THE MULTINATIONAL FIRM - THE UTILIZATION AND DEVELOPMENT OF HOST - COUNTRY HIGH - LEVEL MANPOWER

Dissertation for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY
JOSEPH DAVID PENO, Jr.

1975

This is to certify that the

thesis entitled

THE MULTINATIONAL FIRM - THE UTILIZATION AND DEVELOPMENT OF HOST-COUNTRY HIGH-LEVEL MANPOWER

presented by

Joseph David Peno, Jr.

has been accepted towards fulfillment of the requirements for

Ph. D. degree in Economics

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Date 21 April 1975

O-7639

ABSTRACT

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Joseph David [illegible]

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The analysis is an application of oligopoly theory and the focus is on the many firms falling in this category. The observed behavior is essentially unchanged from the earliest phases of corporate policy when reliance on source-country

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In general, multinational firms do not employ host country manpower in Level I management positions, this representing the highest levels of management responsibility for formulating company goals, planning and control. It is hypothesized that the reason for this is the preference function of the firm. This reflects the desire for maximum source-country control over the foreign operations of the multinational firm in the context of political and market uncertainty. This in turn reflects the desire for survival and expansion as an international business entity through direct investment.

The analysis is an application of oligopoly theory and the focus is on the many firms falling in this category. The observed behavior is essentially unchanged from the earliest phases of corporate policy when reliance on source-country

management was total. Available evidence--ad hoc statistics and case study material--indicate that key positions are still controlled by source-country personnel. The study concludes with a suggested format for further empirical work as generalizable information in this area is scanty and is needed if we are to better understand the manpower policies and implications of multinational firms in the less developed economies.

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By

Joseph David Peno, Jr.

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Economics

1975

This dissertation is dedicated

to my sons: Jonathan David Peno

and Michael Joseph Peno

ACKNOWLEDGEMENTS

First and foremost, I wish to express my gratitude to Professor Subbiah Kannappan. He originally suggested the topic to me and, as chairman of the dissertation committee, has offered much of his time and expert professional advice. He cooperated in the final procedures in a manner which can only be described as beyond the line of professorial duty. Without his help and complete cooperation, the work would never have reached completion.

I also extend gratitude to Professors Byron Brown and Mitch Stengel, both of whom served on my committee and provided valuable criticisms of the first complete draft.

I also wish to acknowledge the valuable assistance of the late Professor Stephen Hymer. As a member of my dissertation committee, he provided an especially valuable and unique insight into the direct investment process.

Finally, I wish to extend special gratitude to Ms. Mary McAllister. Acting in the heroic capacity of typist and general literary secretary, she succeeded in translating my illegible scrawl into a readable text.

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CHAPTER I

INTRODUCTION

Specifically, this study has been devoted to an analysis of the behavior and effect of the oligopolistic multinational firm in the high-level manpower markets of the less developed economies. The analysis is executed within the framework of a theory of the multinational firm and is based upon a multiple-objective preference function for the firm (a preference function that includes more than one maximandum).

The above-mentioned general theoretical framework represents one of the more important contributions of this study. I believe it has some important explanatory and predictive powers in dealing with multinational corporations, especially the behavior of the multinational firm in the high-level manpower markets of the less developed nations where direct investment takes place. Specifically, the theory has been used to partially explain a controversial aspect of the multinational firm - its reluctance in the past to employ host-country nationals in the highest level management positions in their foreign operations; and their failure to promote the nationals actually employed to positions at the corporate headquarters level. The analysis of manpower policies abroad is essentially historical in nature, tracing corporate policies from earlier periods where almost exclusive reliance was placed on management sent from the head office, to later periods where this policy was modified.

In the section that follows, the key terms used in this study are defined and discussed. It should be pointed out that, in terms of economic and political structure, host-countries do not necessarily fit into one perfectly homogeneous grouping. Differences exist, and these differences account in part for differences in multinational corporate strategy and the past degree of success experienced by host countries in dealing with them. These differences also dictate different future strategies (and probability of success) for host-countries bargaining with such firms. This point will be discussed in detail in later chapters.

Likewise, all firms with multinational operations do not fall into the category of international oligopolies (the dominant focus of this study). Thus, their motivation and behavior are markedly different from the dominant class of firms treated in this study. Though such corporations (those that do not operate within oligopolistic market structures) are shown to play a minor role in the total of international business operations, they provide an interesting contrast to the dominant oligopolies. This class of firms will be briefly discussed following the main analysis in Chapter V.

Identification of Terms; Direct Investment; the National Corporation; the Multinational Corporation; the International Corporation; High Level Manpower

It is particularly evident from surveying the literature on the phenomenon under examination that there is no consensus on what it should be called. It has been called

by many names: direct investment, the national corporation, the multinational corporation, the international corporation, etc. While some writers attach no particular significance to what they view as semantics and accept any or all of the above terms and use them interchangeably, others have attempted to draw rather fine distinctions. The latter effort makes necessary some brief review of these distinctions insofar as certain of the terms now carry a traditional and well-defined meaning in some quarters and confusion could result from adopting any one of them or using them interchangeably.

In the past, direct investment has been classified as an international capital movement. Capital movements can take place in a number of forms -- through issue of new securities and purchases and sales of outstanding securities on security exchanges (portfolio investment), through a variety of short-term credit instruments, and through direct invesement; the latter being a unique form of capital movement, accompanied by control, technology and management. Treating direct investment in this context only, i.e., as a sub-category under capital movements, omits many important features of this phenomenon. Direct investment is more than simple capital movement. Economists, in attempting to interpret direct investment as only a capital movement, have noted several obvious deviations.[1] Firstly, investors often did not take money with them when they went abroad to acquire

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[1]See C. P. Kindleberger, American Business Abroad (New Haven and London, Yale University Press, 1969.)

a company's assets or to build their own plants; instead, they would borrow in foreign markets. As Kindleberger notes, capital movements would take place gross, in the sense of asset acquisition(outflow) and liability incurrence (inflow), but not net.[2] Additionally, investment would often take place in kind through property exchange, e.g., patents, technology, etc., against equity claims, with no actual transfer of funds through foreign exchange channels. Furthermore, direct investment would also occur through reinvestment of foreign profits with no movement of funds through the foreign exchange market. Thus, direct investment can involve capital formation rather than capital movement.[3]

For these and other purely taxonomical reasons, direct investment does not fit well and should not be constrained to the position of a sub-category of capital movements. This is especially true if a theory is needed to explain the direct investment phenomenon and the behavior of source country firms. (This term is used throughout the study to designate the "multinational firm".) As will be discussed later, direct investment belongs more to the theory of industrial organization than to the theory of international capital movements.

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[2]Ibid., p. 2.

[3]Jack N. Behrman, "Promoting Free World Economic Development through Direct Investment," American Economic Review, 50, No. 2 (May 1960), pp. 271-81.

Indeed, it is essential at this juncture to point out that this study is not primarily concerned with those features of direct investment generally associated with balance of payment problems in general or with the accounting and purely theoretical aspects of world capital markets and movements. The primary interest here is in the firm that undertakes direct investment, its motivations, behavior, and in particular its effects on the economies of the less-developed or Third World. These firms will be termed multinational firms and are, by definition, firms that specialize in the production and distribution of goods and/or services, and undertake direct investment abroad (in many of its various forms) for purposes of establishing a market position. Often, in the writings of economic theorists, the firm has served, in Machlup's terminology, as "only a theoretical link, a mental construct helping to explain how one gets from cause to effect.[4] For the present problem, the firm itself is of the essence and its nature will be explored.

In surveying the current literature on the present topic, one finds the multinational firm variously defined and categorized according to several criteria. Kindleberger distinguishes between the national firm with foreign operations, the multinational firm, and the international firm on the basis of attitude toward foreign exchange risks and toward equalization of profits; with the international firm being

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[4]Fritz Machlup, "Theories of the Firm: Marginalist, Behavioral, Managerial," American Economic Review, 57, No. 1 (March 1967), p. 9.

the most advanced form - equalizing at the margin everywhere in the world.[5] Others have attempted differentiation on the basis of degree of internationalization of power (managing bureaucracy, shareholders) and degree of national bias (ethnocentricity vs. geocentricity).[6] In contrast to these behavioral classifications, others have attempted, spuriously, to artificially differentiate on the basis of "percent of sales of foreign origin."[7]

Such classifications are, for the most part, useful only in very narrow contexts. Worse, they often contain, implicitly, theories of the multinational firm and many normative propositions. They are therefore not purely taxonomic in nature.

For these reasons, no attempt will be made to fit our multinational corporation, as defined, into any pre-conceived taxonomical scheme.

One task remains for this section on identification of terms -- that of defining high level manpower. Such manpower, often referred to generally as management, represents the most critical resource in the general corporate hierarchy. These conscious and willful productive "factors" (units of

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[5]Kindleberger, pp. 182-185.

[6]See S. E. Rolfe, The International Corporation (International Chamber of Commerce, 1969), pp. 11-16; H. Perlmutter, "Three Conceptions of World Enterprise," Revue Economique et Sociale (May 1965); and "Multinational Corporations," Columbia Journal of World Business (January-February 1969).

[7]For example see Bruch and Lees, "Foreign Content of U.S. Corporate Activities," Financial Analysts Journal (September-October 1966), pp. 1-6.

specialized human capital) design, build, direct, and maintain the economic organzation. Harbison and Myers attribute the following functions to high level manpower:

1. The undertaking of risk and the handling of uncertainty
2. Planning and innovation
3. Coordination, administration, and control
4. Routine supervision.[8]

In very small and primitive enterprise (the Marshallian, competitive firm), all of these functions and activities may be performed by a single person, the proprietor. In the modern multidepartmental, multidivisional corporation (the primary focus of this study) there is a division of functions among a complex hierarchy of individuals. Chandler and Redlich in their analysis of the evolution of the corporate structure, distinguish between three distinct levels of task and decision making.[9] Level III, the lowest of the three, is concerned with day to day routine supervision in each of the various enterprises or divisions, i.e., seeing to their continued operation within the established corporate framework. Level II is responsible for correlating the division managers at Level III, and first appeared, historically speaking, with the separation of head office from the field office. The functions of Level I - top management - are

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[8]F. Harbison and C. A. Myers, Management in the Industrial World: An International Analysis (New York: McGraw-Hill, 1959), p. 87.

[9]Alfred D. Chandler, Strategy and Structure (Doubleday and Co., 1961). Alfred D. Chandler and F. Redlich, "Recent Developments in American Business Administration and Their Conceptualization," Business History Review (Spring 1961).

goal determination, planning, and vertical control. At this level, the framework within which the lower levels operate is cast and overall strategy is conceived.[10]

This hierarchical division of function with clearly defined status and authority at each level, suggests the need for a hierarchical subdivision of high level manpower when dealing with the multinational firm. The men who staff Level I (the "Commanding Heights" in Lenin's terminology), determine the firm's overall preference function and exercise centralized global control. They undertake planning, risk decisions and the handling of uncertainty (in Harbison's and Myers' scheme), for the entire corporate structure. This is the seat of what shall be termed Level I management (hereafter referred to as L-I-M). Their ultimate power comes from their control over all of the corporation's available resources. This power is brought to bear on lower levels (at home and abroad) through selection of executive personnel and budgeting.[11] Level II management (L-II-M) acting within the framework established by L-I-M and with the resources allocated to them by L-I-M, will coordinate the operations of

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[10]Chandler and Redlich, in their historical analysis of the evolution of the corporate structure, observed that all three levels were initially embodied in the entrepreneur. In the transition stage to the multidivisional corporation (what they call the national corporation) these two levels were separated from the bottom one. In the multidivisional corporation, Level I is completely split off and concentrated in the general office.

[11]Chandler and Redlich, p. 120.

the several foreign divisions or subdivisions comprising Level III. Level III management (L-III-M) supervises the day to day operation of the various divisions, subsidiaries and plants. Each level (I, II, and III) has its own cadre of top executives and administrators. This cadre, hereafter designated as Rank A, is identified by positions which correspond generally to the five critical functional areas of general management developed by Harbison and Myers. These are: organization (the general manager), and finance, engineering and technology; production management; and marketing and sales. All functional areas below Level I are controlled by permanent department heads or directors, or supervised (in later historical stages) by "reticulators". Each level also has a basic complement of "staff specialists" (hereafter referred to as Rank B) which may include scientists, staff engineers, lawyers and labor relations officers. Rank B personnel play little role in the critical general management areas specified by Harbison and Myers. Power rests with and is transmitted through officers in Rank A at all levels.[12]

Each high level manpower "package" has well-defined responsibility within the global corporate hierarchy. The lower levels are linked, via the central nervous system of vertical control, to Level I.

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[12]As will be discussed in detail in Chapter IV, the staffing of Rank A at all levels has been most consistently with host-country nationals; less so at Rank B. The hierarchical scheme specified above represents a synthesis of those postulated by Harbison and Myers, and Chandler and Redlich. It will be related specifically to the empirical evidence and analyzed in Chapter IV.

Stephen Hymer has noted that the application of location theory to the Chandler-Redlich scheme suggests a close correspondence between the hierarchical centralization of control within the corporation and the evolving hierarchical geographic centralization of control brought on by the growth of the multinational firm.[13] He has also postulated that the structure of world income and consumption will tend to parallel the structure of status and authority within the emerging multinational corporate hierarchy, and that the division of labor within the hierarchy will tend to be based on nationality. These postulates are related to the central hypothesis of this dissertation. Both will be discussed in detail in Chapter II.

Range and Universe of the Study

The general area of the multinational phenomenon is wide-ranging in nature. This study concentrates on American multinational firms, primarily oligopolistic, which are engaged in manufacturing and petroleum.

The Significance and Growth of American Multinational Firms

In a 1968 analysis of international investment by the Organization for Economic Co-operation and Development (OECD) (based on 1966 data) the most recent investment information

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[13]Stephen Hymer, "The Multinational Corporation and the Law of Uneven Development," (Unpublished) to appear in J. N. Bhagwati, ed., Economics and World Order (New York: World Law Fund, 1970).

available on a comparable national basis is given (see Table I-1). This study indicates that in terms of book value at circa the end of 1966, there was $90 billion in DFI by Development Assistance Committee (DAC) countries (Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States). On a disaggregated basis, about $30 billion (33%) was invested in less developed countries (L.D.C.). In terms of an industry breakdown (total investment figures) $25.9 billion was invested in petroleum, $5.9 billion in mining and smelting, and $36.2 billion in manufacturing. In terms of investment in L.D.C.'s, the comparable figures are $11.8 billion, $2.8 billion, and $8.0 billion. The comparable total U.S. investment figure for 1966 is $54.6 billion, or about 60% of the global total. Of this sub-total, $16.2 billion was invested in petroleum, $4.1 billion in mining and smelting, and $22.0 billion in manufacturing. L.D.C. investments were $16.8 billion (30% of total). Corresponding figures for L.D.C. investments by industry are $6.9 billion for petroleum, $1.8 billion for mining and smelting, and $4.1 billion for manufacturing.

In terms of the United States alone, Table I-2-6 indicates that, based on separate 1970 Department of Commerce estimates (U.S. Department of Commerce, Bureau of International Commerce, Office of International Investment, Staff study 1972) total direct investments had risen to $78 billion in 1970. Of this total, $24.9 billion (or 32%) was invested in L.D.C.'s.

In terms of an industry breakdown (total figures), $21.7 billion was invested in petroleum, $6.1 billion in mining and smelting, and $32.2 billion in manufacturing.

Corresponding L.D.C. industry breakdown were $10.0 billion in petroleum, $2.4 billion in mining and smelting, and $5.5 billion in manufacturing.

Based on this data, in terms of individual distribution, of the $78 billion in D.F.I. in 1970, about 70% is in manufacturing ($32 billion) and in petroleum ($22 billion). With respect to comparative trends over the decade, 1960-70, manufacturing investments rose from 35% of the total to 42%, while investments in petroleum, although rising absolutely, declined in proportion from 34% to 28%.

These two sectors have become the most important ones from the point of view of analyzing the multinational corporate phenomenon.

Historical Perspective

Direct investment has a long history. (See Table I-7.) Many U.S. multinational firms began their operations abroad before the Great Depression, and some before World War I. (By 1914, the United States had $2.5 billion in direct investment.[14]

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[14]The venerability of foreign investment is evidenced in many sources. The 1957 Census, U.S. Business Investments in Foreign Countries: Census of 1957 (Washington Government Printing Office, 1960) showed that 65 percent of total investments is concentrated in plants established before 1946. Since few were started during the Depression or World War II, most must have started before 1930. This is confirmed in the 1950 Census

As Stephen Hymer has noted, corporations do not grow old and die.[15] Their subsidiaries in each country tend to grow in step with their industry in that country, except when the growth process is interrupted by unusual events such as war. When dealing with the multinational corporate phenomenon, we are dealing with a long run phenomenon, with a long history.

In the United States, multinational firms date back to the 1850's. After several decades of rapid growth, approximately one-half of the then-existing 50 largest corporations had significant overseas investment by 1900, including manufacturing and distribution outlets. This growth continued through the 1920's but abated in the 1930's. The new element that emerged during the next decade was the concept of modern multinational enterprise with a common strategy. More important than this was the growing capability of having the

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U.S. Investments in the Latin American Economy, Washington: (U.S. Government Printing Office, 1957) which found almost 60 percent of 1950 investment was in plants established before 1930. In the United Kingdom, Dunning found that one-half of the employment in United States-controlled enterprises in 1953 was in firms established before 1914. John H. Dunning, American Investment in British Manufacturing Industry (London: George Allen and Unwin, 1958). Similar results are found by Brash for Australia. D. T. Brash, United States Investment in Australian Manufacturing Industry (Cambridge: Harvard University Press, 1966) and by Deane for New Zealand. R. S. Deane, Foreign Investment in New Zealand Manufacturing (Unpublished Ph.D. dissertation, Victoria University of Wellington, 1967). For a listing of other specific case histories on this matter see Stephen Hymer "Some Empirical Features of U.S. Investment Abroad," prepared for the Third Pacific Trade Conference on "The Role of Foreign Investment in Asia-Pacific Economic Development," Sidney, Australia, August 1970.

[15]Hymer, p. 4.

management of that strategy take place at a common control center based on a common flow of information.[16] It is this post-war period that is given the greatest attention in this study. Specific industries have experienced particular growth patterns. In some industries, firms have divided the world into spheres of interest, with U.S. firms restricting themselves to Latin America, European firms to Africa and Asia, and all competing in Canada. In other industries, firms may have cooperated and established joint ventures. In still others, the firms have competed instead of colluded.

While historical patterns of growth are different in some respects, the system underlying direct investment tends to be characterized (in Hymer's words) by "positive feedback" and a structure which once established tests to reproduce itself.[17] This feature makes initial market position important in determining long-run profits. It also explains the emphasis placed by corporate management on long-run market positions rather than short-run profitability in determining their investment strategy abroad.[18]

At the present time, there appears to be a major flux in the multinational corporate phenomenon. Market positions,

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[16]This aspect of the dialectics of firm growth is discussed in the next chapter.

[17]Hymer, p. 6.

[18]This aspect of M.N.F. performance is discussed in Chapter III within the context of the multinational corporate preference function.

many established in the early part of the 20th century, remained stable until the fifties. Now, however, shifts are occurring. Many industries are characterized by intense oligopolistic competition between firms of different nations.[19] During the coming decades new shifts and fluctuations in the patterns of market shares will probably occur. The result may be a new pattern in the international economy which could emerge and remain stable for some time. In Europe, stabilization in terms of market shares appears to be growing, but in L.D.C.'s, the competition for market shares has just begun. As will become evident in the analysis that follows, such struggles have had an important effect on manpower policies abroad.

Oligopolistic Industrial Structure

Though many firms have some DFI, the number of important investors is relatively small. In 1957, fifty American firms, each with foreign investments of over $100 million accounted for nearly 60% of all U.S. DFI. (The data from the 1966 Census - the most recent - were not yet available for this measure at the time of writing.) The next fifty largest firms accounted for an additional 14%. Ninety percent of all DFI was controlled by three hundred firms (see Table I-8) all of which figure prominently in the Fortune list of the 500 largest U.S. firms.

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[19]The oligopolistic market structures from which most multinational firms come is discussed in the next section.

More recent data show the same trend. In a study published by the Office of Business Economics of the Department of Commerce in March of 1972, it is pointed out that the degree of concentration is still substantial. They state that, as of 1970, about 250 firms account for over 70% of all DFI and that if the Fortune list of the 500 largest U.S. companies is used for comparison, almost the entire direct investment universe would be included.[20]

In a 1972 preliminary report from the Harvard Business School research project on the multinational firm, the evidence above is again substantiated.[21] A total of 187 multinational enterprises account for about 80% of U.S. foreign investment and over half of all U.S. exports of manufactured goods. Each of these enterprises owned manufacturing facilities in at least six foreign countries and was on Fortune's list of the 500 largest U.S. industrials.

The large size of the multinational corporation is evident. They are large relative to their markets and, in many cases, relative to the governments with which they deal. The source-country firm typically occupies a dominant position

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[20]U.S. Department of Commerce. The Multinational Corporation "Trends in Direct Investment Abroad by U.S. Multinational Corporations 1960-70". Bureau of International Commerce, February 1972. O.F.D.I. data indicate that less than 140 firms have 60% of total investment. U.S. Department of Commerce, "Policy Aspects of Foreign Investment by U.S. Multinational Corporations", Ibid., p. 41.

[21]"U.S. Multinational Enterprises and the U.S. Economy" A research report of the Harvard Business School. R. B. Stobaugh, Director. January 1972.

in its domestic market. The subsidiaries often rank among the largest firms in the host countries.

Direct foreign investment, as suggested above, is associated with oligopolistic industries. The major investors are "dominant firms" in industries with high concentration ratios (industries where a small number of firms account for a large proportion of industry total output). In a recent study by Hymer, the major U.S. investors in manufacturing and petroleum industry are classified by the level of concentration (a measure of oligopoly structures) in their industry.[22] As Tables I-9-10 indicate, approximately 44% of these firms were dominant in industries where the concentration ratio is greater than 75%. Another 15% were in industries where the concentration ratios were 50 to 75%. (See Table I-10 for more detailed data.)

It is important to mention that firms have been classified according to their major product, while the foreign investments are most often restricted to one or two specialties where the firm has particular "firm specific" advantages and where concentration would therefore be much higher. A more disaggregated industry definition would show even greater concentration.

Other studies confirm these findings. The affinity for direct foreign investment by industries of oligopolistic market structures has been documented extensively. In the United Kingdom, Dunning found that two-thirds of the subsidiaries

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[22]Stephen Hymer, Appendix Tables.

covered in his survey operated in markets of tight-knit oligopoly (source-country and host-country).[23] For specific data from Dunning's study see Tables I-11 and I-12. In addition, in a study by Steuer, a significant relation has been found between the level of seller concentration (that proportion of sales accounted for by the five largest firms) and foreign investment in a sample of 277 manufacturing firms.[24] This holds for American as well as non-American firms. Rosenbluth reports similar findings for Canada.[25] Deane found similar results for New Zealand; as did Brash for American investment in Australia.[26] Evidence from other countries, though available in less convenient form, confirms the finding that DFI is associated with oligopolistic industries.[27] Additional evidence shows that in underdeveloped countries, the feature of high concentration is even more pronounced.

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[23] J. H. Dunning: American Investment in British Manufacturing (London: George Allen and Unwin, 1958).

[24] M. D. Steuer, et al., The Economic Effects of Inward Investment in the United Kingdom. 1970 A preliminary report. For similar evidence see: T. Horst "Firm and Industry Determinants of the Decision to Invest Abroad: An Empirical Study" REStat., August (1972).

[25] G. Rosenbluth, "The Relation Between Foreign Control and Concentration in Canadian Industry", C.J.E. 3, (1970).

[26] R. S. Deane, Foreign Investment in New Zealand Manufacturing (Unpublished Ph.D. dissertation, Victoria University of Wellington, 1967) D. T. Brash, U.S. Investment in Australian Manufacturing (Cambridge: Harvard University Press, 1966).

[27] For a good summary listing with notations see Hymer and R. E. Caves "International Corporations: The Industrial Economics of Foreign Investment: Economica, February (1971).

A number of important implications follow from the aforementioned characteristics. Firstly, an appropriate theoretical framework within which to pursue an analysis of the M.N.F. and D.F.I. is that of oligopoly theory.

Secondly, the large size of the M.N.F.'s implies a particular political and economic relationship between them and the governments with which they must negotiate, as well as between them and the host-country producers with which they compete.

These two features have been integrated into a partial theory of the M.N.F. which is specified in the next chapter, and is used to roughly test the major hypothesis of this study.

Association with Particular Industries

Multinational corporations have been concentrated in oligopolistic industries with special product characteristics. Tables I-13-15 shows data which reflect the industrial distribution of direct investment by American and non-American firms. The largest part of this investment is in "heavy" industry, i.e., in industries characterized by large firms, high capital intensity, advanced technology, and differentiated products.[28] A more disaggregated analysis would probably

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[28]The Census data for 1966 were not available at the time of this writing on a comparable disaggregated basis. The data shown in the Tables are from the 1950 and 1957 Census. The trends shown there are, however, confirmed in recent data from O.F.D.I. studies of 1970, and in empirical studies done since 1957. See R. Vernon, Sovereignty at Bay: The Multinational Spread of U.S. Enterprises (New York: Basic Books, 1971). Also see T. Horst. Both studies show that M.N.F.

show that within two digit industrial categories, foreign investment would tend to be concentrated in "specialty" industries; and within firms, in products in which the firm had particular "firm specific" advantages. (See Table I-10.)

In this connection, three features partially explain whether an industry or firm has large foreign investments: (1) There must be some type of barrier to entry into the industry; technology, economies of scale, or differentiated products. This is required in order for the M.N.F. to compete with host-country firms (public and/or private) despite the higher cost of doing business abroad;[29] (2) It must be advantageous to produce locally abroad (including for import) rather than export from the source country (this depends on tariffs, the size of market, etc.); (3) The firm must find it more in its long-run interest to exploit its market advantages through D.F.I. rather than through licensing.[30]

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tend to be larger, more research-oriented firms, etc. Empirical evidence is presented in both on a comparable industry breakdown.

[29]This is an element in Hymer's theory of direct investment. It is a key element in my own and is integrated into the overall theory of the multinational firm in Chapter III and analyzed extensively. Such a feature (entry barriers) is characteristic of oligopolistic enterprises.

[30]For an interesting analysis of the factors influencing the choice between direct investment and licensing see H. G. Johnson, "The Efficiency and Welfare Implication of the International Corporation," C. P. Kindleberger, ed., The International Corporation (Cambridge, Mass., M.I.T. Press, 1970), pp. 35-56.

As will be explained in the theory in Chapter III, all of these features characterize, and are entirely consistent with, an extension of oligopolistic rivalry to a global scale.[31]

It is also interesting to note that non-American M.N.F.'s tend to be in the same kind of industries as American firms. (See Table I-15.) Data on cross investment confirms this feature and indicates a defensive aspect of international oligopolistic competition.

Capital Structure

In the context of patterns of international ownership and control, there has been, historically, a strong tendency among multinational firms toward the wholly-owned foreign subsidiary (especially in manufacturing and petroleum). At the time of the 1957 Census, over three-quarters of the total of $25 billion in D.F.I. was in enterprises in which U.S. equity ownership was 95% or more, and 20% was in the ownership range of 50% to 95%. A similar trend is apparent in the 1950 Census.[32] Foreign investment in the United States has

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[31]Direct investment involves both horizontal and vertical integration internationally. Most D.F.I. in manufacturing involves horizontal integration as the more dynamic, R&D oriented industries and firms expand their market horizons to include the world market. Vertical integration is most characteristic of a particular kind of industry, i.e., primarily preparation of raw materials (petroleum, etc.). In both cases, barriers to entry figure importantly in explaining the motives and behavior of these firms. This is discussed extensively in the next chapter. For further discussion on this topic plus a listing of additional empirical materials bearing on these points see Caves, pp. 4-27.

[32]U.S. Department of Commerce, p. 6. U.S. Business Investments in Foreign Countries, 1957. Foreign Investments of the U.S., Census of 1950, p. 17.

followed the same pattern (76% of D.F.I. in the U.S. was owned 95% or more by foreign parents, and 20% was owned between 50% and 95%).[33]

The basic pattern for financing direct investment is illustrated in Tables I-16-17. An important distinction is made between equity and debt capital. The U.S. parent's share of capital in foreign subsidiaries averaged 86% in both the 1950 and 1957 Censuses. As will be explained in later chapters, the high share of equity securities can, to a large extent, be explained by the imperatives of global control. More recent data confirm the above trends. The results of the Department of Commerce's Foreign Affiliate Financial Survey 1966-1969 show that majority owned foreign affiliates account for approximately 85% of the total of D.F.I. in those years.[34] Also, preliminary releases (for manufacturing and petroleum only) from the Census of D.F.I., 1966 (the most recent, complete, and accurate data on the entire direct investment universe) show a continuation of the trends observed in the Census of 1950 and 1957. (See Table I-20.) In the case of manufacturing, 94.1% of total book value was invested in majority owned affiliates. Petroleum reporter's majority owned affiliates accounted for 95% of their book value investments in foreign affiliates.

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[33]U.S. Department of Commerce Foreign Business Investments in the U.S., Census of 1959.

[34]Estimated from data in: U.S. Department of Commerce, Office of Direct Foreign Investments, Foreign Affiliate Financial Survey 1966-69. Tables I-18-19 show detailed financial data on the firms in the O.F.D.I. sample.

The past preference of American investors for virtually 100% equity control can be explained by the desire for global control and profit maximization (or relates to the influence of externalities and the effect of such on patent exploitation). This point will be discussed in more detail in Chapters III and IV. To some extent, the firm has been willing to relinquish equity ownership in "exchange" for more subtle "controls". This is especially true of Japanese multinationals that have placed increasing reliance on control of vital technology flows. This later feature of shifting capital structure is related to the general model in Chapter IV.

Non-American Multinational Firms

As noted previously, from information based on the most recent O.E.C.D. data, the share of major non-American foreign investors is about 40% of the global total as of 1966. It is also interesting to note that the principal non-American M.N.F.'s have the same characteristics as their American competitor, i.e. they are large firms, from concentrated industries. Also the industries from which they come are likewise capital intensive, possessed of advanced technology, differentiated products, etc.

While the analysis in this study is based upon the behavior of American M.N.F.'s, much of it could be adapted to analysis of non-American M.N.F.'s. An extensive examination of such firms is beyond the scope of this study. Nevertheless, they are treated on a limited scale for comparison purposes in Chapter IV.

Summary of Universe and Firm Characteristics

The preceding section has defined the range and universe of this study. Also, a number of firm characteristics that are important for the analysis at hand have been discussed. To recapitulate:

Range

1. The Study is limited (with the exception noted in the section on non-American firms) to American multinational firms.
2. The time span covered is predominantly post-World War II to the present.
3. The analysis is limited to the broadly defined catagories of manufacturing and petroleum.

Firm Characteristics

1. American (as well as most non-American) M.N.F.'s are large firms operating in concentrated industries. Thus, the study of American corporate multinationalism is largely a study in oligopoly rivalry expanded to a global scale.
2. American multinational firms tend to be concentrated in industries with special characteristics. The data indicate that the largest part of D.F.I. is in "heavy" industry, characterized by high capital intensity, advanced technology, and differentiated products.
3. American multinational firms have demonstrated a strong preference for the wholly-owned foreign subsidiary.
4. Non-American firms share many of the same firm and industry characteristics.

Host Country Emphasis

As noted in the introduction, the analysis is primarily limited to the behavior of the multinational firm in the less developed host countries. Data from selected countries of this group will be used to provide empirical support for the fundamental theoretical propositions developed in the body of the thesis. The countries were chosen to illustrate investment and behavior patterns in Latin America, Africa, the Middle East and Asia. Economic and socio-cultural differences between host countries and the extent to which these influence patterns of D.F.I. and firm behavior are also discussed.

The patterns of D.F.I. and firm behavior in the developed countries (primarily Europe and Japan) will be discussed (insofar as they provide a logical and consistent link with the analysis in the L.D.C.'s) in the final formulation of an overall model of the dialectics of the multinational firms, direct investment and the internationalization of capital.

TABLES

CHAPTER I

TABLE I-1

DIRECT FOREIGN INVESTMENT BY MAJOR COUNTRIES, END 1966
(BOOK VALUE IN MILLIONS OF DOLLARS)

Countries	Petroleum (LDC)	Mining and Smelting (LDC)	Manufacturing (LDC)	Other (LDC)	Total (LDC)
World	25,942 (11,892	5,923 (2,801)	36,246 (8,047)	21,472 (7,230)	89,583 (29,970)
United States	16,264 (6,975)	4,135 (1,82[illegible])	22,050 (9,124)	12,113 (3,915)	54,462 (16,841)
United Kingdom	4,200 (2,167)	759 (29[illegible])	6,028 (1,471)	5,015 a/ (2,255)	16,002 (6,184)
France	d (670)	a (200)	a (1,230) b/	a a	4,000 b/ (2,100)
Germany	200 (65)	100 (38)	1,800 (945)	400 (97)	2,500 (845)
Sweden	a a	a (85)	a (98)	a a	793 (161)
Canada	a a	240 b/ (202)	2,988 b/ (332)	a a	3,248 (534)
Japan	a (222)	a (71)	a (270)	a (33)	1,000 (605)

Note: Italy, Holland, Switzerland and Belgium data not available;
Australia total investment is $300 million.

a Not available.
b Estimate.
c Including agriculture of 1,022 (864 in the less-developed countries, or 126 [illegible]).
d Total French oil production estimated at 57.2 million tons in 1966.

Source: Compiled from OECD, D&C (68) 14, Annex C (April 23, 1968).

TABLE I-1

DIRECT FOREIGN INVESTMENT BY MAJOR COUNTRIES, END 1966
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World	25,942 (11,892	5,923 (2,801)	36,246 (8,047)	21,472 (7,230)	89,583 (29,970)
United States	16,264 (6,975)	4,135 (1,827)	22,050 (4,124)	12,113 (3,915)	54,462 (16,841)
United Kingdom	4,200 (2,167)	759 (298)	6,028 (1,471)	5,015 c/ (2,255)	16,002 (6,184)
France	d (670)	a (200) b/	a (1,230) b/	a a	4,000 b/ (2,100)
Germany	200 (65)	100 (38)	1,800 (645)	400 (97)	2,500 (845)
Sweden	a a	a (65)	a (96)	a a	793 (161)
Canada	a a	250 b/ (202)	2,988 b/ (332)	a a	3,238 (534)
Japan	a (222)	a (71)	a (270)	a (33)	1,000 (605)

Note: Italy, Holland, Switzerland and Belgium data not available;
Australia total investment is $300 million.

a Not available.
b Estimate.
c Including agriculture of 1,022 (864 in the less-developed countries, or LDC's).
d Total French oil production estimated at 57.2 million tons in 1966.

Source: Compiled from OECD, DAC (68) 14, Annex C (April 23, 1968).

TABLE I-2

U.S. DIRECT INVESTMENT ABROAD-TOTAL, ALL INDUSTRIES
(MILLIONS OF DOLLARS)

All Areas	Book Value
1960	31865
1961	34684
1962	37145
1963	40736
1964	44480
1965	49474
1966	54799
1967	59491
1968	64983
1969	71016
1970	78090
Developed Countries	
1960	18391
1961	20979
1962	22890
1963	25639
1964	28635
1965	32312
1966	36661
1967	40070
1968	43499
1969	47886
1970	53111
Less Developed Countries	
1960	13474
1961	13705
1962	14255
1963	15097
1964	15845
1965	17162
1966	18138
1967	19421
1968	21484
1969	23130
1970	24979

Source: U.S. Department of Commerce, Survey of Current Business, October 1971 and earlier.

TABLE I-3

U.S. DIRECT INVESTMENT ABROAD-TOTAL, MANUFACTURING
(MILLIONS OF DOLLARS)

All Areas	Book Value
1960	11152
1961	11936
1962	13212
1963	14937
1964	16935
1965	19339
1966	22078
1967	24172
1968	26414
1969	29527
1970	32231
Developed Countries	
1960	9316
1961	10037
1962	11028
1963	12421
1964	14045
1965	15938
1966	18236
1967	19957
1968	21716
1969	24367
1970	26748
Less Developed Countries	
1960	1836
1961	1899
1962	2184
1963	2516
1964	2890
1965	3401
1966	3842
1967	4215
1968	4698
1969	5160
1970	5483

Source: U.S. Department of Commerce, Survey of Current Business, October 1971 and earlier.

TABLE I-4

U.S. DIRECT INVESTMENT ABROAD-TOTAL, PETROLEUM
(MILLIONS OF DOLLARS)

All Areas	Book Value
1960	10948
1961	12151
1962	12661
1963	13652
1964	14328
1965	15298
1966	16222
1967	17399
1968	18887
1969	19882
1970	21790
Developed Countries	
1960	4766
1961	5396
1962	5661
1963	6697
1964	7203
1965	7720
1966	8588
1967	9309
1968	9922
1969	10463
1970	11746
Less Developed Countries	
1960	6182
1961	6755
1962	7000
1963	6955
1964	7125
1965	7578
1966	7634
1967	8090
1968	8965
1969	9419
1970	10044

Source: U.S. Department of Commerce, Survey of Current Business, October 1971 and earlier.

TABLE I-5

U.S. DIRECT INVESTMENT ABROAD-TOTAL, MINING AND SMELTING
(MILLIONS OF DOLLARS)

All Areas	Book Value
1960	3011
1961	3061
1962	3183
1963	3419
1964	3665
1965	3931
1966	4365
1967	4876
1968	5435
1969	5658
1970	6137
Developed Countries	
1960	1547
1961	1515
1962	1633
1963	1749
1964	1937
1965	2132
1966	2466
1967	2821
1968	3145
1969	3320
1970	3657
Less Developed Countries	
1960	1464
1961	1546
1962	1550
1963	1670
1964	1728
1965	1799
1966	1899
1967	2055
1968	2290
1969	2338
1970	2480

Source: U.S. Department of Commerce, Survey of Current Business, October 1971 and earlier.

TABLE I-6

U.S. DIRECT INVESTMENT ABROAD-TOTAL, OTHER INDUSTRIES
(MILLIONS OF DOLLARS)

All Areas	Book Value
1960	6754
1961	7536
1962	8089
1963	8728
1964	9552
1965	10906
1966	12134
1967	13044
1968	14248
1969	15948
1970	17932
Developed Countries	
1960	2762
1961	4031
1962	4568
1963	4771
1964	5452
1965	6521
1966	7371
1967	8716
1968	9736
1970	10958
Less Developed Countries	
1960	3992
1961	3505
1962	3521
1963	3957
1964	4100
1965	4385
1966	4763
1967	5061
1968	5532
1969	6212
1970	6974

Source: U.S. Department of Commerce, Survey of Current Business, October 1971 and earlier.

TABLE I-7

THE EXPANSION OF MULTINATIONAL CORPORATIONS THROUGH TIME
(NUMBER OF COMPANIES OPERATING A
FOREIGN SUBSIDIARY AT A GIVEN DATE)

(a) manufacturing or non-manufacturing

	Areas	In Canada	Latin America	Europe	Southern Dominion	Asia and Other Africa
1901	23	6	3	22	2	0
1913	47	27	9	37	8	4
1919	74	54	16	45	14	8
1929	123	92	36	95	34	23
1939	153	123	72	116	63	33
1945	158	128	93	120	69	33
1957	183	167	155	160	105	83
1967	86	174	182	185	154	158
(b) manufacturing subsidiaries only						
1901	18	5	3	16	1	0
1913	39	24	6	26	3	1
1919	64	48	10	30	7	4
1929	110	79	24	76	20	15
1939	135	102	56	96	44	18
1945	138	107	73	96	50	17
1957	174	142	131	144	85	61
1967	185	161	171	183	135	134

Source: J. W. Vaupel and J. P. Curhan, The Making of Multinational Enterprise, (Boston: Harvard University), p. 69.

