possible to improve the individuals' decisional skills (ch. 7); sequential decisions (to consult further experts) may be possible (ch. 8); there may be more than two alternatives (ch. 9). The last chapter of the book deals with applications (to medicine, law, and economics).

Generally speaking, the book is well organized and has the mathematical rigor one would want. (There is an unwarranted assumption of concavity on p. 81 which in no way detracts from the book's value.) Several useful tables and graphs are included. All in all, this reviewer finds it a very valuable addition to the literature on group decision making.

Guillermo Owen, *Naval Postgraduate School, Monterey, CA, USA*

Mark Casson, The Firm and the Market: Studies on Multinational Enterprise and the Scope of the Firm (MIT Press, Cambridge, MA, 1987) pp. xii + 283, $27.50.

During the 1960s, the world's large industrial corporations gorged themselves on foreign direct investment. Their feast spawned two distinct literatures on the multinational corporation: The first explored such (alleged) consequences of foreign investment as exports of employment from source countries, imports of market power into host countries, and disappearance of sovereignty from all countries. The second line of literature sought to establish the causes of foreign investment – to explain variations in the importance of multinational enterprise by country, by industry, and by size of firm.

By the mid-1980s, the pace of contribution to both literatures had slowed appreciably. On the one hand, model builders interested in the global economy gravitated toward such undercharted lines of inquiry as open economy macroeconomics, fluctuating exchange rates, and European monetary integration. Meanwhile, policymakers began to focus on the American trade deficit and the Uruguay round of GATT negotiations: The invincibility of American multinationals that seemed so obvious in the late 1960s, and so necessary therefore to control, had tarnished enough to be retired to a lower drawer of the agenda cabinet. In retrospect, the quasi-definitive treatise on multinational enterprise by Caves (1982) seemed to mark the crest of interest in the subject.

Recently, however, as a topic, the multinational corporation has posted a certain comeback. On the policy front, national roles have reversed, and the strident voices decrying inward foreign investment – with its alleged implications for national control of national economic prosperity and national military security – have migrated from Europe to the United States. More felicitously, on the analytic front, students of industrial economics have perceived new emphases in the theory of the firm which warrant fuller incorporation in studies of multinational enterprise. *The Firm and the Market*, by Mark Casson, Professor of Economics at the University of Reading, illustrates nicely the new round of studies in the behavioral mode.

The book consists of nine chapters. Only three of the nine appear solely in this volume, but none of the remaining six is readily available. As a result, the book provides a convenient and welcome presentation of Professor Casson's views.

The central theme of the book is the importance of transactions costs (as opposed to product market power, artificial impediments to international trade, fluctuations in exchange rates, or other factors emphasized traditionally by specialists in industrial and international economics) as an explanation of foreign direct investment. Professor Casson clearly belongs to the general school founded by Ronald Coase and currently championed by Oliver Williamson. It is not surprising, therefore, that the book includes (as announced in the subtitle) three chapters designed to illuminate the transactions cost perspective in a mononational setting.

The method of the book is definitely eclectic. It ranges from formal deductive theory to verbal conceptualization to case-study evidence to econometric measurement. Examples of subjects treated largely theoretically are (1) quality control and its relationship to vertical integration, and (2) collusion versus warfare when duopolists face each other (actually or potentially) in more than one market. Examples of subjects treated largely empirically are (1) the scope of firms in the (British) construction industry, (2) vertical integration in the (British) shipping industry, and (3) Chrysler's divestment of its European automotive subsidiaries.

The blend of conceptual and empirical material is satisfying in the sense that neophytes and experts alike will appreciate the numerous real-world illustrations of and justifications for the author's lines of reasoning. For example, the chapter on contractual arrangements for technology transfer contains several brief but illuminating sketches of manners in which important firms with technological advantages have served foreign markets. The sketches support convincingly the author's theme that firms need not choose between pure foreign investment, pure licensing, or pure exporting; rather, they can, and often do, choose some combination of foreign investment and licensing – sophisticated joint venture, for example. The particulars of the combination will depend on the various transactions costs associated with the specifics of the context.

Coase-type analysis is really a form of institutional economics. The price of the realism it entails is the difficulty of general reasoning and of econometric testing. It should come as no surprise, therefore, that the strength of the book is neither deductive proofs nor statistical inferences. The latter are largely absent. The former, in making strong assumptions to achieve desired results, sometimes appear mechanical. But one should appreciate the book for what it is – a testament to the virtues of resisting recourse to conventional methods when approaching a heavily studied subject. Successfully, and perhaps intentionally, the book introduces the reader to a variety of ways to study multinational behavior. It offers a complement to, not a substitute for, technical works of incremental research; readers lacking broad acquaintance with the literature, who fear the idiosyncratic, are advised to begin with Caves (1982).

