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PREFACE

Controversies surrounding multinational corporations (MNCs)—their motives, their operations, their economic effects, their political and social results—have been many, varied, and intense. But most of the controversies stem from different perceptions, different estimates, or different assumptions about the economic impacts of MNC operations. Perceived negative economic impacts turn rapidly into political or social issues.

In the 1970s, there has been a virtual explosion of interest in MNCs, and this has resulted in a vast amount of research, writing, and publications pertaining to multinational corporations. It has become so vast that interested scholars cannot fully follow all of the literature even in one narrow aspect of foreign direct investment and MNCs. Since 1971, the New York University Graduate School of Business Administration has conducted a research project on "The Multinational Firm in the U.S. and World Economy," which has focused its activities mainly on economic impacts of MNCs. This project has made a modest contribution to that explosion of research and writing on the economic aspects of the topic.

By 1976, it was decided that the more accessible literature on MNCs needed a guide, and that it needed to be critically assessed as to relevance, methodology, and findings. Given the economic-impact focus of the NYU research project, and the fact that most of the controversies can be ultimately reduced to a debate over economic effects, a conference was organized around important areas of economic controversy with respect to MNCs. That conference was held in December 1976 and this volume is its final result. The intent of the conference was to have major survey papers, with appropriate new or additional research or interpretation by the authors, serve as the focus of the conference. Eight areas of significant controversy over economic impacts were identified. These eight papers were commissioned to authors who were not already widely published or whose views on a particular issue were not pre-set, so that a 'fresh look' at the literature could be accomplished. Each review paper was then subjected to critical appraisal by a major academic contributor to the MNC literature and to a "practitioner"—MNC executive, labor leader, or government official—at the conference. Both the papers and the comments of the discussants are included here.

The timeliness of the topic, the conference, and the inauguration of the JAI Press series on Research in International Business and Economics coincided to provide an appropriate vehicle for the publication of this guide through the critical appraisal of the literature on the economic effects of MNCs.

The conference and this volume are a part of the NYU research program on MNCs. The conference was financially supported by the NYU Project, which gratefully acknowledges the past or current support of the Alcoa Foundation, American Express Foundation, CPC International, Continental Oil Company, the Exxon Foundation, the Ford Foundation, the General Electric Foundation, the General Motors Corporation, the U.S. Department of Labor, Pfizer Incorporated, the Rockefeller Foundation, the Scaife Family Trust, and the United Nations Conference on Trade and Development.

Appreciation for their assistance in planning and administering the conference goes to Ms. Kathy Alamo. Elizabeth Webbink assisted with the editing of the papers, and she and V.S. Somanath are responsible for developing and checking the comprehensive bibliography. Marion Epps has been tolerantly helpful in all aspects of the project, and she and Donna Wolensky typed and retyped the manuscript. All of these people have my sincere thanks.

Robert G. Hawkins
New York City

INTRODUCTION

Robert G. Hawkins

This volume is concerned with the *economic* impacts of multinational corporations (MNCs). More specifically, its focus is on particular issues about which there continues to be—and may always be—controversy and debate about how to analyze the impacts and interpret the results of those analyses.

The past decade has seen an extensive literature developed on foreign direct investment and MNCs. Much of that work, and perhaps the most successful, has involved the conceptualization of MNC behavior and the application of micro-economic analysis to it. Thus, much progress has been made in understanding the process and motivations of companies becoming multinational, as the references in the papers which follow to the works of Penrose, Aharoni, and others suggest. And there is by now a "conventional wisdom" on the sources of competitive strength of MNCs, stemming from the works of Harry G. Johnson, Richard Caves, Raymond Vernon, John Dunning, and many others. Also, considerable agreement has been reached in hypothesizing about and testing the factors which influence where MNCs locate their foreign activities and which processes are placed in which locations, advanced by the research of Horst, Parry, Stobaugh, and many others. Finally, there has developed a reasonably coherent literature on the characteristics of industries dominated by MNCs and of MNCs themselves, with major impetus coming from the Harvard Project on Multinational Enterprise, John Dunning, and others.

This vast amount of literature, and evolving body of 'received doctrine' provides the backdrop for this volume, as the repeated references to that literature will testify. But further contributions to this literature is not the intent of this volume. Although there remains room for more research on specific topics, and for rounding out and filling in gaps on motivations, location, sources of strength and growth of MNCs, the main areas of controversy are on the *economic impact* of MNCs. Whose welfare is affected and in which direction? And what is the time pattern of those effects?

