

CHAPTER 2

A Survey of the Theory of Multinational Enterprises

2.1 Introduction

As a starting point for an academic discourse of public policy and administration as these may be applied to the subject of foreign direct investments (FDI) by multinational enterprises (MNEs), two preliminary sets of questions need to be considered by policy-makers. The first set of questions should seek to address and understand the general theory on multinational enterprises with regard to explaining the factors that motivate a firm to choose this type of foreign direct investment over exporting or licensing, as well as the factors that have led to the worldwide proliferation of this phenomenon. The second set of questions to be considered by policy-makers should address the multinational enterprises' economic and social impact on host and home countries.

Posing and attempting to resolve these two sets of questions has far reaching implications for host state - foreign investor bargaining relationships in terms of regulation. Additionally, these questions also have implications for identifying any possible abuses of the host state by the multinational enterprise that may occur either outside of or through their negotiating relationship.

In terms of explaining the motivating factors of establishing a multinational enterprise, there exists quite an extensive array of disparate theories and views extending from the pioneering works of Stephen Hymer (1960, 1968) and Raymond Vernon (1966), whose contributions were the market power approach and the product life cycle theory respectively. Later theories that gained

prominence were the oligopolistic follow the leader theory of Knickerbocker (1973), the internalization of transactions costs theories first proposed by Coase (1937, 1960), and John Dunning's (1993) eclectic paradigm. The first section of this chapter reviews these and other theories aimed at the discernment of this issue. These theories are separated and dealt with according to whether or not they assume perfect markets.

The discussion that then follows reviews theories that have been proposed to explain the economic impact, within the host-state, of foreign direct investment in the form of the establishment of multinational enterprise subsidiaries.

2.2 Perfect Market Assumption Theories

The term *perfect capital markets* refers to the economic state of affairs of a market in which prices are set competitively through supply and demand, and in which there are a sufficient number of producers such that these producers become "price-takers" rather than "monopolistic or oligopolistic price setters". Further, the perfect markets assumption contends that there are no barriers to either the entry of a market by producers or to international capital flows.

Although multinational enterprises tend to operate mostly under conditions of imperfect markets, it is still worthwhile to take into consideration those theories that assume perfect markets. This is because perfect market theories do not discount the fact that the foreign direct investment of multinational enterprises normally takes place in imperfect markets, but instead they assume away the complicating factors of imperfect markets on the belief that the structure of the market is inconsequential in their proposed analysis.

Theories based on perfect market assumptions include (but are not limited to) – the differential rates of return, portfolio diversification, and currency differential. Each of these concepts will be reviewed in turn.

2.2.1 Differential rates of return

The Differential rates of return theory argues that foreign direct investment flows are mainly attributable to the differing rates of return on capital that firms can earn in different countries. The argument here is that foreign capital and investment will move out of countries with low relative rates of return on capital to those with higher rates. The underlying rationale of the Mc-Dugall Kemp model (Chen 1983: 18-20) of this hypothesis is that rates of return on capital are inversely related to the availability of capital within a given country such that countries experiencing capital scarcity will pay higher rates for invested capital thereby attracting foreign capital from those countries that possess excess capital. Eventually, investment flows will cease (or at least diminish) as supply and demand forces act to equalize the rates of return to capital of the two countries.

The differential rates of return theory seemed to be supported by empirical evidence pertaining to United States foreign direct investment in the late 1950s. During this period, after-tax rates of return earned by United States subsidiaries in manufacturing in Europe were consistently above the rate of return earned by United States domestic manufacturing investments. However, this same empirical evidence seemed to contradict the differential rates theory during the period of the 1960s when United States foreign direct investment in Europe continued to rise whilst at the same time the rates of return for United States subsidiaries in Europe were consistently below the rates of return on United States domestic manufacturing (Lizondo 1991:69). Additionally, the differential rates of return theory contradicts the available evidence that shows that there is

a substantial amount of two-way foreign direct investment taking place between countries. That is, there are numerous cases in which firms from country A invest in country B at the same time that firms from country B are investing in country A (Chen 1983:18-20; Cf. Lizondo 1991:69).

2.2.2 Portfolio diversification

Portfolio diversification theory uses the same rationale as that used in the differential rates theory but adds to that argument a risk factor. It argues that when a firm is in a position to choose among various alternative investment projects, the determining factors in the decision will be both the differential rates of return and the opportunities to reduce risk through diversification. That is, a firm could reduce its overall risk by undertaking projects in more than one country since the returns on activities in different countries are likely to be less than perfectly correlated (Lizondo 1991:69). Although a number of empirical studies have been conducted to test this theory, none offers strong support (Hufbauer 1975; Cf. Agarwal 1980).

2.2.3 Currency differential

The currency differential theory asserts that international direct investment flows (as opposed to portfolio investment flows) will tend to move out of countries with strong currencies and into countries with weaker currencies. Several differing models have been proposed to explain this relatively consistent empirical result. Aliber (1971) for example, proposes that this phenomenon might be a result of the fact that investors have a bias against firms from weak currency countries. This bias can be attributed to the fact that weak currencies are perceived to contain greater risk and volatility than stronger currencies. Thus, investors (both in the strong currency country and in the weak currency country) will value the investment stream from the firm of the strong currency country at a higher

capitalization rate. In other words, investors are willing to pay a higher price to invest in the strong currency country firm as compared to the firm from the weak currency country. If this is the case, then firms from weak currency countries will not have an incentive to make direct foreign investments into strong currency countries, while firms from strong currency countries will have an advantage over indigenous firms in the weak currency country and will thus find it profitable to undertake foreign direct investment in such countries.

An alternative explanation of the currency differential findings is offered by Froot and Stein (1989) and is based on information imperfections in the capital market. Their supposition is that information imperfections may lead to a real depreciation of the domestic currency in a given country that effectively lowers the wealth of domestic residents of that country while at the same time increasing the wealth of foreign residents. As a result of the higher relative wealth and thus cheaper input costs obtained by foreign investors, they will find it profitable to invest in the depreciated currency country.

A similar but more complete explanation can be found in Caves (1988). Caves takes this same argument a step further by adding that it is usually in cases where a depreciation in currency is expected to be reversed (i.e. currency appreciation is expected at a later stage) that foreign direct investment is motivated as firms can buy low and sell high.

Most empirical studies of the currency area hypothesis focused on whether an over-valuation of a currency is associated with foreign direct investment outflows and whether an under-valuation is associated with foreign direct investment inflows. Studies conducted of foreign direct investment in the United States, the United Kingdom, Germany, France, and Canada yielded results that were consistent with the hypothesis (Cf. Agarwal, 1980).

2.3 Imperfect Market Theories

The application of classical trade theory as an analytical tool for international trade and investment has important limitations and constraints. These shortcomings relate directly to the simplifying assumptions upon which its theoretical framework is based - that is, under perfect market assumptions, only goods are assumed to be internationally mobile whereas no consideration is given to the mobility of factors of production. This assumption does not allow for the possibility or existence of foreign direct investment but instead offers a framework for analysis of import and export trade only (Chen 1983: 16).

