminary chapters provide a build up for a consideration of the Davidson Inquiry. In many respects the Inquiry and its aftermath have been an anticlimax — few were surprised by its conclusions, given the terms of reference and the composition of the committee. In addition, with the election of the Labor government, the Report's recommendations have been shelved. I feel that the Davidson Report gave a somewhat less enthusiastic endorsement for the introduction of competition than Reinecke and Schultz would have it. However, the Report was rather obscure on this vital point and left much to the discretion of the Minister.

The authors conclude that the winners from the introduction of competition will be large business firms, while the losers will be rural and, to a lesser extent,

residential subscribers. They also consider the issue of information inequality, which is a crucial issue totally ignored by the Committee. A 'band-aid' approach of providing a few crumbs to disadvantaged rural and low income groups, a strategy which is advocated by the Davidson Inquiry, is unlikely to provide **all** Australians with the means of coping with change in the new information society.

In many respects the Davidson Inquiry into the merits of public versus private ownership has been unfortunate in that it has focussed debate on a small part of the plethora of issues raised by our shift into an information society. The government has virtually ignored the questions of how telecommunications might be used to assist the delivery of welfare, health and education services. Very little debate has taken place as to how improved telecommunications services could be developed as a part of an industrial strategy. Once again we have been willing to accept the agenda for debate as presented by our 'great and powerful' friends. The *Phone Book* goes part of the way towards countering this trend; it deserves to be widely read.

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Revolution in Miniature. The History and Impact of Semiconductor Electronics Second Edition by *Ernest Braun and Stuart Macdonald* (Cambridge University Press, Cambridge, 1982) pp. viii + 247, \$A15.50 (pb), ISBN: 0-521-24701-2 (hb), 0-521-28903-3 (pb).

For the past several years, when students and colleagues in the field of industrial economics have asked me where to start reading about the semiconductor industry, I have had a ready answer. The publication of the second edition of Braun and Macdonald's *Revolution in Miniature* assures that I will continue to give the same answer from some years to come.

The usefulness of this book for economists is upon first consideration rather surprising, since it is not a traditional 'industry study.' *Revolution in Miniature* is instead the history of a technology and its consequences — one of which happens to be the development of an industry. But the history of technology is the appropriate place to begin study of the semiconductor industry, which has been and remains an industry defined and propelled by its technological accomplishments. These accomplishments, their internal logic of development, and their consequences for market growth and performance are presented with great clarity and good judgment by Braun and Macdonald.

The first edition of *Revolution in Miniature* recounted the history of semiconductor technology from its intellectual roots in the work of Faraday and Maxwell to the invention of the microprocessor, surveyed the state of the American and worldwide semiconductor industries as of the early 1970s, and assessed the impact of microelectronics on the broader economy and society. The second edition brings the technological history through the decade of the 1970s into the early 1980s in an excellent new chapter on the era of large scale integrated circuits. Chapters on the condition of the industry in the United States and worldwide have been thoroughly revised and updated.