TABLE I-8

UNITED STATES DIRECT FOREIGN INVESTMENT
BY SIZE OF INVESTMENT, 1957

Value of Direct Investment By Size Classes	Number of Firms		Percent Total Value of Direct Investment	
	All Industries	Manufacturing	All Industries	Manufacturing
$100 million and over	45	15	57	35
$50-100 million	51	24	14	18
$25-50 million	67	40	9	17
$10-25 million	126	64	8	11
$5-10 million	166	89	5	7
Total:	455	232	93	88

Source: 1957 Census: U.S. Business Investments in Foreign Countries, Table 55, p. 144.

TABLE I-9

DISTRIBUTION OF MAJOR FOREIGN INVESTORS
IN MANUFACTURING BY MARKET STRUCTURE

Market Structure Concentration Ratios for 4 Largest Companies	Major Foreign Investors No. of Firms	Major Foreign Investors % of Total No. of Firms
75 to 100%	32	44
50 to 74%	11	15
25 to 49%	28	39
less than 25%	1	1
TOTAL:	72	99

Note: The Distribution of American Industry by Concentration ratio is taken from U.S. Senate Concentration in American Industry, Report of the Subcommittee on Antitrust and Monopoly pursuant to S. Res 57 (85th Congress), Table 17, p. 23.

The data on major investors were obtained from Annual Reports. This body of data includes about 92 of the major foreign investors in manufacturing (Food, Paper, Chemicals, Metals, Machinery, Automotive and Electrical, and Other). These firms were then classified into industries which were then grouped according to concentration level.

Source: Stephen Hymer, "The International Operations of National Firms."

TABLE I-10

DISTRIBUTION OF MAJOR MANUFACTURING FOREIGN INVESTORS
BY MARKET STRUCTURE (DETAILED LISTING)

Less than 25% Concentration		25-49% Concentration		50-74% Concentration		75-100% Concentration	
Construction & Mining Machinery	1	Meat Products	4	Biscuits and Crackers	1	Cereal Breakfast Foods	2
		Dairy Products	2	Corn Wet Milling	1	Chewing Gum	2
		Canned Fruits and Vegetables	3	Abrasives	1	Flavoring Syrups for Soft Drinks	3
		Flour and Meal	1	Asbestos	1	Hard Surface Floor Coverings	1
		Cement	1	Photographic Equipment	1	Tires and Inner Tubes	
		Refractories	1	Cleaning and Polishing Soaps and Glycerine	2	Flat Glass	5
		Surgical Appliances	1	Plumbing Fixtures	2	Tobacco	1
		Mattresses and Bedsprings	1	Elevators and Escalators	1	Aluminum	1
		Medicinal Chemical and Pharmaceutical Preparations	6	Vacuum Cleaners	1	Tin Cans and Other Tinware	2
		Paints and Varnishes	1			Razor and Razor Blades	1
		Tractors and Farm Machinery	5			Computing Machines and Typewriters	4
		Oil Field Machinery and Tools	1			Sewing Machines	1
		Printing Trade Equipment and Machinery	1			Shoe Machinery	1
						Motor Vehicles	6
						Locomotives and Parts	1
	1		28		11		32

Source: Same as Table I-9.

TABLE I-11

DISTRIBUTION OF AMERICAN OWNED ENTERPRISES IN UNITED KINGDOM BY MARKET STRUCTURES

Industry Group		Number of Enterprises	Number of Employees
Group A Industries	- U.S. firm the dominant producer	12	32,000
Group B Industries	- U.S. firm one or more of a small number of strong producers	136	200,000
Group C Industries	- U.S. firm one of a number of producers of modest size	57	14,000
	TOTAL:	205	246,000

Source: J. H. Dunning, American Investment in British Manufacturing, pp. 156-157. The 205 firms in his sample account for between 90 and 95 percent of the total labor force of the United States manufacturing units in the United Kingdom. According to Dunning, this presentation underestimates the monopolistic characteristics of the industries; the Group C category contains propriatory medicines, beauty and toilet preparations, and foundation garments, which are industries where brand names have special competitive importance.

TABLE I-12

SHARE OF UNITED STATES FIRMS IN SELECTED UNITED KINGDOM INDUSTRIES

Industry	Estimated Share of United States Firms in United Kingdom Industry (Dunning's terminology)
Chemicals and Allied Trades	
Carbon black	three-quarters
Phenol plastics	substantial
Petroleum refining	one-third
Pharmaceutical products	one-fifth to one-half
antibiotics	all
Toilet preparations and cosmetics	one-half
Vehicles	
Motor vehicles	two-fifths
Engineering and Shipbuilding	
Agricultural machinery	60 to 70 percent
Calculating machines and cash registers	one-half to two-thirds
Typewriters	one-half
Shoe machinery	almost all
Sewing machinery	almost all
Refrigerators	one-third to one-half
Electric switches	two-thirds
Food, Drink and Tobacco	
Starch	practically all
Custards	largely
Evaporated milk	greater part
Processed cheese	three-quarters
Breakfast cereals	all
Chewing gum	most of
Metal Manufacturing and Metal Goods Not Otherwise Specified	
Domestic boilers	60 percent
Nickel	100 percent
Razor blades	90 percent
Cigarette lighters	100 percent
Textiles	
Foundation garments	two-thirds
Other Manufacturing Industries	
Talking picture apparatus	40 percent
Vehicle tires	two-fifths
Cinematic films	90 percent
Roll films	two-fifths
Abrasives	40 percent

Source: J. H. Dunning, American Investment in British Manufacturing Industry, pp. 60-78.

TABLE I-13

SALES OF FOREIGN MANUFACTURING FACILITIES OF INDUSTRIES INCLUDED IN THE HARVARD BUSINESS SCHOOL STUDY COMPARED WITH MANUFACTURING SALES OF ALL U.S. FOREIGN DIRECT INVESTORS, 1968

Industries Included in the Harvard Business School Study (SIC No.[a])	Billions of Dollars
Food products (20)	5.4
Paper and allied products (26)	2.5
Chemicals and allied products (28)	10.2
Petroleum refining (29)	20.0
Rubber products (30)	2.1
Primary and fabricated metals (33 and 34)	4.7
Non-electrical machinery (35)	8.2
Electrical machinery (36)	5.3
Transportation equipment (37)	14.5
Total, this study:	72.9
Total manufacturing sales of all U.S. foreign direct investors:	79.7

[a]SIC No. = Standard Industrial Classification numbers used by U.S. Department of Commerce.

Source: R. David Belli, "Sales of Foreign Affiliates of U.S. Firms, 1961-65, 1967 and 1968," Survey of Current Business, October 1970, p. 20; David T. Devlin and George R. Kruer, "The International Investment Position of the United States: Developments in 1969," Survey of Current Business, October 1970, p. 28.

TABLE I-14

DIRECT FOREIGN INVESTMENT OF U.S.
FIRMS BY INDUSTRY, 1929-57
(MILLIONS OF DOLLARS)

Industry	Value of Direct Investment					Ratio of Foreign Investment to Total Assets
	1929	1936	1940	1950	1957	1950
Food	222	220	245	483	723	4.0
Paper and allied products	279	269	308	378	722	8.4
Chemicals and allied products	138	205	221	512	378	5.3
Petroleum	1117	1074	1393	3390	9055	19.4
Rubber	60	63	64	182	401	8.9
Primary and fabricated metals	150	185	187	385	941	2.1
Machinery (except electrical)	185	159	193	420	927	4.4
Electrical machinery	259	183	214	387	731	8.2
Transportation equipment	184	206	283	485	1204	6.1
All other manufacturing	337	221	212	599	983	2.4

Source: Col. 1-5, 1957 Census. Data on comparable basis from the 1966 Census is not yet available. Col. 6, FTC-SEC, Quarterly Industrial Financial Reports, 1950. See Hymer, "International Operations of National Firms."

TABLE I-15

INDUSTRIAL DISTRIBUTION OF FOREIGN INVESTMENT IN THE U.S. (MILLIONS OF DOLLARS)

Industry	Investment	Sales
Food	931	1,299
Chemicals and allied products	465	891
Petroleum	1,184	N.A.
Primary and fabricated metals	125	276
Machinery (except electrical)	275	432
Electrical machinery	83	289
All other manufacturing	592	944

Source: U.S. Department of Commerce, Census of 1959, Foreign Business in the United States.

TABLE I-16

STRUCTURE OF CAPITAL
U.S. AND FOREIGN OWNERSHIP OF DIRECT INVESTMENT ENTERPRISES
BY TYPE OF INVESTMENT 1950
(FIGURE IN BILLIONS OF DOLLARS)

	Total	U.S. Ownership	Percent of Total	Foreign Ownership	Percent of Total
Liabilities and Net Worth	22.2	11.8	53	10.4	47
Equity (part co-ownership)	11.6	9.9	86	1.7	14
Debt	10.6	1.9	13	8.7	87
Short term and other	8.1	-	-	8.1	-
Long term	2.5	1.9	76	.6	24

Source: Estimated from 1950 Census U.S. Department of Commerce, Foreign Investments of the U.S. Census of 1950.

TABLE I-17

STRUCTURE OF CAPITAL
U.S. AND FOREIGN OWNERSHIP OF DIRECT INVESTMENT ENTERPRISES
BY TYPE OF INVESTMENT 1957
(FIGURE IN BILLIONS OF DOLLARS)

	Total	U.S. Ownership	Percent of Total	Foreign Ownership	Percent of Total
Liabilities and Net Worth	39.6	24.0	63	15.6	37
Equity (part co-ownership)	23.1	19.8	85	3.3	14
Debt	16.5	4.2	25	12.4	75
Short term and other	11.1	-	-	11.1	-
Long term	5.4	4.2	78	1.2	22

Source: Estimated from 1957 Census U.S. Department of Commerce, U.S. Business Investments in Foreign Countries, 1957.

TABLE I-18

STRUCTURE OF FOREIGN AFFILIATE ASSETS AND LIABILITIES, 1966-1969 (EXCLUDING CANADA)

	1966		1967		
	$ Millions	% of Total	$ Millions	% of Total	% Change 1966-67
Direct Investment	$29,547	59.1	33,037	58.8	11.8
Majority Equity	20,730	41.5	23,751	42.3	14.6
Liabilities to Parent	8,817	17.6	9,286	16.5	5.3
Minority Equity	1,357	2.7	1,563	2.8	15.2
Liabilities to Others	19,106	38.2	21,588	38.4	13.0
Short-Term	13,761	27.5	15,180	27.0	10.3
Interest Bearing	4,605	9.2	5,352	9.5	16.2
Non-Interest Bearing	9,156	18.3	9,827	17.5	7.3
Long-Term	5,345	10.7	6,409	11.4	19.9
Interest Bearing	3,789	7.6	4,654	8.3	22.8
Non-Interest Bearing	1,555	3.1	1,755	3.1	12.8
Total Liabilities Plus Equity	50,009	100.0	56,188	100.0	12.4
Fixed Assets	22,124	44.2	24,902	44.3	12.6
Current Assets	22,817	45.7	25,341	45.1	11.0
Other Assets	5,058	10.1	5,945	10.6	17.5
Total Assets	50,009	100.0	56,188	100.0	12.4

TABLE I-18 (Cont'd.)

	1968			1969		
	$ Millions	% of Total	% Change 1967-68	$ Millions	% of Total	% Change 1968-69
Direct Investment	36,501	57.0	10.5	40,886	56.0	12.0
Majority Equity	26,471	41.4	11.5	28,478	39.0	7.6
Liabilities to Parent	10,030	15.7	8.0	12,408	17.0	23.7
Minority Equity	1,805	2.8	15.5	1,914	2.6	6.1
Liabilities to Others	25,720	40.2	19.1	30,305	41.5	17.8
Short-Term	18,073	28.2	19.1	21,598	29.5	19.5
Interest-Bearing	6,125	9.6	14.4	7,276	10.0	18.8
Non-Interest Bearing	11,948	18.7	21.6	14,322	19.6	19.9
Long-Term	7,646	11.9	19.3	8,707	11.9	13.9
Interest Bearing	5,771	9.0	24.0	6,383	8.7	10.6
Non-Interest Bearing	1,875	2.9	6.8	2,325	3.2	24.0
Total Liabilities Plus Equity	64,025	100.0	14.0	73,105	100.0	14.2
Fixed Assets	27,586	43.1	10.8	30,600	41.9	10.9
Current Assets	29,896	46.7	18.0	35,091	48.0	17.4
Other Assets	6,543	10.2	10.1	7,414	10.1	13.3
Total Assets	64,025	100.0	14.0	73,105	100.0	14.2

Source: U. S. Department of Commerce, O.F.D.I., Foreign Affiliate Financial Survey, 1966-69.

TABLE I-19

STRUCTURE OF FOREIGN AFFILIATE ASSETS AND LIABILITIES, 1966-1969 CANADA

	1966		1967		
	$ Millions	% of Total	$ Millions	% of Total	% Change 1966-67
Direct Investments	9,845	63.1	11,171	62.4	13.5
Majority Equity	7,492	48.0	8,459	47.3	12.9
Liabilities to Parent	2,353	15.1	2,712	15.2	15.3
Minority Equity	1,089	7.0	1,223	6.8	12.3
Liabilities to Others	4,675	30.0	5,482	30.7	17.3
Short-Term	2,688	17.2	3,006	16.8	11.9
Interest Bearing	732	4.7	958	5.4	30.9
Non-Interest Bearing	1,955	12.5	2,048	11.5	4.7
Long-Term	1,988	12.7	2,476	13.9	24.6
Interest Bearing	1,583	10.1	1,985	11.1	25.4
Non-Interest Bearing	405	2.6	491	2.8	21.2
Total Liabilities Plus Equity	15,608	100.0	17,875	100.0	14.5
Fixed Assets	8,056	51.6	9,097	50.9	12.9
Current Assets	6,458	41.4	7,535	42.2	16.7
Other Assets	1,095	7.0	1,243	7.0	13.6
Total Assets	15,608	100.0	17,875	100.0	14.5

TABLE I-19 (Cont'd).

	1968			1969		
	$ Millions	% of Total	% Change 1967-68	$ Millions	% of Total	% Change 1968-69
Direct Investment	12,091	61.9	8.2	13,006	61.7	7.6
Majority Equity	9,213	47.2	8.9	10,213	48.5	10.9
Liabilities to Parent	2,879	14.8	6.2	2,793	13.3	-3.0
Minority Equity	1,243	6.4	1.6	1,233	5.9	-.8
Liabilities to Others	6,186	31.7	12.8	6,837	32.4	10.5
Short-Term	3,574	18.3	18.9	3,985	18.9	11.5
Interest Bearing	1,111	5.7	16.0	1,450	6.9	30.5
Non-Interest Bearing	2,463	12.6	20.3	2,535	12.0	2.9
Long-Term	2,611	13.4	5.5	2,852	13.5	9.2
Interest Bearing	2,032	10.4	2.4	2,071	9.8	1.9
Non-Interest Bearing	580	3.0	18.0	781	3.7	34.7
Total Liabilities Plus Equity	19,520	100.0	9.2	21,077	100.0	8.0
Fixed Assets	9,919	50.8	9.0	10,739	51.0	8.3
Current Assets	8,361	42.8	11.0	8,860	42.0	6.0
Other Assets	1,239	6.4	-.3	1,478	7.0	19.3
Total Assets	19,520	100.0	9.2	21,077	100.0	8.0

Source: U. S. Department of Commerce, O.F.D.I., Foreign Affiliate Financial Survey, 1966-69.

TABLE I-20

BOOK VALUE OF U.S. MANUFACTURING AND PETROLEUM REPORTERS' INVESTMENTS AT END-1966, WORLDWIDE (MILLIONS OF DOLLARS)

Type of Foreign Organization	Manufacturing		Petroleum	
	Book Value End-1966	Increase from End-1965	Book Value End-1966	Increase from End-1965
All Foreign Affiliates	28,400	N.A.	14,941	N.A.
Majority-Owned Affiliates	26,718	3,160	14,196	1,214
Corporations	24,917	2,948	9,278	985
Net Worth	18,878	1,955	5,893	901
Net Indebtedness to Parent	6,038	993	3,386	84
Branches and Other Affiliates	1,801	212	4,918	229
Minority-Owned Affiliates	1,361	N.A.	502	N.A.
Associated Affiliates	321	N.A.	242	N.A.

Source: Preliminary Results of the U.S. Department of Commerce, Census of U.S. Foreign Direct Investments, 1966.

CHAPTER II

ALTERNATIVE THEORIES OF DIRECT INVESTMENT AND THE MULTINATIONAL FIRM

The theoretical approach employed in this study will be set out and discussed extensively in the following chapters. The task in this chapter is that of surveying the approaches taken by other analysts of the phenomenon. The relationship between these models and the one employed in this thesis will be discussed in Chapters III and IV.

It has been already noted that direct investment does not belong in the category of international capital movements for purely taxonomical reasons. Moreover, as mentioned earlier, the theory of international capital movements is not adequate for explaining the direct investment phenomenon. If we are to understand the true economic character of direct investment and the multinational firm, it is important that they be considered in a different context. Other writers share this view. One view, expressed by Behrman, is that much of direct investment does not significantly affect capital transfers (like portfolio investment) so much as it builds foreign capital.[1] This can be accomplished by borrowing abroad, joint ventures, and reinvestment of profits. Direct investment should thus be regarded as primarily a movement of know-how or financial talent, and only incidentally

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[1]See Behrman, pp. 241-81.

a capital movement.[2] Formulating a general theory of direct investment, Stephen Hymer has argued that a study of direct investment belongs to the field of industrial organization. It involves the international operation of entrepreneurial talent, manifests itself in the form of a corporate hierarchy, and occurs only if the investor has significant monopolistic advantages over its competition abroad.[3]

Noting that multinational corporations are typically large firms operating in highly imperfect markets, Hymer has suggested that direct investment must be interpreted in the context of a model of oligopolistic markets. The perfect competition model (so often used or implied in the theory of capital movements) is not relevant.[4] In order for direct investment to take place, the investor must earn more abroad than at home (to offset the risk and higher communication cost of operating in a different legal and political environment). But it is not sufficient that the return be higher abroad than domestically. If this were the only consideration, capital would move through organized capital markets -- to obtain in one country the marginal revenue product of

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[2]Of course, insofar as capital is "embodied" in persons and processes, this could be considered a capital movement in the broadest sense, but not in a financial sense.

[3]S. Hymer, "The International Operation of National Firms: A Study of Direct Investment," (doctoral dissertation, Cambridge, Mass., M.I.T., 1960).

[4]For a similar view see M. G. Myers, "Equilibrium Growth and Capital Movements Between Open Economies," American Economic Review, May 1970, pp. 393-397.

capital in another -- rather than through firms that specialize in the production and distribution of goods and/or services (our multinational firm). Capital markets specialize in moving capital and are better at it. In addition to higher earnings abroad, the investing firm must be able to earn a higher return in the foreign market than a local (host-country) firm can earn. In Hymer's view, the investing firm would ordinarily operate at a disadvantage in the host-country market as compared with actual or potential host-country firms (assuming the existence of a viable, modern, industrial sector in the host-country). Certain of the direct investor's costs will ordinarily be larger, reflecting travel and communication outlays, time lost in communicating information and decisions, and costs of communication errors that lead to faulty decision-making. Therefore, for a firm to undertake direct investment it must generally have some countervailing "monopolistic" advantages over existing or potential host-country competitors (and not accessible to the same) that more than compensates for the disadvantages associated with operating at a distance. Otherwise, host-country firms operating with generally lower costs due to their proximity to Level I (from our former discussion of the corporate hierarchy) decision-making power, and without communication distortions, could surmount and drive out the intruder. This is especially true in the developed, technologically advanced host-countries of Europe.[5]

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[5]It should be noted the multinational firm could initially have lower costs in specific input-output ranges for

The aforementioned monopolistic advantages accruing to the source-country firm often take the form of proprietory information -- patents, general know-how and managerial and marketing skills -- as well as economies of scale (a function of size and vertical and horizontal integration of superior access to capital.) It is obvious that such advantages may have not been immediately available to host-country firms on the same prices and terms as source-country firms. Indeed many such advantages cannot be purchased in a market. In a world of perfect international markets for technology, management, labor skills, components, and other factor inputs, the markets abroad would be served by indigenous firms who would have an advantage over foreign firms in the proximity of their operation to decision-making centers. Kindleberger has said:

> "Put the matter another way: in a world of perfect competition, for goods and services, direct investment cannot exist."[6]

Thus, in the view of Hymer and Kindleberger, for direct investment to exist, there must be market imperfections in goods and factors, with certain advantages accruing to

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reasons not related to the aforementioned monopolistic advantages. Nevertheless, the advantages have been shown, empirically, to exist and would give the firm an additional long-run edge if their dissemination were slow. See Hymer, The International Operation of National Firms. In L.D.C.'s, the foreign firm's advantage would be very great due to the lack of any viable, efficient competition. This is discussed in detail in the next chapter. This could be due, however, to imperfect markets in basic technological transfer. For discussion see Kindleberger, p. 12.

[6]Kindleberger, p. 13.

source-country firms alone. These monopolistic advantages are exploited, and the monopolistic return secured, through direct investment.

The foregoing argument has influenced most of the recent theoretical writings in this area, including the present one. It is obvious at the very least, that an understanding of the phenomenon of direct investment requires detailed analysis of the business enterprise (the microcosm), operating in imperfect markets, and relating that analysis to the evolution of the international economy (the macrocosm).

R. Z. Aliber of the University of Chicago has recently attempted to specify a general theory of direct investment that he claims differs from the now standard "monopoly advantage" reasoning in the context of industrial organization theory.[7] In a manner not unlike the aforementioned approach, however, he begins by assuming that the source-country firm (the multinational firm) has a monopolistic advantage. This advantage is called a "patent" and represents all possible monopolistic advantages. The patent is a capital asset. Its value, the maximandum for the firm, is the capitalized value of its income stream.

Aliber hypothesizes that tariff barriers and separate currency areas account for the firm's behavior in exploiting the patent abroad. In a conventional argument, Aliber

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[7]R. Z. Aliber, "A Theory of Direct Foreign Investment," in C. P. Kindleberger, ed., The International Corporation, (Cambridge, Mass., M.I.T. Press, 1970), pp. 17-34.

maintains that the demarcation of the world into customs areas provides the incentive to exploit the patent abroad.[8] The firm chooses foreign exploitation within the customs areas, as opposed to exploiting the patent domestically and exporting to foreign markets, in order to avoid tariffs and other trade restrictions. Also, the division of the world into different currency areas results in a bias in the evaluation of exchange risks that leads to the market's placing a higher capitalized valuation on the income streams of source-country firms (defined as those whose assets are denominated in a "preferred currency" or a currency that is regarded as stronger e.g. the U.S. dollar) than on a similar income stream received by host-country firms. Thus, source-country firms have an advantage over local enterprises and an incentive to undertake direct investment abroad.[9] They can also afford to pay more than local enterprises for real assets in a host-country or for equity control of local companies. They may also be able to obtain capital more cheaply than host-country firms.

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[8]This argument is a common one. See, for example, J. C. Shearer, High Level Manpower in Overseas Subsidiaries (Industrial Relations Section, Department of Economics and Sociology, Princeton University, Series No. 8, 1960). Also see Donald T. Brash, American Investment in Australian Industry (Cambridge, Mass., Harvard University Press, 1965).

[9]If the patent was sold (licensed) to the host-country firm, the source-country firm may not be able to capture the full rent inherent in the patent. The host-country licensee may not be able to pay prices reflecting the full rent value because of the lower values placed by the market on its income streams derived from the patent. In order to capture the full rent, the source-country may invest abroad.

Aliber's theory, rather than being general, seems restrictive. Exchange risks have nothing to do with many forms of long-term foreign investment since they cancel out of both the numerator and denominator in the ratio of profits to assets. Aliber also ignores differences in the capitalized values of income streams arising not out of market bias in the evaluation of exchange risks, but out of monopoly advantages in patent exploitation held by source-country firms; advantages that result in a higher income stream for source-country firms than for host-country firms. Such advantages over host-country firms could include managerial and marketing skills (advantages embodied in organization and individuals), access in capital, or advantages arising from the ability to coordinate operations internationally through several stages of production. These factors tie back into Hymer's theory. Thus, Aliber's theory, despite its alleged claims to uniqueness, really represents just another addition to those theories of direct investment that emphasize capital market imperfections. These are substantially compatible with the industrial organization approach, but add no outstanding dimension to them.

As noted previously, most contemporary writers on the theory of direct investment and the multinational firm have no difficulty in accepting the Hymer thesis that direct investment is the result of monopolistic advantage.[10] The recent

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[10]Not all of these will be noted here, but see, in addition to the ones described above, E. T. Penrose, The Theory of the Growth of the Firm, (Wiley, 1959). Jack Baranson,

works of two economists in particular, H. G. Johnson and C. P. Kindleberger, will be reviewed here and their conclusions compared to the original Hymer hypothesis.[11]

Johnson accepts the proposition that direct investment is best understood in the context of market organization and competition, and postulates that the crux of the direct investment process is the transference of monopolized knowledge. Private production of new knowledge is compensated by allowing its producer a temporary monopoly in the use of it. An explicit grant of a temporary limited monopoly through the patent system has been the usual mode for encouraging the production (and use) of new knowledge. More recently, as Johnson points out, public tolerance and legal protection of commercial secrecy has surmounted the patent system. Thus the practice of rewarding the production and use of knowledge by the right to restrict its use and charge a monopoly price for the derived products (for a period limited legally or pending natural erosion of commercial secrecy) has evolved.[12]

Thus private producers of new commercial useful knowledge will be motivated to undertake direct investment abroad --

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"Technology Transfer through the International Firm," American Economic Review (May 1970), pp. 435-440. M. Bye, ed., La Politique Industrielle de l'Europe Integree (Paris: Pressee Universitaire de France, 1968).

[11]H. G. Johnson, "The Efficiency and Welfare Implication of the International Corporation," pp. 35-56.

[12]This right is implicit when a firm is "allowed" to enter a foreign market by a host-country government. The benefit to be derived in the host-country from such direct investment will be analyzed in the section on welfare effects of direct investment.

which also involves overcoming the cost disadvantages of operating production and distribution facilities in an unfamiliar environment -- to profit by the further monopolistic application of superior commercial knowledge through direct exploitation.[13] In this context the firm might be expected to behave like a discriminatory monopolist, extending its operation to any market that offers a positive profit and fixing the price charged in each market in accordance with the elasticity of demand for the knowledge-intensive products.[14]

Kindleberger also adopts much the same position as Hymer and Johnson and extends the discussion into several areas.[15] In a recent paper on the subject he maintains the following:

> Direct investment belongs more to the theory of industrial organization than to that of international capital movements.

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[13]Johnson maintains correctly that large and rich firms existing in large and rich countries have a comparative advantage in both the production and application of new knowledge. This is much like Hymer's basic thesis.

[14]Recall that marginal revenue is written

$$MR = p(1-1/n) \qquad (14.1)$$

where p = price and n the elasticity of demand. For maximum profit, marginal revenue must be the same in all markets. We have then

$$MR_1 = MR_2 = \ldots = MR_n \qquad (14.2)$$

where the subscripts denote markets 1, ..., n. Substituting 14.1 into 14.2 we have

$$P_1(1-1/n_1) = P_2(1-1/n_2) = \ldots = P_n(1-1/n_n) \qquad (14.3)$$

If market one is characterized by a higher price elasticity than market two then the price will be lower in market one.

[15]Kindleberger, <u>American Business Abroad</u>.

> The direct investor operates at a disadvantage in a foreign market, using foreign factors of production and at a long distance from his decision center. To overcome these disadvantages, he must have a substantial advantage of some kind. (In a limited number of cases, direct investment takes the form of policing of each other's markets by oligopolistic competitors, or defensive investment by erstwhile monopolists who are just about to be pushed out of a market.) The advantage may lie in technology, management entry into the industry, and so on. If the direct investor can take over a competitor, perhaps the only competitor in a national market, he can establish a monopoly which may prove costly for the economy.[16]

Thus it is noted that direct investment derives from monopolistic advantage and also involves defensive investment crossflows.[17]

Kindleberger illustrates the basic nature of direct investment with the use of the simple formula for capitalizing a stream of income (one which ties in directly with the Hymer hypothesis):

$$C = I/r$$

where C is the value of a capital asset, I is its income stream and r is the rate of return on investment. Kindleberger postulates that direct investment corresponds to, and takes place because of differences in I that can be earned by

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[16]C. P. Kindleberger, "Restrictions on Foreign Investment in Host Countries," discussion paper for the University of Chicago Workshop in International Business (March 5, 1969, unpublished) p. 9.

[17]This differs from Aliber's explanation of crossflows. He hypothesizes that they have occurred at different points in time when one currency or another was on top. See Aliber, p. 32-33.

enterpreneurs from abroad over local entrepreneurs. I is higher for the foreigner (source-country firms) than for the local entrepreneur (host-country firm) due to the foreigner's advantages in goods markets -- product differentiation and marketing skill -- and in factor markets - specialized technology or management skill; or in both, through coordination of operations at several stages of production (vertical integration). Thus direct investment takes place when a foreign firm can earn a higher I than a local firm. A particular example relating to takeovers might be the case where a host country family firm is seeking to sell out. The source-country firm can offer more for the going concern than its competitors and is ready to pay a higher C because it can gain a higher I on the firm's assets.

Kindleberger also notes that the fact that foreign corporations have advantages over local corporations also explains the foreign firm's reluctance in sharing equity control with host-country governments or firms. They are reluctant to give any part of the scarcity value of their advantages away unless forced to do so by host-country governments. This feature of the multinational firm has great importance for our present purposes. It will arise many times in the course of further analysis.

Two other economists have devoted considerable attention to the multinational firm and direct investment: Raymond Vernon and R. E. Caves. Vernon, like Hymer, believes that international corporate power derives from the firm-specific knowledge and know-how discussed earlier (i.e. "monopolistic

advantages"). Such know-how is exploited internationally within the context of the now familiar "product cycle" hypothesis. In its most direct form, this theory states that U.S.-controlled oligopolistic multinational enterprises initially generate new products (and processes) for production and distribution in home markets. As these markets become saturated and foreign markets expand, these products are exported. Finally, in response to challenges from foreign producers and as a result of a general global market share perception on the part of domestic and foreign rivals, direct investment is undertaken to exploit what remains of each firm's technological advantages and know-how specific to any given product. Each firm retains their oligopolistic advantage for a period of time but tend to find it weakened if the technology becomes more widely diffused. Vernon thus maintains (as other writers do) that a "global strategy" is followed by these firms, and that the limits of multinational corporate power are the limits imposed by the diffusion of the firm know-how, i.e. the leakage to host-country firms or governments of the know-how assets (monopolistic advantages) of the firm.[18]

R. E. Caves also approaches the multinational firm within the context of the theory of industrial organization.

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[18]For a good rendition of Vernon's views on the subject see Raymond Vernon, Sovereignty at Bay: The Multinational Spread of U.S. Enterprises, The Harvard Multinational Firm Series (New York and London: Basic Books) 1971. Vernon's theory will be explained more extensively in the context of the main hypothesis of this thesis in Chapter IV.

He characterizes the phenomenon of direct investment as one associated with oligopolistic industries, possessing specialized knowledge, and undertaking direct investment abroad, both vertically and horizontally, within the context of a global strategy.[19]

Stephen Hymer, a most prolific writer on this subject, has been mentioned earlier. It remains to present a complete view of Hymer's position. The initial thrust of Hymer's argument (that direct investment arises due to monopolistic advantages accruing to multinational firms) has already been discussed. What remains is a discussion of his extension of this basic hypothesis into the areas of structure, motive, and corporate behavior.

Hymer has written often on the two kinds of divisions of labor: the division of labor between firms coordinated by markets; and the division of labor within firms, coordinated by entrepreneurs. Hymer notes that international trade theory has most often been concerned with the first of these issues and has stressed the desirability of expanding international markets to increase the division of labor. However, he points out that little attention has been given the division of labor within the firm. As an alternative approach, he traces the evolutionary development of the microcosm (the firm) and relates that development to the evolution of the macrocosm (the international economy). Both are then related to the

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[19]R. E. Caves, "International Corporations: The Industrial Economics of Foreign Investment", Econometrica, 38, 149 (February 1971) 1-27.

present role of the final product of microcosmic evolution -- the multinational firm. As the following discussion of Hymer's analysis reveals, there exists a close relationship between intra and extra firm relationships (micro and macrocosmic relationships in Hymer's terms). Intra-firm relationships and operations have always been structured, but in a simple and direct way in the "Marshallian" firm. In later evolutionary stages, as firms became larger, market horizons expanded, and international rivalries developed (i.e. as the extra-firm environment changed), the internal structures became more complex and hierarchical, leading to the multidivisional structure and to expanding direct investment. The final result of the evolutionary process is the multinational firm.

Hymer begins his analysis by noting that since the beginning of the Industrial Revolution, there has been a tendency for the firm to grow from the workshop, to the factory, to the national corporation, to the multidivisional corporation and finally to the multinational corporation.[20] This evolution, according to Hymer, has been both qualitative and quantitative. From the capitalistic workshop to the multinational firm, the viability of the evolving enterprises lay in the power and ability to reap the benefits of division of labor. In contrast to the market, where the division of labor was achieved through a decentralized, non-directed,

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[20]See Hymer, "The Multinational Corporation and the Law of Uneven Development", pp. 4-14.

competitive process, the factory entrepreneurs consciously planned and organized cooperation with the result that emerging relationships become more and more hierarchical and authoritarian. Thus, the macro system came to be unconsciously structured (in contrast to the earliest micro-structure of castes, classes and guilds) while in the micro system, the process of production (which in the pre-capitalist pre-factory stage was only loosely coordinated and within which individuals were by and large independent with little cooperation or division of labor) became highly organized with labor organized under the authority of the entrepreneur capitalist.

Both Marshall and Marx emphasized that the internal organization and division of labor within the factory and firm increased productivity.

Marshall argued for a voluntary cooperative nature of the relation between capital and labor, maintaining that the market through competition reconciled individual freedom and collective production. Captains of industry achieved the top of the labor hierarchy due to their ability and merit in terms of productivity, and not by coercion. The process of natural selection, operating through markets, displaced inefficient organizers and gave everyone with ability, including workers, a chance to rise to managerial positions. In familiar arguments, overall behavior within the market, promoted and unconstrained by competition, was said to be in the public interest. Thus classical and neo-classical economics evolved not only as an analytical tool to be applied to the market for greater understanding, but also, as E. S. Mason notes "...as a

defense -- and a carefully reasoned defense," of the institutions of the market place.[21]

In contrast, Marx emphasized the authoritarian character of the capital labor relationship -- one based on the coercive power of private property and its anti-social characteristics. He also stressed the fact that such concentration of power in the hands of the few was historically necessary to demonstrate the value of the division of labor and the social nature of production.[22] As will be discussed later, the final product of micro-economic evolution is not, in Hymer's estimation, compatible with the Marshallian ideal of "just" reconciliation through the market in the public interest. Rather it more closely approaches Marxian high-level exploitation.

The evolution of the firm from the workshop to the Marshallian firm was followed by further evolution characterized by increasing size, greater vertical division of labor, and the establishment of a more complex administrative and larger decision-making center to plan for survival and growth.

Most of Hymer's analysis from this point on has been concentrated on the evolution of the corporate firm in the United States; employing the framework of Chandler and Redlich (already outlined in the first chapter of this thesis). Moving from the Marshallian type firm, U.S. business

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[21]E.S. Mason, "The Apologetics of Managerialism," The Journal of Business of the University of Chicago (January 1958, Vol. XXI, No. 1) pp. 1-11.

[22]K. Marx, Capital (New York, Modern Library, Random House).

enterprises evolved into the departmentalized national corporation. This trend was spurred by rapid market growth and the merger movement of 1897-1901, and brought with it erosion of competition and concentration of monopoly power.[23] As the process continued, the multidivision corporation came into being in the late 1920's, spawned by the new product strategy -- continuous innovation for the few and product differentiation.[24] Several divisions within the corporation were formed, each specializing in one product line or function. With this evolution, a more complex vertical system of control over the complex new vertical divisions of labor was derived, with the general office at the top.

In Hymer's estimation, the multidivisional corporations began to invest abroad very shortly after completing their continent-wide integration. The first wave of direct foreign investment occurred around the turn of the century, followed by a second during the 1920's. Investment slowed during the

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[23]See C. Kaysen and D. F. Turner, Antitrust Policy (Cambridge, Mass.: Harvard University Press, 1959).

[24]Hymer maintains that due to market imperfections and the erosion of price competition, product development and marketing became the dominant problem; given the new direction corporate giants took -- not toward provision of basic goods on a broad basis throughout the world but toward concentration on continuous innovation and product differentiation in the context of monopolistic competition (not Chamberlain's term). If the corporation was to secure its position and grow, it had to continuously introduce new products to avoid the consequence of Engel's law. It should be noted that Hymer maintains that this innovation and new product introduction is primarily aimed at a special group in the first stage of the marketing process. New products "trickle down" to lower, less powerful groups via the demonstration effect. See Hymer, "The Multinational Firm and the Law of Uneven Development," pp. 8-11, 16-20.

Depression but resumed after World War II at an even higher rate. In the period 1950-1969, direct foreign investment by U.S. firms expanded at a rate of approximately 10 percent per annum.[25] The larger size and more advanced administrative structure of the multinational corporation give it a wide horizon leading to a global outlook and final transformation to the stage of multinational enterprise. The large size and market power arising from the monopoly-advantages discussed earlier gave multinational firms the incentive to invest abroad. Direct investment became a new weapon in global oligopolistic rivalry as a global awareness emerged and the threat of foreign competition increased. Until recently, most multinational corporations have come from the United States, where the corporate form of business organization has reached its evolutionary zenith. At the present time, European corporations, as a by-product of increased size, and reacting to American encroachment on European markets, are intensifying multinational operations. If present trends continue, Hymer asserts:

> ...multinationalization is likely to increase greatly in the next decade as giants from both sides of the Atlantic (though still mainly from the U.S.) strive to penetrate each other's markets and to establish bases in underdeveloped countries, where there are few indigenous concentrations of capital sufficiently large to operate on a world scale.

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[25]U.S. Department of Commerce, Survey of Current Business, September 1969. U.S. multinational firms dominate the direct investment process. See also Hymer and Rothhorn, "Multinational Corporation and International Oligopoly. The Non-American Challenge," in Kindleberger, ed., The International Corporation, pp. 57-92.