A further limitation of classical theory is its assumption that markets are perfectly competitive. Given that oligopolistic and monopolistic markets are the business environments within which multinational enterprises operate and foreign direct investment takes place, the assumption of perfect markets further negates the usefulness of classical trade theory as a tool for studying foreign direct investment and multinational enterprises (Nelson and Silvia in Erdilek (ed.) 1985:97; Cf. Chen 1983:16; Cf. Muchlinski 1995:7). In fact, according to Hymer (1976) the major motivating factor for investing abroad is the existence of imperfect competition at home. Hymer (1976) viewed the extension of the multinational enterprises foreign operations as a strategic move to eliminate competition at home and abroad. Alternatively, Hymer(1976) was saying that control of foreign operations is necessary in order to realize fully the returns on certain advantages and abilities that the firm possesses. Hymer (1976) asserted that these ownership-specific advantages could be maximized through international horizontal and vertical integrations under oligopolistic market conditions.

Imperfect market theories have focused on ownership specific advantages, location specific advantages and internalization advantages. Each of these will be discussed in turn.

2.3.1 Ownership specific advantages

Ownership specific advantages refer to unique characteristics of a particular firm that provide for a competitive advantage over other firms. Examples of this include marketing strategy, advanced technology, capital asset endowment, liquid asset endowment, and human resource capacity. Any of these ownership specific advantages can lead to, or be used to exploit, market imperfections. Market imperfections can further be exploited to the financial benefit of the firm through foreign direct investment.

The approach to explaining ownership specific advantages has been done from a number of different perspectives. The approach taken in the passages to follow is to examine imperfect market theories of ownership specific advantages as explained under the market power approach, oligopolistic reaction theory and the product life cycle theory.

2.3.1 (a) Market power approach

The market power approach focuses on the motivation of the firm to increase its market power, in the face of stern oligopolistic competition, through the exploitation of its ownership-specific advantages (Cantwell in Pitelis & Sugden (eds.) 1991:21). It is argued that in the early stages of growth, the oligopolist firm will experience steady growth in the domestic market share. However, domestic market concentration will expand to the limit in an oligopolistic market, and thereafter it is only possible for oligopolists to maintain or increase their market shares by expanding their competition to foreign markets.

The argument is further augmented by two rationalizations as to why the resultant competition into foreign markets, by oligopolists, takes the form of foreign direct investment as opposed to exports (Cowling and Sugden 1987). First, as a way of maximizing foreign profits, the multinational enterprise can better negotiate wages, than is possible by producing at home and exporting, by threatening to exercise its capability to relatively easily shift production between alternative locations. Second, the multinational enterprise can weaken the bargaining power of trade unions, whose power is magnified by the size of the firm within which they are organized, or by contracting out work previously done within the firm to a network of dependent subcontractors, both locally and internationally.

2.3.1 (b) Oligopolistic explanation for foreign direct investment

The oligopolistic reaction theory is based on the market power dictum but extends the arguments of the market power approach to discuss specific behaviors of firms in oligopolistic industries and markets. By definition, oligopoly theory asserts that rival firms in oligopolistic industries counter each others moves by making similar moves themselves. Knickerbocker (1973) hypothesized that this follow the leader corporate behavior extended to foreign direct investments as well. Knickerbocker (1973) empirically tested the validity of the oligopolistic reaction theory in the case of foreign direct investment by United States (US) multinational enterprises in the post-World War II years of 1948 to 1967. The study was limited in scope to operations of enterprises in manufacturing industries.

The entry concentration index (ECI) is the quantitative measure used in Knickerbocker's study as a measure of the extent to which United States enterprises, by industry, have bunched together the establishment of their foreign manufacturing subsidiaries. An entry concentration index measures the

extent of oligopolistic reaction within a given overseas industry based upon the notion that within a limited period of time, the number of foreign (in this case – United States) subsidiaries established there is an indication of the degree of oligopolistic reaction within that industry. The entry concentration indexes were developed from data on 23 countries within which approximately 83% of all foreign manufacturing subsidiaries of United States firms (excluding those in Canada) were established during 1948-1967.

Additionally, the measure of industry structure used was the industry concentration ratio (ICR): that part of an industry's total output that is produced and sold by the leading four or eight or n firms in an industry and which is expressed as the n-firm concentration ratio. If, for instance, the collective output of the four largest firms in an industry is 80% of total industry output, then the four-firm concentration ratio for that industry will be 80%.

Knickerbocker (1973) draws these two measures together to test the "follow the leader"/oligopolistic reaction theory. The hypothesis (Knickerbocker 1973:53) of the study is that "for US industries involved in international expansion after World War II, the higher the concentration of output of the leading firms in a given industry, the higher that industry's level of oligopolistic reaction".

Among the conclusions reached by Knickerbocker (1973) were first, that entry concentration (the bunching together of foreign direct investments) has been positively associated with industry concentration. Second, the positive association observed between the two variables seems to have been the result of the behavior of a few leading firms in each industry. And third, entry concentration has tended to be most intense in industries in which marketing capabilities, above all else, have been the key to success.

Knickerbocker's (1973) statistical results also revealed a nonlinear relationship between the two key variables (i.e. entry concentration indexes and Industry concentration ratios) such that oligopolistic reaction behavior holds up to a point. Beyond this point industry leaders tend to reduce the intensity of their competition. This finding supports the belief that as the marketing strategies of oligopolists are highly interdependent, the timing and placement of their foreign direct investments may be determined by an understanding (implicit or explicit) among them that excessively intense oligopolistic reaction is contrary to the best interest of all.

Knickerbocker's oligopolistic reaction theory, at best, can only be a partial explanation of foreign direct investment. This theory can explain that oligopolist firms invest defensively to counter the foreign direct investment of the initiating firm, but it does not attempt to explain why the initiating firm chose to invest abroad in the first place (Lizondo 1991:73).

2.3.1 (c) The product life-cycle theory

The product life cycle theory proposed by Vernon (1966) maintains that the foreign investment decisions of the firm are significantly influenced by the life cycle patterns of its main products. More specifically, the decision by the multinational enterprise as to where to locate production facilities is determined by the nature of the firms products vis-à-vis the stage occupied by these products within the product life cycle. Vernon (1966) defines the product life cycle as consisting of three stages, namely – firstly, the new product stage, secondly, the maturing product stage and lastly, the standardized product stage (Vernon 1966 cited in Chen 1983:26-9). The theory assumes that the firm in question is an innovation-based oligopolist from a developed country.

The first stage is the new product stage during which the product is first introduced in the market. During this stage, production facilities and sales are both based within the domestic market. This is due to uncertainties as to the sustainability over time of the product's demand in distant markets.

The second stage is the maturing product stage which is characterized by peak demand for the product in the domestic market and modest but growing demand for the product in overseas markets. The growth in demand for the product in the domestic market occurs as consumers become more knowledgeable about the product while at the same time the product's price falls due to improved efficiency and standardization of production processes. Overseas demand and sales of the product develop during this stage as the product meets tough competition in the domestic market. With the eventual saturation of the local market by the innovating firm and its competitors, the profit levels of the innovating firm are initially maintained through increased exports. It is during the later phases of this stage that the innovating oligopolist invests in production facilities abroad, usually in other developed countries whose income levels and consumer tastes are similar to those of the domestic country.