The continuing controversies over the economic impacts of MNCs stem from several sources. One is that there is lack of agreement on the appropriate methodology for assessing the various economic impacts. In order to estimate an impact, one must know what would have occurred either without the MNC, or with a (marginally) different degree of MNC involvement. Yet this is almost impossible to establish by econometric techniques—at least to everyone's satisfaction—and must frequently be done inferentially on the basis of inadequate evidence, or by assumption. Second, the controversies are whetted by the fact that MNC activities involve conflicts of interest. Some groups gain, and some groups are likely to lose. This colors both the methodology (and issues) used in the analyses of MNC activities so that the outcome is preordained. Third, controversy continues in the interpretation of the data about MNCs and what it means. This extends to the interpretation of the results of some of the academic studies of MNC impacts.

Yet the study and correct interpretation of MNC impacts on economies and groups within economies is of paramount importance. The economic impacts of MNCs determine the relationship between the benefits of and costs of such MNC activities to home economies, to host economies, or to specific interest groups within each. And governments do, and will continue to, apply policies and regulate MNC activities in ways which are perceived to affect favorably the benefit-cost trade-off. Sensible policies require sound analysis of the impacts and their magnitudes. To date, too much policy has been made on inadequate (or misleading) evidence and/or inappropriate analysis.

The papers and their comments deal with eight types of economic effects of MNC activities. The broad topic headings were chosen with three criteria in mind: they are effects which are controversial and a source of continuing and frequently intensifying debate; they are economic in nature and have seen at least some amount of economic research and estimates about their magnitudes; and they are issues which have resulted in actual changes, proposed changes, or agitation for changes in government policies toward foreign direct investment.

The issues fall conveniently into three broad groups—issues relating to the economic impact of foreign direct investment on *home* or base countries of MNCs; issues relating to effects which transcend both home and host countries; and issues arising from impacts largely in *host* countries from MNC operations.

The first two chapters deal with the major issues in the home countries. Chapter I is concerned with the impact of MNC foreign operations on the demand for labor in the home country, i.e., the "jobs" issue. A related impact is the effect of MNC international operations on the relative bargaining strength of management and organized labor. This issue is examined in Chapter II. The issues of employment, jobs, and union bargaining strength were singled out for treatment here because they represent the principle major economic controversies and policy issues in the home countries. These also represent areas of substantial completed research and of intensely held policy positions.

The issues involving effects which are felt in both host and home countries are also matters of major and growing controversy. One is the cause, effects, and extent of MNCs avoidance of taxes and restrictive financial regulations through their capacity to set transfer prices and use alternative sources of funds transfers across national frontiers. These issues are the subject of Chapter IV. The other issue involves the role of MNCs in the creation and transfer of technology, which is presented in Chapter V.

The other four chapters are concerned with issues arising from MNC impacts in *host* countries. Although all of these are of importance to developing host countries, Chapters VI-VIII are concerned with issues which are almost exclusively in the province of LDCs. These issues are also all matters of policy debate in many host countries. They include the impact of MNC operations on the degree of competition (or monopoly) in host markets (Chapter III); the cost, types, and appropriateness of MNC technology transferred to LDCs (Chapter IV); the impact of MNC activities on indigenous investment and entrepreneurship in host countries (Chapter VII); and the impact of MNCs in the depletable resource industries in LDCs (Chapter VIII).

This list of issues does not pretend to be exhaustive, but hopefully does include the most controversial issues about which a fresh look, a synthesis of existing research, or some new analysis can lead to better understanding and better policy. The papers constituting the bulk of the chapters review and critically appraise the vast amount of writing on the various topics. In most instances, new insights and alternative interpretations of results are provided. And in several papers, new analyses were carried out which pushed ahead the frontier of understanding. The role of the commentators was to "appraise the appraisals," and in some cases to provide the reader with an alternative interpretation of the same literature. In combination, the result is a hopefully useful guide through the economic literature, policy positions, and empirical evidence for professionals who seek to fit together its many pieces.

It will be obvious to the reader, and should be expected, that the papers and discussion of this volume do not eliminate the controversies on any of the points. That was, of course, not the intent. But the papers do, in many instances, narrow the range of disagreement, sharpen the reasons—i.e., the conflicts of economic interest—for that disagreement, and appraise the potential usefulness of several past and proposed policy alternatives. All the same, there are few generalizations from this volume which can be neatly summarized.

One point can be made—but even on this there would be reservations by some contributors to this volume. This is that MNC activity represents a "positive sum game" in almost all instances, and not a zero sum game as sometimes implied. Most of the issues thus are about the distribution of the net benefits of MNC foreign activities which obviously affect the benefit-cost ratio for any single country—host or home—or any interested group within a country. Thus, in developing policies toward MNC activities, home and host countries should not—and normally do not—seek to extinguish all of or even most MNC operations. Rather, they seek to influence the benefit-cost ratio within the constraints implicitly set by the MNCs and other governments. It is hoped that this volume will narrow further the gaps in our understanding and set the stage for further fruitful research to widen our understanding and achieve peaceful coexistance with appropriately regulated MNCs.

