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MULTINATIONAL CORPORATIONS

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Multinational Corporations

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Introduction

Both the quantity and quality of research on the multinational enterprise (MNE) have increased dramatically over the last few years. Research on the MNE has been instrumental in promoting important ideas in economic theory, such as transaction costs and the related concept of internalization. It has involved the collection of a large amount of firm-level data through sample surveys and questionnaires, and the standardization of industry-level data from different countries. These data have been analysed using multiple regression, cluster analysis and other statistical techniques. Important policy issues have been addressed, such as the consequences of the global integration of markets and the nature of the spill-overs from multinational operations within the host economy.

The rapid growth of highly relevant research is reflected in the selection of papers in this volume, where the emphasis is on relatively recent work at the interface of theory, evidence and policy. An important characteristic of this work is its focus on the MNE as an agent of technology transfer rather than as a conduit for capital flows. This volume therefore highlights the role of the MNE in the creation and exploitation of proprietary technology. The economic performance of the high-technology firm depends crucially on the management of marketing channels and the internal coordination of related production activities. These organizational and institutional issues are also addressed in this volume.

The role of international capital flows between parent and subsidiary, and the financing of the parent firm, are considered in detail in the companion volume, *International Investment*, edited by Peter Buckley. This division of labour between the editors (proposed by the publisher) creates some ambiguities at the margin. A consequence of this is that a few papers appear in the other volume which could just as well appear in this, and *vice versa*. To conserve space, these papers have not been duplicated. The reader should note, in particular, that seminal papers by Horst (*Journal of Political Economy*, 1971) on the pricing strategy of MNEs in segmented markets, by Vernon (*Oxford Bulletin of Economics and Statistics*, 1979) on the 'product cycle' in a new international environment, and by Wolf (*Journal of Industrial Economics*, 1977) on the relation between the geographical and industrial diversification of the firm, all appear in the companion volume.

The selection of papers has also been guided by the principle that material readily available in major books should not be replicated, particularly where these books are likely to be kept in print for the foreseeable future. With a couple of exceptions, no material has been taken from the following basic sources, which should be regarded as complements to, and not substitutes for, the present volume.

Buckley, P.J. and M.C. Casson (1976, second edition 1989), *The Future of the Multinational Enterprise*, London: Macmillan; and New York: Holmes and Meier.
Buckley, P.J. and M.C. Casson (1985), *Economic Theory of the Multinational*

Enterprise: Selected Papers, London: Macmillan; and New York: St Martins Press.
Casson, M.C. (1987), *The Firm and the Market: Studies in Multinational Enterprise and the Scope of the Firm*, Oxford: Blackwell; and Cambridge, Mass: MIT Press.
Dunning, J.H. (1988a), *Explaining International Production*, London, Boston and Sydney: Unwin Hyman. (This book partially supersedes the author's important work, *International Production and the Multinational Enterprise*, London, Boston and Sydney: Allen and Unwin, 1981.)
Dunning, J.H. (1988b), *Multinationals, Technology and Competitiveness*, London, Boston and Sydney: Unwin Hyman.
Rugman, A.M. (ed)(1982), *New Theories of the Multinational Enterprise*, Beckenham, Kent, and Totowa, NJ: Croom Helm.

Because of the focus on recent work, the coverage of early work is confined to two theoretical pieces, which have been selected because of their priority in applying important ideas to the analysis of the MNE. The question of priority has proved unnecessarily controversial. The first paper, by Hymer, has been specially translated for this volume. It has its own introduction which explains its importance in relation to subsequent work. The paper shows that Hymer was not only familiar with Coasian internalization theory, but was equally at home with internalization concepts as with the theory of market structure. The fact that the Hymer paper was published in 1968 and the McManus paper in 1972 also underlines the fact that internalization was given a central role in the analysis of the MNE some time before its significance was appreciated by the majority of industrial economists.

No analysis of the MNE is complete without a discussion of the location of production. It is, however, only recently that trade theorists have begun to make creative contributions to the study of MNE. The traditional approach to location and trade, based on a variant of the Heckscher–Ohlin model, is illustrated by the Batra and Ramachandran paper, whilst the consequence of incorporating uncertainty into the analysis of location is considered by de Meza and van der Ploeg. The latter paper shows how, when location analysis is combined with internalization theory, the advantages of the locational flexibility of the MNE can be fully appreciated.

Hymer's emphasis on market structure has proved extremely influential. The papers by Graham, Helpmann, and Horstmann and Markusen illustrate the important part that models of oligopolistic rivalry and monopolistic competition play in the modern theory of the MNE. The last two papers apply principles of contestability and game-theoretic equilibrium to the MNE. In each case the model takes full account of system interdependence, in the sense that it checks rigorously that agents in the MNE's environment behave rationally towards it, and that the MNE itself responds rationally to their reactions.

To understand why multinationals exist it is important to appreciate what the contractual alternatives might be. These alternatives are particularly significant in respect of technology transfer. The alternatives to a wholly-owned foreign subsidiary include a licensing arrangement with an independent host-country firm, a joint venture with an indigenous firm, and – perhaps rather surprisingly – a 'buy back' arrangement relating to the output of an overseas plant whose design embodies the purchaser's technology. The papers by Davidson and McFetridge, Kogut, and Mirus and Yeung evaluate these respective alternatives against the MNE, formulating (and in some cases testing) hypotheses about the conditions which will favour one arrangement rather than another.