The third stage is the standardized product stage during which the product has lost its innovative advantage such that its production processes are commonly known in other developed countries. At some point, the innovative oligopolist will encounter competitive pressures from developed host country firms who begin to produce a substitute product and may even export some of this product to the home country of the foreign oligopolist. In order to continue profiting from the product, the foreign oligopolist must further reduce costs by investing in production facilities in developing countries. During the initial phases of this stage, the products produced by the foreign oligopolist in the developing countries are usually not for sale in those markets but are instead exported

back to the home country of the oligopolist or to other developed countries. In the latter phases of this stage, the oligopolist will attempt to develop a market for the product in developing countries.

The product life cycle theory is supported by empirical analysis of foreign direct investment for the post-war period up to the early 1970s. That is, the theory is consistent with the rise of foreign direct investment by United States firms in Western European countries before subsequently investing in the developing countries (Chen 1983:28).

The product life cycle theory has been criticized, however, for being a partial theory that addresses itself to foreign direct investment of the market seeking kind only. Other types of foreign direct investment such as resource based and efficiency seeking modalities are unaccounted for (Dunning 1993:71). Further, the product life cycle theory has also been criticized for failing to explain the more contemporary phenomena of foreign direct investment such as the fact that in many cases a new product is introduced to domestic and foreign consumers almost simultaneously (Chen 1983:28).

The declining usefulness of the product life cycle theory of foreign direct investment has been attributed to two factors, namely – the network's spread of multinational enterprises, and the shrinking of the income and technology gap amongst developed nations. The network's spread refers to the fact that modern multinational enterprises tend to invest in a network of subsidiaries around the world, and this network often shares information and resources such that new products can be introduced simultaneously in different parts of the world, or if a product is introduced in country A, the interval of time between the introduction of the product in country A and its first production in country B has been rapidly shrinking. Shrinking technology and income differences amongst developed countries weakens the critical assumption of the product life cycle

theory that innovative oligopolists are motivated to engage in foreign direct investment as a result of markedly different economic conditions in foreign markets (Chen 1983:29; Cf. Cantwell in Pitelis & Sugden (eds.) 1991:37-8).

2.3.1 (d) Some empirical evidence on ownership-specific advantages

From the spectrum of monopolistic ownership-specific advantages available to manufacturers, Lall (1980:Chapter 1) selected to examine technology, product differentiation, capital intensity, scale economies and skills. A sample of 25 industries was extracted from data provided at the two and three digit industry levels. The statistical technique used is ordinary least squares (OLS) multiple regression.

The study examined *monopolistic* advantages in terms of their influence on total foreign involvement (defined as the sum of United States exports and United States foreign production). The focus was on determining how these advantages affected foreign involvement in total as well as in its component parts.

The statistical results indicated that Research and Development (RD), as a measure of technological intensity, exhibited higher propensities for export than for foreign production. However, this finding should take into account the fact that this advantage is most likely to exhibit a 'cyclical' effect. That is, as stated by Lall (1980) "*...in the early stages of innovation, there are both country-specific (large markets, technological infrastructure) and firm-specific (coordination required between scientific, engineering, production and marketing units) reasons for keeping production at home. In later stages, as techniques, skills and products become standardized, foreign demand and competition arises, it becomes an advantage which is easy and profitable to transfer abroad*" (Lall 1980: chapter 1). This 'cyclical' effect, therefore, partly

negates the statistical results with respect to the nature of the relationship between Research and Development and exporting or producing abroad. In this regard, the fact that country-specific and firm-specific advantages also act upon the decision of firms to export indicates that the relationship of Research and Development to exporting or producing abroad is far from being a perfectly linear relationship.

Scale economies are also expected to exhibit a 'cyclical' effect as productive capacity first satisfies local demand before expanding overseas. The correlation coefficients on this advantage are more strongly positive and significant for foreign production as compared with those of exports when tested independently. Thus, firms that enjoy economies of scale in production normally prefer foreign production to exporting (Lall 1980: chapter 1).

For each industry, SAL (the number of salaried employees as a percentage of the total work force), PW (the average production wage), and AW (the average wage per employee) were the alternative measures used to approximate 'skill'. Lall's findings are that the factor, average production wage, is significantly correlated with exporting but not with foreign production. In contrast, the number of salaried employees as a percentage of the total work force is significantly correlated to foreign production. Thus firms that have a relatively large number of highly skilled salaried employees are more likely to engage in foreign production than firms with a low skilled workforce whose skills are not easily transferable abroad. These results partially support the studies hypothesis that certain employable skills are easily transferable abroad, these transferable skills being high level salaried skills (Lall 1980: chapter 1).

AD (advertising expenditure) – a measure of the propensity for product differentiation, had the expected positive correlation with foreign production. Lall thusly suggests that the ability to differentiate products through significant

expenditures on advertising gives firms that wish to invest abroad a significant advantage over firms with less significant advertising budgets. Alternatively, KL (capital intensity – measured as total net fixed assets in each industry divided by the total number of employees) failed to reach significance on any of the regressions. Furthermore, its sign changed erratically. It was found, therefore, not to be a factor which is important in influencing foreign production (Lall 1980: chapter 1).

Ownership-specific advantages are not exclusive to the market power approach. Other theories take cognizance of these advantages, however, affording them a lesser degree of relevance. The same can be said of other advantages used to explain the motivating factors of foreign direct investment. These include the location-specific advantages and internalization advantages.

2.3.2 Location-specific advantages

Location specific advantages as an explanation of foreign direct investment can be discussed in terms of the following location-specific factors – availability and cost of inputs, marketing factors, bypassing trade restrictions, and factors related to government policies (Chen 1983:25-6). Thus, a firm investing abroad may simply be attracted by the availability in another country of some inputs which are very scarce at home, or by the lower cost of inputs abroad. This case in point is often evidenced by a lower labor cost in the potential host countries. There are usually also advantages of locating production near the market. In doing so, the local market can be better explored, tariff barriers can be avoided, local requirements can be more easily catered for, and transportation cost can be reduced. It is sometimes also true that production via the setting up of subsidiaries in a host country is more accepted by the local people than direct exporting to that country (Chen 1983:25-6).

With regard to the economic policies of host governments, subsidiaries are often set up by an investing country firm in the host countries which are not yet subject to trade restrictions. The products produced by these subsidiaries are exported to those markets which have imposed restrictions on the exports of the investing country firm. Lastly, a firm may be attracted to invest abroad because another country offers advantages such as lower tax rates, better infrastructure, greater political stability, and great scope for expansion and the pursuance of corporation goals (Chen 1983:25-6).

2.3.3 Internalization advantages

Internalization advantages refer to the ability of firms to reduce the costs and uncertainties of arms length transactions in the market by integrating business operations with suppliers (backwards integration) and/or distributors (forward integration) through mergers, acquisitions or green-field investment (Cantwell in Pitelis & Sugden (eds.) 1991:24). Backward and forward integration can occur in either the domestic or foreign markets, however, under internalization theory, foreign direct investment is said to be synonymous with market integration/internalization that takes place across national borders and is also thought to be brought about by market imperfections (Lizondo 1991:71; Cf. Chen 1983:31). Thus, for example, lower factor costs abroad would represent a market imperfection as well as a location-specific advantage that would give rise to internalization and thus foreign direct investment. In this case, the market that would be internalized is the low cost factor market in question.