Predictably, perhaps (given my roots in industrial economics), the essay I liked best was that devoted to the relationship between multinational enterprise and oligopolistic behavior. Professor Casson examines a particular but interesting case of this relationship. According to standard theories of multinational enterprise, firms invest abroad when they possess distinctive intangible assets in production or distribution. In other words, it is competitive *advantage* (in the sense of Michael Porter) that prompts firms to launch activity abroad. Building on an argument of Graham (1978), Casson suggests that in a world of market power, competitive *disadvantage* might also induce foreign investment: Consider an enterprise (call it Strong) which uses some competitive advantage (lower unit cost) to monopolize its home market. Given the intangible nature of the advantage, Strong invests in a foreign market theretofore served by a single seller (call it Weak) devoid of comparable advantages. Fearing for its life in its home market, Weak may threaten to enter and 'spoil' Strong's home market. To render such a threat credible, it may have to invest abroad. Presumably, of course, Strong could use its advantages to force Weak's exit from both markets; but, argues Casson, Strong may find it more profitable to cooperate with Weak than to get sucked into limit-pricing games in its own (assumedly lucrative) home market.

One policy implication of this analysis, noted by Professor Casson, is that restrictions of inward investment into Strong's home market (coupled with the absence of such restrictions in Weak's home market) might actually serve the (global) public interest. If Weak cannot threaten to spoil Strong's home market, then Strong will force Weak's demise, insuring productive efficiency in both markets thereby. Casson implies that (alleged) Japanese behavior – outward foreign investment by firms bountifully endowed with intangible assets, coupled with government curbs on inward foreign investment – promotes more competition (everywhere) than would occur were the Japanese government to relax its curbs on inward investment.

Professor Casson wrote this book just before '1992' – the renewal of European economic integration – became an important subject of discussion. As a result, the book does not address the direct investment consequences of the project. It is silent, for example, on trends in cross-national mergers within Europe and how they compare with intranational European mergers on the one hand and cross-national linkages between European and non-

European enterprises on the other hand. Accordingly, it devotes no explicit attention to European merger policy. Given its importance, as well as its suitability to his style of analysis, I hope that Professor Casson will turn his attention and his talents to this subject.

William James Adams, *The University of Michigan, Ann Arbor, MI, USA*

References

Caves, R.E., 1982, Multinational enterprise and economic analysis (Cambridge University Press, Cambridge, UK).
Graham, E.M., 1978, Transatlantic investment by multinational firms: A rivalistic phenomenon?, Journal of Post-Keynesian Economics 1, 82–99.

Eric von Hippel, The Sources of Innovation (Oxford University Press, London and New York, 1988) pp. 232, $27.00.

The debate about the determinants of innovation is characterised by a swing of the pendulum between theories that focus on the role of science and technology and theories that privilege the role of demand. 'Technological push' theories highlight the contribution of new scientific breakthroughs from which new technological applications are derived, which lead to the eventual introduction of innovations. Following one of the many Schumpeterian suggestions, inventions precede innovations and are a necessary precondition for them. 'Demand pull' theories by contrast highlight the notion of profitability as a necessary precondition to the introduction of innovations. According to this perspective, the distribution of innovations across firms, industrial sectors and time can be understood by tracing the pressure of demand and consequently the opportunities to reap large profits by introducing innovations which meet emerging needs.

The most recent swing of the pendulum has remained – for quite a long time – within the 'technology push' domain. Some authors have argued that we are witnessing the creation of a new 'technological system' based on a wave of interrelated scientific breakthroughs. Its dynamic evolution can be anticipated according to 'natural trajectories' where minor incremental innovations complement and strengthen the pathbreaking radical ones [see Freeman et al. (1982)]. Other authors have taken such an approach even farther, introducing concepts such as 'technological paradigms' or 'techno-economic paradigms'. Here, technological determinism is pushed to comprehend a broad array of economic and social changes.

In such a context 'The Sources of Innovation' by Eric von Hippel is likely to act as a powerful contribution to a radical change in perspective. By helping us to understand the role of demand and profitability in the innovation process, von Hippel's book takes us back to the fundamental