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> This rivalry may be intense at first but will probably abate through time and turn into collusion as firms approach some kind of oligopolistic equilibrium. A new structure of international industrial organization and a new division of labor will have been born.[26]

Thus the quest for oligopolistic security and growth will, in Hymer's estimation, result in massive cross penetration through direct investment. Kindleberger substantially agrees and notes:

> Indeed, in concentrated industries there is pressure for each firm to develop a position in each important or potentially important market -- regardless of the rate of profit attainable in absolute terms -- to prevent any of its few competitors from obtaining a substantial advantage which it could put to use over a wider area. The threat of competition by a foreign firm in the home market may be reduced if the domestic firm stands ready to retaliate through an existing subsidiary in the market of the threatener.[27]

Additionally, firms that were oligopolistic buyers of raw materials produced in foreign countries (and feared monopolization of source of supply) invested directly in foreign producing enterprises to gain the security vested in control over the same. Other firms invested abroad to control marketing outlets and thereby maximize quasi-rents on new technology and differentiated products.[28] These motives are not unlike

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[26]Hymer, "The Multinational Firm and the Law of Uneven Development," p. 2. Also see Hymer and Rowthorn, pp. 71-82, for an interesting formalized model of this tendency toward oligopolistic equilibrium. The final result will be that the world distribution of sales of American and European firms and their growth rate will tend to approximate each other closely.

[27]Kindleberger, American Business Abroad, p. 15.

[28]These reasons for direct investment are examined in more detail in S. Hymer, "Le Grande Corporation Multinationale,"

certain of those advanced by Aliber, Johnson, and Kindleberger. Hymer, however, interprets them all within the framework of oligopolistic offense-defense strategies on a worldwide scale.

Hymer further extends his analysis to the probable future spatial dimensions of the corporate hierarchy of the multinational firms.[29] He employs the Chandler-Redlich model of corporate structure (the one adapted for this study) to analyze the macrocosmic structure emerging with the international dominance of the regime of "North Atlantic Multinational Corporations." As discussed in Chapter I of this thesis, the Chandler-Redlich scheme identifies three hierarchical levels of corporate power: Level III is the lowest position concerned with the day-to-day operation of each enterprise within the hierarchy on the local market level; Level II, which is responsible for coordinating the functions of Level III; and Level I, where overall goal determination and planning take place. This level sets the framework within which all others operate. Through the application of location theory to the Chandler-Redlich hierarchy, Hymer suggests a close correspondence between the centralization of control within the microcosm, and the geographic centralization of control within the macrocosm.

Revue Economique, Vol. XIX, No. 6, November 1968, pp. 949-973, and in Hymer and Rawthorn, pp. 57-80.

[29]Hymer, "The Multinational Corporation and the Law of Uneven Development," pp. 16-18, 21-23.

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Thus, as Hymer postulates, Level III activities will spread themselves around the world in accordance with the supply of labor, markets and raw materials. Level II activities, because of their demand for white-collar workers, and communication systems, will tend to concentrate in large cities. These activities will be more concentrated as corporations from different industries place their coordinating centers in common cities. Level I activities, the general offices, will be located near capital markets, the mass communication centers and government. These offices will be located in the world's largest cities -- New York, London, Paris, Tokyo. These will be the major centers for strategic planning in the capitalist world. Hymer also notes that the occupational distribution of labor within a given city or region will depend upon its place in the international hierarchy. The most highly paid administrative and support personnel (doctors, lawyers, educators) will concentrate near Level I centers. (Executive salaries will be a function of the wage bill of the people under them; the larger the empires of the multinational corporation, the greater the renumeration of the top executives -- to a great extent independent of their performance.)[30] Thus status, authority, and consumption patterns will radiate out from the center along a declining curve to Level III, creating regional patterns of inequality and dependency. Also, the need for a "common cultural heritage" (to facilitate mutual understanding and communication)

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[30]This is a position similar to that of Henry Simon. See "The Compensation of Executives," Sociometry, March, 1957.

as one approaches Level I, will produce, in Hymer's estimation, a system that discriminates against non-European host-country manpower; and thus deters intra-hierarchical mobility from Level III. This last hypothesis is consistent with the reluctance of multinational firms to employ host-country high level manpower, and is treated in detail in Chapter IV of this work.

Hymer also extends his analysis to include other political considerations, nothing that: "(in dealing with the multinational firm)...the neo-classical model which includes market equations and excludes political equations is misspecified (to use econometric terminology) and yields biased estimates and wrong predictions.[31] It is important to note that Hymer has implicitly specified growth and security as the highest order maximanda for the multinational firm. The firms' desire to maximize their share of the total available market and protect that share against encroachment. The entire behavior of the multinational firm can be rationalized within this context (given, implicitly, some minimum target rate of return on investment). This primary motive, of course, differs from that of Kindleberger -- firms maximize profits or rate of return on investment; Aliber - firms maximize the market value of their assets; and Johnson - firms maximize quasi-rent on new knowledge.

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[31]See Hymer, "The Economics of Imperialism" (discussant) American Economic Review (May 1970), p. 241.

In concluding this review of the major works on direct investment and the multinational corporation, we will now turn to a brief survey of works more explicitly in the Marxist tradition. To omit consideration of such thought would be a serious deficiency due to: A) the historical interest of Marxists in the phenomenon of the internationalization of capital (an interest manifested long before neo-classical economists noticed the importance of the international spread of corporate capitalism, and found their own naive models to be lacking in power to fully explain the same); and B) the consistency of many of the findings of this study with the predictions of the general work on imperialism.

In survey the literature on imperialism, one finds the phenomenon first specified in Lenin's work as a final stage in the expansionary evolution of capitalism in search of profit.[32] This stage, said to arise around the end of the 19th century (usually identified with colonialism) was thus given a specific date of inception. This attempt raised many objections from subsequent Marxist scholars. They maintained that many of the facets of imperialism were found earlier and continued to manifest themselves continuingly throughout capitalist history.[33]

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[32]See V. I. Lenin, (Imperialism, The Highest Stage of Capitalism, 1917). Lenin was much influenced in his general work by J. Hobson. See J. Hobson, Imperialism - A Study, 1902 (Ann Arbor, 1965).

[33]For a discussion of this point see H. Magdoff, The Age of Imperialism, (Monthly Review Press, New York, 1968)., pp. 27-62.

Many writers have gone on to reclassify imperialism into "old", and "new". In this connection Harry Magdoff points out:

> Some scholars get around this problem by distinguishing between an "old" and a "new" imperialism. Whatever semantic device is used, there are good and sufficient reasons for clearly marking off a new period in the affairs of world capitalism. Of the many distinguishing features of this new stage, two, in my opinion, are decisive: First, England is no longer the undisputed leading industrial power. Strong industrialized rivals appear on the scene: the United States, Germany, France, and Japan. Second, within each of the industrialized nations, economic power shifts to a relatively small number of big integrated industrial and financial firms.[34]

The impetus in the "new" imperialism is found in the rapid advance in technology in the latter part of the 19th century and the rise of large firms equipped to exploit the same on a large scale. The new technology determined not the size of the business organization, but it provided the "framework" as Magdoff points out, "for the quite normal tendencies of capitalist industry toward concentration."[35] In the final contemporary sense the result of international expansion through time (first characterized by rivalry, colonization, and the more recent drive for international markets) has resulted in a struggle against contraction (brought on by the counter force of world socialist revolution) in the capitalist system with the United States emerging at the forefront

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[34]Ibid., p. 27. For a discussion of the relations between militarism and imperialism see H. Magdoff, "Militarism and Imperialism", Monthly Review 21, No. 9 (February, 1970).

[35]Magdoff, "The Age of Imperialism," p. 31.

of the world imperialist system and its defense. In the latter phase, the process involved is still capitalism in the original sense; i.e. the pursuit of profit is still paramount.

In this connection, as MacEwan points out, the expansionist idology is fundamentally based on the functioning of the capitalist enterprise and its quest for profit. Translated into the realm of foreign policy, the role of the capitalist state is that of facilitating and protecting the international operations of its nationals.[36]

On the challenge to imperialism through socialist revolution, MacEwan states:

> With the Russian Revolution in 1917 -- but more clearly following World War II when the Soviet Union emerged as a major world power, socialism "spread" to Eastern Europe, and successful socialist revolutions occurred in China, Korea, Vietnam -- the political position of international capitalism has been severely altered. The system has been forced to move from a purely offensive political strategy toward a defensive posture.
>
> As capitalism has moved to a final stage in its international development, it is challenged by a system that is threatening to displace capitalism entirely and inaugurate a new historical epoch. Indeed, the development of socialism has in some degree been a direct outgrowth of and response to the international expansion of capitalism. The progress of the socialist response, however, cannot be viewed as an automatic historical phenomenon. Its development will depend at least in part on the nature of the capitalist counter-response.[37]

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[36]A. MacEwan, "Capitalist Expansion, Ideology, and Intervention," in Edward, Reich, and Weisskopf (eds.). The Capitalist System (Englewood Cliffs, Prentice-Hall, 1972), p. 416.

[37]MacEwan, p. 418. For an excellent work on a Marxist interpretation of contemporary capitalist developments, with emphasis on the challenge of socialist revolution see D. Horowitz, Empire and Revolution (New York, Random House, 1969).

In the vanguard of the new offense-defense strategies of world capitalism is the multinational firm. Baran and Sweezy note that in contrast to earlier periods where one spoke generally of "industrialists" or "bankers" as the dominant capitalist classes, today we may specifically single out the giant multinational monopolistic corporations as the long run leaders. Through payoff of debts and plowback of earnings they achieved financial independence from bankers and went on to become the basic units of capitalism in its present stage. Through an analysis of such firms the functioning of imperialism today is truly revealed.[38]

On the specific relation of state power to capitalist expansion, Magdoff asserts that the latter requires that the option of foreign investment be continuously available worldwide and that the role of the state is to insure, through its foreign policy, a perpetual open-door abroad to direct investment. The open-door principle must be maintained to insure the growth and the very survival of capitalism as a form of economic organization.[39]

The tactics of control within the context of the open-door principle change dialectically. In the case of newer tactics, Magdoff states:

> Traditional means are still available and in use. The method of invasion and the exercise of military force is still with

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[38]Paul Baran and Paul Sweezy, "Notes on the Theory of Imperialism," Monthly Review 17, No. 10 (March 1966).

[39]Magdoff, The Age of Imperialism, pp. 20-21. For another discussion of the "open door" concept see Horowitz, pp. 50-60; 75-76; 90; 190.

> us; only the rationalizations are updated. A globe-straddling navy and an extensive network of military bases weigh heavily on the rest of the world. Much reliance is placed on newer techniques, not entirely new but applied on a vaster scale and with greater sophistication than in the past; military assistance to bolster "reliable" governments against revolution; economic aid to induce an environment hospitable to foreign capital and imports; and then there is the ubiquitous CIA. The objective underpinning of the system of alliances and control remains the market and financial relations which reproduce the economic dependence of the less advanced regions on the metropolitan centers.[40]

Thus, the multinational corporation (backed up by state power) has emerged to spearhead the latest wave of capital expansion. The tactics of control have moved from the overt means associated with 19th century colonialism, to controls based on the economic power of international monopoly firms; power derived from technological monopoly and general domination and control of the means of production abroad.

In the case of the less-developed, or Third World countries, the economic power of the multinational (backed up by the military power of the state) creates chains of dependence which result in the perpetuation of uneven development between rich capitalist nations and the poor countries where they operate.[41] In this connection Weisskopf states:

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[40]Magdoff, p. 21.

[41]For a discussion of the development of dependence in Latin America see A. G. Frank, Capitalism and Underdevelopment in Latin America (New York, Monthly Review Press) 1969. Also see "The Development of Underdevelopment" in Latin America: Underdevelopment and Revolution.

> A final important characteristic of contemporary poor countries is their dependent relationship with the centers of capitalist enterprise. This dependence arises partly out of the colonial legacy. Many economic activities in the modern capitalist sector depend either directly on foreign ownership and control or indirectly on foreign technological or managerial aid. Under such circumstances, it is only natural that a considerable fraction of the emerging domestic capitalist class finds itself in a subordinate and dependent position vis-a-vis the foreign capitalist class. For similar reasons, many governments in the poor countries are dependent upon the advanced capitalist powers for political and military support. Thus, capitalism in the poor countries today is not the relatively independent capitalism of old which stimulated the economic growth of England, the United States, Japan and other rich capitalist countries. Rather, the capitalism which is spreading in today's poor countries is far better described as a dependent form of capitalism, embedded within the world capitalist system as a whole.[42]

In a separate (though less direct) vein, the works of Marglin, and Gordon, Reich, and Edwards, on labor force stratification are relevant to the present study in that they could explain the forces behind the new control mechanisms of capital and their extension, through direct investment, to other national markets.[43] The response of the capitalist

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[42]T. E. Weisskopf, "Capitalism, Underdevelopment, and the Future of Poor Countries," Review of Radical Political Economics, Vol. 4, No. 1 (Winter, 1972), pp. 8-9. Weisskopf discusses, in this work, several factors which "reinforce" the subordination of the poor to the rich countries. These include the demonstration effect, and the factor bias effect. For the discussion see Ibid., pp. 9-11.

[43]For a discussion of labor market stratification and segmentation see H. M. Wachtel, "Class Consciousness and Stratification in the Labor Process," Review of Radical Political Economics, Vol. 6, No. 1, (Spring, 1974). Also see D. M. Gordon, R. C. Edwards, and M. Reich, "Labor Market

class to the growth, both in number and class consciousness (with the accompanying unrest and incipient challenge to its power) of the working class, has been to stratify labor. Such involves a hierarchical division of labor within the capitalist sphere of influence -- a sphere that extends to Third World nations in the context of direct investment. This hierarchical division of labor has the purpose (in a "divide and conquer" sense) of assuring continuing control over the processes of production and insures the survival of the capitalist class. This then could be related to the hypotheses of Stephen Hymer (reviewed and discussed earlier in this chapter) that the multinational corporation, through a hierarchical-functional division of labor internationally, establishes continuing control over the new empire. This tactic results in a specific case, in "discrimination" against host-country nationals in management hiring. Such discrimination becomes consistent with international stratification and insures continuing control over the world hierarchy of production.[44]

Segmentation in American Capitalism," (Mimeo, 1973) and J. A. Marglin, "What Do Bosses Do?", Review of Radical Political Economics, Vol. 6, No. 2 (Summer, 1974). Gordon, Reich, and Edwards define labor stratification as "the historical process whereby political-economic forces encourage the division of the labor market into separate submarkets...distinguished by different labor market characteristics and behavioral rules." See Michael Reich, David M. Gordon and Richard C. Edwards, "A Theory of Labor Market Segmentation," American Economic Review, (May, 1973), p. 359.

[44]See Hymer, "The Multinational Corporation and the Law of Uneven Development." For a complete discussion of the historical process of stratification and its role in the continued subjugation of workers see Wachtel, pp. 1-31.

The foregoing brief review of Marxist thought on imperialism is by no means fully representative of the large volume of work of this group of scholars. It is, however, sufficiently representative of those ideas which can be related directly to this dissertation.

CHAPTER III

THE MULTINATIONAL CORPORATE PREFERENCE FUNCTION

Introduction

In this section, a general methodological and conceptual framework is developed to aid in analyzing the multinational firm and its effects on host-countries. As discussed previously, multinational corporations are typically large, oligopolistic firms operating in markets with varying degrees of imperfection. An analysis of their motives and behavior as well as their effects on economic welfare, should, therefore, be executed within the context of oligopoly theory.

The Theory

The first step in the present specification of a general theoretical framework will be to drop the assumption of a single-objective preference function for the firm -- one that includes only profit maximization -- and instead substitute a general multiple-objective function -- one that includes profit, but also includes other maximanda. The behavior of multinational firms is explained more adequately with this type of function than with the single objective one.

The inappropriateness of the profit maximization assumption for the theory of monopoly or oligopoly behavior has been emphasized by such economists as Pareto, Schumpeter, Scitovsky, Reder, Cooper, Simon, and, more recently, Baumol,

whose constrained sales maximization model has attracted substantial attention within the profession.[1]

Fritz Machlup, the venerable defender of traditional marginalism, has noted in a review of the marginalism controversy:

> "...this purely fictitious single-minded profit-maximizing firm, helpful as it is in competitive-price theory, will not do so much for us in the theory of monopoly and oligopoly. To explain and predict price reactions under monopoly and oligopoly we need more than the construct of a profit-maximizing reactor.[2]

In another article he wrote:

> "The problem of oligopoly is by definition the problem of the effects of the actions of few, giving a greater importance to the behavior of each member of the group...The theory of oligopoly price involves an interpretation of the significant motives behind the actions of a small number of people...Even the most superficial theory will have to include many more ideal types of behavior in order to handle the problems of few sellers than it takes to handle the problem of a mass of competitive sellers."[3]

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[1]Pareto, Manuel d'economie politique, 2nd ed., Paris, 1927. J. Schumpeter, "The Instability of Imperfect Competition," Economic Journal, 38, (Chicago, 1951). M. Reder, "A Reconsideration of the Marginal Productivity Theory," Journal of Political Economy, 55, (October 1947), pp. 450-58. W. W. Cooper, "The Theory of the Firm, Some Suggestions of Review," American Economic Review, XXXIX (1949), pp. 1204-22. H. A. Simon, "Theories of Decision-Making in Economics and Behavioral Science," American Economic Review, 49, (June 1959), pp. 253-83. W. J. Baumol, Business Behavior, Value and Growth (New York, Maxmillan, 1959) and "On the Theory of Expansion of the Firm," American Economic Review, 52, (Dec. 1962), pp. 1078-87.

[2]F. Machlup, pp. 10-11.

[3]F. Machlup, "Evaluation of the Practical Significance of the Theory of Monopolistic Competition," American Economic Review (June 1939), pp. 227-36.

K. W. Rothschild in his landmark article on price theory and oligopoly published in 1947, made much the same point.[4] Rothschild begins by noting that neo-classical competitive price theory, with its simplicity and determinateness, is inappropriate for dealing with small numbers models of the firm in an environment of highly imperfect competition. He suggests the need for a new methodological and conceptual framework for oligopolistic price theory, and stresses strongly the need for reconsidering the motive force traditionally ascribed to large oligopolistic firms, namely, profit maximization. He suggests that the desire for security - a secure market position - is of a similar order of magnitude as the desire for maximum profits in oligopoly market. Oligopolistic firms have also the power to act on this principle. For the small competitor, however, who also desires security, the market conditions are such an overwhelming force that he alone cannot safeguard his position. All he can do is try to make full use of every opportunity as it arises. Maximizing of short run profits is then a legitimate generalization of firm behavior at this level. Rothschild also notes that the desire for profit maximization and security often lead to conflicting modes of behavior in oligopoly:

> "Where profit maximization demands prices fluctuating with every change in revenue and cost conditions, security maximization may demand rigid prices, while profit maximization should tend to create firms of

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[4]K. W. Rothschild, "Price Theory and Oligopoly," The Economic Journal, vol. LVII, 1947, pp. 299-320. Reprinted in Stigler and Boulding, Readings in Price Theory (Homewood, Ill., R. D. Irwin, Inc., 1952), pp. 440-464.

> optimum size, security considerations will favor the oversized firm; again, where we should expect reverse funds to be invested in response to expected returns, we may find their practically unconditional reinvestment in their own firm."[5]

Rothschild also states that substituting long-run profit maximization for the traditional short-run profit maximization avoids the question. In this connection he states:

> "But they (former writers on oligopoly) usually thought they could subordinate this aspect (security) of entrepreneurial behavior to that of profit maximization by simply postulating that it is long-term profits he is trying to maximize. Since, however, uncertainty is an essential feature in this changing world, it is clear that the vague knowledge a firm possesses of its demand and cost schedules cannot extend far into the future. Any theory, therefore, which tries to explain price behavior in terms of marginal curves derived from long-term demand and cost curves really bypasses the problem of uncertainty and thus the very factor which gives rise to that desire for security which the theory tries to explain."[6]

Thus the "struggle for position" (security motive) will take place alongside of attempts to make the best of every position at a given moment (short-run profit maximization motive). Within the limits set by the strategic plan of the oligopolistic firm, short-term profits may be maximized, but only within the constraints of the security motive.

"Changes in terrain" to use Rothschild's words, would also lead, in this context, to a scramble for a new position.

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[5]Ibid., p. 452. For an explanation of "limit" pricing to forestall entry (similar argument to Rothschild's point on rigid prices) see J. Bain, Barriers to New Competition (Cambridge, Mass., 1956).

[6]Ibid., pp. 450-451.

Such changes, arising from alterations in costs (perhaps new technological knowledge), demand (opening of new markets), and new product development, are related to the processes of knowledge production and global growth of markets discussed throughout this study and could be a further explanation of the direct investment phenomenon. Rothschild and Hymer maintain that the political power of oligopolists can also be brought to bear in order to change an unfavorable market environment or to aid in the pursuit of a favorable one. Rothschild stresses:

> "The oligopolistic sturgle for position and security includes political action of all sorts right up to imperialism. The inclusion of these 'non-economic' elements is essential for a full explanation of oligopoly behavior and price."[7]

With respect to Hymer's work, the reader is reminded (from the review in the previous chapter) that Hymer has implicitly specified security as an element in the multinational firm's objective function. Firms invest abroad in Hymer's model to gain both the security inherent in control over raw material supplies and in the establishment of secure market positions in expanding product markets; the latter being related to the maintenance of acceptable growth rates for the firm (especially where the direct investment represents defensive cross-flows, i.e., is in retaliation against rival's erosion of a firm's own domestic market.[8]

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[7]Ibid., p. 463. For Hymer's view see Chapter II.

[8]See Hymer, "The International Operations of National Firms..."

Thus, in summary, the maximization of money profits -- the simplest objective function -- is appropriate only in the analysis of large groups of firms subject to classical, vigorous competition. In the analysis of markets where firms are large and few and not under the pressure of classical, vigorous competition, the behavior and complex motives of individual rivalrous firms is of the essence. Objective functions richer than profit maximization are, therefore, needed.

The rejection of simple profit maximization as the fundamental behavioral postulate of decision makers in large oligopolistic firms represents a simple, but important step.[9] In particular, the recent shift to multiple objective utility or preference functions opened up new routes for studying patterns of managerial behavior, and permits new insights into the operation of firms in various socio-economic environments.[10]

The model employed in this work is offered in the spirit of the foregoing analytical trends. In particular, it bears its closest relationship to the model specified by Hymer and Rothschild. It is based upon Hymer's postulate that for direct investment to occur, there must be market imperfections in goods and factors, with certain critical advantages accruing to source-country firms exclusively. These monopolistic

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[9]For a review of the "property rights" approach see E. C. Furubotn and S. Pejovich, "Property Rights and Economic Theory: A Survey of Recent Literature," Journal of Economic Literature, (Dec. 1972) p. 1137.

[10]See O. Williamson, The Economics of Discretionary Behavior: Managerial Objectives in the Theory of the Firm. (Englewood Cliffs, N.J.: Prentiss-Hall, 1964). Also see R. M. Cynert and J. G. Marsh, Behavioral Theory of the Firm. (Englewood Cliffs, N.J., 1963).

advantages are exploited (within the context of a multiple objective preference function) and the long-run monopoly return secured and protected through direct investment. In terms of the global market behavior of the multinational firm (within the corporate hierarchy and within the larger world market) it is necessary to identify the factors that influence the firm's choices within an expanded "opportunity set" and embed the same in a formalized function.

Thus, in keeping with the general, multiple objective, oligopoly format, let us specify a corporate preference function appropriate for present purposes, that includes several objectives, and first identify the general nature of some of the possible relationships among them. We thus write:

$$u = u(P, S, C, G)$$

where G is the growth rate (sales and/or assets); S is an omnibus term representing "security"; P is simple (short run) profit, and C is control (includes both intra-hierarchical control within the firm and external control of market environment). Our function thus includes certain of the dominant <u>maximanda</u> found in the writings reviewed in the previous chapter (most advanced on the basis of some empirical investigation) and in the works on pure oligopoly theory annotated in this section.

The oligopolistic firm has both the ability and iniative to pursue multiple objectives other than the simple one of maximizing profits.[11] "Enlightened self-interest" only

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[11]In perfectly competitive markets, firms may well <u>desire</u> certain of these elements; for example, security of market position or the Hicksian "quiet life" -- prevention of

requires that decision-makers seek a "satisfying" level of profit. This level could be that optimal intermediate level which provides capital necessary to finance expansion goals. This is Baumol's specification, in his sales growth maximization model.[12]

Thus within the minimum profit constraint, managers not under heavy competitive pressure have wide discretion as to actual objectives. While P (profits) is included in the objective function, it does not stand alone. There is also S (security) which is touched upon in the review of Rothschild's critique of price theory and implicitly in Hymer's work. The desire for security reflects the oligopolist's fear of encroachment by existing or potential rivals on their market position, as measured by the level of the sales, or partial or complete displacement by government regulation, or confiscation.[13] Thus, oligopolists desire to entrench themselves

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displacement from an existing market position. But market conditions are so overwhelming that he alone can do nothing to safeguard his position. All he can do, as mentioned in the review of Rothschild's writing, is to make the best of any given situation -- i.e., maximize profits. Thus, when a firm is subjected to vigorous or "effective" competition it is under continuing pressure to react to actual or potential reduction in profit -- so much so that the firm will not be able to pursue any objectives other than that of maximizing profits.

[12]Baumol, "On the Theory of Expansion of the Firm," pp. 1085-1086. Alternatively, the level could be that that just "satisfies" stockholders and maintains a steady growth in the market value of equity. In Simon's analysis, the entrepreneur seeks "satisfactory" but not necessarily maximum values of all objectives. Ibid., pp. 1204-22.

[13]In the market context, assume we have two firms, I and II. Assume that firm II desires to maintain a fixed share of the total sales of a given product, regardless of the effect of such action on short-run profits. His major concern is with the long-run advantages that are derived from maintaining

in as secure a position as possible -- one that provides a base for retaliation against encroaching rivals (or governments) -- and, should the opportunity arise, one from which new offensive maneuvers may be launched. In this context, it should also be noted that financial strength, strongly correlated with the size of the firm, is important for establishing a secure "fire base". Thus size may be desired for its own sake, independent of technical effociency considerations. When the security motive is added to the profit motive, the "optimum" size of firm takes on new meaning. Thus, Rothschild notes that the re-investment of profits in the firm, regardless of returns available elsewhere, and mergers that lead to "over-sized" firms are not irrational acts, from the point of view of maximizing security.

Then there is G (the growth rate-sales or market share or value of assets). Firms may desire maximization or augmentation of growth rates, per se, to enhance security, regardless of the effect on the level of profits. Hymer's basic thesis rests on the firm's desire for growth maximization. All firms must grow to survive, given the nature of the market within which they operate. Alternatively, high growth rates may be desired per se where they are associated with executive compensation.

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a given market share. Thus, the following relation will always hold:

$$\frac{q_2}{q_1 + q_2} = k \qquad\qquad q_2 = \frac{k\,q_1}{1-k}$$

where q_1 and q_2 are the levels of the oligopolist's outputs (sales) and k is II's desired share.

Finally, there is C (control -- intra-hierarchical and external). In terms of intra-hierarchical delegation of authority, Level I managers must insure that there is no deviation from the corporate preference function at lower levels; e.g., they must establish clearly the overall corporate objective function in the minds of lower level managers and insure that no conflicting objectives or behavior develops. For instance, in terms of asset control (as discussed in detail in Chapter I), all available evidence indicates that Level I managers of multinational firms prefer 100% ownership to joint ventures and minority holdings. They also desire to influence and control the external environment within which the corporate hierarchy functions (e.g., the market and the polity) to protect corporate viability and their own interest in it.[14] This is partly to reap the full scarcity value of their market advantages (i.e., it is related to profit maximization) and partly to avoid costly conflicts of interests with host-country partners (private and governmental) and investors.

As noted previously, the <u>maximanda</u> involved in our multinational oligopolistic corporate preference function have been considered before in the context of general oligopoly theory and in the writings on the theory of the multinational firm. One might well ask why, if such motives are admittedly present in oligopolistic markets, they have not been explicitly

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[14]Reder has postulated that "firms" maximize profits subject to the condition that the current entrepreneur retains control of the firm. See Reder, p. 455.

integrated into formalized models of imperfect markets on a larger scale and, in particular, into models analyzing the behavior of the multinational firm. Such motives have often been collapsed into the goal of "long-run profit maximization"; a tautology that is convenient for certain purposes but severely lacking in explanatory power when the behavior of the individual firm and its effect on economic welfare is of primary interest.[15]

The propensity to ignore the separate influences of such maximanda has also been reinforced where the desire for maximum profits, security, growth, and control all converge on certain types of actions that serve to augment the values of all such variables jointly; or where a complementary relationship exists between the various goals. Thus, what promotes profit maximization also promotes security maximization and growth. In this instance, the behavior of the firms could be explained by the "monistic" profit maximization approach alone, if the nature of the complementary relationships between the multiple goals is clearly defined.[16]

Thus, if there are M feasible alternative actions for an entrepreneur and each of them serves to promote the attainment

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[15]Rationalizing all behavior in terms of maximizing long-run profit excludes no logical behavior patterns. A maximandum as general as this is of little predictive value. Firms do what they do because it is in their best interest. Our purpose here is to choose our maximanda for their operational explanatory power.

[16]Thus, Machlup has noted (only with respect to firms under heavy competitive pressure): "If a change in condition calls for a certain reaction in the name of maximum profits, the very same reaction is called for also in the name of security of survival." Machlup, "Theories of the Firm...", p. 13.

of all goals jointly, we could pick any one of the defined goals and, if we specify the exact nature of the interrelaionships between it and the others, indicate it as the maximandum. If, however, M-1 actions serve to promote all the goals jointly, but not M, i.e., if at least one of the feasible alternative actions the firms might choose will augment security but decrease profits, and the firm is observed to choose such an alternative, then its behavior cannot be explained in the context of a preference function that includes only simple profit maximization. The function must be richer in order to understand the observed deviations from the "expected" behavior in terms of profit maximization only.

Thus, it is true that some of the most conspicuous actions motivated by the desire for, say, maximum security are identical with actions that serve the end of maximizing profits. But there are deviations, as even a casual reading of the literature in industrial organization will confirm (and as is apparent from the literature on the behavior of the multinational firm). There are cases where multiple objectives lead to conflicting patterns of behavior. The examples below identify such cases.

In the present context -- that of the multinational firm -- we have already seen that observed behavior patterns do not necessarily augment or maximize all of the variables in the preference function jointly. The current desire of the multinational firm to establish a position in all actual and potentially important markets through direct investment is consistent with security maximization, but not necessarily

with short-run profit maximization. Indeed, in Hymer's analysis, the firm that does not hedge against the encroachment of rivals may be supplanted. Thus when a firm invests abroad for such reasons, it may be able to earn a "satisficing" level of profit in foreign operations by virtue of its monopolistic advantages over host-country firms, but it does not follow that this profit level is the maximum one, or that this use of resources represents the most profitable use.

Conflict also arises between growth maximization (in terms of growth of sales) and security maximization.[17] While the two goals may be complementary, they are not necessarily so. If the firm's sole objective was to maximize sales, given the attainment of some satisfactory level of profits, then all profits in excess of the satisfactory level at the sales maximizing output level would be plowed into the purchase of additional units of advertising and product differentiation in order to increase sales.[18] None would be retained; for by assumption, the firm is maximizing sales, and extra units of advertising and product differentiation always increase sales. Thus, the sales maximizer will increase his advertising outlay and the outlay on "product characteristics" planning until he is stopped by the profit constraint. We have already seen, however, that "excess" profits (that is, profits over and

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[17]Maximization of the level of sales (total revenue) or growth of sales does not maximize profit in any instance. See Baumol, On the Theory of Oligopoly.

[18]This follows, in Baumol's model, from a single-minded desire to maximize sales. Ibid., pp. 191-194. It should be noted that Baumol's model leaves no room for oligopolistic strategies other than those associated with product advertising and product differentiation.

above the "satisficing" level) may also be used in other ways to increase security. They may be retained and used as insurance against a price war; or, as is especially the case with our multinational firm, retained as a reserve "pool" of capital to be used in expanding operations abroad, to meet or forestall competition, as the need arises. They may also be used for "political advertising" or lobbying (which has no effect on market demand curves) to forestall unfavorable governmental reactions to corporation tactics at home and abroad; or to invest in raw material outlets to gain the security inherent in their control.

In another context, multinational firms desire to maximize control: control over the corporate hierarchy itself; and control over their external market environment. Thus they may be led to withhold all but the most routine planning and allocative authority from lower levels (Level III) managers and, instead, centralize the major part of the entrepreneurial decision-making at Level I -- the head office; despite the possible effect of such action on profits (cost) and sales performance at the local market level.

The work of several analysts is relevant in this connection. A. Downs has noted that one of the key objectives of top level management is to see that there is no deviation at lower levels from the preference function (however defined) established at the top of the hierarchy.[19]

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[19]See R. J. Munson and A. Downs, "A Theory of Large Managerial Firms," Journal of Political Economy (June 1965) pp. 221-36.

Melvin Reder, in a provocative article in the Journal of Political Economy (one that was entered in the now-famous Lester-Machlup bout) advances a similar hypothesis.[20] His was one of the first multiple-goal models of business behavior. Through it he postulated that the entrepreneur maximizes the present value of the firm's net worth subject to the condition that he (the current entrepreneur) retains control of the firm. Control is desired for psychic reasons, but also because a substantial part of the entrepreneur's equity in the firm lies in his (their) ability to pay himself (themselves) a higher salary (in many forms) than he (they) would otherwise earn. As Reder notes, this latter point implies that the entrepreneur's salary contains rent from the point of view of the firm. For a number of reasons outlined in the article, Reder maintains that entrepreneurs will seek to keep a large amount of protective, highly liquid, capital on hand to deter any takeover attempt by rivals within or without the corporation hierarchy. This will result in the firm's establishing a "satisfactory" rate of growth but not the maximum one, since maximizing the rate of growth would require going outside the firm to borrow funds (which would bring in outside controls) and would preclude having large amounts of idle capital around to insure against a takeover. Also, the entrepreneur may defer maintenance expenses when control is at stake or slash prices vigorously to obtain cash to meet the firm's debts.

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[20]See M. Reder, "A Reconsideration of the Marginal Productivity Theory," Journal of Political Economy, 55, (October, 1947), pp. 450-58.

It is thus critical that lower level decision-makers (and outside factors) not threaten the existing entrepreneur's controlling position in any way lest such undermine the vested position of the entrepreneur in the enterprise. Thus, L.D.C. host-country management might push for equity sharing with L.D.C. governments or investors, or push expansionary plans that conflict with the desires of Level I for sufficient protective liquidity. In such cases, Level I would, in the interest of "control maximization" prefer to have source-country managers (sent from the head office) in control at Level III to insure that the "rules of the game" are understood and that no deviations are forthcoming due to "naturalistic interest" at Level III.

Implied in the desire for control by Level I management (to enhance their own pecuniary and/or psychic income) is the possibility that the "best interests" of the firm as a whole and its stockholders may be compromised by L-I-M in its quest to protect its "rent", i.e. the interest of the firm and its stockholders, in terms of the previously defined goals of profit, growth and security (long-run) may be jeopardized by a single-minded desire of Level I managers to maximize their "own" objective function.[21]

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[21]For a discussion of this point see Reder, pp. 450-58. In the present analysis (as will be explained in the following passages) such an entrepreneurial objective function may be defended, but nevertheless constitutes a "weak argument" for why the executives at Level I desire control. The desire for control on the part of L-I-M need not conflict with the objectives of stockholders or work against the overall standing of the firm. Such is not a "required" assumption in rationalizing the control motive. Indeed, it is more "reasonable" to assume that the interests of L-I-M in maintaining control promotes the

Clearly (in such extreme cases), maximization of profits may not at all be complementary with maximization or augmentation of the other three objectives -- security, control, and growth. The relationships among the latter three objectives are more complex. Action taken to augment one may augment all three -- but it may not (in special cases as outlined above).

The crux of the present argument is that the behavior and effects of the multinational firm must be evaluated within the context of a multiple-objective preference function. The multiple-objective function specified could be rewritten in simplistic terms by collapsing the four variables into one omnibus term - that of long-run profit maximization - which takes account of all possible behavior patterns in a world of uncertainty. This substitution would seem to provide a more elegant and general maximandum, but in reality would only make analysis impossible. If an understanding of firm behavior was needed, the term "long-run profit maximization" would have to be broken down and its nature examined. We would therefore end up attempting estimation of the separate effects of the four objectives specified (and perhaps others). Also, the terrible possibility must be considered that businessmen do not actually maximize long-run profits.

The complexity of possible interrelationships thus requires (in an "ideal" analysis) separate treatment of these motives if the behavior of the firm is to be analyzed and some

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overall standing (security) and growth rate of the firm in world markets, and that their own reward (L-I-M) depends on the firm's market performance. More on this point later.

rough predictions made. Especially so when the drastic "changes in terrain" brought on by expanding world markets and direct investment has even more complex effects on firm goals and behavior than the "familiar terrain" of home markets.[22]

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[22]It has been suggested that multiple goal-business behavior (especially that behavior which includes "satisficing" can be adequately analyzed by the application of multidimensional vector ordering or what is now more generally called lexicographic ordering. In lexicographic ordering, a hierarchy of objectives is recognized. Consider two alternatives, which may be combinations of business objectives: $x^{\circ} = (x_1^{\circ}, x_2^{\circ}, \ldots x_n^{\circ})$ and $x' = (x_1', \ldots x_n')$. Let $\underline{u}$ be a preference index function. A regular ordering ranks $u(x^{\circ}) > u(x')$ if, and only if $x_i^{\circ} \geq x_i'$ for all $\underline{i}$, and the strict inequality holds for at least one component. In contrast, a lexicographical ordering recognized a hierarchy of wants. All of the elements in vector $\underline{x}$ are not regarded as equally important. If x_1 is more important than x_2, x_2 more important than x_3, then by the former example $u(x^{\circ}) > u(x')$ if x_1° x_1', irrespective of the relationship between x_i° and x_i' $(i=2,\ldots n)$. If $x_1^{\circ} = x_1'$, comparison proceeds to the second component. Thus $u(x^{\circ}) > u(x')$ if $x_1^{\circ} = x_1'$, and $x_2^{\circ} > x_2'$, and so on. Vector elements associated with variables lower in the hierarchy of objectives are considered only after the higher order wants are "satisfied".

The problem with applying this technique to satisficing models is that it requires satiation. Thus each goal is defined such that

$$\left.\frac{\delta u}{\delta x_i}\right|_{x_i \leq x_i^*} > 0 \qquad \text{and} \qquad \left.\frac{\delta u}{\delta x_i}\right|_{x_i > x_i^*} = 0$$

That is, each goal or objective is defined positively in the sense that the value of the variable increases utility up to the "satisficing" point but for values in excess of that which is identified with the satisficing point, have no effect on total utility -- i.e., the marginal utility is zero beyond the satisficing point. This assumption is unduly restrictive and would tend to produce nonsensical predictions, especially if profits are the dominant element.