TABLES

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1. JOBS AND THE MULTINATIONAL CORPORATION: THE HOME-COUNTRY PERSPECTIVE*

Stephen P. Magee, UNIVERSITY OF TEXAS – AUSTIN

This paper is an outsider's critical review of the literature on home-country jobs, multinational corporations, and U.S. foreign direct investment. The activities of U.S. MNCs are imperfectly correlated with U.S. foreign direct investment; the multinationals are doing much more than moving physical capital internationally. The microeconomics of U.S. MNC activity are explored in the first section. The hypothesis is advanced that an important portion of the apparent windfalls earned by MNCs may be amortization of past R & D investments, and not pure rents. To the extent that this is true, taxation of MNC profits is not a costless transfer to U.S. labor (throughout, by "labor" we refer to un-

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skilled labor), but comes at the expense of the supply of future innovation and technology as well as future skilled-labor income.

In the second section it is suggested that the question of jobs and the MNCs can be most fruitfully viewed as a normative domestic political squabble over distributive shares of income in the U.S. and can be analyzed using the tools employed in the economics of pork-barrel politics. It suggests that some of the paradoxes in this literature are just logical conundrums hatched from the sloppy language employed in redistributive arguments. The third section is directed to the results of the studies in this area, their strengths and weaknesses, and the final section suggests a technique by which organized labor could raise its real income worldwide.

MULTINATIONAL CORPORATION BEHAVIOR

Before exploring the relationship between labor and the multinational corporations, we must understand the forces driving the multinationals. One widely accepted theory is that the multinationals are principally engaged in international trade in technology. The work of Hymer (1960), Vernon (1966), Caves (1971a), and others, plus the empirical evidence, suggests that this is the case. The best summary of the technology view is outlined in Vernon's (1966) product cycle.

Vernon's cycle assumes that the life of each product can be broken into three distinct stages: the new product, the maturing product, and the standardized product stages. Vernon suggested that the locus of production would move from a DC (a developed country such as the U.S.) in the first stage through the other developed countries in the second stage and finally to LDCs (less developed countries) in the third stage. He cited three reasons production would occur first in the DC for new products. On the demand side, high unit labor costs generate demand for labor-saving investment goods such as machines to replace unskilled labor while high incomes in the DCs stimulate demand for sophisticated and differentiated new consumer products. On the supply side, the research intensity of new products is high and the relatively large endowments of skilled labor in the DCs (scientists, engineers, etc.) dictate that these countries have a comparative advantage in producing new products. Third, demand and supply factors interact: Rapid changes in new products dictate that there be swift and relatively costless communication between producers and consumers. All of these considerations suggest that the initial production of new products occur in a DC.

In the second stage, production moves from the originating DC to secondary DCs as markets and incomes grow in the latter, as secondary country import barriers rise, and as transport costs become a larger proportion of the final product price which falls throughout the cycle. In the third stage, production shifts to the LDCs as the products become standardized: Little interaction is needed between producers and consumers; small inputs of R & D are required; and the production technologies become routinized so that unskilled labor can be utilized more in the production process. The products are exported back to the DCs. Many products in this stage compete directly with unskilled-labor-intensive products in the United States and other DCs. This leads to the political activity of DC labor against the importing of these goods.

An extension of the industrial organization approach to the multinationals and international trade in technology has been attempted by the present author (Magee, 1977a,b). This work offers empirical evidence in support of a theory of the MNC based explicitly on the "appropriability problem" posed by private market creation of new information.[1] *Appropriability* is the ability of private originators of new information to obtain their social return. Information is a durable good in that present resources such as scientists and engineers must be devoted to its creation and its existence results in a stream of future benefits (patent-protected monopoly profits). It is also a public good in that, once it is created, its use by second parties does not preclude its continued use by the party that discovered it. However, the ownership claims remain a private good. In the case of privately created information, use by second parties reduces the private return on the technology accruing to the first party. This is the appropriability problem (see Arrow, 1962). As Johnson (1970) pointed out in his article on the MNC, private firms will undercreate new technology unless the private returns to these investments are protected by some social mechanism.

In the case of the MNC, the protection is provided either by patents or trade secrets, but neither provides complete protection. Simple technologies are usually harder to protect from interlopers and emulators than more complicated ones. For this reason, private firms and multinational corporations produce sophisticated technologies, since the appropriability per dollar invested in scientists and engineers is higher for sophisticated technologies than for simple ones.