In essence, internalization and foreign direct investment are expected to occur when the net benefits of joint ownership across international borders exceed the net benefits of external trading relationships (Dunning 1993:75). Thus, internalization can be seen to be an attempt by the multinational enterprise to seek gains from efficiency rather than seeking gains from extending market

power and erecting barriers to competition (Cantwell ed. Pitelis & Sugden 1991:25).

Internalization theory has been criticized for focusing on the internal motives of the firm to invest abroad, whilst giving only limited attention to external factors such as government policy and regulation that may affect the benefits and costs of internalization (Robock and Simmonds 1989:47; Cf. Lizondo 1991:72).

2.4 The Eclectic Paradigm

The eclectic paradigm proposed by Dunning (1993:76-86) recognizes the inability of a single theory to provide a comprehensive explanation for foreign direct investment by multinational enterprises. The eclectic paradigm thus attempts to tie together elements (with strong explanatory power) from each of the three aforementioned theories (i.e. - ownership, location, and internalization) in order to offer a more dynamic and complete explanation of foreign direct investment.

In support of Dunning's work, Cantwell (Pitelis & Sugden (eds.) 1991) emphasized the need for a diversity of approach for the following reasons. First, international production may be resource-based, import-substituting, export-platform or of the globally integrated kind, each of which raises distinctive considerations and each of which affects home and host countries in different ways. Second, international production can be studied from three different levels of analysis: macroeconomic (examining broad national and international trends), mesoeconomic (considering the interaction between firms at the industry level) and microeconomic (looking at the international growth of individual firms).

It should be noted that the eclectic paradigm is not an alternative international production theory, rather it is an overall organizing paradigm for identifying the elements from each approach which are most relevant in explaining a wide range of various kinds of international production, and the wide range of different environments in which international production takes place. The eclectic paradigm abstracts from the main theories the varying dynamics between the advantages discussed above. That is the ownership-specific advantages denoted as (O), the location-specific advantages (L) and the internalization advantages (I). Thus, rather than emphasizing a specific advantage as the key determinant of foreign direct investment, the eclectic paradigm seeks to clarify the relationship between different levels of analysis (macro, meso and/or micro) and the different questions to be addressed by the analysis. For example, internalization theory may be the most relevant under certain circumstances or when answering certain kinds of questions (such as those related to backward vertical integration into resource extraction), while locational advantages are the key variable studied in determining the firms competitive strategy in it's final product market (Cantwell in Pitelis & Sugden (eds,) 1991:26).

In general, the eclectic paradigm asserts that if a firm possesses only ownership-specific advantages but not (I) and (L), the firm will, inter alia, be indifferent between the competing options of foreign direct investment, exporting, and licensing. In theory, all three options will be equally viable. If, however, the firm's ownership-specific advantages can be internalized, the firm will prefer to either engage in foreign direct investment or exporting rather than licensing. Further, if the firm possesses ownership-specific advantages which it is able to exploit internationally as a result of locational factors/advantages available in foreign countries, the firm will normally engage exclusively in foreign direct investment as opposed to exporting or licensing (Chen 1983:33).

2.5 The Economic Effects of FDI on the Host Country

Before dealing with the subject matter of the economic effects of foreign direct investment occurring in host countries, it is necessary to first identify how the term 'economic' is to be defined and used in the present context. The New Merriam-Webster dictionary defines the term economic as the subject matter which is concerned with "the satisfaction of material needs of humans" (The New Merriam-Webster Dictionary). This definition can only serve as a partial definition, as the term economic is associated with factors other than material needs as proposed by Eatwell et al. (ed) (1987) in *The New Palgrave: A Dictionary of Economics*. Eatwell et al. (ed) (1987) point out that even in the pursuit of wealth (or alternatively, material needs), the term economic strongly implies a fundamental need to avoid waste either of labor or of its produce even where these may have no direct relationship to the production, distribution, or consumption of wealth/material needs. Thus the term economy can be used in diverse applications such as in mechanical engineering where the conservation of energy is often referred to as the 'economy of force', and in project management where 'economy of time' is used to signify an efficient allocation of resources that has little or no direct relationship to the production of wealth or the satisfaction of material needs (Eatwell et al. (ed) 1987). The economic effects referred to in this section of the dissertation, shall refer to the usage of the term economic in the broader context as set out by Eatwell et al. (ed) (1987). Thus, for the purposes set forth for this dissertation, economic effects will be taken to refer to monetary (e.g. gross domestic product and per capita income) as well as non-monetary (e.g. employment and literacy) changes occurring in a specified geographic area (domestic, international, regional etc.) brought about by the entry of multinational enterprises into that geographic area.

Compared to the theories proposed to explain the proliferation of foreign direct investment in the form of multinational enterprises, the theories dealing with the economic effects of the foreign direct investment of multinational enterprises in host countries has received much less attention in the literature. Yet, however, these latter theories are equally important policy determinants. The economic effects of foreign direct investment occurring in the host country can be examined from a number of analytical vantage points. Very generally, foreign direct investment has economic implications for host countries that may be associated with economic development, competitive market conditions, and balance of payments effects (Muchlinski 1995:7-8; Cf. Dunning 1993:283). Theory and empirical evidence to be reviewed in this section address each of these factors in turn.

2.5.1 Economic effects of foreign direct investment of multinational enterprises associated with development

Although the terms productive output, economic growth and economic development are often used interchangeably in the literature, there are important definitional nuances that serve to differentiate the terms from each other. Failing to recognize the distinctiveness of these three terms and using them interchangeably and indiscriminately will no doubt result in inconsistent measurement of the economic effects of foreign direct investment (Kindleberger and Audretsch 1983:21). In order to avoid this pitfall, the above-mentioned terms will hereby be defined as follows (Kindelberger and Audretsch 1983:21-3; Cf. Todaro 1981:56; Cf. Morgan and Gardner 1973:186):

- (a) Productive output is essentially a static measure of productive activities. Thus productive output is the measure of output obtained by a given level of inputs as measured at a specific point in time.

- (b) Economic growth (or its synonym output growth) can also be defined in terms of output obtained from a specified amount of input, however, economic growth is distinguished from productive output as it is a dynamic (rather than static) measure of productive activities measured longitudinally over a specified period of time. The most common measure of economic growth is a nation's gross national product adjusted for inflation; and lastly,
- (c) Economic development is a far broader measure than both productive output and economic growth in that it seeks to recognize factors other than productive inputs and outputs in assessing the contribution of investment to the local economy. That is, economic development, attempts to account for, among other factors, employment, literacy, changes in institutional structures and in some instances even changes in popular attitudes, customs and beliefs.