Although transaction cost analysis of technology transfer has tended to dominate the literature, a number of important empirical studies address wider issues in the technology field. Particularly significant are studies of the dynamics of learning new technology in the host country. The Teece paper emphasizes the very high costs associated with this learning process. It provides a salutory lesson for those scholars who emphasize the public good nature of technical know-how so much that they equate the marginal costs of technology transfer to zero. The Dunning paper compares the methods of technology transfer used by two source countries – the US and Japan – in the same host country – the UK. This paper summarizes some of Dunning's most important work, including his two major studies of the host-country impact of technology transfer, and demonstrates the practical utility of his 'eclectic paradigm' in analysing issues of this kind. Dunning's paper places considerable emphasis on both the technological and managerial spill-overs of foreign operations on the host economy. Blomström and Persson attempt to measure the magnitude of this impact by relating labour productivity in privately-owned firms to the presence of foreign MNEs in a cross-section of Mexican industries. Mexico provides a suitable case study both because its proximity to the US ensures a high level of US investment in many industries and because of the high quality of Mexican official data.

Successful absorption of foreign technology may allow a host country to become a source country, generating its own indigenous multinationals. There has been some controversy over whether third-world MNEs have the same kind of indigenous technological capability as first-world MNEs. There is case-study evidence which suggests that some of them do, but the systematic study by Wells – an excerpt from which is reproduced here – suggests that typically they do not. Third world MNEs, he claims, have special skills in producing small batches of products 'on demand' for 'niche' markets using standardized or ageing capital equipment. They continue to be comparatively disadvantaged in innovating new 'state of the art' technology.

It is sometimes suggested that in their efforts to appropriate rents from a technological monopoly, MNEs will centralize their R & D close to their headquarters in the interests of preserving secrecy. This particular interpretation of 'appropriability theory' is, however, demonstrably false, in view of the widespread practice of large MNEs in decentralizing R & D. There is considerable evidence that corporate R & D is pulled away from headquarters by the need to synthesize ideas originating in different geographical agglomerations of excellence throughout the developed world. Important empirical work has been done on this fascinating issue, using both firm-level and industry-level data for the US, and firm-level data for Sweden. Three of the major studies are reproduced here.

Technology is not the only area in which secrecy may provide a strategic advantage to the MNE. The internalization of trade may encourage transfer pricing, at the expense of either the source-country or host-country government. In addition, internal markets that are entirely closed to independent firms may constitute a barrier to entry, by widening the range of activities in which an entrant must be self-sufficient, and so indirectly raising the entrant's cost of capital and increasing the amount of technology that he must obtain under licence. For these and other reasons, the trade flows controlled by MNEs have been subjected to considerable scrutiny, and four of the major studies are reproduced here. They show that, amongst other things, intra-firm trade is particularly common in high-technology industries, and also in industries where sophisticated products require comprehensive after-sales service. Strategies for pricing intra-firm exports vary between firms, but it is difficult to assess how far these differences reflect rational responses to different fiscal regimes.

During the 1980s some of the world's leading MNEs have 'globalized' their operations, rationalizing around a nexus of core wholly-owned activities. These core activities are supported by a periphery of more loosely affiliated activities involving joint venture partners and long-term subcontractors. This move has been prompted by trade liberalization – in particular the expansion of free trade areas and the move to levying tariffs on a value-added basis – and has involved a significant relocation of activities, in which off-shore processing has often played an important role. As Hymer foresaw, globalization has also led the major firms into oligopolistic confrontations with each other on a number of fronts. Oligopolists have been drawn into technological competition in which access to agglomerations of expertise is likely to prove crucial for long-term success. These global and dynamic issues are difficult to analyse using conventional tools of analysis, but some progress has been made, as the papers by Moxon, Casson and Cantwell show.

Internalization theory and its application to technology transfer and intra-firm trade is only one strand within the most broadly based transaction cost approach to the MNE. Transaction cost theory also provides a basis for analysing the marketing function, since marketing is specifically designed to reduce transaction costs in arm's length markets. In markets where switching costs are high, continuity of the relationship between buyer and seller is crucial for efficiency. In this context, 'quasi-integration' helps to regulate the negotiation of trades through informal social mechanisms such as reciprocity. In highly interdependent systems, networks of social obligation can provide an effective way of reducing overall transaction costs. These factors seem to be particularly crucial in the international environment. Various aspects of this phenomenon are addressed by Johanson and Mattsson, whilst Nicholas provides an historical perspective on the subject. The importance of marketing skills and proficiency in network management are highlighted in Rugman's study of the firm-specific advantages of Canadian multinationals. Finally, the paper by Boddewyn *et al* shows that the analysis of marketing is particularly crucial for the emerging analysis of multinational operations in the service sector.

Social factors such as reciprocity are important not only in organizing external markets but also in improving the internal markets of the firm. The fact that internal transaction costs are often dubbed 'agency costs' should not obscure the fact that the logic of transaction cost minimization is essentially the same in both intra-firm and inter-firm trade. Since internal transaction costs (agency costs, in other words) can be lowered using social mechanisms, it is natural to postulate that firms based in different societies will adopt different patterns of organizational behaviour and achieve different levels of overall performance. Social factors can also influence attitudes to technological innovation, leading to systematic differences in the pace of technology-based expansion by firms headquartered in different countries. The concluding papers by Wilkins, Negandhi and Clegg address these broad comparative issues from, respectively, an historical, political and economic perspective.

The papers reproduced in this book are drawn from a wide variety of sources, reflecting the diversity of interests and backgrounds amongst scholars who have been attracted to the study of the MNE. Research on the MNE has so far avoided the intellectual sclerosis which has affected some of the more narrow and intensively 'professionalized' sub-disciplines of economics. Interdisciplinary research is alive and well in the MNE field and, so far as its economic content is concerned, there is every prospect that its vitality and relevance will be sustained for some considerable time.

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