For example, Ferguson has attempted to apply this technique to the Baumol sales maximization model in the following way: denote profit by x_1, and sales revenue by x_2. This situation is represented by the vector $x = (x_1, x_2)$. Assume the "satisfactory" level of profits is x_1^*. A further assumption is necessary when this technique is employed. That is:

$$\left.\frac{\delta u}{\delta x}\right|_{x_1 > x_1^*} = 0$$

Thus the marginal utility of profits beyond the satisficing point is zero. Presumably, if the firm accidentally acquires profits above the level x_1^*, it could just as well throw them away. This is nonsense. Additionally, this is not consistent

The fact that the specified preference function is a complex multiple-objective one increases the problem of indeterminateness, but this is only in relative terms. It only means that a precise determinate solution cannot be found, similar to those derived within the existing framework of the theory of competitive price or in Machlup's terms, "...the theory of the imaginary reactor to environmental changes." However, it should be noted that there can be no absolute and inherent indeterminateness in this problem any more than in any other problem faced by the natural or social sciences. In this connection, Robert Triffin has written:

> "No doubt, there is a sense in which the solution is always determinate; it all depends on the number of variables that are considered. But it is clear that the variable that would have to be added to determine the solution might be of a very different type from the ones generally used by pure economics of the equilibrium brand. Such considerations as financial backing, political influence, prestige psychology, optimistic or pessimistic slant, enterprise or routine-like attitude in business, etc., may well play an overwhelming role in determining the solution."[23]

The problem of drawing up a wide framework within which to deal with oligopoly behavior (and in particular with that of multinational oligopoly) may require analogies drawn from areas where researchers deal with moves and counter-moves, with

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with Baumol's model. Profits above the satisficing level (x_i^*) do have a value in Baumol's analysis; they can be used to purchase additional advertising and thus increase sales, which augments utility. The relation between excess profits and utility is indirect, but, nonetheless, positive. See Ferguson,

[23] R. Triffin, Monopolistic Competition and General Equilibrium Theory, p. 71.

struggles for power and position, i.e., from the fields of conflict resolution or military tactics.[24]

The scope of the present study is not so heroic. The task up to this point has been to: (1) review the current literature on the theory of the multinational firm; (2) relate the major works to one another, pointing out convergences and divergences in opinion; and (3) specify a broad analytical framework -- based generally on a multiple-objective preference function that serves to coherently unite, where possible, the several important theoretical and empirical contributions to the general topic at hand. The latter item (the multiple-objective preference function) should be, in a complete analysis covering the entire behavioral spectrum of multinational enterprise, broken down and minutely analyzed in terms of each separate variable and its interrelation (through all possible permutations) with all of the others. In the present analysis, that of examining the behavior of the American MNF in high-level manpower markets, the function may be usefully framed in the following manner: we shall assume that the three maximanda other than simple profit discussed in Chapter III

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[24]For examples of early writers that have compared oligopolistic behavior to chess games and military strategy see, Pigou, The Economics of Welfare; Berle and Means, The Modern Corporation and Private Property (New York, 1932); E. G. Nourse, "The Meaning of Price Theory," The Quarterly Journal of Economics (February 1941). Rothschild has said: "The oligopoly-theorists' classical literature can neither be Newton and Darwin, nor can it be Freud; he will have to rutn to Clausewitz's Principles of War. There he will not only find numerous striking parallels between military and (oligopolistic) business strategy, but also a method of a general approach which -- while far less elegant than traditional price theory -- promises a more realistic treatment of the oligopoly problem." See Rothschild, p. 319.

are here partially merged. Control, security, and growth all now operate in symbiosis. There are no assumed inherent contradictions between them. Control is desired to enhance security and growth (subject to a "satisfactory" profit level in all periods). Security and growth operate in symbiosis and mutually enhance each other. In contrast to the narrow views of security and growth in earlier writings on corporate preferences, the approach here is unified into one interrelated model. Thus control is not necessarily taken to be at variance with the basic desires of stockholders but rather contributes to the security of the firm in international markets and contributes to the maintenance of acceptable growth rates in international markets. [The emphasis in the case of growth is not on growth or a single objective of the firm (as in Baumol) but on growth within a unified plan of capitalist survival and hegemony on an international level as specified in Hymer's model. See Chapters II and III.] To carry the analysis of growth maximization to further lengths at this point would lead us into the dead ends of discussing its relationship to the Marxist hypothesis on the falling rate of long-run profit. Such is not necessary here. That firms desire high growth rates either as an end in themselves, or as necessary to long-run profit maximization (or to deter the secular decline in long-run profits) is well-established in the empirical literature. The links between control and security and between the same and growth are thus self-evident.

No claim is here made that the partially aggregated approach adopted above is universally appropriate to analyzing

all behavior patterns of all multinational firms, or even for explaining every possible facet of their behavior in high-level manpower markets. A universal model would, however, be beyond the limits of this study and, more importantly, beyond the limits imposed by the availability of data to test the complex derived hypotheses. In terms of the main hypothesis of this thesis, however, and given the scant data on the phenomenon under examination, the partially aggregated function specified above is considered adequate as a first approximation. "Unexplained residuals" (e.g. Reder's single-minded entrepreneural concern with executive privilege and protection of "rent") will be explored and acknowledged within this context and suggestions for further (more detailed) research offered in the final chapter.

In the section that follows, this general theoretical framework will be employed in assessing the divergent views in the literature concerning the general welfare effects of corporate multinationalism. In Chapters IV and V, the same will be used in analysis of the behavior of multinational firms in host-country high-level manpower markets.

In the discussion that follows, it will also become apparent that the present theoretical framework does not provide the opportunity to make, with certainty, A→B type statements. It does, however, offer a framework within which such statements may be evaluated. In this context, conclusions will most often be of the A→ B variety, or, A→ B, given C.

The General Welfare Effects of Multinational Corporate Activity

The question of the general welfare effects of corporate multinationalism deserves its own book-length analysis. Obviously, the brief discussion presented in this section cannot be so exhaustive. The purpose here is to outline the leading points of view on the issue of general welfare effects, and, with somewhat more detail in a later section, discuss selected topics (within the larger question) that apply directly to less-developed countries -- the primary focus of this study.

The question of efficiency and general welfare effects of multinational corporations is essentially a question of the efficiency and welfare effects of oligopoly -- an area where static welfare economics breaks down. Since there are so many models of oligopoly behavior, each producing somewhat different results, it is not possible to be precise about the general welfare effects of oligopolistic organizations. However, whatever the model, two characteristics common to all may be pointed out. Firstly, oligopolistic multinational firms are typically large, powerful firms operating in highly imperfect markets. Thus, they are like all oligopolistic firms, normally expected to earn a pure economic profit, create a divergence between price and marginal cost and, due to such a divergence, a corresponding divergence between marginal social value (MSV) and marginal social cost (MSC) in all countries in which they operate. [Under imperfectly competitive market structures $P > MR$. Thus in equilibrium (where $MR = MC$) $P > MC$. Thus $MSV > MSC$.]

A second consideration is also important. Large amounts of resources are typically devoted to advertising and creating

quality and design differentials. This form of behavior is consistent with the prediction of most oligopoly models, including the present one. It has often been noted that oligopolists push all such forms of nonprice competition beyond socially desirable limits.[25] Firms that do not advertise or engage in product differentiation eventually find their market position eroded and growth rate dampened. Basing his analysis on the unequal growth in per capita income that accompanied the rise of the corporate state, Hymer noted that firms in consumption goods industries in particular come to concentrate on continuous innovation for the few. Thus he writes:

> "The uneven growth of per capita income implied unbalanced growth and the need on the part of business to adapt to a constantly changing composition of output...In the consumption goods sector, firms had to continuously introduce new products since, according to Engels Law, people do not generally consume proportionately more of the same things as they get richer, but rather reallocate their consumption away from old goods and towards new goods. This non-proportional growth of demand implied that goods would tend to go through a life-cycle, growing rapidly when they were first introduced and more slowly later. If a particular firm were tied to only one product, its growth rate would follow this same life-cycle pattern and would eventually slow down and perhaps even come to a halt. If the corporation was to grow steadily at a rapid rate, it had continuously to introduce new products."[26]

Once a product is introduced into this group, it "trickles down" via the demonstration effect to lower levels.

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[25]See J. K. Galbraith, The Affluent Society (Houghton Mifflin, Boston, 1958).

[26]S. Hymer, "The Multinational Corporation and the Law of Uneven Development," pp. 10-11.

In the context of the international hierarchy, only the rich and powerful concentrated at Level I in the geographic hierarchy have anything approaching a free choice in the market.[27] At the very least, then, there is a strong presumption in the literature (on purely empirical grounds) that oligopolists push all forms of nonprice competition beyond socially desirable limits (in all markets) and that consumers would be better off with more active price competition. This is not likely, however, given the nature of oligopoly markets. Rigid prices are desired in the interest of security.[28] At the worst, such behavior could result in dictated consumption patterns outside the advanced countries.

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[27]One of the key motives for direct investment, in Hymer's analysis, is to gain control over marketing facilities in order to facilitate the spread of new products. The rest of the "empire" has only the choice of conforming or being isolated. Hymer thus concludes:

> "If firms were denied control over communication and marketing facilities in the foreign countries and we had a regime of national firms (private or socialized) rather than multinational firms, the pattern of output would almost certainly be quite different than the one that is now observed. There would be more centers of innovation, and probably more variety of choices offered to the consumers as each country developed products suited to its particular characteristics. Products from one country would spread to other countries through trade, and the movement would be coordinated by market competition rather than the planning decisions of top management in a few corporations whose interest it is to foreclose competition, to restrict the choices offered, and to insure the survival of their own organizations."

S. Hymer, "The Efficiency (Contradictions) of Multinational Corporations," p. 445.

[28]For a discussion of this point see J. Bain, Barriers to New Competition (Cambridge, Harvard Press, 1956) and Industrial Organizations (New York: Wiley, 1954).

In terms of static criteria alone, the welfare effects of the multinational corporation are clear, in two respects. When direct investment increases monopoly or oligopoly power in world markets, social welfare may be effected adversely. Production may be reduced, and price raised above marginal cost -- bringing about a divergence between MSC and MSV. Oligopolistic market structures, with rigid prices, deny to the consumer the benefits of price competition. Instead, the dominant form of competition becomes nonprice competition; with its possible spurious quality differentials and possibly wasteful advertising.

Let us examine this conclusion in some detail. As we have seen, the cost advantages of oligopolistic multinational firms (arising out of internal economies of scale, vertical integration, or proprietary information) may enable them to obtain a large share of the host-country market (or perhaps enable them to dominate the market) if they drive out high-cost, inefficient competitors. Thus, they may raise prices to monopoly levels (i.e., to levels where P>MC) once competition is eliminated. The long-term divergence between MSC and MSV, however, requires that there be an asymmetry about entry and exit that allows the dominant firm to set higher prices without reattracting entry in the long run. If entry occurs in the long run, in response to the high return earned in the industry, prices will once again fall and approach the point where MSC=MSV. (The equalization may not be attained if the industry ends up highly concentrated.) If, however, there are substantial barriers to re-entry, the divergence will remain.

The capital needed for establishing an operation of efficient size may be so large as to limit entry. Or, the size of the market may be such that only one or a few firms of efficient size can be sustained. If the firm has located in a less-developed country, entry may be permanently foreclosed since no comparably dynamic, or powerful competitors ever develop. The presence of foreign monopolistic giants may stunt the growth of a viable, technologically dynamic, home country industrial sector. The large dominant firm (or firms) may also stand ready to cut prices to whatever level is necessary should the threat of entry arise. In this instance, large, dominant firms with the superior financial strength to resist entry may become permanently established. It should be remembered that the security motive is strong for such firms. They may engage in "limit" pricing (setting price not so high as to attract entry, but high enough to permit a monopoly return not necessarily the maximum return) or bring political pressure to bear on host-country governments to insure their position. Thus the possibility of long-run divergence between MSC and MSV is not remote.[29]

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[29]Harry Johnson has noted that from the national point of view, a social loss would require that consumers in the host-country be made worse off than before by the multinational firms' presence. Let us reduce this proposition to elementals. If before the entry of the multinational firm (period one) $P_1 = MC$, then $MSC_1 = MSV_1$. If, after the entry of the multinational firm (period two) P_2 is greater than MC_2, but less than P_1, the consumer is better off in period one than in period two since they are paying lower prices for the same goods, despite the fact that $MSC_2 < MSV_2$. A social loss would require an increase in price after entry over what it would ordinarily be before entry, or $P_2 > P_1$. However, given

The security motive also has its effect on the transfer of technology questions as well as on the attitudes and actions of multinational firms in host-country high level manpower markets. More on this later, but it should be noted that the primary reason for direct investment is to protect relative market standing and prevent erosion of firm growth rates. If this is true, there is, then, every reason to believe that the multinational firm will stand ready to repel any market intruder and also work to prevent centers of new competition and innovation from arising.

The foregoing welfare criteria have often been criticized for being "static". In dynamic terms, it may well be that industrial research and development, the now famous R & D, that is so essential to the growth of modern industrial society, thrives only in oligopoly markets. Oligopolistic firms are typically large enough to absorb the short-run costs of R & D in order to reap its long-run benefits. Indeed, Johnson

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that firms maximize their own objective function, there is no reason to believe that $P_2 < P_1$. After the firm drives out high cost competition, it may well raise prices to a level equal to or greater than P_1. Its decision will be based on a number of factors -- the security maximizing "limit" price, "satisfying" rate of return, etc., -- but will in no way be influenced by consideration of the <u>social loss</u> it imposes in society. Thus positive action by government is required if $P_2 < P_1$ is to be certain. Consideration should rightly be given to the question of "optimal intervention" in this case. <u>Subnote</u>: If $P_2 < P_1$, due to the fact that P_1 was an import price -- i.e., no industry producing the good in question existed in the host-country before foreign investment -- the question still arises of whether or not competitive local production would not generate even lower prices than P_2. If entry barriers are high after the establishment of the foreign firms, the answer will not be forthcoming since no local production ever develops. This problem is related to the infant industry argument to be discussed later.

argues that short-run monopoly returns on innovations are the "costs" of new knowledge.[30] Our purpose here is a limited one. We shall not, therefore, attempt to resolve this question of the relationship between market structure and innovation that has long plagued the profession. We shall simply take note of the fact that oligopolies do innovate, engage in R & D activity, etc., and then proceed to examine, in various contexts, the effect of such oligopolistic activity.[31]

In another vein, international trade theorists have been much less concerned with the dangers posed by high concentration and oligopoly, and have viewed direct investment as a device for integrating the world economy. They stress the advantages of scale and argue that the multinational corporation, due to its organizational ability, will be an important force for allocating capital efficiently and spreading technology from developed to less developed countries.[32]

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[30]See Johnson, "The Efficiency and Welfare Implications of the International Corporation," pp. 35-56.

[31]There is no doubt that oligopolies have produced a rapid rate of technological change and produce innovation. The question is, however, the direction rather than the rate of change. The one chosen -- continuous innovation for the few, with wasteful replications of product and discoveries -- may not be in the interest of social welfare. It is also worth noting that the final results are not yet in on the question of whether less concentration and more price competition might not increase the rate of innovation in oligopolistic industries.

[32]For example, see the argument of Johnson, Kindleberger (with reservations) American Business Abroad, R. E. Baldwin, "The International Firm and Efficient Economic Allocation," American Economic Review (May 1970), pp. 430-434.

It should be noted, however, that to the extent that direct investment tends to increase concentration, it may also reduce the number of alternatives facing buyers and sellers and deplete the forces and benefits of international competition. Thus, direct investment may increase welfare through transfer of capital, technology, and managerial skill from one country to another. On the other hand, as has been repeatedly pointed out in this thesis and elsewhere, it is also an instrument for restraining competition between firms of different nations. Much empirical work needs to be done to determine the exact magnitude of these counter-effects. The following may be said with certainty: the general presumption of trade theory in favor of free trade and free factor movements on the ground of allocative efficiency does not automatically extend to direct investment by multinational oligopolies, due to the anti-competitive effects inherently associated with such.[33]

Further, the multinational firm may place real obstacles in the path of the less-developed world as it struggles to join the mainstream of the technological revolution.

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[33]Baldwin (Ibid., p. 484) does have some reservations. He notes: "However, the unique market power possessed by these firms may be used to resist such socially-beneficial changes. We have developed a non-market mechanism for facilitating economic growth in the world economy, but our internal and international institutions for coping with the economic shocks resulting from this growth and with the possible socially undesirable economic and political effects of the internationalization of production are in need for considerable improvement. If international trade theorists are to contribute towards this improvement, they must cast their analysis in a framework that includes trade in both outputs and inputs among countries."

Indeed, when focus is shifted to the less-developed countries (hereafter referred to as LDC's) the issues previously discussed take on a different coloration -- and they are intensified if, for no other reason than that the gap between capacities of investor and host-country is wider. In developed countries, direct investment contributes to monopoly problems, with all the familiar associated welfare consequences. It also strains national boundaries and produces political problems. This is no less true in the LDC's. However, in the LDC's, direct investment, from the national point of view, casts a much longer shadow. Indeed, in an environment where day-to-day struggles with starvation may take place alongside power struggles among rival local politicians, the military, and an emerging entrepreneurial class, the injection of a large, powerful foreign investor can have profound consequences.

As Kindleberger has noted, early direct investment in the LDC's typically took on an enclave character in which foreign factors of production -- capital, management, and often labor -- were combined with limited host-country inputs such as mineral deposits, tropical climate, or, in some countries, unskilled labor (often pressed into gangs on the comprador system). Foreign investors often acted as if they enjoyed extra-territorial rights, as the record on bribery, corruption, evasions, and even invasion (by the supporting governments of source-countries) reveals upon the most casual study. Many of these investments were undertaken to exploit

mineral deposits, or to add one more link to the chain of vertical integration.[34]

The new character of foreign investment in LDC's is not so dramatic on first appearance, but its long-run consequences may be far more profound.

An optimistic view would include the main arguments of international trade theorist (efficient global allocation of capital and spread of technology from rich to poor countries) and the general liberal internationalist view that direct investment leads to a "rational" integration of national destinies as the factors of "efficient" production and distribution erode "irrational" nationalistic attitudes.

In another vein, however, the spread of direct investment through multinational oligopolies could reduce options for development in LDC's, i.e. they could become (in Hymer's terms) "branch plant" countries. Their development planning

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[34]Kindleberger notes that some vertical integration is not undertaken for cost reasons, but rather for solely security reasons. Thus, he notes, "vertical integration can also be a pathological condition. Competition, like matter and games, is subject to entropy. Even where there are no economic advantages in coordinating production at various stages, or of coordinating new investments at different levels of production to carry through innovation, companies may feel safer with assured access to sources of inputs and to outlets for products. In these circumstances the industry will shift from numerous firms which are small and competitive at each stage to one of a few large, vertically integrated concerns. Once started, the process acquires momentum." Kindleberger, American Business Abroad, p. 21. Also, for example, in oil see: E. T. Penrose, The Large International Firm in Developing Countries (London: Allen and Unwin, 1968). For examples in aluminum: O.E.C.D., Gaps in Technology, Nonferrous Metals (Paris, O.E.C.D., 1968). For a discussion of the history of direct foreign investment in Latin America, see C.F.C. Alejandro, "Direct Foreign Investment in Latin America," in Kindleberger, ed., The International Corporation, pp. 319-344.

schemes could be frustrated by having large segments of their industrial sector dominated by planning schemes originated in the headquarter cities of multinational firms; their ability to derive revenue through taxation could be made more difficult by the ability of multinational firms to manipulate transfer prices and move their productive facilities from one country to another; and their monetary and fiscal policies would be diminished in effectiveness.[35]

The pessimistic view is represented in the following passage by Stephen Hymer:

> "The international operations of a corporation are an attempt to control that part of the product cycle which takes place in foreign countries. It does this under the guise of bringing capital, technology and management skill, but its motive for direct investment is to defend its own quasi-monopoly of knowledge and to assure its own stability and growth. This often has the effect of blocking independent sources of development The vertical structure of the corporation is a method of coordination but it is also one of control and the values are its own survival and a favorable environment; not the development of society as a whole."[36]

Instead of attempting treatment of all the alternative views on the general welfare effects of the multinational corporation in LDC's (another heroic undertaking) attention is directed below to two leading welfare issues that bear a particularly close relation to the subject of this thesis.

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[35]For a detailed discussion of the effect of the MNF on fiscal and monetary policies see S. Hymer, "The Multinational Corporation and the Law of Uneven Development," pp. 21-25.

[36]Stephen Hymer, "The Multinational Corporation and the International Division of Labor" (unpublished paper, 1970).

These relations are outlined below and fully developed in Chapter IV.

The Infant Industry Argument

One of the most prominent arguments against direct foreign investment is the standard infant industry argument. Thus, a strong case can be made against admitting multinational firms on the grounds that they may come to dominate markets that host-country firms could efficiently serve, given a chance to develop, acquire technology, penetrate markets, acquire management skills, etc. Note that this is not an argument based on pure nationalism or sentiment, but one based on efficiency. Given time to develop, national firms could grow effectively to compete with multinational firms, but not if multinational firms dominate their potential markets (and stand ready to retaliate against any competitor). Additionally, there are social benefits (externalities) flowing from indigenous industrial growth -- social benefits which exceed private benefits.

Johnson argues that there is no reason to confine participation in a protected industry (tariff protection) to host-country firms only.[37] He argues that the externalities arising from developing markets will still be available even if the market is subdivided among both host-country firms and foreign firms (implicitly, he also assumes that even if foreign firms dominate the local market, the externalities will still

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[37]Ibid., pp. 35-36.

be forthcoming). Thus, insofar as superior knowledged (imposed or developed on the spot by foreign firms) can be understood and applied by other firms without their having to incur the cost of developing the knowledge themselves, it makes no difference, according to Johnson, whether the firm providing the external effect is domestically or foreign owned.

There are many reasons for doubting this postulate. Some of these will be discussed below in the context of the related topic of technology transference; but it is worth pointing out here that if multinational firms dominate the domestic markets, they may seek to dampen the spread of proprietary knowledge in order to keep barriers to entry high and protect the security inherent in their market position (or they seek to control the market environments within which they operate). To the extent that they may be successful in such an endeavor, certain of the benefits of industrialization will not spread. Foreign investment may again take on an enclave character.

The Transference of Technology and Industrial Know-How

As noted previously, many writers view the multinational corporation as the ideal vehicle for the transmission of technology around the world, and especially to the less-developed countries.[38] They view the international corporation as

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[38]For example, see the following works: J. Baranson, "Technology Transfer through the International Firm," American Economic Review (May 1970), pp. 435-40, "Transfer of Technical Knowledge by International Corporations to Developing Economies," American Economic Review (May 1966), pp. 259-267, Spencer and Woroniak, eds., The Transfer of Technology to Developing Countries (New York, Praeger, 1967), J. H. Dunning,

the appropriate mode by which the LDC's can make the "quantum leap" from a technologically backward state to a technologically advanced state, with all of the desirable implications of the latter for efficiency and growth. The opinions expressed by these writers are less than fully warranted by the facts.[39] The following discussion deals with this point.

It is necessary at the outset of this discussion to identify terms. The first step is to distinguish between "know-how" and "technical knowledge" (narrowly defined).[40] Know-how is closely related to technical knowledge, which is a more clearly definable concept. As Svennilson notes:

> "It (technical knowledge) indicates our intellectual conception of possibilities to combine inputs of factors -- labor, raw materials, machinery, etc. -- in order to achieve an output of products, defined in terms of quality and quantity."[41]

Accordingly, this term "technical knowledge" includes not only the purely engineering aspects of the productive process, but

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"Technology, U.S. Investment, and European Economic Growth," in Kindleberger, ed., The International Corporation, pp. 141-179. See also Johnson and Kindleberger, American Business Abroad.

[39]See citations Footnote 38. The record on actual technological transfer through direct investment is not outstanding.

[40]The distinction here is based on the work of Ingvar Svennilson. See: "Technical Assistance: The Transfer of Industrial Know-How to Non-Industrial Countries," in Berrill, ed., Economic Development with Special Reference to East Asia, (New York, St. Martin's Press, 1964), pp. 405-427. Also, "The Strategy of Transfer," in Spenser and Woroniak, pp. 175-184.

[41]Svennilson, "Technical Assistance...", p. 406.

also the economic and organizational aspects of the operations of a firm, including management and marketing. Know-how is defined as the capacity to use technical knowledge. It is based on a combination of knowledge and skill; and, without it, pure technical knowledge is useless from a productive point of view.

As Svennilson notes, only part (the broad lines) of the actual knowledge required for production is codified by non-personal means of communication, or communicated by "teaching" outside the productive process. This is the oft-mentioned "common fund", and covers only part of the full knowledge required. The overall knowledge of persons trained in actual operations has wider scope.

In this context, innovations in technical knowledge are for the most part born in the course of productive operation, by people trying to solve operational problems within producing units.[42] The rate at which technical knowledge flows from the field of industrial operations into a "common fund" of such knowledge depends on the communication system involved. Part can be transmitted through a system of information (schools, publications, etc.), but much of the detailed specialized knowledge (know-how) can only be transferred by demonstration and teaching in actual operations.

Thus, some "specialized" knowledge is accumulated in the industrial units and does not flow easily into the "common

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[42]There is usually a "learning curve" involved in this instance.

fund" of technical knowledge. Depending on the skills of the person involved, each industrial unit has a fund of know-how that distinguishes it from other industrial units.[43] If such know-how is a scarce factor within a given industry, it can present a barrier to entry by new firms, i.e., more inputs will be needed than simply X factors plus knowledge from the "common fund."[44]

In a system based on competitive private enterprise, the system for transferring technical knowledge and know-how (specialized technical knowledge) is a complicated one. As Svennilson notes, two types of outflows may be distinguished: (A) leakages, and (B) commercial transfers. Leakages may be voluntary or involuntary and are not connected with any remuneration to the firm. If all leakage "outlets" were open and if there were no time lags in the transfer, the firm would have no specialized assets which could be sold in the market for a price, and no advantage over any other firms. Firms, therefore, seek to protect and control their individual funds of know-how and technical knowledge.

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[43]The reasoning here is similar to that employed by Friedman with respect to "entrepreneurial capacity." He says, "...we must remember that the entrepreneurial capacity of each firm is a separate factor of production, to be distinguished from the entrepreneurial capacity of every other firm." Price Theory (Chicago, Aldine Press, 1965), p. 102. For full discussion, see pp. 96-102. The levels of know-how and knowledge of a private firm are accumulated over time as a result of experience in the course of operations and systematic research and development efforts.

[44]Thus, certain forms of specialized knowledge may be likened to a "monopoly ingredient." See C. P. Ferguson, Microeconomic Theory (Homewood, Illinois, Irwin, 1969), pp. 272-273.

The primary mode of protection is the legal patent. These will be used and sold (in various ways) in the market. However, while the technical knowledge embodied in a patent is restricted, its very publication may stimulate technical innovations of a not-too-close similarity, and may, thus, indirectly broaden the knowledge and potential competitiveness of other firms.

On the other hand, as Svennilson has noted:

> "...It is a well-known fact that the technical knowledge that is contained in a patent and, thus, is made public, may exhibit only a part of the technical knowledge that is needed to carry out production. The art of hiding some technical elements of a production process is part of the patent game. Firms often even prefer not to patent their technical innovations in order to avoid the duty to publish some technical data. In any case, a firm may have a fund of know-how (complementary to the facts exhibited in the patent) that it seeks to withhold from other firms. The right to use a patent may be without value to a buyer of patent rights, if he has not the capacity to develop the complementary know-how within his own firm. Firms in industrialized countries spend a large part of their research and development efforts on finding such complementary know-how. In most non-industrialized countries, the capacity for technical innovation is as a rule very limited. The transfer of non-patented know-how in a package with patent rights is, therefore, comparatively more important in the case of non-industrialized countries than in transactions between firms in countries with highly developed industries.[45]

The largest part of know-how (specialized knowledge) accumulated in the firm is by definition vested in persons employed in the firm. In special cases it may, however, be

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[45]Svennilson, "Technical Assistance...", p. 411.

documented informally inside the firm and protected. On the whole, however, it could be difficult to prevent persons employed by a given firm from transferring the knowledge used in its operations to other firms if they left. This feature is important for the discussion of high-level manpower markets in the following chapter.

When the issue of transference of technology by multinational firms is interpreted in the context of the above discussion, a new picture emerges. If a firm has succeeded in establishing itself in an LDC market, it will have done so by the familiar arguments already presented, due to some "monopolistic advantage" in factor or product markets. In both markets, that advantage is, if not wholly, in most cases partly, attributable to some specialized technical or managerial knowledge that is not freely available in the market.[46] The original decision to invest in the foreign market, according to the arguments of our multiple-objective function, may have been influenced by the desire for security, i.e., it was a purely defensive move (protect raw material supply, co-op major share of new market, etc.) -- or the desire to maximize quasi-rent on proprietary knowledge, or both. In the latter case, the firm may have the opportunity to achieve

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[46]Note that both Johnson's and Aliber's arguments reviewed in Chapter II, rest on the multinational firm's ownership and control of "patents" or proprietary knowledge." Even economies of large-scale production are accompanied by <u>qualitative</u> technical changes in the process of production. Such changes may have been developed within the firm by solving day-to-day production problems as output grew. Thus, specialized knowledge was developed alongside growing output. Also see Svennilson, "Technical Assistance...", pp. 419-420.

both a "satisfactory" level of profits and, at the same time, enhance its relative strength within the international oligopolistic market within which it operates. If such is the case, the firm is strongly motivated to prevent certain elements of its "fund of knowledge" from leaking either into the "fund" of actual or potential host-country competitor; or into the "funds" of its oligopolistic rivals. By taking action to control "leakage" they prevent, in the former case, the erosion of their rate of return on investments in the LDC market by actual or potential host-country firms; and in the latter case (perhaps more importantly) they retain whatever rivalistic value such knowledge has in the context of their day-to-day struggles with other oligopolistic firms operating in the "world market" (if such knowledge does not become "general" knowledge through leakage). There is no reason to believe, therefore, that the firm will be at all interested in transferring its "proprietary knowledge" to anyone, when the effect of such a transfer is to weaken the security of the market position in the host-country or vis-a-vis their oligopolistic rivals. Thus, the "complete" technical knowledge possessed by direct investors, that could be of a general or specific value to emerging LDC industries, may not be transferred at all by conscious design.

Indeed, as Baranson points out, one of the reasons firms prefer direct investment to licensing patents (or other market transfers of knowledge without direct control) is because the firm fears licensing will, in Baranson's words, "...result

in the give-away of valuable know-how or will threaten its market positions in established markets."[47] Multinational firms also may have no desire to see new innovation centers develop. Even where licensing is chosen, as Svennilson points out, the source-country firm may withhold certain operative information in the interest of security and instead send its own personnel to man critical phases of the production process.

In a separate vein, even if we assume that security considerations concerning specialized knowledge have no influence on a firm's behavior, the expected technology transfer may not take place at a satisfactory rate or in satisfactory form. In particular, the technology brought to LDC's may be of a very narrow, specialized, capital intensive type that

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[47]Baranson, "Technology Transfer...", p. 436. Baranson cites some interesting examples on corporate behavior in the area of licensing vs. direct investment. In all cases where direct investment was chosen, the reason lay in protecting "...proprietary rights in new product areas involving recent know-how that has limited patent protection.", p. 439 (the cases cited involve "a large American subsidiary in the petrochemical field," IRM (in its Indian operation), Ciba-Swiss chemical manufacturers, et. al.) M. Sadli, of the Institute of Economic and Social Research, Dajakarta, Indonesia, noted in reply to Svennilson's paper, cited above (same volume) that he doubted direct investment was a good method of imparting know-how. He wrote: "In Indonesia, the oil companies were reluctant to transfer the better management jobs to local people, except those of public relations and labor relations. Consultant firms were anxious to arrange package deals but they were biased towards the supplying firms. There was need for some kind of consumers' union to redress the balance." Ibid., p. 427.

Svennilson also notes that the flow of specialized knowledge may be discriminating in favor of "national units": "Within an industrial community, an exchange of technical knowledge between firms may develop on the basis of an informal give and take. However, such communications may be discriminatory in favor of national units, and thus form a part of national 'integration.' The leakage of technical knowledge into a common fund does thus not necessarily mean that technical knowledge becomes internationally available." Ibid., p. 412.

may not be ideally appropriate, or immediately transferable given the factor endowment of the host country. Indeed, one of the major complaints against multinational firms, as Johnson points out, has been their failure to develop technologies appropriate to the factor price relationships and general condition of the countries in which they operate. As has been noted previously, however, the multinational firm has no interest in becoming a "vehicle for development" per se. It is presumably cheaper to transplant an already known technology to an environment to which it is not entirely appropriate (paying in the process some extra cost in terms of inferior efficiency) than to develop a new technology more appropriate to the environment. If this were not true, firms would not engage in the practice.

In a final analysis (taking into consideration both of the above points), the modern techniques thought to be brought by multinational firms, instead of spreading widely have, in many cases, been again restricted to enclaves. Likewise, no innovations in knowledge more appropriate to LDC's will take place since LDC's have less than perfect access to the training ground (in actual operations) where such innovations are originated.

What are the alternatives? Svennilson suggests that more reliance be placed on public assistance (through Western governments), U.N. assistance, the services of consulting firms (not associated with multinational firms), and joint ventures with U.S. and other Western firms, whereby specific and complete knowledge transfers would be negotiated. All forms of

assistance should then be coordinated for maximum effectiveness. Many questions are raised here, and left unanswered; i.e., what inducements are necessary to persuade foreign firms to supply "appropriate" technology and know-how, without control. (Remember the evidence on multinational firms' desire for control.) No comprehensive treatment of these questions will be undertaken here. It is apparent, however, given the points made above, that a transfer of know-how and technical knowledge that is intended to extend to many LDC's, and that corresponds to their aspirations to develop their own industries, may only to a limited extent take the form of direct investment of multinational firms.

There is no claim made here that technology is never transferred through the multinational firm. A firm bargaining stance on the part of LDC governments could facilitate some transfer (the alternative for the firm being expulsion). Also, where the technology at issue has less "rivalistic" value to the firm, i.e., it is more "general" knowledge (not monopolized by the firm with whom negotiations are taking place), transfer can occur, subject to proper remuneration.[48]

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[48]In addition, the above points apply only to the previously defined dominant class of oligopolistic multinational firms. Firms from more competitive industries would be less inclined to protection of "monopoly" knowledge, since, by definition, they do not possess such on a broad scale and do not expect to establish long-run global market positions based upon "monopoly knowledge." Their international operations tend to be directed toward maximizing the short-run return from some particular asset and not concerned with global market dominance. Thus they are not part of the "rivalry" game that characterizes established oligopoly structure. A more detailed discussion of the small sub-group of non-oligopoly investors will be presented in the concluding chapter.

It should also be made clear that there can be other important reasons why technological knowledge does not flow to LDC's (reasons having nothing to do with oligopoly firms "protecting" their knowledge). A complete analysis of such reasons is, of course, beyond the scope of this study. A conservative assertion, however, can be made that such protection policies have played an important role in this dilemma and could continue to do so.

Summary of Views on Welfare Effects

Certain divergent views of the welfare effects of corporate multinationalism have been briefly discussed in this section. Particular attention has been given to the role of direct investment in the knowledge transfer process. It has been concluded that this role may be a limited one. Multinational firms, as we have seen, have an incentive to protect and control their own knowledge and know-how and prevent its leakage. Indeed, their "knowledge assets" are both offensive and defensive in nature and essential tools in the context of international oligopolistic rivalry. This aside, there is no reason solely on cost considerations to expect firms to produce the relatively more expensive ideally "appropriate" technologies.

The host country's capacity to develop such appropriate technology indigenously is also affected by the presence of multinational firms. To the extent that a corporate power struggle has developed in LDC's, security again becomes an issue. Established foreign firms may have no desire to see

new innovative centers develop or have their market position eroded by entry. They thus surely would not aid such indigenous innovation, and may even actively resist it, if their political power warrants such activity.

In summary, it is not possible to make, with certainty, A ⇒ B type statements on the welfare effects of corporate multinationalism without carefully specifying the assumptions upon which statements are based.[49]

For example (with respect to the "technological transfer" issue), the fact that oligopolistic multinational corporations possess a "fund" of technical knowledge and know-how that could possibly be of use to LDC's in their development efforts (Proposition A) does not necessarily mean that such will be transferred to other firms in LDC industrial sectors through direct investment (Proposition B). There is ample reason to believe that such firms may attempt to control the "leakage" of knowledge where the effect of such is to erode their market positions.[50] Given the empirical evidence on the rivalistic nature of the oligopolistic world environment within which such firms operate, this defensive attitude is consistent with the maximization of the general corporate

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[49]Note that "effective" competition is implicitly assumed in most A ⇒ B postulates. In the light of theoretical and empirical evidence on the actual structure of corporate multinationalism, their assumptions seem particularly inappropriate.

[50]Indeed, as Baranson noted, the decision to undertake direct investment abroad may have been influenced by the firm's fear that licensing or other indirect means of exploitation would result in a give-away of valuable know-how and threaten its position in established markets.

multiple-objective function specified earlier. Therefore $A \not\Rightarrow B$.

In another vein, the fact that multinational corporations have the capacity to develop ideally "appropriate" technology for LDC's (Proposition A) does not necessarily mean that they can, as some writers believe, be easily persuaded to develop such technology for use in their foreign operations (Proposition B). Indeed, as we have seen, the cost of such development might be so high that (in the absence of other motives for direct investment) they would not invest at all if these conditions were imposed. Additionally, if they have (as Hymer believes) an interest in preventing the rise of new centers of innovation (as was the case in several of the industries mentioned in the references to Baranson's work) then they may actively oppose the indigenous development of such knowledge. Therefore $A \not\Rightarrow B$.

General Summary

This discussion of the "pure theory" of the multinational firm and its welfare effects (general, and specific to LDC's) on host-country economies has emphasized the complexity of decision-making within the multinational firm, and the difficulties encountered in determining the exact welfare consequences of direct investment. Efforts toward a better understanding of both firm behavior and its consequent effect on welfare must begin, however, by discarding the simple single objective function usually employed in the theory of competitive price, in favor of a general multiple objective function

-- one more appropriate for analysis of oligopolistic markets. The employment of such a function could lead to a better understanding of the observed behavior of multinational firms. The predictive power of such a model (in the ideal sense) emerges in a case-by-case analysis, where the range of possible actions and reactions faced by the firm is constrained by market and political "conditions". Given a particular set of "market conditions" and the preference function of the firm, a "range of indeterminateness" may be identified and employed to rule out certain behavior patterns and thus narrow the problem.[51]

An analytical framework, which differs from the usual single-objective profit-maximizing model, and is specified at a general multiple-objective level (emphasizing the elements of control and security) is offered as an alternative vehicle of analysis. It has been generally applied above to certain aspects of the behavior of the multinational firm, with special emphasis on their expected behavior in the less-developed host countries. Despite the aggregative nature of the model adopted, its use does show that many of the A ⇒ B postulates (arising out of a model based on the single profit maximization thereon) concerning the firms' role in efficient resource allocation and technology transference are valid only under certain additionally restrictive assumptions.

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[51]In a specific case, the specific reaction of a firm to a given set of "market conditions" will depend fundamentally on its preference function; and in particular upon which elements of the function are ranked over others (which are the dominant elements) under that particular set of market conditions, at that particular <u>time</u>.

In the following two chapters, the aforementioned theoreitcal framework will be applied to an analysis of the behavior and effects of the high-level manpower policies of the multinational firm with special attention to the less-developed host country. Emphasis will again be placed on the interrelated objectives of control and general security of market and political position.

CHAPTER IV

MULTINATIONAL CORPORATE BEHAVIOR IN HOST-COUNTRY HIGH-LEVEL MANPOWER MARKETS - BASIC EVIDENCE

Introduction

As an illustration of the usefulness of the basic theoretical framework developed in earlier chapters, it will be applied in the following two chapters to an analysis of the behavior and effects of the multinational firm in the high-level manpower markets of host countries; with special emphasis on the less-developed host country.

One of the most controversial aspects of the general behavior of the multinational firm has been its reluctance to employ, to a significant extent, host-country nationals in high-level management positions (Level III-AB) in their foreign operations, and (especially) their failure to promote the nationals actually employed in such capacities to positions at the corporate headquarters level (Level I-AB).[1]

The analysis of this phenomenon will be executed in four stages. Firstly, in this chapter, the basic empirical material on the above phenomenon is summarized and elaborated upon as an introduction to the central question. Distinctions are drawn between hiring practices at Level III and Level I. Further distinctions are drawn between conduct in developed and less-developed host countries. In all cases, the material is

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[1]For a detailed specification of manpower categories see Chapter I.

presented and discussed within an historical-dialectical context, moving from early firm behavior to mature firm behavior.