In keeping with the above conventions with respect to the definition given of economic development, the effects of foreign direct investment on employment will be explored under this section. Also, an important caveat to be addressed before embarking on a discussion of the interactive nature of foreign direct investment with productive output, economic growth and economic development is that as productive output and economic growth limit their definitional scope to productive inputs and output they provide relatively simple quantitative measures whose relationships can be resolved through expression in mathematical form and are therefore readily subject to empirical measurement and testing. On the other hand, owing to the greater detail required to characterize economic development, economic development models are, by default, far less scientific than models of productive output and economic growth and are therefore less amenable to mathematical formulation and proof. The dichotomy lies in the fact that economic development models add greater understanding to the issues at hand whilst at the same time

compromising the scientifically verifiable nature of their findings (Kindleberger 1983:22-3).

2.5.1(a) Foreign direct investment and output growth

Initial attempts to assess the impact of foreign direct investment on productivity levels and output growth within host countries made use of what are now commonly referred to as neo-classical growth-theoretic models of the Solow (1956) type (Herrick and Kindleberger 1983:70; Cf. Todaro 1983:34-9; Cf. De Mello 1997:1). Under these growth models, it was assumed that diminishing returns to physical capital would dictate that foreign direct investment could only affect short run output growth while leaving long run growth unchanged. In essence, the belief was that foreign direct investments initial contribution to growth would diminish over time and thus the economy would return to its steady state growth path (Herrick and Kindleberger 1983:70).

Contemporary growth models as proposed by DeMello (1997) and others make a case for taking account of endogenous variables that act as channels through which foreign direct investment can be expected to promote growth in the long run. Accordingly, foreign direct investment is expected to contribute to long-run productivity growth by adding to the production functions of the host country through the asymptotic growth catalysts of new inputs and advanced technology. In the case of new inputs, output growth can result from the use of a wider range of intermediate and final goods in foreign direct investment-related production. In the case of new technologies, foreign direct investment is expected to result in productivity gains via spillovers to domestic firms. (Feenstra and Markusen, 1994 cited in De Mello 1997).

In fact, De Mello (1997:10) further maintains that human capital augmentation is the most important channel through which output growth takes place via foreign

direct investment. This is because the potential externality effects brought about by knowledge and technology transfers are expected to be greater than those related to the introduction of new inputs. The external effects associated with foreign direct investment knowledge transfers are measured as the augmentation of the existing stock of knowledge in the recipient country of the foreign direct investment, by way of labor training and skills acquisition and diffusion, on the one hand, and through the introduction of alternative management practices and organizational arrangements on the other (De Mello 1997:10). It has thus been argued that human capital augmentation associated with foreign direct investment is a significant endogenous variable in assessing foreign direct investments impact on growth that has been factored out (or overlooked) by classical models of international trade theory. In essence, under endogenous growth models, foreign direct investment is expected to lead to technology or knowledge transfers which in turn bring about human capital augmentation, the result of which is expected to be long-term process innovations and increasing returns (De Mello 1997:8-9)

Through the use of regression and sensitivity analysis, Borensztein et al. (1998:115-35) demonstrate empirically the relationship that exists between foreign direct investment, economic growth and other variables that may tend to affect economic growth either in conjunction with, or independently of foreign direct investment. Essentially the same set of conclusions as those of De Mello (1997) are reached by Borensztein (1998). Change in the average annual rate of per capita gross domestic product (GDP) is used as the measure of economic growth. The Borensztein (1998) study was conducted by way of examining investment flows from an unspecified number of developed countries going into 69 developing countries during the decades of the 70's and 80's.

The results derived from the Borensztein (1998) study suggest that through advanced technology transfer, foreign direct investment contributes relatively

more to growth than does domestic investment. The caveat here being that foreign direct investments contribution to growth can only occur in those cases in which there exists a minimum threshold level of absorptive capability of the advanced technology (this absorptive capability is proxied by a measure of the level of educational attainment of the human capital stock) (Herrick and Kindleberger 1983:70; Cf. Borensztein 1998:117). Ironically, the results derived from Borensztein's (1998) model indicate that foreign direct investment actually decreases economic growth (estimated by gross domestic product) in cases where the absorptive capability is below the threshold measure. He acknowledges that this is inconceivable in the real world and attributes these anomalous results to attempts to model non-linear relationships in linear equations. That is, x and y are most likely non-linear but for simplicity a linear model is defined.

Additionally, Borensztein's (1998) regression results indicate that foreign direct investment on its own has a positive but minimally significant effect on economic growth, whereas the interaction term which is the product of foreign direct investment and human capital stock (available in the host country) registers a positive and highly significant co-efficient. By testing foreign direct investment and secondary school attainment (the measure of human capital stock) individually alongside their product, Borensztein (1998) was able to simultaneously test whether these variables affect growth by themselves or through the interaction term. His findings indicate that neither foreign direct investment nor human capital stock on their own are significant determinants of economic growth, rather it is only when foreign direct investment is combined with a minimum level of human capital stock that a statistically significant contribution is made to economic growth (Borensztein 1998:123-8).

2.5.1(b) Direction of causation between foreign direct investment and economic growth

A significant point of contention that has been addressed in the literature is the issue of the direction of causation between foreign direct investment and economic growth. Caution must be exercised in those cases where foreign direct investment and economic growth exist in parallelism. In such cases it cannot simply be concluded that foreign direct investment leads to economic growth (or vice-versa) based solely on tests of correlation (Wells in Robinson ed. 1987: 17; Cf. De Mello 1997:27; Cf. Caves 1996:224-6).

Although it has been argued that foreign direct investment leads to human capital augmentation which in turn leads to economic growth, it has also been argued that developing countries that have excellent growth prospects (prior to significant foreign direct investments being undertaken in their economies) simply tend to attract greater levels of foreign investment than those lacking growth potential. In the case of the latter argument, positive and significant domestic economic growth may lead to increases in income and purchasing power of domestic consumers who may in turn attract market seeking foreign investments. Additional growth related variables that may tend to attract foreign investment include the trade regime and degree of macroeconomic stability in the host country (De Mello 1997:27).

2.5.1(b)(i) Granger-causality technique

The Granger-causality technique has been proposed as a tool for determining the direction of causation between foreign direct investment (FDI) and economic growth (De Mello 1997:10-15). Granger causality is calculated as follows:

$$\Delta g_{y,t} = a_0 + a_1 \Delta FDI_t + \sum_{i=1}^n c_i \Delta g_{y,t-i} + \sum_{i=1}^n F_i \Delta FDI_{t-i} + u_t, \quad (1)$$

and

$$\Delta \text{FDI}_t = b_0 + b_1 \Delta g_{y,t} + \sum_{i=1}^m d_i \Delta g_{y,t-i} + \sum_{i=1}^m G_i \Delta \text{FDI}_{t-i} + v_t, \quad (2)$$

where g_y is the rate of growth of output (economic growth), n and m denote the number of lags chosen and u and v are standard error terms.

By this technique, and using formula (1), FDI is said to "Granger-cause" economic growth if lagged (rather than current) values of FDI as well as lagged values of the economic growth rate used in the formulation result in more accurate estimates of the current economic growth rate (See also Borensztein et al 1998:131-3). That is, using equation (1), FDI Granger causes output growth if $a_1 = 0$ and $F_i \neq 0$.