Furthermore, the multinationals generate four distinct types of information. The first is for *product development:* applied research, preparation of product specifications, prototype production, pilot plant construction, and the tooling up of manufacturing facilities. Second, the multinational must "create" the *production function*. Economists usually assume that production functions are provided by beneficent engineers. However, production functions themselves are like any other economic good and require large investments in information to create them. Creation of production functions is one of the roles that multinationals play in the product life cycle. Third, MNCs gather information on *potential markets* for new products. This too is a costly and time-consuming process.

Finally, multinationals invest information resources to secure the *appropriability* of the technology itself. Expenditures on legal staffs and R & D are made to reduce the loss of information and technology created by the firm. The rational MNC seeks to maximize the present value of the private return on each investment in new technology, and the expected success of preventing emulators from stealing the returns during the life of a patent is an important consideration in this calculation.

Appropriability provides an explanation for the positive correlation between concentrated industry structures and high industry R & D. Highly competitive industry structures do not encourage the creation of new information, since the likelihood of loss of returns on new ideas is greater the greater are the potential emulators. Conversely, concentrated industry structures (a few large firms) may encourage R & D because the returns are more appropriable with fewer potential emulators. At the same time, a firm possessing a valuable new technology is more likely to expand to capture more fully the private return on the new technology (i.e., to expand so as to internalize an externality). There may thus be bidirectional causality between R & D intensity and industrial concentration. The patent system confers monopoly rights to the returns on new technologies for a specified time period. But monopoly rights do not guarantee large firms; other factors are required.

Five reasons may contribute to the positive correlation between firm size and the creation of new information for product innovation. First, there is a tendency for new products to be "experience goods" and for standardized products to be "search goods." (See Nelson [1970] for this distinction.) Experience goods are those for which it is impossible to determine from physical examination whether or not their services will actually live up to those advertised (*e.g.*, high technology goods and Vernon Stage I goods). A search good is one for which the qualities advertised can be tested before purchase by visual inspection (*e.g.*, the appearance of an article of clothing). Many standardized goods (Vernon Stage III) are search goods. There is a tendency for optimum firm size to be larger for retailers of experience goods than for retailers of search goods. The reason is that brand names confer market information about the quality of the types of goods being sold (for example, there is a clear distinction by consumers between the quality of products sold by Sears, Saks Fifth Avenue, and J. C. Penney's).

There is a similar tendency in international trade in information, since information and new products purchased from a multinational give the purchaser some assurance of the quality level of the items purchased. The argument, then, is that MNCs are conferred monopoly privileges to exploit technology worldwide; that new technology is an experience good for which the reputation (brand name) of the seller is an important determination in the decision to buy; that the MNC can develop his brand name (reputation for high-quality work) more efficiently intrafirm (through subsidiaries) than through the market (through licensing or sale); hence, international sellers of technology are large MNCs rather than small licensing or consulting firms.

Second, sales in many high-technology products are accompanied by sales of service information. The firm's optimum size is larger because service subsidiaries are required in the sale of information. IBM's servicing of its computers is a case in point. Third, the average number of products produced by multinationals is large because of complementarities in the use of new information across products. For example, mistakes made in the creation of one product can be avoided in the creation of others. Fourth, complementarities also exist among the four types of information: Information from the development stage helps in formulating the production function, which in turn helps in developing schemes to increase the private appropriability of the returns. Furthermore, most of these forms of information are transmitted more effectively intrafirm than extrafirm. Fifth, as products become older and new information becomes common knowledge, the spread narrows between buyer and seller evaluations of the products embodying the information. Since less search is required, the cost of market transactions is reduced relative to intrafirm transactions. Thus, smaller firms will be the rule in industries that are selling older products. Evidence that this is the case is presented in Magee (1976a).

All of the aforementioned bears upon the legitimacy of the criticism that MNCs are "too large." To the extent that they are large because past investments act as barriers to entry and explicit collusion to exercise market power occurs, this criticism is justified. However, to the extent that the large size reflects the normal exercise of monopoly power conferred by society through the patent system, or the appropriation of returns to R & D, the issue is more complicated. The benefits of more competition among more firms exercising less market power may be achieved only at the cost of less privately created information in the future. An important and unexplored empirical question is the elasticity of supply of future technology with respect to present firm size.

There is a failure to understand, both by the public generally and by organized labor, that there are virtues in MNCs being large. It is not well understood that firms may have to be large to help protect the returns on their information, nor is it seen that monopoly behavior is society's way of rewarding innovators for creating a public good (*i.e.*, new information).