In Chapter V the conventional neo-classical labor market model is applied to the problem to determine its usefulness in explaining the phenomenon. As will become apparent, the conventional model fails as an explanans. This sets the tone for stage three, where the model developed in this thesis is applied to the problem with results.

Stage three incorporates the analysis of the problem within the context of the model developed in this thesis. Hiring practices at Level III-AB and Level I-AB are analyzed separately. Likewise, hiring practices in DC's and LDC's are treated separately, with heavy emphasis on the latter. Again, the analysis is executed within an historical framework, moving from the older practices to the newer which reflect the "maturity" and "second best" elements discussed earlier. In support of the analysis, the data from stage one are employed extensively and presented in finer detail.

In stage four (Chapter VI) the hypotheses are operationalized for further testing.

The Problem

As noted previously, the multinational firm has been (historically) reluctant to employ, to a significant extent, host-country nationals in high-level management positions (Level III-AB) in their foreign operations, and has also failed to promote those nationals actually employed to positions at the corporate headquarters level (Level I-AB).

General Evidence

The 1957 Department of Commerce Census estimated that U.S. companies abroad employed 3.2 million persons. Approximately one-third were employed in Europe and one-third in Latin America. In Europe, over 70 percent were in manufacturing; in Latin America, one-third were employed in manufacturing.[2] Total personnel sent from the U.S. was 20,600. Of these, 13,600 were managerial, professional, or technical. Of local nationals employed, reported at 1.4 million, 160,000 were in the managerial, professional and technical group. Those persons sent from the U.S. accounted for less than ten percent of these specialized employees.

A striking element of corporate behavior is disguised by the foregoing aggregates. Even though Americans accounted for only 10 percent of the total of specialized categories, a significant majority of the key Level III positions during this period (Fifties and early Sixties) were held by American managers.

Appendix Tables IV-2 through IV-3 illustrate the aforementioned trends. A survey by J. N. Behrman (1960) of 72 U.S. multinationals provided data (from 35 respondents) to show that Americans were predominantly in "key" positions (see Table IV-3). In Latin America, management was most heavily American, extending through division managers, which were almost all American.[3] Of the firms surveyed, thirty-five

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[2]United States Department of Commerce, 1960, U.S. Bus. Investment in Foreign Countries. See Appendix Table IV-1 Preliminary Data from the 1966 Census, the most recent, are discussed later.

[3]The firms surveyed were of mixed sizes. See J. N. Behrman's "Foreign Investment and the Transfer of Knowledge and

(the largest) claimed to use nationals to the "fullest extent possible" but maintained Americans in various "key" posts such as president, vice-president and department head (usually finance and production) as well as a majority on the board of directors.[4] The survey responses indicated that, at the time of the survey, no companies in the sample had the goal of "100 percent nationals" in management positions.

When it comes to the staffing of Level I-AB positions at the corporate headquarters level, ethnocentricity becomes even more severe. Kenneth Simmonds, in a study of the 150 largest U.S. multinationals (1966) estimated that though 20.7 percent of all their employees were foreign, only 1.6 percent of their high-level corporate managers were non-American (see Tables IV-4-5).[5] Simmonds estimated that if data were available on companies that do not disclose their foreign employment, and those that do not include subsidiary employment in their employment figures, the comparisons would be even more dramatic.

Raymond Vernon, in a study which was a part of the Harvard Business School Project referred to in Chapter I (1970), found in a survey of the leading multinationals that only nineteen foreigners turned up among top echelons of management, of whom fourteen were Canadian or British. He concludes that

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Skills," in Mikesell U.S. Private and Government Investment Abroad (University of Oregon Press, Eugene, 1962).

[4]In cases where Americans were not in the majority, they had effective veto power.

[5]K. Simmonds, "Multinational? Well, Not Quite," Columbia Journal of World Business, 1, No. 4 (Fall., 1966).

"for the present, U.S.-controlled multinational enterprises are governed and controlled primarily by U.S. nationals."[6]

In the Simmonds study, a case analysis of Ford U.K. (United Kingdom) provided an interesting illustration of the relative role of host-country subsidiary managers abroad within the overall global framework. The evidence revealed in the analysis indicates that the host-country subsidiary managers abroad, even when elevated to managerial heights within the subsidiary hierarchy (due to government pressure in this instance) tend to have the previous functions of this office downgraded and their role reduced to that of a "messenger". This lends a new perspective to the trends in local participation to be discussed later, i.e., companies have offset the pressure to hire nationals for top management abroad by downgrading its functions and centralizing control. It is then small wonder that such executives never reach Level I (Head Office); they are often never part of the management elite at any level.

In the LDC's (the primary focus of this study) the management staffing patterns during this period show even greater ethnocentricity. As Behrman pointed out in his study, high-level management was more extensively American in American subsidiaries in Latin America and other LDC areas than in Europe and other developed areas.[7]

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[6]See R. Vernon, Sovereignty at Bay, Basic Books (New York, London) 1971, p. 146.

[7]Behrman, pp. 241-81. The 1957 Census also evidences the same feature. Several case studies, not presented in detail in this section, confirm the greater reliance on source

A number of case studies bring out this element in even greater detail. In a much-quoted study of the development and utilization of high-level manpower resources by twenty-three representative American firms in their subsidiaries in Brazil and Mexico, J. C. Shearer found that in both countries Americans dominate five of what is considered the seven "key" managerial positions in local subsidiaries (see Tables IV-6-7).[8]

A similar case study of American firms in Brazil by McMillian and Gonzalez produced similar results. In a survey of 47 firms (which accounted for over 70 percent of total U.S. direct investment in Brazil) they found that all staffed their top key positions in the subsidiaries with Americans, chiefly in the function of president, and sales, production,

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country nationals in the LDC's. See, for instance, B. Skinner, American Industry in Developing Economies (Wiley, New York, 1968). E. Penrose, The Large International Firms in Developing Countries (MIT Press, Cambridge, 1968).

[8]The "key" positions are defined in terms of their correspondence to certain critical functional areas of management. These include organization, finance, engineering and technology, production management, marketing and sales, product research and design, and personnel. (Product research and design are in most all cases carried on in the home offices -- i.e., they are not handled by the subsidiaries at all. The functional distribution of source-country and host-country management within the subsidiaries will be important in later analysis of this general behavior pattern.) Americans held 65 percent of the positions associated with the first five functional areas, in both Brazil and Mexico. Another 10 percent of these positions were held by "third-country" nationals. Those cases where Americans held a smaller number of key management positions were in small companies. John C. Shearer, High Level Manpower in Overseas Subsidiaries - Experience in Brazil and Mexico (Princeton: Industrial Relations Section, Princeton University, 1960).

and finance officers.[9] A study of foreign investment in Liberia by R. McLaughlin again produced the same result; staffing of top positions in U.S. firms (and British firms) was exclusively American (British). In point of fact, few Liberians were employed in positions higher than overseer or chief clerk.[10]

In an extensive study of foreign investments in India (1965), M. Kidron found that though management in foreign firms (American and British multinationals) was considerably "Indianized" at lower management levels and salary scales (RS. 1,000 per month) due to direct governmental pressure, higher management positions (RS. 3,000 and above) were still overwhelmingly non-Indian. Kidron found that most foreign firms insist on staffing major technical posts, and the posts of works managers, research department head, general manager, secretary, and finance manager, with "company men" from the source country.[11] (The same was true in joint ventures.)

My own research into the past and present high-level manpower policies of foreign-firms (American and British multinationals) in India confirms Kidron's earlier findings. The reader is referred to Appendix Tables IV-5 through IV-9,

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[9]C. McMillian and R. Gonzalez, International Enterprises in a Developing Economy (M.S.U. Business Studies, East Lansing, 1964).

[10]R. McLaughlin, Foreign Investment and Development in Liberia (F. A. Praeger, New York, 1966).

[11]Figures issued by the Ministry of Industry. See M. Kidron, Foreign Investment in India (Oxford Univ. Press, London, 1965), pp. 294-296.

where employment of Indians and non-Indians in foreign-owned/controlled firms by salary groups and industrial groups from 1960-1970 are presented.[12] As revealed in the tables, Indianization of lower salary/management levels increased between 1960 and 1970, largely due to governmental pressure and cost considerations. Indianization at top levels (RS. 5,000 per month and above where Level I executives are categorized) is nowhere near as great as at lower levels. As Table IV-9 reveals, almost 65 percent of salary/management posts at RS 5,000 and above were still held by non-Indians in 1969. Almost two-thirds of high level technical posts were held by non-Indians.[13]

Recent Trends

Patterns of employment of host-country high-level manpower by multinational firms has changed somewhat in the late 1960's and early 1970's, especially in the developed countries. Under pressure of rising cost of maintaining expatriate managers abroad and host-country government pressure, multinational

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[12]Special acknowledgement and gratitude is due A. K. Ghosh, Chief Economic Advisor to the Government of India, Ministry of Industrial Development and Internal Trade - New Delhi for collecting and preparing the information found in Tables IV-8 through IV-9 , and aiding, through conversation and letters, in their interpretation.

[13]The Ministry of Industrial Development indicated that generally the proportion of non-Indians was even higher in larger American manufacturing and petroleum firms (and joint ventures) at level RS. 5,000 and above. The same point is made in Kidron's research for the earlier period.

firms have staffed a larger number of positions with host-country managers.[14]

In terms of official data, advance reports from the most recent Census of Foreign Direct Investment (1966), which gives the only recent global employment data available, indicated that U.S. manufacturing and petroleum reporter's affiliates had 3.3 million employees in 1966 (see Table IV-10). Manufacturing affiliates had 10,634 U.S. employees abroad and petroleum affiliates had 7,436 U.S. employees. These employees in both cases were primarily technical (9,000) and managerial (8,100). Thus, in terms of the present interest, U.S. managers abroad constituted 5.6 percent of the total of 145,263 managers employed abroad.[15] No individual country breakdown was available at the time of this draft but advance reports provided to the Council for Latin America by the Department of Commerce in 1970 to give new data for Latin America.[16]

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[14]The "second best" and "maturity" aspects of this trend are treated later in this section and extensively in the next. These aspects are interrelated with the cost aspects mentioned above and with the governmental pressure aspect. None reflect a change of strategy in control but only a change in tactics. This is discussed extensively in the latter part of this thesis.

[15]The data on employment from the 1957 Census and the 1966 Census on employment in management positions are not strictly comparable since the 1957 Census did not separate managerial from technical employees but lumped them all together under the categories "supervisory, technical, professional and other" and did not report figures of "under 500" employees. Nevertheless, there is little doubt that employment of host-country managers increased proportionately to source-country managers between 1957 and 1966.

[16]Council for Latin America, The Effects of U.S. and Other Foreign Investment in Latin America (New York, 1970). This data is very rough and incomplete (it does not, for instance, include mining, a significant omission for Bolivia and Chile).

As Table IV-11 shows, U.S. managers constituted almost nine percent of total employment in the managerial category in Latin America (with significant country-to-country variation). Thus again, the proportion of Americans in managerial positions runs higher in the LDC's than in the world generally.[17]

Despite its comprehensive nature and interesting aggregative overview, the general body of Census data summarized above is inappropriate and misleading for purposes of this study. Its main fault (aside from incomplete reporting by firms surveyed) lies in its level of aggregation. The term "managerial" used by the Census is lacking in functional definition. According to reports from the Department of Commerce it includes not only top level managers but many low level subordinate positions below department head (and many non-management positions as well -- functionally speaking in terms of reporting procedures, etc.).[18] Thus, the percentages

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[17]In Brazil, the proportion of Americans in managerial positions ran almost six percent (almost five percent for managerial and technical combined) and in Mexico almost ten percent (almost five percent for managerial and technical combined). As a rough comparable measure, Table IV-12 from an unpublished employment analysis obtained in the Office of Business Economics for the 1957 Census (cited in Shearer) indicates that Americans in "supervisory, technical and other positions" in Brazil in 1957 were approximately seven percent of the total (five percent in 1966), and in Mexico about eleven percent of the total (five percent in 1966). Thus, these proportions have not changed markedly from the earlier Census period to the latter.

[18]Information obtained in conversation with officials of Department of Commerce, O.B.E., R. Lubitz also makes the same point in his study of foreign direct investment. See R. Lubitz, "A Note on U.S. Direct Investment and Human Capital," Journal of Political Economy, V.79, No. 5 (Sept.-Oct. 1971). Also, the O.B.E. data includes some small firms whose inclusion distorts the analysis for the dominant oligopolies.

given do not adequately reveal the proportion of truly top-management that is American and certainly are of no use in determining the national distribution of the very highest level "key" posts.

Certain recent individual case studies are much more revealing on the question of top management staffing abroad. In the developed countries, most especially Europe, many more management positions are being filled by host-country nationals. The information available indicated, however, that Americans still remain in control in "key" positions, even when top posts are vacated by them. The most noteworthy example (mentioned earlier) is found in the case of Ford U.K. as reported by Simmonds.[19] The following report from a Sunday Times says it all:

> "Four directors have quit Ford U.K. in a year; those of finance, sales, industrial relations and the head of the Basildon tractor operations. All but the last resigned largely because of the tightening American control.
>
> "In two years, more than 20 key men in Ford U.K.'s finance department have left. They include the investment analysis manager, the purchase analysis manager, and within a few months, three successive administrative managers under the American director of engineering.
>
> "From Ford U.K.'s product-planning section, the manager has left. So have the market research chief and the product-planner of the Cortina. With the labor relations director went one of his top executives. Ford U.K.'s controller of metal stamping has left, so has his right-hand man. So has the manager of operations in Ford U.K.'s new foundry, technically ahead of any other in Europe.

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[19]Simmonds, "Multinational..."

"'This is not wastage; this is a hemorrhage,' said one of the most senior men who have left. All these, with other less significant executives who have also left, have gone to excellent, even superlative jobs -- Ford executives have a usually justified and always expensive mystique. But virtually all had one motive in common. One ex-manager said: 'I know of no British senior Ford executive who any longer believes that there is a real future for a Briton in Ford.'

"To all this, Ford has an adamant answer: 'We have been since 1960 wholly an American company,' said one director, 'but we are run in Britain by Britons. We are world-wide; our attitudes and needs are not therefore those of Little Englanders. There is not dictation from Detroit.'

"But the total American domination of Dagenham -- and the evidence of former executives is too strong to deny -- is not a Detroit conspiracy; it is the logical result of Ford U.K.'s own history, Ford Detroit's world plans, the American lead in techniques of management and mass production and a certain British bloody mindedness. Detroit's 1960 guarantee to the British Government when it sought 100 percent of Ford U.K. -- the promise that 'the majority' of Ford U.K.'s management would remain British -- has not been broken. It was irrelevant.

"Ford U.K. now has Americans as managing director, financial director, engineering director, and production planning and styling director. Only four Americans are on the ruling Policy Board of 15, but they are the men with power.

"'You control a company if you control its capital expenditure, its products, and in great detail its operating budgets,' said one senior ex-finance man. 'All these are controlled by Americans over here, and ultimately by Detroit. The amount of paper flowing to Detroit and back is unbelievable.'

"The other Americans at Dagenham control strategic functions -- chief stylist, body construction, paint, data processing, the foundry, a welding and manufacturing engineer, three plant layout men, and a bevy in the truck group. 'The technical men are mostly first-class,' said one departed. 'Ford management is correct when it says Detroit has much technically to teach us. What causes the friction is that the Britons the Americans work with

know it is the American who has the ear of Detroit.'"[20]

Thus as mentioned previously, when top posts are vacated by Americans and filled with host-country nationals the functions of the office may be downgraded and control concentrated in the hands of a remarkably few "key" American executives.

The same process may take place, except on a more sophisticated level, when American firms "regionalize" their operations. In this instance a "regional headquarters" is established for each major market and control concentrated there in the hands of "key" American executives, reticulators, and "advisors." This leaves the firm free to staff the downgraded functional post at the individual subsidiary level with host-country nationals who report to and take direct orders from the regional office.[21]

When attention is focused on the LDC's, a startling picture emerges. As a preface to the following exposition it should be noted that all available recent data indicates that in LDC's the proportion of American managers in managerial posts is higher than in the developed countries. What is not

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[20]John Barry, "Fords Top Britons Quit as U.S. Grip Tightens," The Sunday Times, November 21, 1966.

[21]For evidence on the nature of "regionalization" see C. R. Williams, "Regional Management Overseas," Harvard Business Review, Jan.-Feb., 1967. Other surveys on the trends are found in various monographs published by Business International, New York, N.Y. See especially numbers 36, 41, and 40. Discussions with top officers of B.I. (November, 1971 -- with Stephen Hymer) also confirmed the regional trends in Europe. This topic will be further analyzed in the following sections. Additionally, the staffing of top posts by host-country nationals is observed to be higher in Europe where more de-nationalized foreign managers are to be found -- much more on this point later.

shown in the Census data is the fact that the proportion of Americans in the very top "key" positions (A,B, as defined earlier) is much higher and has changed relatively little over previous years. The reason that the aggregative data from the 1966 Census do not reveal this point is again due to the lack of functional definitions of management. Also, the Census data is for the entire direct investment universe and not just for the leading multinational oligopolies.[22]

In case studies where attention is focused on the mature multinational oligopolies, with interviews conducted within the context of carefully constructed definitions of managerial functions, very different results emerge. An outstanding study by C. E. Watson has produced such results.[23] His survey covered the manpower policies of 45 large U.S.-owned subsidiaries in Brazil covering the years 1950 to 1970. It was found that as late as 1970 fully 45% of the top level (his definition -- similar to Shearer's) management positions were still held by Americans at the subsidiary level. This is in sharp contrast to the Census' aggregate percentages for all DFI in Brazil (7%). This is not far below Shearer's estimate for Brazil in 1956 (63%).

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[22]As pointed out earlier, non-oligopolistic, small, non-integrated firms with DFI tend to pursue different manpower policies, due to, among other things, the absence of a global strategy like that held by the dominate multinational oligopolies. The inclusion to such firms in the survey distorts the picture for the oligopolistic multinationals.

[23]C. E. Watson, "Staffing Management Positions in U.S.-Owned Business Enterprise in Brazil," 1970 (mimeograph), p. 10.

Likewise, the results of the study by McMillian and Gonzalez, conducted at approximately the same time that the Census was being taken for Latin America, produced results that are at variance with the Census data. As was revealed in their sample, most key posts were still manned by Americans at that time.

The data from my Indian survey also show that the top posts in foreign firms in India was running at about 65% in this later period. Though the Census results for India are not yet available, they will doubtless again be at variance with the more careful, disaggregated studies.

Likewise, B. K. Skinner found in a comprehensive study of thirteen large corporations with manufacturing operations in six developing nations, that they still staffed most "key" posts with Americans and had no intentions of doing otherwise in the foreseeable future.[24]

Thus, while American firms are staffing many more subordinate management positions in their subsidiaries with host-country nationals, the staffing of "key" posts (especially those posts associated with the first five functional areas defined by Shearer and myself) continues to be heavily American.[25]

Several studies done by A. Kapoor and S. Resnick of the operations of American firms in Asia revealed, among other

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[24]Skinner, American Industry in Developing Economies.

[25]Also, these men, according to Skinner, tend to be "inside" men who have been employed by the parent firm in the source country for some time.

things, that staffing of most Level I positions in Asia (India, the Philippines and Malasia) still tends to be disproportionately American as late as 1969. Both economists also have noted an interesting trend toward "regionalization" in the Asian operations of many American firms. In particular, Singapore has become an Asian regional headquarters in much the same fashion as Brussels in Europe. An increase in Asians hired for some Level I posts at the subsidiary level was evident in recent years, but again, the powers of the post were downgraded and control centralized in the hands of an American management cadre in Singapore. Kapoor cited evidence that newly appointed host-country Asian managers were becoming increasingly frustrated with having to file weekly reports with the regional and head offices and seek their approval on the most menial matters.[26] Much the same results was found

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[26]The evidence cited above (most in unpublished form) was obtained in the course of their personal experience in Asia, and related to me in lengthy conversations on such. Kapoor, in particular, discussed with me the results of tapings of high-level strategy meetings on Asian operations of multinational firms, in which he was in attendance as a consultant. Though all of the detailed material on the tapes was of a confidential nature, I was able to obtain condensations which led to the conclusions mentioned above. The knowledge obtained from these tapes and from questionnaire surveys of management hiring and training practices by U.S. firms resulted in a number of publications, not directly related to this thesis, but nevertheless interesting. See Ashok Kapoor, Managing International Markets (Darwin Press, 1971); International Business Negotiations: A Study in India (New York: N.Y.U. Press, 1970), "Business-Government Relations Become Respectable" Columbia Journal of World Business (July-August 1970), and P. Grub, ed., The Multinational Enterprise in Transition (Darwin Press, Princeton, N.J., 1972). Professor Kapoor has asked, in the interest of maintaining his contacts and trust within these firms, that I not present detailed data on these matters relating to my thesis. More conclusions from summary condensations of Kapoor's work are employed in the analysis of the following two sections.

in Latin America by P. R. Cateora.[27] He found (where government-initiated domestication of Level III-AB management posts forced U.S. multinationals to substitute host-country nationals in management positions once manned by expatriates) that even capable host-country personnel in formerly key positions were not permitted to participate in major decisions. Such individuals were not given responsibility equal to their positions and decision-making reverted to the head office in the U.S. They were treated and felt much like one vice-president of an American subsidiary who noted to Cateora that "I am just a front office national not too different from the front office black employed by U.S. firms domestically."[28]

Thus, while manpower policy has changed over the last two decades, the basic strategy has remained intact, i.e. the concentration of real power has in many cases remained in the hands of head-office oriented source-country nationals.

A number of recent popular writers on the general behavior of the multinational firm concur. In a recent study of trends in U.S. multinationalism. S. Rose of Fortune magazine concludes:

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[27]P. R. Cateora, "The Multinational Enterprise and Nationalism", M.S.U. Business Topics (M.S.U. Spring 1971).

[28]One way U.S. firms have reduced the "American presence" abroad is by the employment of "third country" nationals in key posts, especially in Latin America and Asia. This practice leads to results more consistent with the global strategies of the firm as will be discussed in detail in the following sections. For evidence on the hiring of third country nationals, see Kapoor, Business International (issue cited earlier), and Simmonds.

"Few companies are ready to go very far toward achieving international integration in their management, with executive responsibility throughout the corporate system assigned without regard to nationality. Most multinational corporations employ local citizens in lower rungs of management in their foreign subsidiaries; often they are required by law to do so. But when it comes to top jobs in the subsidiaries, the picture is mixed...Even those companies that have been somewhat successful in training and promoting local managers find it almost impossible to take the next step -- moving the local manager into corporate headquarters positions."[29]

On the latter point, Rose continues:

"Yet, as has been noted, many multinational companies are moving toward greater centralization of control. If the trend continues, the top man in the subsidiary will be less a manager than a 'national representative' of the company. And while companies will no doubt continue to insist that the door to corporate headquarters is open to foreigners, few will actually cross the threshold."

John Thackray, writing on the topic of multinationalism in Interplay, says:

"There are two broad classes of managers in the large international company. One is the national of the parent company, working either somewhere in the domestic operations, abroad, or at headquarters. The second is the indigenous executive manning the foreign outpost. The existence of these two unequal classes is seldom mentioned by the persons involved; and when admitted, it is softly, softly. Corporate ideology declares that all men have equal opportunity for advancement and success -- every toiling executive has the president's slide rule or the president's nameplate somewhere in the drawers of his desk.

"There are good and sufficient reasons as to why there should be these two classes of executives. But their existence presents a serious impediment to the creation of a managerial structure and an executive corps in multinational companies that can be, in the fullest sense,

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[29]S. Rose, "The Rewarding Strategies of Multinationalism," Fortune, September 15, 1968.

> internationalist -- where the significance of a man's nationality might be no more important than the color of his tie or the style of his shoes. Because of these two classes, we may never see what would be the acid test of managerial multinationalism: an Italisn as president of an American-owned multinational, for example, or a Latin American running a Dutch-owned multinational."[30]

With respect to operations in the LDC's in particular, two manpower economists, Harbison and Myers, have noted that even when lower-level national managers were hired,

> "...their (local nationals in management) opportunity for advancement within the foreign firm is limited. The top positions are usually held by foreigners, and the control of the company lies outside the country. The local nationals, therefore, must be resigned to being agents of the expatriates."[31]

In a discussion with two managerial employees in Egypt, one from a chemical firm and one from a petroleum company, Harbison and Myers found that:

> "They considered themselves as members of management, but in this regard were conscious of their role as "second class citizens" when it came to making top-level company decisions."[32]

Summary Statement

In the next chapter it will be argued that the high-level manpower policies of the multinational have evolved dialectically in accordance with the nature of the macrocosm

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[30]John Thackray, "Not so Multinational, After All," Interplay, November 1968, p. 23. (This article was part of a symposium under the general title, "The Multinational Corporation.")

[31]Harbison and Myers, p. 381.

[32]Ibid., p. 389.

within which they operated in various time frames. The objective of the firm has always been that of maintaining control within the context of their objective functions in all periods. The tactics of control through manpower policy have changed in the last twenty years but still the manpower variables figure importantly in the strategy of control.

Furthermore (based upon the desire of the firm for control and security), it is advanced that early firm manpower tactics represent two behavioral aspects. Firstly, they were in part "optimal" firm tactics in the "first best" sense; i.e. they represented the most efficient (from the long-run strategic point of view) tactics that the firm could follow in a relatively "frictionless" universe, in pursuit of their highest order maximanda. Under later market conditions incorporating varying degrees of friction (i.e., host-country governmental pressure, the rising cost of maintaining expatriate personnel abroad, etc.) the firm moved in later periods to "second best" tactics in pursuit of the same maximanda. Secondly, tactical choice was influenced through time by the very process of "maturing" as a multinational entity (call it a "learning" process if you like). Many such tactical changes were the result of more sophisticated global planning and control. Both of these aspects ("second best" and "maturity") are discussed in more detail in the next chapter. Before embarking upon that analysis, however, the "conventional wisdom" of neo-classical marginal productivity theory is applied to the manpower policies of multinational firms to see how it fares as an explans.

TABLES

CHAPTER IV

TABLE IV-1

U.S. BUSINESS INVESTMENTS IN FOREIGN COUNTRIES
EMPLOYMENT ABROAD BY TYPE AND COUNTRY, 1957
(THOUSANDS OF PERSONS)

Area and Country	Total Reported	Supervisory, Professional and Technical		
		Total	Sent from United States	Other
All areas, total	1,942	178	14	164
Canada	441	35	1	34
Latin American Republics, total	557	43	8	35
Western Hemisphere Dependencies	21	2	1	2
Europe, total	638	62	1	61
Africa, total	75	16	-	16
Asia, total	130	9	2	7
Oceania, total	74	9	-	9
International	6	-	-	-

TABLE VI-1 (Cont'd)

Area and Country	Other			Unallo-cated	Estimated Grand Total*
	Total	Sent From United States	Other		
All areas, total	1,251	5	1,246	498	3,200
Canada	241	1	239	149	670
Latin American Republica, total	400	1	399	119	950
Western Hemisphere Dependencies	17	-	17	2	40
Europe, total	413	-	413	158	1,080
Africa, total	44	-	44	15	100
Asia, total	88	2	86	32	240
Oceania, total	46	-	46	20	100
International	3	-	3	3	20

*Estimate based on country by industry data on wage payments by reporting and non-reporting companies. Employment data were supplied on a voluntary basis.

NOTE: Total employment is given as an average for the year; breakdowns are given as of the end of the year.

Source: U. S. Department of Commerce, U. S. Business Investment in Foreign Countries, 1958, p. 122.

TABLE IV-2

MANPOWER POLICIES OF U.S. MULTINATIONAL FIRMS ABROAD
(REPORTED BY 72 U.S. CORPORATIONS, 1959)

General Use of Americans Abroad	Number of Companies
On Board of Directors	4[a]
President or General Manager	24[b]
Vice President or Manager	13[b]
Department Head	7[b]
All others than noted above native to host country	23[b]
Natives of host country to fullest extent feasible	35
Natives 100 percent	18
No reply	4

[a]Most companies did not indicate whether Americans were or were not on the boards abroad.

[b]Some of these are the same companies, having one or two top-management people from the States and "all others" native inhabitants.

Source: University of Oregon Foreign Investment Questionnaire. See Behrman.

TABLE IV-3

AMERICANS EMPLOYED IN FOREIGN SUBSIDIARIES
OF U.S. MULTINATIONAL FIRMS-1959
(PERCENTAGES)

Region	Directors	No. of Foreign Companies	Division Managers	No. of Foreign Companies	Middle Mgmt.	No. of Foreign Companies	Foreman	No. of Foreign Companies
Europe	75-100	5	100	1				
	50-70	8	50	2				
	25-45	8	-		30	1		
	under 25	9	under 30	7	under 10	9	under 10	3
	0	4	0	24	0	24	0	31
		34		34		34		34
Latin America	80-100	15	80-100	13	75-100	6	100	2
	50-70	5	40-70	9	25-50	4	40-50	2
	20-40	10	under 25	6	under 25	14	under 10	10
	under 20	6						
	0	4	0	12	0	16	0	26
		39		39		39		39
Other Less Developed	100	3	100	3	95-100	2	90-100	2
	50-80	5						
	10-40	6						
	under 10	2	under 10	1	under 10	2	under 10	1
	0	-	0	12	0	12	0	13
		16		16		16		16

Source: University of Oregon Foreign Investment Questionnaire.
See Behrman.

TABLE IV-4

FOREIGN PARTICIPATION IN TOP CORPORATE MANAGEMENT
(150 LARGEST U.S. INDUSTRIAL CORPORATIONS)

Classification	Number of Managers
U.S. citizens by birth	3,593
Born outside U.S., not identified as U.S. by birth:	
Entered U.S. permanently before age 26	81
Entered U.S. permanently at age 26 or above	34
Resident outside U.S.	25
Insufficient data for classification	114
Total:	3,847

Source: K. Simmonds, "Multinational? Well, Not Quite," Columbia Journal of World Business 1, No. 4 (Fall, 1966).

TABLE IV-5

COMPARISON OF FOREIGN PARTICIPATION
IN EMPLOYMENT AND CORPORATE MANAGEMENT
(150 LARGEST U.S. INDUSTRIAL CORPORATIONS)

	Significant Foreign Employment	Little or No Foreign Employment	Data Not Obtained	Total
Number of corporations	71	55	24	150
All employees (millions):				
Total	4.66	1.79	1.10	7.54
Foreign	1.54	.03	-	1.56
Percent Foreign	33.0	1.7	-	20.7
Top corporate management:				
Total classified	1,815	1,263	655	3,733
Foreign				
Employees	21	10	8	39
Outside directors	9	7	4	20
Total foreign	30	17	12	59
Percent foreign	1.6	1.3	1.8	1.6

Source: K. Simmonds, "Multinational? Well, Not Quite," Columbia Journal of World Business 1, No. 4 (Fall, 1966).

TABLE IV-6

CITIZENSHIP OF KEY EXECUTIVES OF 21
BRAZILIAN AND 18 MEXICAN SUBSIDIARIES

	Citizenship of Chief Functional Executive								
	Brazil			Mexico			Total Both Countries		
Functional Area	U.S.	Other Non-Nat'l.	Nat'l.	U.S.	Other Non-Nat'l.	Nat'l.	U.S.	Other Non-Nat'l.	Nat'l.
General Manager	14	4	3	13	1	4	27	5	7
Finance	12	2	5	12	-	4	24	2	9
Engineering and Technical	16	1	4	11	1	4	27	2	8
Production Management	13	2	6	11	1	5	24	3	11
Marketing and Sales	10	3	7	10	1	5	20	4	12
Total:	65	12	25	57	4	22	122	16	47

Source: J. C. Shearer, "High Level Manpower in Overseas Subsidiaries-Experience in Brazil and Mexico" (Princeton, Industrial Relations Section), Princeton Univ., 1960.

TABLE IV-7

CITIZENSHIP OF KEY EXECUTIVES
IN THE 19 "COMBINATION" COMPANIES

Citizenship of Key Executives	19 "Combination" Approach Cos.[a] Number of Key Executives	Percent of Total
Brazil		
American	63	74.1
Other non-national	10	11.8
National	12	14.1
Total:	85	100.0
Mexico		
American	55	84.6
Other non-national	4	6.2
National	6	9.2
Total:	65	100.0

[a]These 19 "combination" corporations operate 17 subsidiaries in Brazil and 14 in Mexico.

Source: J. C. Shearer, "High Level Manpower in Overseas Subsidiaries-Experience in Brazil and Mexico," (Princeton Univ., 1960), Princeton, Industrial Relations Section.

TABLE IV-8

EMPLOYMENT OF INDIANS AND NON-INDIANS IN FOREIGN OWNED/CONTROLLED FIRMS BY SALARY GROUPS

As on 1st January	Rs. 1000-Rs. 2000		Rs. 2001-Rs. 3000		Rs. 3001-Rs. 5000		Above Rs. 5000		Total	
	Indians	Non-Indians	Indians	Non-Indians	Indians	Non-Indians	Indians	Non-Indians	Indians	Non-* Indians
1960	7,135	1,176	1,390	1,355			588	2,278	9,113	4,809
1961	7,907	991	1,633	1,175			689	2,198	10,229	4,364
1962	8,666	772	1,997	1,006			872	2,223	11,535	4,001
1963	9,273	636	2,185	806	838	1,404	138	724	12,434	3,570
1964	10,088	439	2,510	589	1,061	1,292	165	815	13,824	3,135
1965	11,717	424	3,018	533	1,345	1,220	222	837	16,302	3,014
1966	13,015	304	3,363	426	1,552	1,070	283	859	18,213	2,659
1967	14,916	138	3,907	299	1,873	709	371	1,072	21,067	2,218
1968	17,111	125	4,410	196	2,161	528	475	1,027	24,157	1,876
1969	Not Available		4,662	173	2,537	425	603	946	7,802	1,544

*Excluding foreign short-term technicians who are exempted from payment of Income Tax on their remuneration.

N.B. (i) Further breakup of the employees receiving total monthly emoluments exceeding Rs. 3,000/- is not available for 1960, 1961 and 1962.

(ii) Information is not collected in respect of employees receiving total monthly emoluments up to Rs. 2,000/-from 1969 onwards.

Source: Government of India: Ministry of Industrial Development and Internal Trade - New Delhi.

TABLE IV-9

BREAKUP OF THE NUMBER OF INDIANS AND NON-INDIANS EMPLOYED BY FOREIGN OWNED/CONTROLLED FIRMS BY SALARY-GROUPS AND NATURE OF JOB(I.E. MANAGERIAL OR TECHNICAL)

		As on 1/1/1968	As on 1/1/1969
Rs. 2001-Rs. 3000			
Indians:	Managerial	2,787	2,875
	Technical	1,623	1,787
Non-Indians:	Managerial	131	137
	Technical	65	36
Rs. 3001-Rs. 5000			
Indians:	Managerial	1,541	1,770
	Technical	620	767
Non-Indians:	Managerial	385	322
	Technical	143	103
Above Rs. 5000			
Indians:	Managerial	357	461
	Technical	118	142
Non-Indians:	Managerial	778	714
	Technical	249	232
Total of above salary-groups			
Indians:	Managerial	4,685	5,106
	Technical	2,361	2,696
Non-Indians:*	Managerial	1,294	1,173
	Technical	457	371

*Excluding foreign short-term technicians who are exempted from payment of income tax.

N.B. Breakup by nature of job is not readily available for earlier period.

Source: Government of India: Ministry of Industrial Development and Internal Trade - New Delhi.

TABLE IV-10

EMPLOYMENT AND PAYROLL COSTS OF U.S. AND FOREIGN EMPLOYEES IN 1966 BY U.S. MANUFACTURING AND PETROLEUM REPORTERS' MAJORITY-OWNED FOREIGN AFFILIATES

	Total	Manufacturing	Petroleum
Total Number of Employees Abroad	3,342,368	3,011,400	330,978
Number of U.S. Employees	18,007	10,634	7,436
Wage Earners	986	948	38
Managerial	9,000	5,840	2,259
Technical and Other	8,984	3,845	5,139
Number of Foreign Employees	3,324,321	3,000,779	323,542
Wage Earners	2,048,497	1,913,636	134,861
Managerial	136,263	122,956	13,307
Technical and Other	1,139,561	964,187	175,374
Payroll Costs of Employees (millions of dollars)	12,324	10,681	1,643
Average Payroll Costs per Employees (dollars)	3,687	3,547	4,965

Source: U.S. Department of Commerce, Census of Foreign Investment, 1966 (Advance Report)

TABLE IV-11

NUMBER OF LOCAL AND U.S. EMPLOYEES
IN MANUFACTURING AND PETROLEUM
BROKEN DOWN BY FUNCTION, BY MAJOR COUNTRY (ADJUSTED DATA)

	Local Employees			U.S. Employees	
	Managerial	Technical and Professional	Other	Managerial	Technical and Professional
Latin America, total	10,382	22,258	102,353	930	601
Argentina	2,087	4,583	22,120	132	52
Brazil	3,249	7,568	36,911	200	205
Chile[a]	160	242	1,553	15	1
Colombia	888	2,103	6,231	62	69
Costa Rica	20	96	148	1	-
Guatemala	33	45	317	5	1
Mexico	2,700	5,317	21,953	265	126
Peru	190	1,126	4,424	57	24
Uruguay	140	139	1,203	3	2
Venezuela[b]	778	880	6,098	172	68
Caribbean Islands	121	142	869	26	42
Other Central America[c]	21	60	303	11	11

[a]Figures do not include mining (i.e., the copper industry for Chile).

[b]Includes Dominican Republic, Haiti, Bahamas, Jamaica, Trinidad and Tobago and French and Netherlands Antilles.

[c]Includes El Salvador, Honduras, Nicaragua and Panama.

Source: Council for Latin America - 1970 and U.S. Department of Commerce.

TABLE IV-12

EMPLOYMENT IN UNITED STATES FIRMS IN BRAZIL AND MEXICO, 1955, BY TYPE AND INDUSTRY

Industry	Number of Employees					
	Supervisory, Professional and Technical		Others		Total	
	Americans	Others	Americans	Others	Americans	Others
Brazil						
Manufacturing	275	4,701	4	45,386	279	47,087
Public Utilities	26	319	4	15,266	30	15,685
Petroleum	75	569	14	9,134	89	9,703
Other	221	2,282	11	18,351	232	20,633
Total:	597	7,871	33	85,237	630	93,108
Mexico						
Mining and Smelting	419	1,316	25	25,713	444	27,029
Manufacturing	267	2,749	40	21,206	307	24,055
Public Utilities	19	353	7	7,280	26	7,633
Other	161	1,236	24	9,171	185	10,407
Total:	866	5,654	96	63,470	962	69,124

Source: Balance of Payments Division, Office of Business Economics, U.S. Department of Commerce.

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CHAPTER V

AN ANALYSIS OF MULTINATIONAL CORPORATE BEHAVIOR IN HOST-COUNTRY HIGH-LEVEL MANPOWER MARKETS

The Neo-Classical Model

Given the evidence cited in the previous chapter, how is such behavior accounted for? Firstly, the problem will be analyzed within the context of the conventional neo-classical labor market model (marginal productivity theory of input demand) to determine its usefulness in explaining the phenomenon. We will concentrate our attention on the firm's reluctance to hire host-country managers for the top positions in the subsidiaries abroad. Attention is directed primarily to manpower policies in the LDC's.