Similarly, using formula (2), economic growth "Granger-causes" FDI if more accurate estimates of FDI can be obtained from use of lagged values of the economic growth rate as well as lagged values of FDI inflows in the specified equation. Thus, by equation (2) output growth Granger causes FDI if $b_1 = 0$ and $G_i \neq 0$, and bi-directional Granger causality is obtained if $a_1 = b_1 = 0$ and $F_i \neq 0$ and $G_i \neq 0$.

Using the Granger causality technique for the five Latin American countries (i.e. Brazil, Mexico, Venezuela, Chile and Colombia) that hosted most of the region's foreign direct investment during the period 1970-91, De Mello (1997:28-9) found that in all cases the direction of causation was dependent upon the recipient country's trade regime, ranging from import substitution to export promotion. In the case of Brazil, capital accumulation and total factor productivity (TFP) tend to precede economic/output growth, but the direction of causality between the latter and foreign direct investment was indeterminate. For Chile, on the other hand, foreign direct investment tends to precede output growth. The difference in the findings for these two countries is attributed to the fact that during the

period under study, Brazil pursued import substitution policies, while Chile had a much more open trade regime which focused on export promotion.

2.5.1 (b)(ii) Investment development path (IDP)

An alternative approach to Granger-causality is that developed by Dunning (1993:88-9) and supported by Narula (1996:chapter 2) and others which proposes that the direction of causation between foreign direct investment and economic growth can be explained by diagnosing a country's investment development path (IDP). It must be noted that Narula (1996) takes the terms economic growth and economic development to be synonymous and uses them interchangeably. This fact, however, has little or no bearing on the validity of his thesis, as he explicitly expresses that economic development is proxied by gross national product (GNP) per capita (Narula 1996:15), while elsewhere gross national product is also commonly used as a measure of economic growth (Morgan and Gardner 1973:186)(Supra. the definitions in section 2.5.1 above). Thus, if both economic development and economic growth are set equal to gross national product, then economic development can be said to be synonymous with economic growth.

The investment development path (Infra. Figure 2.1) is essentially an analytical framework based on Rostow's stages of growth model (Cf. Todaro 1981:58) and modified to account for the dynamics of Dunning's (1993) eclectic paradigm (Supra Sect. 3.8). Investment development path theory holds that, *ceteris paribus*, all countries advance through five distinct stages of development, and each of these stages affects the level of inward and outward foreign direct investment. Thereafter, aggregated net changes in inward and outward foreign direct investment will then move the country forward along its development path (Narula 1996:12-19; Cf. Dunning 1993:88-9). The relationship between foreign direct investment and economic growth as explained under investment

development path theory is a symbiotic one in which the direction of causation is a secondary issue to that of the conditions under which the simultaneous occurrence of foreign direct investment and economic growth is observed (Narula 1996:12-19).

Figure 2.1: The pattern of the investment development path

NOI - net outward investment ; GNP - gross national product
Adapted from Narula 1996:22

Economic growth can be mapped out as a country's investment development path. The investment development path is a normative rather than a positive example of the expected interaction between the foreign direct investment of multinational enterprises (NOI) and specified phases of economic development assuming a free-market economy. The reality is that each country is expected to have its own unique investment development path that is a function of four main variables, namely their resource structure, market size, economic system,

and government organization and regulation of economic activity (Narula 1996:12-19). Similarly, according to the eclectic paradigm upon which the investment development path is founded, the propensity of firms to engage in international production (i.e. the foreign direct investment of multinational enterprises) will be a function of three main variables namely ownership-specific advantages (o), internalization advantages (I) and locational (L) advantages (Supra Sect. 2.4).

The fundamental workings of the investment development path, on the one hand, and the foreign direct investment of multinational enterprises on the other as described by the eclectic paradigm, can be seen as two separate modalities that work together in a single system of simultaneous equations, the interaction of which seeks to resolve one or more unknowns about their interrelatedness (Herrick and Kindleberger 1983:22-3). Investment development path theory accounts for these relations in a stages-of-growth approach as described hereunder (assuming a free market economic system with some degree of export oriented rather than import substituting government policy)(Narula 1996:17,26).

Stage one of the investment development path is characterized by low levels of economic development and economic growth. There are few location based advantages within the host country for foreign firms to exploit other than natural resources and cheap unskilled labor. This deficiency in location based advantages may reflect inadequate domestic markets wherein demand conditions are minimal because of the low per capita income, insufficient infrastructure such as transportation and communication facilities and, most important of all, a poorly educated, trained or motivated labor force. During this stage, foreign firms will prefer to export to and import from this market rather than to engage in foreign direct investment. Government policy towards the conclusion of this stage is directed at reducing some of the market failures by

providing infrastructure and upgrading human capital by way of increased spending on education and training (Narula 1996: chapter 2).

In stage two, owing in part to the effectiveness of government policies in stage one, inward foreign direct investment starts to rise, while outward investment remains low or negligible. Domestic consumption is also expected to experience growth in terms of both size and purchasing power thus stimulating some amount of market seeking inward foreign direct investment. Export oriented inward foreign direct investment may also take place in those countries that have and/or provide infrastructural support such as an adequate transportation network, communication facilities and supplies of both skilled and unskilled labor. Domestic firms may begin to close the technology gap that exists between them and multinational enterprises as a result of government policies regarding technology transfer and accumulation. Although outward foreign direct investment by domestic firms increases during this stage, it does so at a rate that is by now insufficient to offset the rising rate of growth of inward direct investment. By the end of stage two, however, the growth rates of outward direct investment and inward direct investment will begin to converge (Narula 1996: chapter 2).

In stage three of the investment development path, the rate of inward direct investment by foreign firms begins to decline while the rate of outward direct investment of domestic firms rises. Consumers begin to demand higher-quality goods as their incomes rise. In response to consumer demands, labor-intensive production of basic consumer goods by foreign and domestic firms will decline as firms retool themselves for the production of high technology goods. Outward foreign direct investment continues to increase as declining industries (such as labor intensive ones) undertake direct investment abroad in countries that are at lower stages of the investment development path (Narula 1996: chapter 2).

In stage four, the rate of growth of outward direct investment is still faster than that of inward direct investment. In fact, a country is considered to be in stage four of the investment development path when its outward direct investment equals or surpasses its inward direct investment. Domestic firms are by now able to compete both at home and abroad with foreign-owned firms owing to higher rates of technology accumulation by domestic firms. Production processes become even more capital intensive than at earlier stages of the investment development path as the cost of capital will be lower than that of labor. A significant proportion of inward direct investment in this stage is from firms originating from other stage four countries and is of an asset-seeking nature (i.e. natural assets and/or created assets). There is also expected to be an increase in the amount of inward direct investment from countries at lower stages of economic growth that is of a market seeking, trade related and asset seeking nature (Narula 1996: chapter 2).

Stage five is the final stage in which net outward investment begins to fall back as outward and inward investment become more balanced. In fact, stage five countries will normally maintain a stable yet fluctuating equilibrium around a roughly equal amount of inward and outward direct investment. This is the scenario that is expected to occur in advanced industrialized nations. With regards to inward direct investment in stage five, this is normally dominated by two distinguishable modes of investment. The first will come from countries at lower stages of the investment development path and will be essentially of the market seeking and knowledge seeking type. The second will be from stage 4 (or stage 5) countries in the form of market seeking, asset seeking, and efficiency seeking investment with greater emphasis on cross-border alliances, mergers and acquisitions. It must be noted, however, that as firms become more sophisticated global operators, their nationalities become blurred. As firms move with countries across the investment development path, they no longer operate principally with the interests of their home nation in mind, as they

trade, source and manufacture in various locations, exploiting created and natural assets wherever it is in their best interests to do so. It is also expected that during this the final stage of the investment development path, firms will increasingly engage in intricate webs of trans-border cooperative ownerships and governance (Narula 1996: chapter 2).

2.5.2 Economic effects of foreign direct investment associated with employment

Employment is an issue that has been argued on both sides of the debate on the foreign direct investment of multinational enterprises. That is, inward foreign direct investment has been argued to contribute to a reduction of unemployment by some whilst others have argued to the contrary.

More specifically, on the one hand, multinational enterprises can contribute to local employment by creating service, supply and distribution linkages with local entrepreneurs. On the other hand, the employment effect of multinational enterprise investments may be negative if local businesses and employment are effectively 'crowded out' by multinational enterprises who do not create linkages but instead enter into direct competition with local businesses (Caves 1996:115-20; Cf. Muchlinski 1995:91; Cf. Daniels and Radebaugh 2001:385-7). Still others have further argued that given that multinational enterprises in general have the potential to affect employment within the host country, policy on multinational enterprises should ensure specified amounts of local participation in their business ventures. In fact a number of countries (mostly third world) have indeed incorporated such requirements in their foreign direct investment policy agendas (Muchlinski 1995:104, 177-181).

Chen (1983) examines the two characteristics of firms, the *choice of technology* and the *propensity to export*, as probable channels through which multinational

enterprise's foreign direct investment leads to employment creation. These will be considered hereunder.

2.5.2 .(a) Choice of technology and employment

With regard to choice of technology, Chen (1983:Chapter 5) argues that the wrong choice of industrial technology by firms can have employment consequences. More specifically, technologically advanced and capital-intensive investment will tend to either have no effect on employment or lead to a reduction in employment, whereas increased employment is expected to result from labor-intensive technology investment. Further, it is also argued that multinational enterprises generally use more capital-intensive and less labor-intensive technologies than local firms (Chen 1983:102). This contention is supported by a number of rationalizations including the following:

- First, technological differences between countries and their firms may make it expensive for foreign firms to adapt or modify their technological processes to be more appropriate for host countries.
- Second, foreign firms/multinational enterprises tend to experience different factor costs from local firms such that they pay higher wage rates to their workers and also normally have better access to international credit. Such factor price conditions would result in their operations being more capital intensive and less labor intensive.
- Third, when faced with a trade-off between instituting labor intensive methods and profit maximization, firms (local and foreign) would normally opt for profits at the expense of labor unless otherwise coerced by government policy.

It should be noted, however, that the empirical evidence on the issue of capital-labor choices of multinational enterprises is rather inconclusive. That is, there

are as many studies that support the hypothesis that multinational enterprises tend to use more capital intensive technologies (than local firms) as there are studies that refute this hypothesis (Chen 1983:103-4). These disparate findings may be the result of the differences in sample countries, industries and firms studied as well as differences in methodological approach of the studies.

2.5.2 (b) Exports and employment

The propensity of firms (both local and foreign) to export has also been shown to lead to employment generation (Chen 1983:Chapter 6). In accordance with the eclectic paradigm (Chen 1983:32-5; Cf. Dunning 1993:76-88; Supra Sect. 2.4), foreign firms choose to invest in host countries whose comparative advantages (i.e. locational advantages) are compatible with their firm specific advantages (i.e. ownership and internalization advantages) and therefore foreign firms may contribute more to production, employment and exports than do local firms. The argument is that if foreign firms invest in industries in which the host country has a comparative advantage, these foreign firms will in fact promote a more efficient use of resources in the host country and concomitantly increase the output and export of manufactured goods of the host country. This increase in output and exports can only be attained through increased employment. Thus, based on this argument, multinational enterprises are expected to contribute more to employment than local firms.

One is cautioned, however, in making this argument unreservedly. Rather, a more competent application of this argument can be made by taking account of all possible counterfactual arguments (Dunning 1993:366). There are a number of possible counterfactual scenarios to the expected foreign direct investment of a particular firm - for example, a different foreign firm from the same or a different country may make the investment in place of the firm under

analysis; local firms may make the investment where foreign firms fail to act; or no investment may take place at all.

The employment outcome expected with the foreign direct investment of the multinational enterprise must be compared with the employment outcome expected if the foreign direct investment in question had not been made. The algebraic difference between these two estimated employment outcomes is the more accurate measure of the employment contribution of the foreign direct investment (Dunning 1993:366). Additionally it is recommended that sensitivity analyses be performed on further counterfactual variables such as the type of investment made, the anticipated response of competitors and the policies pursued by home and host governments (Cf. Robock and Simmonds 1989:324).

2.5.3 Foreign direct investment and economic development in the South African context

From the discourse thus far covered in the present chapter, it can be ascertained that foreign direct investment plays no small role in contributing to the development of a nation and the well-being of it's peoples. Although public as well as domestic private investment has kept South Africa's major industrial cities apace with the infrastructural development standards of the worlds leading industrialist countries; unemployment, illiteracy, and poverty are at odds with these achievements (1996 census data cited in South Africa Yearbook 1999:4-17; 1996 census data cited in Mataboge 1999:199-202).

In general it has been stressed that a government's foreign direct investment policy should be consistent with the development plans of that government (Modelski 1979:313). Thus, for example, foreign direct investment policies that encourage mineral extraction may be counter to development goals as "...*they*

may generate few processing industries or do little to raise the level of local skills”(Modelski 1979:313). At the current point in South Africa's development, the government is currently engaged in a re-assessment of growth and development macroeconomic strategies with specific reference to the role to be played by the private sector (both domestic and foreign) in partnership with the public sector. In this regard, the medium term goals of the government's macroeconomic strategy include promoting the following (South African Yearbook 1999:311):

- (a) A competitive fast-growing economy that creates sufficient jobs for all work seekers;
- (b) A redistribution of income and opportunities in favor of the poor;
- (c) A society in which sound health, education and other services are available to all; and,
- (d) An environment in which homes are secure and places of work are productive.

The South African National Budget continues to give priority to spending on education, health, welfare and social infrastructure, whilst exercising measures to reduce government debt (for example, through privatization) in an effort to increase both private domestic investment and foreign investment (South Africa Yearbook 1999:311). Additionally, the government has committed itself to drastically increasing productivity-enhancing training through the skills development levy that came into effect in April 2000 under the Skills Development Levies Act 1999 (Act 9 of 1999). The skills development levy is aimed at financially supporting sectoral education and training initiatives through the payment of a 1 percent payroll levy by all employers falling under the ambit of the Act (South Africa Yearbook 1999:311).