If we limit our analysis to the traditional, single-objective, profit maximizing firm, two possible explanations emerge: (1) if the productivity of both source-country high-level manpower and host-country high-level manpower is the same, but their unit costs to the firm differ, the firm will prefer (in the interest of profit maximization) to hire that manpower that has the lowest unit cost (since at the lower wage rate, the marginal cost of production is lower for every level of output). Thus, the firm's preference for source-country managers could be explained by their lower unit costs; (2) if the unit cost of host-country managers is less than that of source-country managers, but their productivity is also much lower, the expressed preference for source-country manpower is presumably explained by their superior competence

in applying the firm's superior knowledge more efficiently (i.e., the difference in wage rates is just offset, or more than offset, by differences in productivity).[1]

Neither of these explanations is completely satisfactory. Shearer (cited earlier) is quite explicit on both of the above points. First, all available evidence indicates that the costs of source-country high-level manpower are significantly greater than that of host-country high-level manpower. He notes that the costs to the firm of employing imported (source-country) manpower far exceed those of employing comparable domestic (host-country) manpower in the same positions. Although the cost differentials vary among industries, firms, and among the various levels of high-level manpower, they are considerable in all cases, even in the top ranks of management. Wages and salaries are much higher for imported manpower (given the generally higher salary levels in the U.S., the average salaries paid Americans are two to three times higher than those paid nationals for the same work performed) than for comparable domestic managers, but this is only part of the "price" (recurrent direct cost) of imported manpower. When special allowances (foreign service, housing, education, etc.) are included, conservative estimates indicate that the prices of imported high-level manpower resources are, on the average, about <u>four</u> times the prices of comparable domestic manpower. Omitted from the comparative estimates are the

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[1]For a thorough discussion of the profit maximizing firm's reaction to differential factor unit costs, see Ferguson, <u>Microeconomic Theory</u>, pp. 357-415.

initial costs incurred in sending the source-country national abroad and the recurrent organization costs of planning and administering the complex programs for the compensation of overseas personnel. Shearer estimates that when these costs are included, the cost of imported manpower is perhaps eight times that of domestic resources.[2]

Additionally, there is little evidence to support the proposition that source-country high-level manpower is, per se, more productive or efficient than comparable host-country high-level manpower (at least not so much more productive as to justify its heavy use, given the much less expensive, substitutible, host-country manpower). Indeed, as Shearer points out, there is much evidence that indicates the contrary. Host-country managers are often as much, or in some cases, more productive than their imported counterparts, or, would be, given the opportunity to demonstrate their talents.

Shearer (whose study represents the most thorough examination of comparative performance) is again explicit on this point. He notes that the heavy use of expensive imported manpower can be justified by economic criteria only if its value to the firm is far in excess of the value of the relatively cheaper domestic resources. Thus, if we consider

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[2]Shearer, pp. 38-50. Various wage surveys by Business International also confirm that costs run much higher for expatriate personnel in Europe and Japan. See Business International no's 36, 40, 41. McMillian and Gonzalez also find the same results for Brazil, as does Skinner in his survey of thirteen firms in six developing nations. Also see The Wall Street Journal, Mon., January 8, 1973, "Austerity Abroad," which gives additional information for Europe.

source-country and host-country high-level manpower as substitutible (but not perfectly so) factors of production, a firm would achieve an optimal combination of these inputs at the point where the marginal revenue product of each factor just equals its marginal cost. As Shearer notes, given the observed ratio of national to non-national employment, and the much greater cost of employing an additional unit of non-national manpower, the value of additional non-national manpower to the firm must be considerably higher than that of the national, who would otherwise have been employed. Otherwise, the firm would not have achieved an optimal combination of inputs or minimized the cost of any given output. Though Shearer admits that his study does not measure precisely, the difference in the quality of imported and domestic manpower, its findings do suggest that the great majority of firms studied employ a far higher proportion of relatively more expensive source-country managers than can be justified by any quality of productivity advantage these individuals may have over the relatively less expensive nationals that could be substituted for them. This is especially so given the demonstrated competence (in the relatively few small, 100% "national" companies) of nationals to handle any type of overseas post.[3]

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[3]For the evidence on these points, see Shearer, pp. 51-132. P. R. Cateora (cited earlier) notes that the host-country manager is often very capable (in Latin America) but is simply not given responsibility in keeping with that capability. The same point is made by Kidron for India. Likewise, B. F. Skinner found that many capable host-country managers in LDC's were available to firms in his sample but were not "trusted" by the expatriates or home office due to their "peculiar, un-Western" approaches in some areas of

It is often alleged by home office executives that they would like to employ a greater number of host-country managers, but cannot, due to a "shortage" of such qualified personnel. Here, again, the evidence from Shearer's work (and from other sources) suggests that the "shortages" confronting multinational firms are due much less to market scarcities than to the firm's unwillingness and ineptness in recruiting, developing, and retaining competent host-country managers. In this case, Shearer suggests that the recruiting, training, and development costs for host-country manpower is less than that for comparable imported manpower. The evidence in the experience of the few "100% national" companies included in the sample supports this proposition.[4] Note that competent high-level manpower in the source-country, especially those with the necessary qualifications and desires for overseas service, are likewise scarce. The firm's preference for imported manpower cannot then rest in the relative "abundance" of such manpower in source-countries or in the lower cost of recruiting, training, and developing source-country personnel for service abroad.

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management. This suggests not a lack of productivity among LDC host-country managers, but a different cultural orientation (that might well be appropriate for operations in their own country). The head office felt in most cases, however, that increasing responsibility in the hands of such nationals would lead to "conflicts" with parent control (much more on this attitude later).

[4]Shearer, p. 130.

B. F. Skinner makes the same point.[5] In his study, American firms often have difficulty finding "acceptable" managers in the U.S. As noted previously, most come from "within" the firm and are in short supply. If recruiting is done outside, a long period of training within the firm (in both internal operations and cultural attributes of the nation to which they are being sent) is required before the man is sent abroad. Evidence cited in Skinner also indicates that few firms have extensive training programs for LDC host-country managers abroad (training programs aimed at a level of management education required to assume full responsibility in subsidiary operation). He notes that "Few management development programs were encountered among 48 plants studied..." Those that once had them had discontinued them or cut them back severely due to "disappointing" results.

Given the real "costs" to the multinational firm of pursuing the prevailing policies, i.e., their failure to utilize host-country high-level manpower resources; how is such behavior explained? Shearer notes that if cost minimization or profit maximization were the only considerations, the sizeable disequilibrium generated by the firm's use of far less than "optimal" proportions of domestic manpower inputs would create great pressures, and an observable increase in "nationalization" of subsidiary management positions. Such, however, has not resulted. Shearer suggests that institutional frictions provide the fundamental explanation of the

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[5]B. F. Skinner, Chapter II.

persistence by the source-country firms in manning the high management posts with source-country imports.

Specifically, Shearer postulates that job "protection" is the most significant explanatory element. He writes:

> "Protection of their jobs by overseas Americans seems to be the most significant obstacle to increased development and use of nationals. Overseas Americans are directly responsible for the development of national manpower resources in the combination firms, but they can hardly be expected to undertake this vital task with enthusiasm when the ultimate result of their efforts would be their own displacement.[6]

In addition, according to Shearer, there is another element of "institutional friction" arising from the desire of home-office executives to facilitate their "communication" with overseas managers. Shearer notes that on the basis of interviews in home offices, there was some expressed preference for having American managers abroad since home office executives find it more "convenient" to deal with Americans than nationals. Shearer notes, however, that home offices may place an exaggerated value on this "convenience" because it makes their work easier. He further notes that it is unlikely that such "convenience" justifies the heavy cost.

Shearer's point on the "convenience" of communicating with Americans could be generally related to G. Becker's "discrimination" hypothesis (i.e., employers have a "taste" for working only with certain social-national-cultural groups). While such a model may partially explain hiring practices abroad, it is here maintained that such would be only a

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[6]Shearer, pp. 122-130.

"special case" within the larger more general analytical framework employed here. In Appendix B of this chapter, the relationships between several of Becker's hypothesis (including the one above) and the approaches adopted for this analysis are discussed in detail.

In another vein, Shearer's point on "job protection" could relate to the previously discussed conflict between control and all other variables in the objective function (see Chapter III). Specifically, the failure of source-country managers at Level III to develop host-country manpower to replace them could arise out of the fear that if they were replaced and brought home, their salary and position within the firm would eventually decline since their salary abroad included elements for "rent" that would vanish if they were transferred back to positions in the head office. Again, in the context of this thesis, such behavior is taken to be a "special case."[7]

Other economists have viewed the causes of discrimination differently. In Hymer's analysis, the observed behavior of multinational firms in host-country high-level manpower markets is entirely consistent with the dialectics of corporate multinationalism, and is a predictable pattern of behavior, given the tendency of the regime of "North Atlantic Multinational Corporations" to produce a hierarchical division of labor

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[7]The "rent" argument is also related to the argument of M. Reder that entrepreneurs (Level III source-country managers in this case) maximize their "own" objective function. For a discussion of this point see Chapter III.

between geographical regions corresponding to the vertical division of labor within the firm.[8] This behavior, according to Hymer's analysis, reduces the options for development in LDC's. An LDC wishing to invest heavily in education in order to increase its stock of human capital and raise standards of living will be frustrated in its efforts if the multinational corporation is depended upon as the major employer of such capital. In a market system it (the LDC) would be able to find gainful employment for its citizens within its national boundaries by specializing in education intensive activity and selling its surplus abroad. However, within a multinational corporate system, the demand for high-level education may be limited, given the low ranking of such countries in the hierarchy. Thus, an outward shift in the supply curve of educated people will not create its own demand. Given the resultant low wages and lack of employment opportunity, emigration of such individuals will occur.[9] Even then, Hymer argues, the employment opportunities for LDC citizens outside the country are severaly limited by

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[8]See S. Hymer, "The Multinational Corporation and the Law of Uneven Development."

[9]Presumably what Hymer means in this case is that the firm's demand curve for high-level manpower <u>within</u> the LDC is highly inelastic or perfectly inelastic over the relevant range. Thus, an increase in the supply of high-level manpower reduces its wage and results in little or no increase in employment. Evidence accumulated in the course of this study suggests, however, that such elasticities may vary from country to country, depending upon the pressure put upon firms by host-country governments, the culture of the country and the availability of denationalized manpower, and the maturity of the control mechanism of the firm. This is discussed in greater detail in the next section.

discriminatory practices as they advance up the corporate hierarchy. In Hymer's view, these practices reflect the preferences of Level I management for personnel with a "common cultural heritage" in order to facilitate mutual understanding and ease of communication.

Hymer's view of the need within the hierarchy for a "common cultural heritage" represents a hypothesis different from that of Shearer. In Hymer's total view such is necessary for facilitating control and growth of the direct investment process.

It is interesting to note that in Shearer's survey, one reason often given for the firm's preference for source-country manpower at Level III was control (which he evaluated in only a cursory manner).[10] With respect to the latter rationale, most executives interviewed asserted that the employment of "too few Americans" abroad would seriously harm company interests in that the ability of the home office to control its subsidiaries would be impaired. The primary reason given was that if nationals hold the key positions, there will be inevitable conflict of interests and loyalties when the interest of the head office and the host country are opposed.

Other studies from the LDC's confirm Shearer's survey findings. McMillian and Gonzalez in their Brazilian study found that:

> "The chief defense for staffing the top management positions with Americans is a preference for company men as a means of

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[10]See Shearer, pp. 67-72.

> assuring parent firm control and maximum implementation of parent philosophy and strategy. Approximately 75 percent of the respondents to the author's survey indicated that the top management function of policy determination, interpretation, and planning were critical and were least susceptible to being turned over to Brazilian employers. About half viewed financial management as critical in the same sense."[11]

The foregoing evidence points up the shortcomings of the conventional, single objective-neo-classical labor market model in explaining the behavior of the multinational firm in the high-level manpower markets of host countries. As an alternative approach, the model developed in this thesis, based generally upon a multiple objective preference function for the firm, is applied to the problem to aid in a more comprehensive understanding of firm behavior on this matter.

The Multiple-Objective Model

As discussed above, the prevailing attitude to emerge from the case studies cited was that the employment of host-country nationals abroad in "key" managerial posts (especially in the LDC's) would seriously harm company interest in that the ability to control its subsidiaries would be impaired. The basic reasoning was that the employment of host-country nationals in too many "key" positions would lead to conflicts of interests when the strategies of the head office and the host country were different. In its purest form, this attitude reflects the desire of Level I management to impose

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[11]McMillian and Gonzalez, pp. 99-100.

their preference function on all lower levels throughout the international corporate hierarchy. Specifically, it reflects their desire for control, one of the elements in the corporate preference function specified previously.

Why is such control desired? As discussed previously, those in power at Level I could seek to maximize the probability that they will remain in complete control of all operations, for pecuniary or psychic reasons, i.e. Level I managers seek to fulfill their "own" objectives, despite the effects of such on long-term corporate welfare.[12] Thus the desire for control over Level II managers and Level III managers could stem from the desire of Level I managers to enhance their own pecuniary or psychic income -- a behavior pattern that may be in conflict with the interests of the firm or stockholders, defined as profit, growth or security maximization.

While such an entrepreneurial objective function may be defended, it nevertheless constitutes a "weak argument" for why the executives at Level I desire control. As discussed in Chapter III, the desire for control on the part of Level I management need not conflict with the objectives of stockholders or work against the overall standing of the firm. Such is not a "required" assumption in rationalizing the control motive. Indeed, it is more "reasonable" to assume that the interests of Level I management in maintaining control promotes the overall standing and growth rate of the

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[12]See the discussion in Chapter III, pp. 91-93 . See also M. Reder, pp. 450-58.

firm in world markets, and that their own reward depends on the firm's market performance.

How then does control contribute to the maximization of the corporate objective function? It is here generally postulated that control is desired in the interest of security, i.e. the control motive and the security motive are merged and operate generally in symbiosis. What enhances control insures the security of market and political position. Such security serves as a base from which continual high rates of growth (growth in total sales) in international markets may be pursued.[13] The latter is the motive force behind the internationalization of capital through direct investment and represents the final stage of capitalist expansion which began with the Marshallian firm and ends with the multinational firm.

When the foregoing hypothesis is applied to the behavior of the multinational firm in high-level manpower markets, such behavior is seen to be not at all "irrational" (even though it is not short-run cost-minimizing in the context of the simple single objective preference function discussed earlier) or contrary to the best interests of the firm in terms of its overall market standing and growth. Control over Levels II and III management functions through control over Levels II and III managers is necessary in the interest of

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[13]For a defense of total sales as an appropriate measure of the size and growth of multinational firms see: R. Rowthorn, International Big Business 1957-1967 (Cambridge Univ. Press, 1971).

security at both the political and market levels. Historically, firms have pursued a strategy based on the notion that such control is augmented when source-country personnel fill "key" Level II and III positions, despite their high per-unit costs.

It should also be noted that such control can also be secured through reserving only the bare minimum critical "functions" for source-country personnel either on-site at Level III, or at regional headquarters. The latter scheme of regionalizing critical control functions will be discussed in the main body of this section. It is appropriate to again remind the reader that the analysis here is historical in nature. Thus we proceed from early high-level manpower policies (with source-country personnel in virtually all Level III management positions) to policies that reflect a dual set of pressures on the firm. One set of such pressures arise out of the process of each firm maturing as a true multinational entity (reflected in an aforementioned "regionalization" trend) and lead to more sophisticated control mechanisms at all levels and thus to the hiring of greater numbers of host-country managers (which does allow the firm to reduce the high cost of control associated with the exclusive use of source-country managers). Another set of pressures arise at a political level when host-country governments impose hiring constraints on the firm. The firm's manpower policy then becomes altered to contend with these constraints on a level that will still insure a satisfactory "critical minimum" degree of control. Thus the altered manpower policy becomes a "second-best" policy

that the firm is forced by the host-country to adopt. Both of the above points are discussed in their proper context in later sections of this chapter.

The postulate that control enhances security is, at this point, a completely general one. To give the postulate detailed analytical substance, the following examples of the relationships between manpower policy, control, and security are presented. The analysis is executed first on the LDC level and then the DC level, in each case.

The two examples which follow are treated separately, but are nonetheless interrelated. The two concern, on the one hand, firm-governmental relationships with focus on purely political elements, and on the other, purely market relationships between multinational firms *per se*; between such firms and host-country firms (actual and potential entrants); and between such firms and state-owned firms in the host countries. The nature of the interrelationships between the two areas of conflict is discussed in the section which follows their separate treatments.

Firm-Governmental Relationships

The evidence on the historical conflicts between firms and governments in LDC's and the manpower policy which has resulted directly therefrom is everywhere evident in the case study literature.

Shearer (cited earlier) has noted, in his landmark study, that the reason most often cited for the firms' preference for source-country manpower in *key* positions lay in

the possible conflicts of loyalties that would develop when the interest of the firm and host country differed. Specifically, he noted that in most combination companies (at both the home office and subsidiary levels) the foremost rationalizations for opposition to further staffing of high-level positions by nationals were: (1) national conflicts of loyalties to country and company; (2) nationals not being "company" men; (3) general national "character" weaknesses (lack of "commercial morality").[14] The first two of these three points are related to Shearer's findings on the most often cited comment by executives of the nineteen "combination" companies:

> "If nationals hold key positions, there are inevitable conflicts of loyalties when the interest of the company and the host country are opposed."[15]

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[14]"Combination" companies are, by Shearer's definition, companies that employ both nationals and non-nationals in management positions.

[15]Shearer, p. 69. Shearer believes that this argument is based on the fear of such conflict, rather than upon actual experience. However, the issue here is the preference of the firm, not a test of its reasonableness. Shearer notes that in this specific connection, seven of the nineteen combination companies that so responded specifically "reserved" certain key posts in both Brazil and Mexico for Americans (or in the words of many, "Anglo Saxons"). In each case the general managership and in most others the top financial posts and the top engineering and technical posts were "reserved". In addition, Shearer notes that in the eight firms that did not specifically state that positions were "reserved" for Americans (which Shearer notes implies upper limits on the willingness to nationalize) the representatives indicated that Americans were needed for control purposes "for the present". Shearer points out that in their firms, the practices with respect to utilization of Americans for control are "indistinguishable" from those companies that "reserve" positions. All employ Americans in the same positions for the same reasons. For more detailed breakdown of the extensive use of Americans in control and non-control positions see Shearer, pp. 66-71.

Shearer found this attitude to be uniformly held among executives interviewed both at the head office level and at the subsidiary level for virtually all of the combination companies. The argument that "company men" were required in key posts always implied that such men were necessarily Americans. This argument was often combined with the aside that nationals were not possessed of requisite "commercial morality" (i.e., capable of placing company before country).

Professor A. Kapoor (cited earlier) found similar distrust of host-country nationals in his survey research on the same topic in Latin America and South Asia. He concluded:

> "The nationality of company representatives interacting with the government, whether they are employees or outsiders, is a critical consideration. Companies are concerned that key company representatives, especially the general manager, may be placed in the position of having to make decisions in which the interest of the host government and the company are in conflict. The host-country national would be placed in a vulnerable position because of divided loyalties. Often the importance of loyalty conflicts is related to the degree of capital intensity or exposure of an investment. Thus, the greater the amount of money at stake, the greater is the likelihood that host-country nationals will not occupy top management positions at the host-country level."[16]

As Kapoor points out (based on his survey research and on information obtained through personal contacts as a consultant to multinational firms), such attitudes have arisen partly out out of the serious political conflicts existing between

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[16] A. Kapoor, Business-Government Relationships, p. 31. In this context Kapoor notes that government relations are most often handled by the general manager. He notes (on the basis of his research) that over 50% of the manager's time is devoted to interaction with the host government. For further citation from Kapoor's work see Chapter IV (this work).

host governments and foreign investors, and out of strong subjective and emotional feelings between the investor and the government (blind ethnocentricity on the part of the investing firm). In both cases, the result was a general distrust of Third World nationals which resulted in "political" manpower policies at Level III.

In the study by McMillian and Gonzalez cited earlier, similar results were found. In their survey of 47 firms, which accounted for well over 70 percent of total U.S. foreign investment in Brazil, they found similar behavior patterns and reasoning to support them. They found that virtually all of the surveyed 47 firms staffed their top "key" positions in the subsidiaries with Americans. Thus they state:

> "Contrary to common feeling among many Americans, as well as Latin Americans, the greater reliance on U.S. citizens in top management positions, particularly on "company men", is not an arbitrary or capricious practice. It is the manifestation of a policy which, whether right or wrong, is employed intentionally by most parent organizations, in spite of its obvious disadvantages."[17]

They go on to say:

> "In the subsidiary, the identity of the U.S. parent is evident in other ways; basic organization and operational characteristics of the parent firm in the United States are reflected. Although policies and practices vary from firm to firm, most business organizations adopt, at the top managerial levels and in all their diverse operations, modus operandi, implemented more or less uniformly at all levels. Consistency of organizational behavior is brought about partially through formal and informal communication of policies, rules, and procedures. But mostly it is

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[17] McMillian and Gonzalez, p. 69.

> brought about through staffing. By choosing the company man as operating chief of a foreign subsidiary, parent firm top management can more nearly guarantee that the operations of the subsidiary will be compatible with the overall managerial philosophy and operational strategy of the company, and that unequivocal understanding between parent and subsidiary will be facilitated."[18]

The central rationale behind such manpower policies at the highest level is attributed, in large part, to the desire to avoid "conflict of interest problems" between the firm and the host country, and to insure that "company policy" is observed at all levels in foreign operations.[19]

On the vulnerable position the firm finds itself in if it staffs its high level positions with host-country nationals, they comment:

> "These employees (Brazilian) have a unique and sometimes unpleasant relationship with the U.S. firm...they feel some measure of loyalty to the firm...yet, being Brazilians, they sometimes find themselves in the unpleasant position of defending that which is allegedly exploiting their country. If they are too vocal they appear to be lackeys of the Americans or entreguistas. It is, especially at times when anti-American feeling runs high, a particularly unpleasant role to play. Many Brazilian managerial employees of U.S. firms, in discussion with fellow Brazilians, find themselves defending the U.S. subsidiary for practices

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[18] McMillian and Gonzalez, p. 72.

[19] McMillian and Gonzalez, p. 99.

> resented by most Brazilians, while privately they, too, may share the resentment."[20]

Such schizophrenic motivations are at the root of many firms' fear that having host-country nationals in high level positions will lead to reduced effectiveness in operations and bargaining with the host country. In conclusion, McMillian and Gonzalez state that despite the growing evidence on the growth of an international management cadre, the U.S. firm's Brazilian operations are still led, at the summit of control, by Americans.[21]

They go on to note that (specifically with reference to Brazil and based on their survey research there) German, British, and French firms follow the same high level manpower policies as American firms surveyed -- i.e. manning "key" top level management positions with source-country personnel.[22]

McMillian and Gonzalez go on to discuss the nature of many of the political conflicts suggested above throughout their book. One point is clear, however: political uncertainties play a major role in the staffing of "key" management positions at Level III.

In an important discussion, McMillian and Gonzalez disagree with Shearer's conclusions on the "rationality" of U.S. corporate high-level manpower policy abroad. Shearer maintains

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[20] Ibid., p. 96.

[21] McMillian and Gonzalez, p. 74.

[22] Ibid., p. 105. Additionally, such staffing patterns were defended for the same reasons.

that the then prevalent practice of staffing all "key" (and many lower level) positions abroad with Americans was "irrational", i.e., not in the best interest of the firm in terms of efficiency.[23] McMillian and Gonzalez strongly disagree. Like the present author, they concede the excellent data gathering in Shearer's study, but maintain that, in the final analysis, he has misinterpreted his results. They maintain that the firm's use of their own nationals in key positions will likely continue since such staffing policies insure control and continued ease of execution of corporate headquarters policy in a climate of political and market uncertainty.[24]

Skinner likewise disagrees with Shearer's interpretation of his survey data. He maintains that Shearer's conclusions do not appear to be "practical". He states that although Americans have no monopoly on "integrity" and "trustworthiness" prudence will require that the home office place the management of foreign operations in the hands of a man who is "sensitive" to company pressures and "background factors" of company policy. He makes it clear that such men are likely to be source-country nationals for many years to come. In his discussion he emphasizes political factors, loyalty factors, and cultural factors (such as "Westernization") as important elements in the makeup of a foreign manager. Again, the issue

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[23] See Shearer, pp. 73-74. Shearer reached this conclusion on his own. Most of the firms interviewed were insistent that a basic cadre of Americans was needed abroad.

[24] For details of their argument see McMillnan and Gonzalez, pp. 100-106, 223.

is control in a climate of political and market uncertainty.[25] Again both the arguments of McMillian and Gonzalez and Skinner touch upon "political" elements, broadly defined.

Kidron, in his study of foreign investments in India, reaches similar conclusions on firm-governmental-societal conflict. He notes that expatriate manpower in the subsidiaries are better able to represent company interest due to their relative immunity from direct governmental pressures and their freedom from "distraction" of family and community. As noted in an earlier discussion of Kidron's work in this chapter, historically, all "key" managerial and technical posts in foreign subsidiaries have been filled with source-country or "third-country" personnel. Potential firm-governmental conflicts and the need for strict international coordination of firm policies lie at the heart of this policy. Kidron says:

> "With the big foreign firms actively pursuing it, and the Associated Chamber of Commerce and Industry willing - since 1960 - to press its members to reserve for Indians all posts below RS 2,000 per month and three-fifths of posts in the RS 2-3,000 bracket, Indianization is bound to make further headway. Almost as certainly it will stop short of complete staffing by Indians. Even the most enthusiastic of managements with whom the matter was discussed expected to hold out for some expatriate staff for the foreseeable future; as few as three in some cases, as many as fifty in one. The fact is that the very conditions that give rise to pressures for Indianization - the trend towards controlled rupee companies, the growing stringency of foreign exchange control, government pressure for exports, and so on - are precisely those which make Indianization at the very top embarrassing. It is not surprising, therefore, to find the Chairman of Unilever stressing the

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[25]See Skinner, Chapters 9-10. Also see pp. 222-224; Chapter 12. Skinner bases his conclusions on survey information and his own experience as a "sympathetic" consultant to multinational firms.

> selection and remuneration of top management together, as one of the three controls which keep that vast company working coherently; or to find an empirical study of management in backward countries concluding that freedom of choice in staffing key posts is the sine qua non of private investment."[26]

Miguel S. Wionczek of the Center for Latin American Monetary Studies likewise concurs in the foregoing thesis. He states:

> "The secretiveness of foreign-owned corporations in the host countries is taken as supporting evidence for this thesis. It is said to explain also why in so many cases the highest executive posts are denied to the nationals of a host country, unless people can be found offering useful links to the economic policy makers of the host country or can be considered 'true' company men."[27]

This author, on interviews with the chief of joint venture operations of a large American electrical equipment firm, confirms the same trends and reasoning. Company policy was to always staff certain critical top positions in joint venture arrangements with "company" men from the head office. To the extent that the executive interviewed was aware, the same most certainly applied to direct investment by the company. In both cases, an important reason for this position was to insure "political uniformity" between the head office and the subsidiary on joint venture operation. The executive

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[26]Kidron, p. 295. Much of Kidron's findings on high-level staffing policies is directly related to the issue of technology transfer. This will be discussed in the next section.

[27]See Wionczek in Vernon, How Latin America Views the U.S. Investor, p. 18.

made it quite clear that the term "political uniformity" (his term) was to be interpreted in the broadest sense of class (although he did not explicitly use that term). He cited cases where the company had tried host-country manpower in critical control areas, primarily with what he termed "politically disastrous results". He placed great emphasis on what he termed an "understanding of company policy" which he felt could only be truly understood by company men. In the case of Latin American operations in particular, he made two points. The first concerned the volatile political climate in Latin America and the need for "Americans to talk to there", and secondly, the exceptional case of one host country national in particular (he did not specify who or from what country) who had been entrusted with control responsibility due to his thoroughly "Americanized" attitudes toward the company. He considered the manager in question to be "exceptional" and praised him for his "exceptional" attitude.[28]

What is involved in the reasoning discussed above is a realization on the part of Level I management that their

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[28]In certain cases, Harbison and Myers found that those local nationals actually hired were meticulous in their respect for the prerogatives of the home office and the superior authority of the expatriates. One suspects that those host-country personnel actually employed are taken on only after careful screening on their political aspirations, philosophy, actual governmental influence, etc. "Qualified" individuals are thus likely to be, as the companies note, very scarce. The subject of "denationalized" manpower will be discussed in greater detail in the section on high-level manpower policy in the developed countries (where the supply of such manpower is greater).

objective function is different from that of the LDC. The extent to which host-country managers are politically loyal to the host country affects the bargaining position of the firm and thus its security. A firm has per se no interest in general development goals and this is perhaps more pronounced in the development aspirations of the host country. It will strongly resist efforts to turn its operations into "development tools". Thus, if a host country manager is placed in a top position at Level III (or especially at Level II) the parent company is placed (or feels it is placed) in a precarious position if that manager is loyal or vulnerable to host-country pressures or has competing objectives to pursue.[29]

It is important also to recognize that the "loyalty" of the host-country manager could arise less out of genuine personal nationalistic motives than out of the real social constraints placed upon such individuals. Such is likely to be the case where the rising tide of nationalism runs highest and where such individuals find themselves in publicly conspicuous positions. Thus, the "survival" of the host-country

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[29] For instance, the efforts of the multinational firm to avoid or relieve the burden of taxation in the LDC's, either through manipulation of transfer prices, or outright attempts at evasion, are seriously hampered by the presence of host-country nationals in high positions. The record of tax evasion by multinational firms is a long and established one. See Kindleberger. Both Shearer and Harbison and Myers note that the top financial post in operations abroad is held by source-country managers in order to facilitate home office control over this "vital" function.

manager within his own culture could require a critical minimum level of allegiance to the nation-state and culture of the host country.

A complete exposition on the question of host-country manpower loyalty would require a complete socio-political class structure analysis for each LDC. Obviously such an effort is far beyond the scope of this thesis. One fact is clear, however. The multinationals have perceived that there is a political risk associated with having such individuals in key, politically sensitive positions within the firm. The sources and nature of host-country manpower loyalty are complex. One facet of such loyalty, the "social constraints" felt by indigenous managers, has already been discussed. Aside from "pure" political and/or cultural allegiance by host-country personnel, there is the separate issue of their class origin. If the LDC has a functioning indigenous bourgeousie, the "loyalty" of the native manager could have its roots in a desire to rise within the ranks of that ruling class within his own country. His position within the firm could be used to that end and embroil the firm in political struggles that they would prefer to avoid. Thus the "loyalty" of the host-country manager need not arise out of pure altruism but could arise out of his own power quest within his own society. In either case, the multinational firm would have to contend with conflicts of interest between Levels II and III managers and the corporate objective function.

Not surprisingly, the governments of LDC host countries seem to feel strongly that the staffing of key control

positions within foreign firms facilitates greater LDC control over such firms, and increases the probability that such firms will at best not work against the national interest.[30] Thus the multinationals are constantly reminded in their negotiations with LDC governments of the central issues at stake.

It is thus reasonable to conclude that the firms have felt that political risk in foreign operations (at least the immediate risk) is reduced when a source-country "company man" holds key positions in foreign subsidiaries and especially at regional coordinating levels. Thus the scarcity and control variables have been important elements in manpower policy and planning on this level.

Recent Trends

The firm manpower policies discussed in the foregoing section and their rationalization in terms of avoiding loyalty conflict between subsidiary and head office appear to have been uniformly adopted by most multinationals as their international expansion through direct investment and joint ventures accelerated.

In recent years, manpower policies have changed to the extent that larger numbers of host-country nationals were

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[30] The LDC governmental attitudes on this are strongly evidenced in "Panel on Foreign Investment in Developing Countries" (Report from Tokyo meeting, 1971) (Department of Economic and Social Affairs, United Nations, New York, 1972); and in Vernon, How Latin America Views the U.S. Investor, pp. 3-82.

hired by many firms. As pointed out in an earlier section, however, such does not reflect a change of firm strategy in control but only a change in tactics. These trends are related to the "second best" and "maturity" factors discussed earlier. The high-level manpower policies of the firm have evolved dialectically in accordance with the nature of the macrocosm within which they operated in various time frames. The objective of the firm has always been to maintain control, however: (A) subject to the constraints placed upon them by host-countries; and (B) within the context of their own growth processes as international entities.

Thus, with respect to element (A), governmental constraint elements, the firm has been forced to employ greater numbers of host-country managers by stricter host-government foreign investment regulations. Therefore what was once an optimal manpower policy in a more "frictionless" macrocosm gives way to "second best" tactics under the "frictions" imposed by host-country governments.

In the case of element (B), tactical choice has been influenced through time by the very process of the firm's maturing as a multinational entity (the aforementioned learning process). In this case, the firms find means of minimizing the costs of control within the structure of a more mature international market stature; and reorganizes its planning and control mechanisms on a more sophisticated and appropriate level for this later stage of firm and market development.

The above changes and reactions by the multinational firm are reflected in two contemporary features of manpower policy. These two features (which reflect the firm coming to terms with both of the aforementioned elements): regionalization of control mechanisms and the use of "third country" nationals in foreign management positions were briefly mentioned earlier. They are more extensively explored below. Also, the use of so-called "de-nationalized" manpower, and its relative supply, is also discussed along with the evidence on the continued use of source-country nationals in the very highest keyposts abroad.

Regionalization

The phenomenon of regionalization, as mentioned earlier in this chapter, represents a more recent trend in international control by the multinational firm. In part it is a reaction to political pressures at the individual country subsidiary level and in part is symptomatic of the maturity process in control mentioned earlier. In either case, such development leads to the establishment of a regional headquarters for each major segment of the global market where control is concentrated in the hands of "key" source-country nationals at such points. These "reticulators" and "advisors" at the regional headquarter level serve as a new critical link between the source-country headquarter and the subsidiary. Such a restructuring leaves the firm free to staff the downgraded functional posts at the individual country subsidiary level with greater numbers of host-country nationals who

report to and take direct orders from the regional office. This allows the firm to come to terms with the dual problem of host-country restrictions on high-level management (reducing the American or source-country profile) and the rising costs of expatriate personnel maintained at the individual subsidiary level. At the same time, continued control is assured through the new regional authority patterns.

Common authority patterns in such management systems are well outlined in C. R. Williams' survey analysis of the trend. He comments:

> "It would seem normal for the functions of a European regional management to vary with the characteristics of the particular company, its operations, and its management. However, there are some common threads. For instance, most regional managements with line authority for European profit performance have review authority over capital budgets and operating budgets, subject to the approval and guidelines of the worldwide top management; direct line authority over the appraisal, promotion, and development of managers in the operating subsidiaries; coordinating authority over the marketing function, including product planning and other factors of Europe-wide importance; and line authority over production rationalization and specialization programs.
>
> "In addition, regional offices can play an important role in developing recommendations for long-term corporate strategy, diversification, and financing. It is true that in a worldwide multinational company, the final decisions on the allocation of capital spending dollars, research planning, corporate financing policies, and diversification must reside in the senior management of the worldwide company. However, the implementation of these policies on a Europe-wide basis and the basic operating responsibility for fulfilling the budgetary, production, management development, and marketing objectives can be effectively delegated to regional management. Moreover, the regional management can serve as the principal source of recommendations, reflecting the European regional

point of view concerning worldwide corporate strategy, investment programs, and financing policies."[31]

Such firms as IBM, ITT, Dow Chemical, and Standard Oil of New Jersey have been in the forefront of establishing such new control systems since the early 1960's.[32]

As might be suspected, such developments in regional management systems have progressed further and at a faster rate in the older, developed markets of Europe.

Table V-I portrays a sample of U.S. companies with regional management organizations in Europe. As noted there, London, Brussels, and Geneva are leading European headquarter cities.

In all cases, as discussed previously, control at the regional headquarter level is concentrated in the hands of an elite cadre of source-country personnel with, in many cases, line authority over subsidiary managers and a degree of participation in high-level market strategy planning. Regional personnel regularly move among the subsidiaries, transmitting headquarters policy decisions and reviewing operating procedures. Within such management organization schemes, firm-governmental relationships are directed by the regional offices.[33]

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[31] C. R. Williams, p. 89. Further analysis on the nature of new global management systems are found in G. H. Clee and A. d'Supio, "Creating a World Enterprise," Harvard Business Review, Feb. 1969; and in Business Week (special issue on multinational firms), December 19, 1970.

[32] See Williams, p. 87.

[33] For additional detail see Williams, Business Week, Clee and d'Supio. Also see R. Murray, "The Internalization of Capital and the Nation-State" in J. Dunning, The Multinational Enterprise (Praeger, New York, 1971), pp. 265-288.

TABLE V-I

EXAMPLES OF U.S. MULTINATIONALS THAT HAVE REGIONAL MANAGEMENT ORGANIZATIONS IN EUROPE

Company	Industry	Location
Beckman Instruments	Electronics	Geneva
Caterpillar Tractor	Construction equipment	Geneva
Chrysler	Automobiles	Geneva
Colgate-Palmolive	Cleaning products	London
Corn Products	Processed foods	Brussels
Cummins Engine	Diesel engines	London
Dow Chemical	Chemicals	Zurich
DuPont	Chemicals	Geneva
Esso Petroleum	Petroleum	London
Esso Chemical S.A.	Chemicals	Brussels
Hewlett-Packard	Electronics	Geneva
IBM	Computers	Paris
ITT	Electronics	Brussels
Johnson's Wax	Cleaning products	London
Eli Lilly	Drugs	London
Mobil Oil	Petroleum	London
Monsanto	Chemicals	Brussels
Pfizer	Drugs	Brussels
Procter & Gamble	Cleaning products	Brussels
U.S. Rubber	Rubber fabricating	Geneva

Source: Williams, p. 90.

There is some evidence that regional authority patterns have been developing (but on a less extensive scale) in the LDC market areas. Shearer notes an early but limited trend in this phenomenon in his important survey study of Brazil and Mexico. Five of the twenty-three organizations in Shearer's study utilized regional organizations as intermediaries between the parent corporation and the subsidiaries. In three of these five, the regional managers (all Americans) lived abroad and in the other two (also American staffed) the managers (with staff support) spent about half their time in their geographic areas.[34] In all cases, Shearer notes, these companies (the larger, more mature international firms) succeed in keeping fewer Americans abroad through the use of such regional organizations (in the form, usually, of managerial and technical "centers"). These regional managers were "reticulators" who regularly traveled among the subsidiaries to enforce headquarters policy.[35]

Trends toward regionalization in LDC markets are also discussed by Kapoor. As cited earlier, he has indicated, on the basis of his survey research, that Singapore is rapidly becoming an Asian regional headquarter city for American multinationals. Kapoor found that this process led to a marginal increase in Asians hired for management posts at the subsidiary level, but the powers of the posts were downgraded in the process and high-level strategic and decision-making control

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[34]See Shearer, pp. 26-27.

[35]Ibid., p. 131.

centralized in the hands of the American reticulator at the regional office.

Again the trends toward regionalization are less advanced in the markets of the LDC's than in the developed countries of Europe.[36] This development is most importantly due to the "maturity" element mentioned earlier, but is also due to the political environments in Western Europe which are generally more pro-capitalist in nature. This latter element is also related to the following discussion of two other recent developments in high-level manpower policy, the expanded use of "third country" and "denationalized" host-country nationals.

Third-Country Nationals and Denationalized Manpower

One way in which U.S. firms have reduced the "American presence" abroad has been through the employment of "third-country" nationals in management positions at the subsidiary level. Such practices allow the firm to reduce the American "profile" and at the same time maintain a greater degree of control over subsidiary functioning by avoiding the "conflict of loyalty" problem inherent in a policy of extensive use of host-country nationals.

Though most writers on the subject agree that the aforementioned trend is accelerating, especially in Europe, there is little "hard" data on the phenomenon. The lack of such data is not surprising, since the firms are loathe to discuss what could be interpreted as a patently "political" manpower

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[36] For evidence see Williams, and Clee and d'Supio.

policy. Some evidence is available, however. Kapoor in particular noted to the author that there was a marked increase in the use of "Cuban Exiles" (many with previous managerial experience) in other Latin American countries. McMillian and Gonzalez have noted the rather widespread use of Europeans (primarily English, German, French) in managerial posts at the subsidiary level in LDC's (primarily in Latin America and Asia).[37] Such policy certainly creates the impression of an "international management" team and reduces the appearance of "American" imperialism.[38] Thus the staffing of key management posts with German, English or French nationals could tend to be regarded as less "threatening". American presence is even further reduced in third-country nationals from the same geographic area (i.e. non-Europeans) can be employed. Much more research is needed in this particular development, together with another Shearer-type comparative costs analysis of third-country v. source-country personnel.[39]

Related to the above trend is the issue of "de-nationalized" host-country manpower. In this instance, the multinational

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[37]See McMillian and Gonzalez, pp. 99-100.

[38]Some scattered evidence is found in Skinner, American Industry in Developing Economies, as well as in Kidron, Foreign Investments in India.

[39]Some comparative data are found in the various issues of Business International cited earlier. On the basis of that sketchy evidence the costs of third-country manpower appear to be somewhat lower. This suggests that the "cost of control" is reduced through the use of third-country nationals.

firms, have, to a limited extent, been able to staff certain managerial posts at the subsidiary level (all the way up to the general manager in some cases in Western Europe with host-country nationals who have, over a number of years, proven themselves to be thoroughly Westernized (to use Skinner's term) and re-educated into "company men". In almost all cases, based on available evidence, this practice is evolving very slowly, due to the great "gestation" period for such corporate "re-birth".[40]

As mentioned previously, the supply of such "specialized" manpower has been greatest in the developed nations of Western Europe. McMillian and Gonzalez suggest this when they say:

> "In Europe the industrial mentality is prevalent. From youth to maturity, the average child is made keenly aware of the significance of time, of the importance of saving, and of the tragedy of waste; he develops an understanding of mechanics, and an appreciation of the importance of coordinated teamwork. These qualities are becoming increasingly prevalent in the developing nations, but they are still in short supply. The greater reliance by U.S. firms on European nationals than on South American nationals in their

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[40] For an interesting Marxist view on this topic and for the source of the term "de-nationalized" manpower) see P. Sweezy, "Notes on the Multinational Corporation," p. 6.

> operations on these two continents is not the result of an arbitrary determination to discriminate. In their view, efficient and economic operations require it."[41]

The industrial mentality could appropriately be interpreted as "Western Capitalist" mentality, free from the complication of Third World nationalism. On the same subject, McMillian and Gonzalez continue:

> There are additional uncertainties associated with the foreign operation. These are particularly evident to the parent firm with limited experience abroad. These uncertainties are greater in the less-developed, politically and economically unstable nations. The American firm can, with some confidence and composure, entrust the management of its operations in the developed nations to foreign nationals. Their cultures are common, commerce and industrialization are comparable, and communication with them is clearer. In the less-developed nations the uncertainties that exist are partially ameliorated by having the firm's own nationals in control."[42]

In the LDC's, where political and social constraints on the host-country national may be much greater (due to the rising tide of nationalism and generally non-Western social views) the supply of potential "de-nationalization" candidates may also be correspondingly shorter.

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[41] McMillian and Gonzalez, p. 99.

[42] Ibid., p. 99. This view is in keeping with Hymer's view of the need for a "common-cultural heritage" among top multinational management. See Hymer, "Multinational Corporations and the Law of Uneven Development."

In the final analysis, of course, the question of whether or not LDC's managers are less "denationalizable" than DC managers is an empirical question that can only be conclusively resolved as the penetration of foreign firms into LDC's increases and data on such development becomes available. The hypothesis is, however, certainly eminently worthy of such testing within an historical framework.

In conclusion, the trends discussed above have in fact reduced the number of source-country personnel in management positions at the subsidiary level. As pointed out in this discussion, however, the newer policies reflect changes in tactics, not strategy. Additionally, as discussed previously, there appears to be a definite upper limit to the extent to which many American multinationals are willing to "nationalize" their top posts at the subsidiary level. Both in Europe (the case of Ford U.K.) and in the LDC's (to a much greater extent) the multinational firms appear to have insisted upon keeping at least one or two "key" posts at that level reserved for source-country nationals. The number of such posts "reserved" for source-country nationals is much higher at the LDC level, presumably due to the more volatile political climate there, a lack of a regional control mechanism, and a "shortage" of denationalized manpower.

Concluding Comments

The evidence discussed does, at the very least, suggest the need for detailed research into the hypotheses advanced in this section on the connection between firm-governmental

relationshipsand high-level manpower policies. As an aid in such empirical research and as a step in operationalizing the general market, a research format is specified in the final chapter of this thesis.

Market Conflict - The Transfer of Firm-Specific Knowledge and the Global Market Hegemony of the Firm

One particular feature to come out of Shearer's study was that (at that time) in all seventeen "combination" companies all five "key" executives -- especially the general manager, and the managers of finance, engineering, and production, were almost always Americans. In particular, Shearer noted that: "Most companies in both countries have their heaviest concentration of Americans in the highest engineering and technical positions."[43] It is here hypothesized that this pattern has not been mere coincidence, but rather has been (historically) consistent with the expressed desire of the multinational firm to protect its "fund" of proprietary, technical knowledge and know-how.[44] A digression on technological transfer is necessary before proceeding to its link to manpower policy.

The desire of the firm to prevent the "leakage" of its proprietary knowledge, in order to protect its market position (insure security) and extract the maximum scarcity value from such advantages was introduced in Chapter III. Not only is

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[43]Shearer, p. 66.

[44]As will become evident in later sections, such policy was altered in more recent periods to one associated with more sophisticated "technological control" systems.

this in the interest of any given firm, but it is also in the interest of all firms that constitute the "power bloc" within an oligopolistic industry; i.e., the "regime" of multinational firms does not want new competing centers of innovation to spring up and threaten their potential control of the hinterland. There may be "accepted" leakages or a give-and-take exchange of technical knowledge between the large and powerful firms that dominate international oligopoly markets. But, as Svennilson notes (cited in Chapter III), while leakage of such knowledge into a common fund that exists between the dominant firms may take place and be accepted (as long as the individual firm can control the leakage of its own knowledge in accordance with the return flow from other firms), this does not mean that such knowledge becomes internationally available.[45]

Additionally, the individual firm may stand go gain nothing in return for knowledge "leaked" to certain LDC host-country firms or governments, due to their lack of immediate, short-run, capacity to produce knowledge that would possibly be of value to the source-country firm, i.e., it can expect no "return leakage" from such recipients in the short run. Also, a possible loss of a part of its market may occur if host-country firms (existing or state-owned) are able to enter and compete in the same product lines vis-a-vis receipt of such knowledge. In addition, such a transfer (outside the

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[45]Svennilson notes that such exchanges "may be discriminatory in favor of national units." See Svennilson, p. 412.

"ground rules" established among the dominant firms) could also disturb the tenuous "leakage equilibrium" that exists between the rival oligopolies.

As Svennilson notes, the know-how accumulated in a firm is mainly invested in persons employed by the firm. The primary postulate here, then, is that the firm has considered it less of a risk to its firm-specific knowledge to have source-country personnel or "company men" in positions of trust where such knowledge is vested (or, more generally, manning posts within the conduit of technological transmission between subsidiary and head office). Again, employment of a host-country national with host-country loyalties (or, alternatively, the employment of host-country nationals that are part of a vigorous indigenous entrepreneural class in incipient capitalist or mixed societies with a basic desire to build their own power in both the market and political sense) in such positions could place the firm's long-run market security in jeopardy.

Several points need to be made here. First, it could be argued that host countries do not have a stock of high-level manpower vested with the "know-how" (which can only be acquired in actual experience in operation) required to supervise complex technical operations. Thus, the firm must import such know-how. This is perhaps true in the short run. On closer examination, this reasoning provestto be spurious. The firm does not, as imagined, have a reserve pool of such manpower upon which to draw. To fill such positions abroad with imported manpower, it must promote existing personnel to such foreign posts and hire others to replace them at home (or undertake the recruitment and training of source-country

engineers, and other manpower, specifically for such jobs). The question arises, then, if the firm must train individuals for such jobs, why not train the relatively less-expensive products of host-country engineering and management schools (whose output is usually significant)? The record of such host-country recruitment at such high levels by multinational firms is poor, as Shearer points out.[46] This is analyzed in the first section of this chapter. In the present context, the issue is the <u>risk</u> involved in placing host-country nationals in such positions, not their alleged "<u>unavailability</u>".

Doubtless, some exceptions exist in each case; however, the point is that the tendencies noted above have been perceived by the firm to exist on a general level. This perception is based upon the firm's past experience with technological leakage, and at a more general level, upon their "learning experience" in rivalistic competition through time. Empirical evidence will be offered in support of this point in the next section. It seems obvious, however, that if the firm manned all critical technological posts with host-country managers and technicians and fully endowed them with the firm's specific knowledge and know-how (which, as Svennilson points out, can only be done by admitting such individuals into the core of operations and decision-making and training them in the same) that such technical knowledge and know-how would be diffused throughout the host-country industrial sector at a much more rapid rate and result in the loss

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[46]See Shearer, pp. 94-100.

[illegible]ences, and other manpower, specifically for each level, for operation areas. Then, if the firm must train individuals for such jobs, why not train the relatively less expensive products of post-secondary engineering and management schools (whose output is usually classified)? The period of work post-secondary recruitment or work-job levels by multinationals firms is poor, as Wheeler points out.[illegible] This is contained in the first section of this chapter. In the present context, the issue is the <u>risk</u> involved in placing [illegible] role in such positions, not their effect [illegible].

Doubtless, some exceptions exist in each [illegible] for roles in this the technologies model where were [illegible] served by the firm to [illegible] a second level. This [illegible] region is based upon the firm's past experience with [illegible] local labour, and at a more remote level, upon the [illegible] "learning experiences" in [illegible] comparable [illegible] related evidence will be offered in support of this [illegible] in the next section. It seems obvious, however, that [illegible] firm manned all original technological posts with [illegible] country managers and technicians and fully [illegible] the firm's specific knowledge and know-how [illegible] [illegible] points out, can only be done by [illegible] while this was the case of operations and [illegible] training time in the [illegible] knowhow would be diffused throughout the [illegible] local centre at a much [illegible]

[illegible] Interview, op. cit.

of at least part of the scarcity value of such knowledge and an erosion of the firm's market position. The firm's primary bargaining power with the host-country (firms and governments) rest upon their possession of a technology which the host-country does not have. The host country (firm and/or government) is "dependent" upon the firm in this sense and this becomes a strong bargaining focus for the firm. Again, the firm, in fully endowing host-country managerial cadres with such knowledge, on a wide-ranging scale, will, through time, find their bargaining position weakened as the host-country becomes less and less dependent upon the firm for knowledge specific to the firm and its specific industry. Indeed, on a broader level, such a move could result in the development of indigenous innovative capacity within the LDC's and threaten the technical hegemony of all multinational firms at the Third World level.

The hypothesis on the relationship between high-level manpower policy and the desire of the firm to protect its "fund" of proprietary, technical knowledge and know-how is the more complex of the two discussed in this thesis. In general oligopoly theory, as discussed earlier, there is a clear consensus among economists that oligopoly firms seek (by various means) to prevent or severely limit the "leakage" of their specific knowledge to actual or potential rivals and "entrants". It is hypothesized in this thesis that by controlling the transmission of such knowledge through the use of source-country personnel in the highest engineering and technical position at Level III, the oligopolistic

multinational firm protects its market position from erosion by existing and new rival firms (both government-owned and privately-owned). Thus this hypothesis represents a specific "instance" of this general phenomenon.

Unfortunately, hard empirical evidence on the technological strategies of the multinational firm through time is in very short supply.[47] This is partly due to the sensitive nature of the issue at stake.[48] The reader is reminded that the possibility of technological transfer is the key selling point the firm uses to gain admission to host-country markets. At the same time, however, the firm must control the flow to maintain the profitability of its investment and preserve its bargaining strength in later time periods. The firms are thus reluctant to reveal to anyone what their strategy is. Nevertheless, some evidence does exist, and is recounted below. The emphasis is again historical in nature.

The propensity in the earlier periods for the American multinational to place the highest level engineering and

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[47]The evidence related in this section, based upon several case studies in LDC's, is necessary qualitative rather than hard quantitative data suitable for plugging into an econometric model. The results, however, are strong enough to support the need for intensive efforts to obtain hard data to follow through with the testing of the previously specified hypothesis. A framework for such research is offered later in this work.

[48]The lack of evidence is also partly due to the failure of other writers on the multinational firm to perceive the relationship between manpower policy and technological strategy. No extensive case studies have, in the experience of this writer, been done on this topic, and no systematic data collection has been undertaken with a view to testing any such hypothesis (e.g. by the Census, Dept. of Commerce, O.B.E., etc.).

technical positions in the hands of source-country nationals is found in the literature as early as the Shearer study.[49] Shearer found that in the cases of host-country nationals actually trained by the firms surveyed, there was a very low retention rate. In this connection Shearer notes:

> "The problem of promosing nationals 'running off' with the companies' investment in them is one of the most important in overseas operations. Almost without exception firms reported losses soon after the completion of training programs of at least 25% of the participants. Officers of the large subsidiary which conducts the three-year financial training program expect losses of between 25% and 50%.
>
> "The prestige of training in the United States especially increases the value of a national to other bidders for his services. When considering positions with American subsidiaries, many candidates inquire about the chances of training in the United States which, according to many executives, they intend to use as a catapult to better careers with national firms."[50]

Shearer also has noted the general concern over the retention rate among all firms surveyed. He partly attributes the reluctance of the firms to train more nationals and place them in responsible positions to the fear of having trained individuals "run off" with the firm's investment in them.

This evidence at least is consistent with the hypothesis that host-country managers "use" the training obtained in multinational firms to further their career elsewhere in a national firm, and that the knowledge obtained is indeed "useful" to national firms. This may or may not increase

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[49]As noted before, such control tactics change through time. This point is discussed in later sections of this chapter.

[50]Ibid., p. 110.

competitiveness in host-country product markets, depending upon patterns of industrial development. Where there is comparable host-country enterprise -- generally in the public sector -- it would weaken the monopoly position of the foreign firm and introduce some kind of a duopoly with respective governments standing on the sidelines.[51]

Harder evidence on the relationship between manpower policy and control of technology is found in Kidron's work on early British and American direct investment in India. The general tendency of firms to devise systems to protect knowledge was evident, extending from "secrecy" contracts, enjoining sub-licensing and collaboration with other domestic firms; and stipulations requiring the return of all drawings and specifications at the termination of the agreement. Additionally, the Indian partner was often excluded from any fundamental investigation and development efforts associated with the venture.[52]

Kidron notes, with specific reference to manpower tactics:

> "Although not always distinguishable from fundamental research and development, the application of results or operational know-how is less a natural monopoly. In a sense it can be detached and used independently, either because the basic knowledge is almost entirely embodied in fixed equipment as in some chemical industries, or because it is easily assimilated without expensive apparatus

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[51]To say that the firm simply "does not want to lose its investment" is not sufficient. Losing the resources expended in training is only part of the loss. The larger loss would be the firm's market position and bargaining power. The question as to which is most important is, of course, an empirical one.

[52]Kidron, p. 282.

> as in advertising, a booming industry peopled almost entirely by ex-employees of foreign agencies. Partly in order to prevent this, partly because technical and managerial skills are real constraints to their expansion, foreign firms have proved reluctant to impart much of their know-how and skills to local personnel."[53]

Kidron cites many cases where critical elements of knowledge and know-how were withheld (through withholding training) in the interest of protecting the firm's bargaining assets and world market positions. The industries included were in raw film, soda ash, aluminum and drugs. Kidron continues:

> "It is possible to go on quoting cases, backing them up with official statements, to the effect that the state oil industry was forced to start from scratch because the foreign companies had failed to train one Indian technologist throughout the sixty-odd years of their operations in the country; that an agreement between Hindustan Motors and the Studebaker-Packard Corporation had had to be abrogated because the Government 'was not satisfied with the technical assistance received'; that 'behind the foreign investor or would-be investor...there is a hesitation to entrust the Indian concerns with the know-how for a period of years...and very often some of these negotiations with foreign capital break off and end in nothing'; that 'in spite of "sweet words" we have not been able to get from the West either the know-how or the knowledge (for military airplane manufacture)'. The point has been made, however; technologically-progressive firms are, in the words of one managing director, 'wary of selling their birthright.'"

Kidron concludes by emphasizing that technical staffing policy is a key method of controlling dissemination of technology. He notes that most foreign firms have insisted on staffing certain key major technical posts with source-country personnel.

In conclusion, Kidron states:

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[53]Kidron, p. 288.

> "It is frequently argued in support of private capital imports that they graft much needed managerial and technical skills onto Indian industry at little or no extra cost. The evidence, however, points the other way. Research and development are invariably conducted abroad; the fruits of development are imparted, if at all, at very high cost in royalties, fees, and other payments, and then not always in their entirety; through their production and staffing policies the major investing firms attempt to systematize a continuing control of know-how; and much else in the same vein. Since the Indian partner is normally assigned -- and readily accepts -- a narrowly specialized range of functions, the diffusion of skills that does take place is largely fortuitous. Indeed, since the typical modern investing firm owes its dominance and income largely to its technological monopoly, a different outcome would be surprising."[54]

At a more general level, the choice of personnel has figured importantly in the control over transfer of technology in two case studies relating to the experience of American firms in joint venture arrangements with Japan. The first, dealing with transfer of U.S. aerospace technology to Japan (Hall and Johnson) establishes, once and for all, on the basis of the participating firm's experience there, that the transfer of firm-specific knowledge (and especially know-how) requires a process of education and training that can only be conducted through personal interaction (i.e., through methods of on-the-job training for which written records, blueprints, and other documents cannot be considered substitutes.[55] In another study of general transfer in such joint

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[54]Kidron, pp. 312-313.

[55]See G. R. Hall and R. E. Johnson, "Transfers of U.S. Aerospace Technology to Japan," in R. Vernon, ed., The Technology Factor in International Trade (Columbia University Press, New York, 1970), pp. 305-357.

venture arrangements between U.S. and Japanese firms (Baker and Kondo) the importance of technical know-how as a bargaining asset (in the face of tough Japanese laws regulating firm investment) and the effective use of such an asset through having head-office (Level I) technicians man key posts in the transfer mechanism, is revealed.[56]

In this connection, Baker and Kondo state:

> "If disagreements should arise between the foreign parent company and the Japanese parent company with regard to the management of the joint venture, the foreign parent company reminds the Japanese partner that it is holding the patents, or the brand name, or access to raw materials vital to the operations of the joint venture."[57]

They continue (in the same context) by stating:

> "Obviously, the extent of the success of this method depends upon how valuable the foreign technology (or the brand name or the raw materials) is to the Japanese partner. When the proper functioning of the joint venture depends upon the use of assets the foreign partner possesses, this method can be quite effective. Thus, de facto control exists without formal agreement by virtue of the ability of the foreign partner to provide what the Japanese partner is greatly in need of."[58]

On the maintenance of such control through the use of American technical advisors, they state (in the example of Hewlett-Packard):

> "Hewlett-Packard is offered as a case in point in which a foreign company has furnished marketing skills and technological know-how in

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[56]See J. C. Baker and T. Kondo, "Joint Ventures in Japan and How to Obtain Managerial Control," M.S.U. Business Studies (Winter, 1971), pp. 47-54.

[57]Ibid., p. 50.

[58]Ibid., p. 51.

> a joint venture with a Japanese company. Hewlett-Packard, which manufactures electronic machinery, precision measurement and medical instruments (and other scientific devices), and which is actively engaged in research and development, has a joint venture with Yokogawa Denki, a medium-sized electric machinery producer. Yokogawa Denki holds 51 percent of the company's equity and Hewlett-Packard holds the remaining 49 percent. However, each has an equal number of seats on the board of directors. The directors from Hewlett-Packard do not reside in Japan, nor do they actively participate in the management of the joint venture. The only Americans in the joint venture are four technical co-advisors and one marketing advisor. Yet Hewlett-Packard markets all products which are produced by the joint venture company and sold outside of Japan. It also makes plans for development of new products. This is accomplished by meetings (twice a year) of technicians and managing officers who are assembled for the purpose of coordination. Hewlett-Packard has been able to effectively protect its markets as well as the markets of wholly-owned subsidiaries in Europe."[59]

Thus, the implications are that the control of technological flow through the use of Level I technical personnel in key positions augments the firm's bargaining strength in general management and marketing decisions. Again, the protection of knowledge through the judicious use of "key" Level I personnel in technical positions seems apparent. Only a careful expanded case study could substantiate this hypothesis, however (or prove the case otherwise).[60]

In the author's own interview with the chief of joint venture operations abroad (primarily in Latin America and

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[59]Ibid., p. 51.

[60]There is some indication that Japanese multinationals are using a similar policy to maintain control of technology transfer in the new ventures in Latin America (e.g. the use of technical advisors and reticulators in "key" positions).

Japan) for a leading American electrical equipment firm (specializing in power generating systems) the above-noted points were again confirmed. In particular, the critical importance of having "company men" in "key" technical positions to control the transfer of knowledge, and maintain the integrity of the parent firm's competitive advantages arising from such knowledge was made clear. The parties interviewed explained that this policy was consistently followed in both joint venture dealings and in manpower staffing in subsidiaries. One case in point involved the joint manufacture and distribution of a "package" power generating system with a large Japanese electrical equipment manufacturer (for distribution in the Soviet Union). In this case, the most careful precautions were taken to insure that Japanese partners remain basically dependent on company technicians for "key" engineering aspects of the system technology; both in the context of visits by Japanese technicians to the head office level and in the field at the Level III operating level. One executive noted that the Japanese technicians knew the "score" and were constantly under surveillance by company representatives lest they "pirate" more than was intended.

Thus, in the case of both direct investment and joint ventures, the training of host-country personnel must be carefully handled so as to balance the firm's desire for "entry" into the market (based on the promise of some technology transfer) with the firm's desire to protect its bargaining assets by controlling technology flows.

There also appears to be some evidence that host-countries have become increasingly aware of the failure of firms to deliver technology at the expected rate, and the linkage of such failure to manpower hiring and training. General Latin American views are summarized by Wionczek when he states:

> ...."the insistence on the part of international corporations that ownership and control of the foreign subsidiary must rest in the hands of their own nationals represents an additional source of conflict. The strong feelings in the host countries on subjects of this sort again have their origin in a mixture of economic and socio-political considerations. The importation of foreign management and technical personnel and the rejection of local capital participation confirm to Latin American minds that foreign-owned companies do not want to become an integral part of the local societies. These personnel policies also are said to represent a major obstacle to the spreading of managerial know-how in the capital-receiving country and to the growth of the domestic entrepreneurial class."[61]

On the secrecy surrounding the "key" know-how of foreign films in Brazil and their reluctance to impart such through the training of local technicians to man higher technical posts, Heliv Jaguaribe (founder of the Brazilian Institute of Development and Visiting Professor at Harvard) has noted:

> "Techniques which genuinely constitute technical innovation are never imparted by foreign investors to the recipient countries. If the technique is of the kind that can be actually transmitted, it tends to be protected by the utmost secrecy; Brazil's recent experience with industrialization confirms that foreign-owned firms make a secret of techniques whenever

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[61]See Wionczek, p. 21.

possible in order to prolong technical dependence. On the other hand, if the process or knowledge is dependent on a program of ongoing research, the recipient country never acquires the control of the technique simply because it is constantly being used and improved by the foreign-owned firm."[62]

Likewise, in a recent United Nations Panel on Foreign Investment in Developing Countries, one of the primary concerns of the governmental participants from the LDC's was the less than satisfying transfer process in the past and the need for firms to train or otherwise impart to host-country personnel the desired technology that was originally their "ticket of admission".[63]

In a very general form, some additional evidence exists to support the view that, in the interest of maintaining dependence, the firms have deliberately kept vital technical information from host-countries through failure to train host-country personnel and by keeping source-country personnel in a few "key" technical positions abroad. The slow transfer process involving petroleum production technology in the Middle East is a case in point. Only as much of such technology became "general" in nature did host-country personnel acquire it. Its acquisition then directly led to the powerful present challenge to the petroleum companies at the producing level, with the formation of an independent O.P.E.C.[64]

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[62]See H. Jaguaribe, "A Brazilian View" in Vernon, ed., How Latin America Views the U.S. Investor, p. 80.

[63]See U.N.P.E. 72. II. A. 9.

[64]For details see U.R.P.E., The Energy Crisis - An Analysis (New York, 1974, U.R.P.E.). Penrose (The Large International Firm in Developing Countries) suggests a similar point.

In the case of petroleum production, there appears to have been a new tactic emerge to deter the success of new entrants; control over worldwide marketing outlets. The extent to which such a new policy arises and the degree to which it is employed as a substitute control mechanism is discussed below in the context of recent development in technological control.

Recent Trends: The Dialectics of Technological Control

The same trends that characterized the shifting of the focus of control at the subsidiary level as the firm matures -- discussed in the previous section on political conflict -- also, to a certain extent, contribute to the shifting focus of control in the case of technological transfer. In most of the case studies cited in the former section, in later years, the number of source-country technical personnel remaining at the subsidiary level was reduced and power vested in a very small group of "key" technical managers or reticulators. Thus the patterns of control were "tightened" as the firm matured in its international operations.[65] The remaining technical personnel were in constant communication with the regional or head office and directly controlled the quantity and quality of information employed and imparted. Greater numbers of host-country technicians could then be brought in to man downgraded posts.

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[65] See especially the study by Kidron, Simmonds, and the discussion of Ford (U.K.) operations in Chapter IV.

In addition, the trend in regionalization has also altered control patterns. As noted in the previously cited study on the trend by Williams, regionalization has in many cases included a shifting of the focus of control for technological transmission and strategy specific to certain areas to the newly-established regional offices of the firm involved.[66]

One interesting unified hypothesis that ties together the foregoing trends and is consistent with the hypothesis of this thesis is found in the theory of the "product cycle" (or "product life cycle") as such pertains to the technological issues specifically raised here, and the related concept of the industry life cycle.[67]

In its most direct form, this theory states that U.S.-controlled oligopolistic multinational enterprises initially generate new products and processes for production and distribution in home markets. As these markets become saturated and foreign markets expand, these products are exported. Finally, in response to challenges from foreign producers and as a result of a general global market share perception on the part of domestic and foreign rivals, direct investment is undertaken to exploit what remains of each firm's technological advantages and know-how specific to any given product. Each firm retains their oligopolistic advantage for a period of time, but tend to find it weakened as the technology

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[66]See Williams, pp. 88-89.

[67]For a complete exposition of the product cycle model see Vernon, Sovereignty at Bay, pp. 65-112.

becomes more widely diffused. In this final stage, Vernon states that:

> "The period in which an innovator can hope to exploit his lead in comparative peace has shortened. Evidently, imitators are quicker to master the technology and introduce the related changes inside their organizations. When multiple sources of a technology are in existence, of course, the likelihood that a multinational enterprise can dominate the market on the basis of its technological lead declines."

In the context of Vernon's argument, know-how represents power. The limits of multinational corporate strength are the limits imposed by the diffusion of once proprietary skills. It is but a short step then from this thesis to the hypothesis that the reluctance to accept host-country management into the ranks of the high-level technological cadres is a measure to slow the diffusion of know-how.[68]

In recent years new tactics appear to have emerged as a means of maintaining the power lost with the diffusion of know-how. One of these is more reliance on technological "lead time" coupled with the continuous and more rapid introduction of new products. By continuously introducing new products and processes the firm can widen the gap between potential foreign competition and its own monopolistic advantages. This can relieve the burden of technological control at the subsidiary level and shift control to innovative centers at the regional and head-office level. The firm becomes less

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[68]The same can be said of the reluctance of the firm to accept local ownership abroad (i.e. the preference for debt-capital). Vernon cites numerous historical empirical studies in support of his version of the hypothesis. For details see R. Vernon, Sovereignty at Bay, pp. 60-112.

concerned with diffusion of any particular technology since it has a "backlog" of new processes and products to again pre-empt the market.[69]

Another tactic that has emerged that could possibly offset the loss of power through diffusion of technology lies in the multinational firm's continued control (based on access; and specialized management techniques not easily transferred or diffused) of world marketing outlets on a coordinated basis. Evidence that petroleum firms have fallen back in these tactics in the face of losses through the diffusion of technology are found in both Vernon's work and the U.R.P.E. study.[70]

The extent to which both of these trends have directly affected technological manpower policy at Level III is unclear. It seems reasonable to maintain that under the circumstances of such tactics, more host-country technicians could be hired as more reliance is placed on the new tactics and less on the old of controlling dissemination of know-how and technology at the point of production.[71]

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[69] For cursory evidence on this trend see Vernon, pp. 90-112.

[70] See Vernon, Sovereignty at Bay, pp. 53-59; 60-112.

[71] Recent discussions with Thomas Hurtienne (an economist with the Institute for Latin America in Berlin) upon his recent return from a tour of Brazil, Chile and Argentina (wherein he interviewed many government and corporate executives on the topic of foreign investment) revealed some evidence on the new Japanese penetration of the Latin American markets. (Dr. Hurtienne will soon publish a book analyzing his findings in Latin America.) Generally, the Japanese appear to control technology flows through the use of reticulators and advisors from the head office; imparting knowledge

In the final analysis, the question is an empirical one for which no adequate data for testing exists. The final chapter offers a suggested format of the gathering and interpretation of such data.

Concluding Comments

Several summary points and additional issues relevant in the above context are listed below. Not all will be given extensive treatment in this thesis, but are nonetheless worthy of consideration in further research on this topic.

1. The evidence on technological strategy must be viewed in an historical context. In developed countries, the multinational firm may come to engage in "reciprocal leakage" arrangements with large oligopolistic firms within such countries (especially if such firms are themselves becoming multinational and entering as a new force in international capital expansion). Indeed, any given multinational may have less long-run control over technology flows in advanced capitalist host countries. In the LDC's, however, their power

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a bit at a time as needed in actual production. They also appear to rely heavily on technological lead time and market access as control mechanisms. Almost no "hard" data is available on the new wave of Japanese expansion. Doubtless their tactics are based upon their successful dealings with U.S. multinationals in past years. Much more study of individual Japanese firm's investment strategy is called for. Innovations in control appear to be upcoming from their expansion.

is greater in the sense that they have not only a monopoly of such knowledge, but face no immediate potential rival in innovation. Again, if the firm transfers all its knowledge over time in an unrestrained manner (as through using host-country managers and technicians at all levels) they could, in effect, "create" new rivals and new competition through migration of such individuals over time. In the developed nations, the multinational firms may come to rely more on "technological lead time" as a new strategy and less upon manpower policy. Also, the new regionalization policies in control extend to technology flows and relieve the firm of concentrating all such control at the subsidiary level. This is related to a strategy suggested by Vernon in the context of his product cycle argument.

In the LDC's (where no new leakage equilibria are forming and where regionalization of control is less advanced) the firm still seems to be relying more heavily on day-to-day control through manpower policy. The point again is that the firm has greater hegemony in technology at the LDC level and is loathe to lose it.

2. Technology can be viewed, in the present context, as a "barrier" to the entry of new competition. The firm's reaction to the lowering of such a barrier through technology dissemination would be initially the same regardless of the source of the new competition -- private or public; i.e., through indigenous capitalist entry within the context of market or mixed economies at the LDC level, or governmental, as in state socialism. In both cases, the multinational firms' market position is weakened and it is forced to adopt "second best" strategies. In LDC's, where the indigenous capitalists are often closely tied, functionally, to their governments, the pressures brought to bear on the firm, both in the market sense and politically are correspondingly greater. Again, an important bargaining advantage lies in the LDC's "dependence" upon the firm for technology. If that "asset" is lost, the firm is in a weaker bargaining position, at best. New entrants, as the writings on the history of oligopolistic rivalry indicate, are not accepted without a struggle. That struggle characterizes the new international rivalry.

4. Control of technical knowledge and know-how through manpower policy in LDC's is important

in a broader ranging strategy that is not limited to preventing market entry (strictly defined as the emergence of a new competitor). It is also an important element in strategies designed to counter expropriation of firm properties by LDC governments. In this instance, the expropriating government may have little success in operating the productive facilities expropriated due to the failure of the firm to transfer sufficient knowledge and know-how to host-country managers and technicians. Thus the bargaining position of the firm is again enhanced through dependence.

In the case of the petroleum industry in the Middle East, the gradual dissemination of foreign firms' basic refining and producing technology (as this older technology flowed into the "common fund") enabled (along with critical minimum levels of capital accumulation through royalties) the nation states at the producing level to challenge the "Seven Sisters" of the international petroleum industry on several levels. This suggests that the multinational firm is faced with long-run leakage problems (leakage of knowledge in a "common fund" regardless of short-run controls) and must devise longer-run strategies (as in control of marketing

outlets, technological lead time, etc.) appropriate to this problem.[72]

4. Finally, the multinational firm may find itself the beneficiary of one important "natural" barrier to entry -- namely the "scale economy" barrier to entry. In this instance, an efficient size plant (i.e. one that exploits all economies of scale inherent in the imported

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[72] For evidence on the Middle Eastern petroleum case see U.R.P.E. The Energy Crisis - An Analysis (New York, 1974 (forthcoming)). Other strategies to counter expropriation and deter entry include:

a) the building up of supplier linkages throughout the LDC industrial sector. This provides the firm with another bargaining asset. If unfavorable terms are being forced upon them by LDC governments, they can manipulate these dependencies, which would extend to dozens of small indigenous firms that supply their needs, and create disruptions in employment and incomes throughout the industrial sector. This tactic is analyzed and specifically recommended to multinational firms by William R. Hoskins in "How to Counter Expropriation: Political, Economic, and Legal Steps Taken by Companies Whose Property is Confiscated by a Foreign Nation: Harvard Business Review (Sept. - Oct. 1970), pp. 102-112.

b) Control over world marketing outlets is yet another strategic asset of the firm. When entry occurs at the LDC level, and complete industry expansion requires global marketing outlets (as in the case of petroleum and other raw materials industries), the continuing control of such outlets by multinational firms creates yet another final, competitive entry barrier. (Vernon discusses this point at length in Sovereignty at Bay.

technology) may be one that requires an output level so large as to "fill out" the entire market (or nearly so) at a price covering full cost. Thus there may be no "room" for another competing plant of efficient size due to limitations in market size in small LDC's. Doubtless, this barrier has proven to be effective in certain LDC markets and has relieved the pressure on technical dissemination as an entry variable.

It is important to note, however, that the dissemination of technology could lead to the complete displacement of the foreign firm as the nation's dependence on the flow of technology diminishes. In this case, expropriation of the firm's productive facilities by LDC governments allows their entry as a "state monopoly" (enjoying the same barrier to entry as the firm once possessed). Also, the emergence of regional trading areas and customs unions could expand market size to such a degree that new competition could enter (if possessed of appropriate technology). This trend has been evidenced with varying degrees of success, in East Africa (the Kenya, Uganda, Tanzania union) and in the emerging concepts of a Latin American common market. Thus, given the changing nature of LDC markets, the scale economy barrier

could be lowered through time and thus shift direct technical control again to the forefront of the firm's objective function.

Two Counter-Hypotheses: A Resolution

The purpose of this section is to show that two models of G. Becker -- one specifically dealing with "discrimination" in labor markets, and another dealing with knowledge classifications -- are qualitatively different from the "control" hypothesis advanced in this chapter and the related arguments on technology transfer.

The Economics of Discrimination

In the first case, that of Becker's discrimination hypothesis, let us first begin with a clear definition of what Becker defines as "employer discrimination."[73] Becker states:

> If one individual discriminates against another, his behavior lacks "objectivity"; in the market place, "objective" behavior is based on considerations of productivity alone. An employer discriminates by refusing to hire someone with a marginal value product greater than marginal cost... A discriminator expresses his subjective tastes or preferences, and these tastes have been quantified by means of discrimination coefficients (DC's). When faced with the money wage rate , an employer acts as if (1+d) were the net wage rate, with d being a DC measuring the intensity of his taste for discrimination.

Becker concludes his definition of employer discrimination with:

> When an employer discriminates against employees, he acts as if he incurs non-pecuniary, psychic costs of employment by working with them.[74]

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[73] G. Becker, The Economics of Discrimination (University of Chicago Press, 196).

[74] Ibid., p. 32.

Becker goes on to state that such a "taste" for discrimination results in a net loss for the employer (firm):

> Profits forfeited are the costs or deterrents to discrimination.[75]

He continues by stating that discrimination produces results at the individual firm level that are at odds with "classical" cost-minimization (and thus profit maximization):

> However, equilibrium factor combinations would be quite different in situations of discrimination from those obtained with classical assumptions: there would be a smaller demand for factors discriminated against, and the money cost of producing each output would be greater than the minimum money cost.

In the final analysis, a taste for discrimination works against the "classical best interest" of the firm, defined as "classical" profit maximization. In this connection (with definite long-run implications) Becker states:

> It is an implicit assumption of most discussions that minority groups like Negroes (N) usually suffer more from market discrimination than do majority groups like whites(W), but no one has isolated the fundamental structural reasons why this is so. It is shown in the following that discrimination by any group W reduces their own incomes as well as N's...."[76]

Becker continues by noting:

> There is a remarkable agreement in the literature on the proposition that capitalists from the dominant group are the major beneficiaries of prejudice and discrimination in a competitive capitalistic economic system. If W is considered to represent whites or some other dominant group, the fallacious

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[75]Ibid., p. 33.

[76]Ibid., p. 11.

> nature of this proposition becomes clear, since discrimination harms W capitalists...[77]

Thus Becker's key point is that a non-pecuniary psychic "taste" for discrimination works against the overall profitability of the firm and represents an irrational (in its pure market sense) aberration.

As the reader of this work knows, such is not the case in the model adopted here. "Discrimination" against host-country nationals is not the issue. A "preference" for source-country nationals is a reflection of the firm's desire for control both over firm-governmental relationships in a climate of political uncertainty (especially in LDC's) and over technological leakage (which affects the firm's long-run market position). Thus such manpower practices are indeed "rational" and not associated with purely "psychic" tastes.

The two models, however, have one feature in common -- neither motive for "discriminating" against individuals in employment is strictly profit maximizing in the short run classical sense. In the case of the model adopted in this thesis, however, such market behavior is in the interest of control; a factor which insures long-run survival and continued growth for the firm. This may be (despite the tautological nature of the term - see Chapter III) if the reader insists, related to the general concept of maximizing long-run profits. In the Becker model, "discrimination" fails to maximize profit in either the long or the short run, as traditionally

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[77] Ibid., pp. 13-14. For a complete discussion of Becker's argument on this point see the first three chapters of his book on this topic.

defined. It is, to reiterate, a pure non-market "psychic" motivation. The key point here is that nationality of manpower matters - in an important market sense, in foreign operations.[78]

The foregoing discussion is not meant as a total refutation of Becker's discrimination hypothesis. Doubtless, his model partially explains certain features of hiring behavior abroad where "psychic" preferences (more explicitly, racism and ethnocentracism) are dominant.[79] It is here hypothesized that both factors may have been responsible for manpower policies abroad, with the "control" motive being dominant in the long run. Only careful empirical investigation of firm behavior (as specified in the final chapter of this thesis) can properly weigh the two hypothetical motives. In summary, there need be no conflict between the two, though both are qualitatively different.

Knowledge Classifications

One further point from Becker's work deserves consideration. As noted in the main body of the theoretical argument

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[78]Control could be an important element in the domestic operations of firms. See Reder, "A Reconsideration of Marginal Productivity Theory" and Munson and Downs, A Theory of Large Managerial Firms (both discussed in Chapter III).

[79]Such could be the case in the early direct investment experience of firms. One would expect, however, such to vanish with increased international competition, rising cost of expatriate personnel and the firms maturing as an international entity. Note that Hymer's discussion of the need for a "common cultural heritage" is related to "productivity" in the most general sense. See Hymer, "The Multinational Corporation and the Law of Uneven Development." Shearer's point on the "inconvenience" of working with foreign nationals could reflect elements of both motivations, however. See Shearer. Again, only careful case studies can establish the relative importance of the motives specified here.

specified in this chapter, the multinational firm may seek to control the leakage of its specific knowledge abroad through its manpower policy. The risk of having knowledge unintentionally diffused is higher when host-country nationals staff key control positions where such knowledge is vested. Such knowledge would be diffused through those persons in which the knowledge is vested moving to other firms (or having a whole complementary team of such persons moving to other firms over time). For those who are students of the theoretical works on investment in human capital by G. Becker, there might appear to be a basic contradiction between the theory argued here and that argued by Becker.[80] Specifically, the contradiction revolves around Becker's classification of general and specific training, the knowledge vested by the two types of training, and the classification of knowledge employed in the present analysis. General training, in Becker terminology, provides knowledge and skills that may be useful to many other firms other than the one providing such training, whereas specific training is defined as training that has no effect on the productivity of trainees that would be useful to other firms (or the effect on productivity for other firms is less). Thus completely general training increases the marginal productivity of trainees by exactly the same amount in firms providing the training as in other firms. Specific training increases productivity more in firms providing it than in other firms.

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[80]See G. Becker, "Investment in Human Capital, A Theoretical Analysis," Journal of Political Economy (October, 1962), pp. 9-49.

If one adopts Becker's notion of specific training and knowledge, then the argument specified above would be weakened. Specifically, the chances of persons migrating from firms that have imparted specific knowledge and moving to other firms when such knowledge is applied to the detriment of the former firm's market position, would be unlikely, since the productivity of such knowledge, and the wage, would be lower in the latter class of recipient firms.

The key to the contradiction between Becker's theory and my own lies in Becker's highly restrictive notion of specific knowledge -- one derived from Marshall's brief comment upon specific talents and their effect upon wages and productivity.

> Thus the head clerk in a business has an acquaintance with men and things, the use of which he could in some cases sell at a high price to rival firms. But in other cases it is of a kind to be of no value save to the business in which he already is; and then his departure would perhaps injure it by several times the value of his salary, while probably he could not get half that salary elsewhere.[81]

Specific knowledge in my topology refers specifically to knowledge that constitutes a competitive asset -- a monopoly advantage. It is of such a nature as to give the possessing firm a distinct market advantage over its rivals (actual and potential). It is a type of knowledge that can serve as a barrier to the entry of new competition in the product line in question (as discussed in the previous section and illustrated

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[81] Marshall, p. 626.

by case study and analysis in Hall and Johnson.[82] The fact that it is valuable to other firms -- established or entering -- is obvious. Certainly it cannot be said a priori that such knowledge is necessarily of less value to other firms than to the firm that imparted it. On the contrary, there is much trade as well as pirating of such knowledge within all industries. The question of exact relative value is an empirical question with respect to each item of knowledge, but again, there is no reason to believe that its value is less for the recipient firm.

Even if Becker's position on specific knowledge is adopted, little of what I term specific knowledge can be "naturally" protected by the market in the long run in the manner Becker describes. What may be firm specific knowledge at the outset of a multinational firm's entering a DC or LDC (due to the firm's monopolistic position) can become general knowledge (Becker's term) with the development of the market and growth of technical capacity in other firms. Such knowledge could indeed become, in Becker's terms, industry specific and of value to existing or entering firms. Firms possessing specific knowledge and deriving their dominant market position from it would be concerned with controlling the diffusion of such knowledge. Thus the manpower policy discussed earlier in connection with such control is valid. (Note: both my delineation of industry specific and firm specific knowledge

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[82]See Hall and Johnson, pp. 305-357.

would fall within Becker's category of industry specific knowledge.[83]

Such knowledge could constitute a barrier to entry to the industry in question if it does not flow to "potential entrant" firms. Becker suggests this when he says:

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[83]Becker is vague on the relationship between his knowledge classification and the threat of entry. Thus he states that (as mentioned previously) specific knowledge is of less value per se in productivity terms, to firms to which it is transferred than to firms which impart it. On the other hand, he recognizes certain knowledge which is not general but vaguely specific to a given (possibly small) group of firms which possess it and impart it. He states:

> "Some training may be useful neither in most nor only in a single firm but in a set of firms defined by product, type of work, or geographical location. For example, carpentry training would raise productivity primarily in the construction industry, and French legal training would be ineffective in the United States, with its different language and legal institutions. Such training would tend to be paid by trainees, since a single firm could not readily collect the return, and in this respect would be the same as general training. In one respect, however, it is similar to specific training. Workers with training 'specific' to an industry, occupation, or country are less likely to leave that industry, occupation, or country (via migration) than other workers, so their industrial, occupational, or country "turnover" would be less than average. The same result is obtained for specific training, except that a firm rather than an industry, occupation, or country is used as the unit of observation in measuring turnover. An analysis of specific training, therefore, is helpful also in understanding the effects of certain types of 'general' training."

Becker, "Investment in Human Capital," p. 24.

> Expenditures on acquiring knowledge of employee talents would be a specific investment if the knowledge could be kept from other firms, for then productivity would be raised more in the firms making the expenditures than elsewhere.
>
> The effect of investment in employees on their productivity elsewhere depends on market conditions as well as on the nature of the investment. Very strong monopsonists might be completely insulated from competition by other firms, and practically all investments in their labor force would be specific. On the other hand, firms in extremely competitive labor markets would face a constant threat of raiding and would have fewer specific investments available.[84]

Thus Becker's narrow definition of specific knowledge (related to entering "technical" coefficients in the production function) seems to also hinge on market conditions; on the ability of a firm (or a small group of firms) to keep such knowledge from other firms. Knowledge is "specific" if it can be kept from other firms, "general" if it cannot. Thus the existence of "specific" knowledge depends on market conditions and the threat of entry as well or on the firm's ability to prevent the dissemination of such knowledge. Therefore, when a firm is protecting its market position, it is indeed interested in controlling the dessimination of its specific knowledge, lest it becomes general when leaked and erode their market position.

Thus, in summary:

A. Becker's argument is not especially relevant to my own. Becker's "firm specific" knowledge concept is very

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[84]Ibid., p. 18.

narrowly defined. Only a small part of proprietary knowledge could be protected in this manner. Much of "firm specific" knowledge quickly becomes "general" or "industry specific" in Becker's terminology, especially if such involves knowledge of such a nature as to be classified as an element in entry by a new firm or market share expansion by an existing one. There is no reason to expect a priori that such knowledge (vested in or accessible to persons) is necessarily of less value to other firms. This is an empirical question!

B. Becker notes that knowledge is "specific" if it can be kept from other firms -- presumably is "general" if it cannot. This doubtless involves the firm in protecting knowledge actively; over and above the "natural" protection provided by the market (as Becker suggests in his technical definition of specific knowledge). Thus Becker's classification of knowledge is only partly based on technical coefficients in an imaginary general production function. It is also based on actual market structure and political realities.[85]

C. It may be said, in mild resolution, that Becker's concept of "industry specific" knowledge (which presumably would be of value to other firms -- and in my typology -- constitute the "ticket of admission" to the industry), i.e.

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[85] Becker admits that patents and process secrets must be protected by legal means; i.e., such is of value to firms and requires active protection. If such assets are vested in persons and mobile with them (as Svenillson notes) then these individuals are per se and by definition valuable to other firms in the same industry or product line. There is again no reason to believe a priori that their MP's are lower than in competing or potential entrant firms.

knowledge useful to a set of firms defined by product, type of work, geographic location, etc., could be closer to my "firm specific" knowledge in the direct investment context. In Hymer's analysis, multinational firms possess certain advantages over actual and potential entrants. These advantages are "knowledge assets" vested in individuals within the firms in question (as discussed in the foregoing section). Such knowledge can be of immense value to other firms in the same industry, product line, etc. Thus the multinational firm seeks to control the leakage of such knowledge to protect their market or industry position, especially in markets where such knowledge is not yet "generally" available.[86]

The foregoing resolution aside, the point remains that Becker's definition of specific knowledge (however defined) is very narrow. Indeed, his entire classification ignores the question of entry and rivalry under conditions of imperfect competition.

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[86] On this point, the firm may have knowledge that is entirely "firm specific" (in Becker's classification system) upon entry into an LDC market (due to the absence of potential entrants - a function of skill levels and general entrepreneural talent). However, with the development of skill levels, education, entrepreneural talents and markets (which by their growth allow new competition previously foreclosed by scale barriers to entry), much of the firm's specific knowledge could become usefully disseminated to potential entrants and thus, if such leakage occurred in an uncontrolled fashion, move into the category of "industry specific" knowledge. A firm concerned over its long-run market position could wish to deter this transformation process, for as such transformation occurs, an increasingly narrow range of knowledge would be protected by the "natural" process described by Becker.

CHAPTER VI

CONCLUSION

General Summary

This thesis has been directed to an analysis of the behavior and effects of the large American oligopolistic multinational firm in the high-level manpower markets of host countries, with special emphasis on the less-developed host country.

The first step in the analysis involved defining the basic nature of the entity under investigation -- the multinational firm. On the basis of data obtained from various sources (presented in Chapter I) it was determined that such firms come chiefly from oligopolistic market structures and engage in foreign direct investment as a natural extension of oligopoly rivalry to world markets. Such investment is characterized by comparatively high capital intensity, advanced technology, and differentiated products.[1]

The next step in the study involved a brief review of the literature on direct investment and the general behavior and effects of multinational firms abroad (Chapter II). A common view, running through most of the works discussed, was that the phenomenon of direct investment and the general behavior of the multinational firm are best understood within the context of the theory of industrial organization - specifically oligopoly theory.

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[1]Non-American multinational firms were found to possess the same characteristics (see Chapter I).

Within the context of general oligopoly theory, an analytical framework was specified to facilitate an analysis of the multinational firm and its effects in host countries (see Chapter III). The model adopted was one cast in a multiple objective format with special attention directed toward the interrelated variables of control and security. The model was then applied to selected welfare issues concerning the general effects of multinational firms in the less-developed host countries. Special attention was given the question of technology transfer.

The next step in the analysis was to present and discuss the basic historical evidence on the high-level manpower policies of American multinational firms (Chapter IV). Here, it was found that the firms have been reluctant to employ, to a significant extent, host-country nationals in high-level management positions (Level III-A,B) in their foreign operations and (especially) have been reluctant to promote national activity employed in such capacities to positions at the corporate headquarter level (Level I-A,B). This behavior pattern was found to be especially pronounced in the case of investments in the less-developed host countries.

In Chapter V, the analysis of the above manpower policy was analyzed in two steps. First, the conventional neoclassical labor market model (marginal productivity theory of input demand) was employed and found to be lacking in explanatory power. Next, the generalized multiple objective model specified in Chapter III was applied to the phenomenon. The explanatory value of the model was found to be superior (with

appropriate qualifications and reservations; see Chapters IV and V). Specifically, the observed manpower policies of discriminating against host-country nationals in high-level manpower staffing at Level III (and especially at Levels II and I) are consistent with the firm's desire for maximizing (subject to a profit constraint) the interrelated variables of control and security of political and market position.

Control was hypothesized to be necessary to insure security of political and market position. In the first case, securing of political position, the accumulated case study evidence indicates that firms have felt that there would be more uniformity of corporate control at all levels, and less loyalty conflicts in host countries, when source-country managers manned "key" posts at such levels, especially in the "politically volatile" less-developed host countries. In the second case, that of security of market position, the case study evidence (sparse though it may be) is consistent with the hypothesis that, to an important extent, multinational firms have, in the past, employed such "discriminatory" manpower policies abroad in order to prevent the uncompensated, uncontrolled leakage of this technical knowledge and know-how, with a resultant loss of firm bargaining power (partially associated with technological dependence).

More recent trends in the economics of control were discussed in the same context - specifically the trends toward regionalization of control mechanisms and the use of "third country" and denationalized manpower. The available evidence on these trends (again far from completely adequate) to a

limited extent supports the hypothesis that control mechanisms become more sophisticated as experience in international operations accumulated (and costs of old policies rose).

As mentioned previously, the limited empirical evidence cited above (discussed in detail in Chapters IV and V) does, at the very least, suggest the need for detailed empirical research into the hypothesis advanced in this thesis on the connections between firm high-level manpower policies and control under political uncertainty, and between the same and control over technological leakage. As an aid in such further research and as an important step in operationalizing the general model, a research format is specified below for gathering empirical evidence to further test each of the hypotheses.

Research Format
Firm-Governmental Societal Relationships

Basic Data on Management and the Span of Control

The first and foremost need is for detailed basic data on management and the span of control. Specifically, such data must be obtained through an intensive survey of hiring practices of a selected group of American multinational firms, all from similar industrial structures, and with long experience with direct investment in both DC's and LDC's.[2]

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[2]A representative selection from the 187 firm sample used by the Harvard Business School in their more aggregative study (see H.B.S. "U.S. Multinational Enterprise...") could be used. All of the aforementioned firms fit the specifications of the multinational firm employed in this thesis.

The data should be collected in a form that will fit into the hierarchical-functional definition of high-level manpower specified in this thesis. This definitional scheme is re-specified below. Its components are:

LEVEL I: Source-Country Head Office Management.

Function: the handling of overall goal determination, planning, risk, and uncertainty, and the specification and direction of centralized vertical control. Power is derived from ultimate control over all corporate resources, worldwide.

LEVEL II: Regional Area Management (Intermediate Management).

Function: coordinating operations of the various divisions, subsidiaries, and plants at the operating level within the context of Level I goals and vertical control mechanisms. Power is derived from Level I delegation. This level includes area and country-wide managements and the newer regional managements.

LEVEL III: Subsidiary-Branch Plant Management

Function: responsible for day-to-day operations of subsidiaries and constitutional plants, all within context of Level I goal determination and planning

as passed on by the managers at Level II. (If Level II is not fully developed - i.e., regionalization of management control is not yet realized, links to Level I are more direct.)

Each Level (I, II, III) has its own cadre of "key" management personnel. Thus, each top "key" executive has its own complement of "key" executives and administrators (Rank A) and staff specialists (Rank B).

At Level III, the level of primarily empirical interest in this thesis, the key personnel (Rank A) are identified by position which correspond to the five critical functional areas of general management specified by Harbison and Myers and employed by Shearer in his study. These are: organization (the general manager) and finance; engineering and technology; production management; and marketing and sales (all presided over by permanent department heads or directors, or controlled by "reticulators").[3]

A careful definition of management posts by function and position in the overall corporate hierarchy would eliminate the problems associated with the overly-aggregated data from the Census and such studies as those by R. Lubitz.[4]

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[3]The reader is reminded that the classification scheme specified above represents a synthesis of those employed by Chandler-Redlich, Harbison and Myers, and Hymer. For a discussion see Chapter I of this thesis.

[4]See R. Lubitz (discussed in Chapter IV).

As pointed out earlier, most data on international high-level manpower is inappropriate and misleading for purposes of evaluating the actual span of control associated with managerial positions due to the level of aggregation employed. All such terms as "managerial and technical" (or Rupee cut-offs as in the case of the Indian data discussed in Chapter IV) lack functional definition. The foregoing framework more adequately reveals the proportion of truly top management that is source-country management and is of greater use in determining the international distribution of control.

Once the foregoing data is obtained, the testing of the previously specified hypothesis may proceed along two paths:

A. The first approach involves working working only with the general manpower data, collected in the manner outlined above. The principal hypothesis of this section is that the staffing of A Rank management post at Level III has been in part due to the desire of Level I management to maintain strategic control at Level III, in the presence of what they perceive to be a climate of political uncertainty. Specifically, they wish to avoid conflicts in the area of firm-governmental-societal relations by having source-country personnel man "critical" control positions.

   1. In this connection, a thorough historical analysis of staffing at Level III-A must be undertaken for each of the sample firms.

The early practices of staffing all Level III-A,B posts with source-country nationals could be then firmly established. Combined with this should be an attempt to gauge the relative availability and productivity of host-country management in the early years of each of the firm's international expansion to discover to what extent this affected manpower policy. If it is found that the availability and productivity factors caused no significant change in manpower policy at Level III-A, between various countries, then the case for other governing motives (i.e. control) would be strengthened.

2. In later, more recent periods (the last 10 years measured from the outset of the data collection process) when staffing patterns changed with the hiring of more host-country manpower for Level III posts, other tests could be conducted to determine the extent to which such was brought on by: (a) regionalization of control; (b) host-country pressure. In the case of (a), one would expect to find a high positive correlation between regionalization (as measured by the dollar volume of Level III assets controlled by regional or area management groups) and

the staffing of Level III-A,B posts with host-country nationals. In the case of (b) host-country pressure, variations in policy in accordance with such could be evaluated. Greater use of "third country" nationals in such circumstances (a policy dependent on the supply of such managers at the time) would be likely. Also, the relative supply of de-nationalized manpower would affect the firm's willingness to comply. In this case, a political class analysis of selected host-country would yield an index of the likely availability of such manpower and the firms willingness to hire more host-country managers. One would expect more staffing at Level III posts, with host-country nationals in the stolid pro-capitalist nations of Western Europe than in the more politically volatile LDC's. Preliminary data on this factor has already been discussed.[5]

3. The apparent continued use of source-country nationals in certain "key" posts at Level III despite regionalization and the relative

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[5]Multinational firms themselves make such political surveys and from them specify political rankings of host countries. See S. Rose, "The Rewarding Strategies of Multinationalism," p. 105 for a case in point, (DuPont).

surplus of third-country and de-nationalist manpower would indicate an upper limit to the firm's willingness (in this later historical phase of expansion) to nationalize the Level III post. Again, the investigation here must be within the context of a political ranking of host-countries and management positions, operationally defined. One would expect again that the "tolerance threshold" for having host-country managers in Level III-A,B positions would be much lower for the LDC's as a group.

B. All of the foregoing tests are based upon an analysis of the general survey data obtained from the full suggested sample. To properly supplement such an analysis, this research should be augmented with interviews with Level I-A and Level II, III-A personnel. These interviews would be conducted with a small group of firms (a subset of the larger sample) selected on a "key" informat basis, i.e., certain firms would be selected as representative of their industry, product group, etc., with similar histories of direct investment experience. In this manner, the

aforementioned qualitative aspects of the analysis could be explored. In some cases, only through interviews could the actual span of control be accurately defined and elaborated upon in its various permutations.[6]

The following format is suggested for the conduct of such interviews:

1. Such interviews at Level I could establish clearly the "real" chain of power transmission from Level I through Level III, independent of organizational "titles". Of particular interest would be the actual degree of decision-making power vested in the Level III-A,B positions when they are turned over to host-country nationals. It is important to know whether indeed the "real" function of such posts have been downgraded and the locus of power shifted to regional or head office personnel. Also, the motives behind

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[6]It should be noted that the firm's willingness to have their personnal discuss the following issues would be decreasing through time as the firm becomes more aware of the politically volatile nature of the investigation. This is not therefore an easy task. Nevertheless it is worth undertaking; and if skillfully handled, would be invaluable as a supplement to Research Format A. For an example of skillfully handled interviews with oligopoly firms see Robert F. Lanzillotti, "Pricing Objectives in Large Companies," American Economic Review, Vol. XLVIII (December, 1958), pp. 921-40. See also A. D. H. Kaplan, J. B. Dirlam, and R. Lanzillotti, Pricing in Big Business: A Case Approach (Washington, D.C.: The Brookings Institution, 1958).

the regionalization trends should be explored, i.e. to what extent are they brought on by cost considerations, general control efficiency, or as a means of meeting host-country demands for more nationals in Level III positions?

2. In another vein, the firm interviews should reveal the extent of "political" research carried on by firms (e.g. DuPont) for their various market areas and the degree to which such research influences manpower policy in specific areas and countries. Such interviews would indicate whether firms perceive their market and political security more threatened when host-country managers fill Level III posts in the LDC's, where the political climate is more volatile in the face of rising nationalism and shifting class structure. Additionally, the firm's general attitude toward third-country nationals and de-nationalized manpower could be probed and supplement in an invaluable way the analysis of the same based on the "hard" data in Format A. Here the question should center upon the relative costs of third-country personnel and the successful use of such as a means of reducing the American "profile". Likewise, the ease with which

manpower from various countries can be re-educated into "company men" (Westernized, industrialized, etc.) could be explored in interviews.

In general, these interviews should be conducted with a thorough knowledge of the firm history and development (based upon case studies such as the excellent ones by Chandler) as both a national and international firm.[7] The central interview format could be patterned after that employed by Shearer in his landmark study (discussed in detail in earlier chapters). Only with such interviews, working from a sound foundation of knowledge of the history of each firm, could the final verification of the foregoing hypotheses be approached.

Research Format
Technological Tactics and Strategy

As in the case of the previous hypothesis, the research format for testing the hypotheses on technological factors requires disaggregated detailed basic data on the span of technological control. Again, as in the former case, a selected group of multinational firms (each representative of

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[7]See A. Chandler, Strategy and Structure (The M.I.T. Press, Cambridge, 1962).

a specific industry group with similar histories of direct investment experience and each representative of a particular degree of technological "intensity") must be surveyed with attention directed toward their technological strategies in both DC's and LDC's.[8] The data should be collected in a form that would fit into the hierarchical-functional definitions of high level technical manpower specified generally in the last section (Levels I, II, III, A, B).

As in the former case, the testing of the here previously specified hypothesis may proceed along two paths:

A. The first approach should concentrate on the general survey data obtained as outlined in the previous section. The actual degree of power vested in source-country technical personnel at Level III should be investigated. In this context, the transmission mechanism from Level I to Level III should be examined within a questionnaire format. Firms surveyed could be asked how source-country technology is actually translated into production activity at Level III (i.e., through what types of personnel does such flow and what is their nationality at each level). Also, questions should be directed to how company policy changed through time and the degree to which these variations

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[8]The H.B.S. sample could be employed here, also.

are explained by the sophistication and capability of host-country managers and technicians (DC versus LDC).

Specific attention should be given the classification of technology and know-how whether it is general, system specific, or firm specific (firm should control firm-specific knowledge more tightly. For a discussion of such delineation of technology see Appendix A to Chapter V), and which is most important to efficient operations at Level III in the case of both DC's and LDC's.

Within this framework, the degree to which the firms shifted the focus of technological transfer controls to regional offices could also be determined together with the changes in hiring practices at Level III which accompanied this process. One would expect again that regionalization of technological control would be positively correlated with greater numbers of host-country personnel in technical posts at Level III. Also, one would expect the firm to concentrate technological control in the hands of a lesser number of "key" technical managers and advisors in the more "mature" investment areas and in response to host-country pressures to hire greater

numbers of host-country personnel for technical positions.

B. The most revealing information (and the hardest to obtain) would come through the interview techniques outlined in the previous section. Level I, II, III-A personnel should be interviewed from a small subset of the larger firm sample within the context of the "key" informant technique (discussed in the previous section). The following format should be employed for the interviews:

1. The interviews should establish the "sensitivity" of the technology issue to the firms. The actual transmission process through key technical personnel should be ascertained within an historical format (and in depth) for each firm interviewed. Each firm should be questioned on its policies on leakage and protection of firm knowledge abroad (i.e., how much is protected by patents, scale economies, and manpower staffing at Level III). Questions should be directed toward how far each firm has gone toward regionalizing the control of its technology transfer process (as well as toward the motivation for doing so) and the consequent effect on manpower policies

at Level III. Also, the technological transfer and leakage problems unique to DC's as opposed to LDC's should be explored.

2. Of special usefulness would be a program of interviewing selected managers of host-country rival firms (or joint venture partners) to determine the extent to which multinational firms in their operations there protect their knowledge through manpower controls. The usefulness of hiring former host-country managers who worked with foreign firms should also be examined. (This should determine how much entry-facilitating information such managers carried away with them).

The links between the issues raised in the present model and the main arguments of the product cycle theory could be explored within both the survey and interview format. Firms should be questioned about control policies by specific product line and the extent to which manpower policies and staffing at Level III is influenced by the stage at which each product is, in its cycle. One would expect that tighter control would be exercised over processes and know-how associated with new innovations and products to protect such as long as possible. In the case of products that have run the cycle (for which the know-how is now generally disseminated) one

would expect fewer direct controls. Thus, greater numbers of source-country technicians would be used at Level III in the former case than in the latter.

In another vein, it has been herein advanced (here and elsewhere) that firms have attempted to control even the diffusion of general and system specific knowledge to deter the rise of innovative capacities in such LDC's and maintain dependence longer than they could possibly hope to do in the DC's (where most efforts are directed toward controlling the dissemination of firm-specific knowledge). If such is suspected, the process of survey and interview research should be directed toward determining the variation of such control as between DC's and LDC's. One would expect to find greater numbers of source-country personnel in a wider range of technical positions in LDC's than in DC's -- even at the level of "general" technology transfer. The extent to which such policies in LDC's is a function of the availability of competent host-country technicians could be determined by correlating company policy (in a selected sample of countries) with variations in the supply of such manpower from country to country. Again, the research would have to be done on a disaggregated basis (working with controlled samples) to truly reveal the real functional power possessed by technical managers at Level III (host-country and source-country) and the extent to which the transfer of such was critical to maintaining the firm's advantages in each case.[9]

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[9]Evidence previously cited suggests that multinational firms operating in LDC's have pursued a consistent policy of

Concluding Remarks on the Research Format

In conclusion it must be again emphasized that the data collection process generally spelled out above would be a challenging one (to say the least). The issues raised in this chapter (with their arguments and counter-arguments) could not be adequately settled, however, without such information.

Due to the politically and economically strategic nature of the questions raised here, the investigation process described above could be likened to the taking of a survey on the honesty or sexuality of individuals, i.e. the results would, on face value, be less than perfectly empirically reliable and would require unbiased professional skills to interpret correctly. Nevertheless, the beginnings of understanding have always rested upon a correct specification of the questions. It is to that end that this entire study is dedicated.

General Conclusion

In general conclusion it must be recognized that the efforts of this overall investigation have produced only limited and, in many cases, speculative results. The following points have been clearly established, however:

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staffing "key" technical positions with source-country manpower despite variations in the supply of qualified host-country personnel (and the lower costs of training such personnel where their supply is not adequate, but potentially so).

1. The historical reluctance of the multinational firm to advance host-country nationals to real control positions within the international hierarchy of management is evident from the empirical information surveyed and collected. This behavior pattern is especially pronounced in the case of the less-developed host countries.

2. Of primary importance in understanding this behavior is the investigation of multiple goals (other than purely simple profit maximization) in the overall behavior of multinational firms.

In the latter case, a general multiple objective format was employed to aid in the understanding of the behavior pattern established in item one above. Although the multiple objective preference function selected was not rigorously tested or verified (and could not have been given the scant, overly aggregated general data available), its predictions in the case of high-level manpower policy are not inconsistent with the general empirical evidence on the same discussed in this thesis.

In addition to the two points mentioned above, some of the implications of the overall analysis for the transference of technology from rich to poor countries have been brought out, but by no means in thorough detail. More research is obviously required here.

It should also be pointed out that in addition to the foregoing qualifications, several important aspects of the overall behavior of multinational firms and the direct investment process have been omitted. Specifically, more research is needed into the decision between direct investment and licensing as alternative means of exploiting "monopoly" knowledge. As discussed previously, wide-ranging direct investment, as such a means, has been traditionally identified with oligopolistic multinationals. More research is needed into the tactics employed by non-oligopolistic international investors to establish in a more concrete way the relationship between market structure and the means by which firms exploit their specific knowledge. Also, a more detailed comparative analysis of the general behavior and specifically the high-level manpower policies in oligopolistic and non-oligopolistic firms is needed.

In addition to the above suggestions, a separate investigation of optimal LDC government policy on indigenous control of multinationals should be undertaken. Specifically, with respect to the technology transfer issue, a range of feasible alternative control policies by LDC governments could be specified based upon the type of knowledge desired (general, system specific or firm specific)[10] and upon the unconstrained willingness of the firm to impart such knowledge. The LDC governments could then frame transfer policies in accord with the firm's own preference for control of leakage. In this connection, tougher policies would be required

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[10]For discussion of technological typologies see Appendix A. Chapter V.

in cases where the knowledge constituted a barrier to entry and thus a major competition-deterrent for the multinational firm.

At a more general level, LDC governments must recognize that multinational firms desire unconstrained control over certain critical features of their Level III operations and will strive to counter interferences with such (from both source-country and host-country governments). LDC governmental policies must thus be framed with this feature in mind, i.e., such must be at the root of all foreign investment regulations.

In the course of this investigation several alternative hypotheses concerning the general behavior of multinational firms and the implications of the same for employment and technological change in less-developed countries have been discussed. Many of these deserve further investigation and empirical verification. In particular, the general counter-hypothesis that multinational firms are the "ideal" vehicle for the transfer of technology from developed to less-developed countries (see discussion of the work of H. Johnson, Chapter III) should be tested in the context of the case study format suggested in this chapter.[11]

With reference specifically to manpower market behavior of multinationals, more research is needed on the role of "pure" discrimination (the Becker hypothesis) in such. Also, the job-protection argument of Shearer deserves further testing, as well as the influence of manpower supply in LDC's.

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[11]The related Johnson hypothesis of the effects of concentration on price in LDC's should be similarly investigated.

It is likely that all three of the above factors have, to some extent, influenced manpower policies abroad. These factors, together with the control/security hypothesis of this dissertation (tested as suggested in this chapter) should adequately explain the patterns of employment revealed in the available general empirical data.

The security issue raised in this dissertation deserves consideration in a broader sense. The behavior of the multinational corporation with respect to the security/control hypothesis could be considered as only one manifestation of a general behavior pattern common to all types of organizations operating outside their home environment regardless of the country or ideology of their origin. Thus it has been pointed out that Soviet banks in Switzerland and in England are completely closed corporations; and Chinese activity abroad, including banking, is operated on the principle that no person gets access to even the elementary details of foreign operations unless they have been carefully screened by the home office.[12] None of this behavior can be explained by a hypothesis on the internationalization of capitalism through direct investment. Therefore such behavior patterns associated with security/control (including the present one dealing with multinational corporations) may, in the future, have to be analyzed in the context of a more general theory of the international operations of national organizations. In this context, the quest for control and security (more broadly defined) could be the more generalizable aspect of this study.

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[12]This point has been suggested by Subbiah Kannappan, based on his extensive experience with a variety of such organizations.

APPENDICES

CHAPTER V

APPENDIX V-A

Technological Typologies

To lend perspective to technological typologies and what might be termed the "mechanics of leakage", the nature of such technical knowledge and know-how can be precisely defined. In the process, the control problems of the firm are likewise specifically highlighted.

The exact nature of the specific knowledge referred to generally in the hypotheses specified in the previous chapter may thus be refined. One may distinguish between two broadly delineated types of knowledge that the multinational firm possesses; one, which can be classified as knowledge specific to the industry or industry specific knowledge; and another, specific to the individual firm, termed firm-specific knowledge. Industry specific knowledge may be further subdivided into general knowledge - information common to an industry and possessed by all firms in a given industry (and thus may be considered the general ticket of admission to the industry or product group and can be partially acquired through the "common fund" referred to earlier) and system-specific knowledge - a type of knowledge acquired through engaging in certain tasks or projects and linked to the production of a particular item. This latter sub-delineation refers to the type of specialized knowledge possessed by a firm or individuals within a firm that partially differentiates each firm from its rivals and contributes to the firm's competitive edge in the market. Were any other firm to produce the same

good, it would (in the course of actual operations) probably obtain a closely similar, though not identical, type of knowledge. Firm-specific knowledge differs from the two categories of industry specific knowledge in that it is neither freely available from the "common fund" nor is it necessarily linked to the production of any given product. Firm-specific knowledge results from the firm's overall activities and includes technical knowledge that goes beyond what a rival firm might acquire if manufacturing the same products (e.g. special capabilities in thin-wall casting or metallurgical techniques not possessed by other firms and not necessarily attributable to any specific item the firm produces, special skills in marketing, special management skills, etc.).[1]

The topologies outlined above are especially important to the consideration of a firm market position vis-a-vis actual or potential rivals. Regardless of their attitude toward general knowledge (which may be partially available from the "common fund"), the theory and supporting evidence indicates that virtually all firms in a given industry consider their system specific and firm-specific knowledge to be a valuable competitive asset. They may be willing to sell such knowledge to other producers (i.e., in joint venture arrangements or by licensing management contracts, etc.) or may choose to keep the information a secret and use it within

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[1]All three types of knowledge have their complimentary "know-how" component; i.e., "complete" knowledge can only be attained in the course of actual operation (on the job). The importance of the know-how element increases as one moves from the "general" to "firm-specific" categories.

their own organization (as in the case of direct investment). In any case the given firm desires control over knowledge assets. The factors influencing the decision as between licensing or direct investment were discussed earlier (see Chapter III). As noted there, the decision is influenced by the rate at which a firm's valuable technology is diffused in each case and the consequent effect upon the firm's market position.[2] A patent or its information provided in a joint venture may not be adequately protected by licensing or agreement and thus at the expiration of such an agreement the firm may find its knowledge becoming so widely disseminated that it no longer has any intellectual capital to sell; or the licensee or venture partner may provide future competition in a firm's established market and erode their market position. This partially explains why the multinational firm has shown the greatest interest in direct investment in a potentially valuable market. Given the multinational firm's dominant interest in market shares and growth, it is not surprising that they should seek to exploit specific knowledge within the firm.[3]

Thus, as specified in Hymer's model (see Chapter III), through monopoly advantages in specialized knowledge, a firm is able to enter and compete in (or dominate) foreign markets. Such firms also seek to control the diffusion of all such

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[2]For an informal discussion (based on case studies) of the factors influencing the decision between licensing and direct investment see G. R. Hall and R. E. Johnson, "Transfer of U.S. Aerospace Technology to Japan" in Vernon, The Technology Factor in International Trade (New York, Columbia Univ., 1970).

[3]Complementary know-how still is necessary for effective competition. For a discussion see Chapter III.

knowledge to protect established market positions. The actual degree to which such dissemination can be controlled depends upon the nature of the knowledge in question and upon market conditions. Powerful multinational firms operating in LDC markets would presumably be likely to have a considerable degree of control over all three types of knowledge and therefore control over entry to the industry or product line.

APPENDIX V-B

Non-Oligopolistic Investors

As noted in Chapter I, all firms with multinational dealings do not fall into the category of international oligopolies (as defined in this study). However, as discussed in the first chapter, such firms have historically played a minor role in the total of international business operations.

As shown in the data from the 1957 Census and in subsequent studies of the Department of Commerce (O.B.E., 1972), approximately 85% of all D.F.I. from 1957-70 was accounted for by 300 large oligopolistic firms, all of which stand out prominently on the Fortune list of the 500 largest U.S. firms (this data is more extensively discussed in Chapter I). The H.B.S. research project also confirmed this trend, noting that 80% of U.S. foreign investment in manufacturing came from 187 enterprises that were dominant firms in concentrated industries. The most comprehensive and detailed report on the oligopolistic nature of direct investment is in the much-quoted study of Stephen Hymer.[1] His earlier findings (discussed in detail in Chapter I) showed that approximately 65% (a highly conservative estimate) of major U.S. investors in manufacturing and petroleum were dominant firms in industries where the concentration ratios were over 50% (approximately 50% were dominant in industries where the concentration ratio was over 75%).

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[1]See S. Hymer, The International Operations of National Firms.

Taking the above evidence into consideration, the total role of small, non-oligopolistic firms in international investment is indeed small. Such firms probably account for, at most, no more than twenty percent of total United States D.F.I.

No detailed comprehensive study of the separate behavior patterns of these smaller firms (from more competitive industries) was undertaken in this thesis. Selected behavioral points can be generalized upon, however, subject, of course, to further empirical verification. Firstly, such firms would not, by definition, be involved in the same global oligopolistic rivalry as the larger firms. Likewise, due to the relatively small size of their overseas operations, such firms would obviously be unlikely to have worldwide "control" strategies since such would be neither necessary nor possible given the limited market horizon of the firm and its relative lack of market and political power.

Firms from more competitive industries would thus be less inclined to protection of "monopoly" knowledge, since, again by definition they do not possess such on a broad scale (as the dominant oligopolies do) and do not expect to establish long-run global market positions based upon monopoly knowledge. Their international operations would tend to be directed toward maximizing the short-run return from some particular knowledge asset and not concerned with "global market dominance." Indeed, as pointed out in several studies mentioned previously, such firms would more likely chose licensing or joint ventures as a means of maximizing the short-run return on some transitory knowledge assets, rather than investing in wholly-owned

subsidiaries and branches as the dominant firms do.[2]

With the above points in mind, it should come as no surprise that such small (more competitive) firms would be less inclined to domestic manpower policies in the interest of general value and technology control on a worldwide scale.[3] In this connection, Rothschild's point on the inability of a competitive firm to do anything except attempt to minimize explicit short-run cost in the classical sense is relevant. Thus such firms might well desire controls over their market environments in the interest of long-term security, but market conditions (i.e., their small relative size and the existence of more "effective" competition) are so overwhelming that such firms, working alone, can do little to safeguard their position in the long run. All they can do, as discussed in the review of Rothschild's thesis in Chapter III, is make the best of any given short-run situation -- minimize cost and maximize profit (in the neo-classical sense). Machlup makes much the same point in his review of oligopoly theory.[4] Thus, the hypothesized practice of oligopolistic multinationals employing relatively more expensive source-country nationals in high

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[2]For a general theoretical discussion of the decision on exploitation of knowledge assets and its relativity to market structure see H. Johnson, "The Efficiency and Welfare Implication of the Multinational Corporation," pp. 35-56. Also see C. P. Kindleberger, American Business Abroad.

[3]Shearer has noted that the "100% national" companies in his sample were all comparatively small organizations. See Shearer, p. 70.

[4]F. Machlup, "Theories of the Firm...". p. 13. For a discussion see Chapter III of this study.

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level positions in the interests of long-run control and security of market position, despite the effect on short-run return, is not feasible for smaller firms from more competitive industries, who are under constant pressure to minimize the costs of necessary inputs.

The limited data on general multinational hiring practices is generally consistent with the above hypothesis. Again, however, a very careful constrastive empiirical study on the hiring practices at all levels by oligopolistic and non-oligopolistic multinationals would be necessary to finally verify these conjectures. Such could be collected within the same basic format as specified for empirical research on oligopolistic firms in the final chapter of this work.

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