2.5.4. Economic effects of multinational enterprises foreign direct investment associated with competitive markets

As discussed above, an analysis of the economic effects occurring within the host country of foreign direct investment by multinational enterprises may be conducted under one of two possible assumptions – i.e. perfect markets or imperfect markets (Parry in Hawkins (ed.) 1979:63-5; Cf. Chen 1983:16-7; Cf. Muchlinski 1995:33-8). Under the analytical assumption of perfect markets, capital (foreign direct investment) is assumed to move from countries with low returns to capital to countries that offer higher returns (for example- due to currency and/or interest rate differentials between home and host countries). This shift in capital is assumed to be unimpeded and is therefore further assumed to result in gains to both the host and home countries as a result of a more efficient global allocation of capital. The assumption of perfect markets, however, is far less realistic than that of imperfect markets especially with respect to explaining the existence and proliferation of multinational enterprises. In this regard, there is much greater empirical support for theories that take account of market imperfections such as barriers to entry and monopolistic or oligopolistic market structures. In fact, the contemporary theory of multinational enterprises (the market power approach and the product cycle theory for example) strongly argues that market imperfections are indeed a necessary condition for domestic firms to become multinational enterprises (Hymer 1960; Cf. Vernon 1966 cited in Hawkins ed. 1979:63-5; Cf. Dunning 1993:429). The competitive market effects of the foreign direct investment of multinational enterprises may be observed, *ceterus paribus*, through changes in industry structure. The dynamics of these possible changes in industry structure are discussed hereunder.

2.5.4 (a) Foreign direct investment of multinational enterprises and Industry Structure

The economic effects of multinational enterprise investment, occurring within the host state, can be assessed in-dept by focusing on the changes in industry structure (Parry in Hawkins ed. 1979:65; Cf. Caves 1996:224-7). In fact the very nature and characteristics of multinational enterprises will determine the nature of their effects on host countries. That is, given that (by definition) the multinational enterprise is a firm that has operations in more than one country, it follows that decision-making within any given multinational enterprise operation cannot always be on its own terms, but rather must take account of global multinational enterprise objectives and global decision-making on the part of the parent company. This global focus of the multinational enterprise is what distinguishes it from the domestic firm in terms of isolating those economic effects that can specifically be attributed to the multinational enterprise investment within the host country. Thus, an example of a global multinational enterprise objective that may have economic consequences for a given host government is the 'restrictive export franchise' which requires a given subsidiary to not compete in certain export markets reserved for other affiliates of the multinational enterprise group. This type of constraint may well benefit the multinational enterprise group but will usually have negative effects within the host economy of the subsidiary by way of dampened industry export performance (Parry in Hawkins (ed.) 1979:65-6; Cf. Muchlinski 1995:387-393).

Additionally, anti-competitive characteristics are inherent in the nature of the multinational enterprise as its global access to capital and advanced technology will allow the multinational enterprise subsidiary to enjoy advantages of monopoly power over and above those available to domestic firms in the host market. Although the aforementioned monopolistic advantages gained by the multinational enterprise subsidiary may result in increased productivity and

lower consumer prices in a given industry, these benefits may be substantially transferred out of the host country generally as a result of the global basis of decision-making on the part of the parent multinational enterprise and more specifically through transfer-pricing practices (Parry in Hawkins (ed.) 1979:66; Cf. Dunning 1993:512-15).

Transfer pricing practices refers to the overstatement of the cost of input and intermediate products acquired by the MNE from an affiliate within the same MNE group/company. This accounting overstatement results in a loss of tax revenue to the host country and an unwarranted tax savings to the MNE which may be transferred out of the host economy in the form of retained earnings and dividends (Parry in Hawkins (ed.) 1979:66; Dunning 1993:512-15). Further effects of MNE transfer pricing are the distortion of prices of final products and the resultant inefficient resource allocation within the host industry (Parry in Hawkins (ed.) 1979:66).

The empirical evidence on the effect of MNE investment on the host industry structure suggests that MNE affiliates tend to hold monopoly power in the host markets in which they operate as measured by the relative size of MNE subsidiaries against the size of local firms in both developed and developing countries (Parry in Hawkins ed. 1979:67; Caves 1996:225). This was found to be the case for United States multinationals in both developed and developing countries as well as for MNEs (regardless of country of origin) in Canada and Australia (Parry in Hawkins ed. 1979:67). Further, it has also become evident that many of the host industries in which MNEs cluster tend to be highly concentrated, perhaps reflecting the structure of the home-country industry. This is indeed the basis for the argument that MNE investment often creates adverse 'branch-plant structures' within the host market by replicating, in the host country, the structure of the home-country industry.

2.5.4 (b) The technology of multinational enterprises and industry structure

Relative technological advantage, as measured by research and development (R&D) expenditures, is yet another important mechanism through which the multinational enterprise entering a host market can create market imperfections in that host industry (Muchlinski 1995:429; Cf. Caves 1996:229-31; Cf. Dunning 1993:436). The resulting market imperfections, in turn, then have important implications for industry structure. This is a two stage process that involves firstly the creation of monopoly market power by the multinational enterprise through the exercise of its proprietary rights over its technology either in the transfer of that technology to local partner firms or by using the technology itself. In the second stage of this two-stage process, the market imperfections created will normally have measurable consequences for the host industry structure by way of the size and number of firms competing in the industry after the multinational enterprise entry has taken place (i.e. market concentration) (Parry in Hawkins (ed.) 1979:71-5; Cf. Dunning 1993:431). The transfer of technology to the multinational enterprise's affiliate or to local firms is considered to be an 'inappropriate' form of technology transfer where the MNE simply adapts to the host industry, home market technology and equipment for which factor costs (labor and capital inputs) differ markedly from those of the host country (or industry). This may lead to a less than optimal scale of plant production by the multinational enterprise in relation to the market size of the host country (Caves 1996:229-31; Muchlinski 1995:429-31). In addition, in the situation in which the initial investment by the MNE is followed by the entry into the host market of other multinational enterprises as competing international oligopolists, the expected outcome will in all likelihood be a highly fragmented industry structure consisting of high-cost, underutilized plants and an inefficient allocation of resources in the host industry (Parry in Hawkins (ed.) 1979:71-5).

The terms and costs under which technology is transferred by the MNE are the basis upon which technology represents a major source of monopoly or oligopoly power in the host industry (Parry in Hawkins (ed.) 1979:71-5). These terms and costs normally take the form of tie-in clauses that place restrictive requirements on the use of the technology or 'know-how' by the subsidiary or local partner and in some cases restrictive requirements may be extended to also impose limitations on their purchasing and export policies as well (Parry in Hawkins (ed.) 1979:71-5). Further, this potential of the multinational enterprise to create monopoly power through terms and costs attached to technology transfer is not strictly intrinsic to the multinational enterprise, but it is also often reinforced by existing patent laws within both host and home countries. The combined result, thereof, is that the monopoly element that may be exploited by the multinational enterprise in the process of technology transfer presents an important constraint on host nations gains from inward investment (Parry in Hawkins 1979:71-5).

2.5.4 (c) Form of multinational enterprise market entry and industry structure

The impact of the foreign direct investment of multinational enterprises on industry structure is also partly dependent on the form in which this market entry takes place. Multinational enterprise market entry can occur in either of three ways – green-field entry, take-over or merger. Each one of these three modes of entry may potentially result in a change in the size and number of firms in the industry in question, which equates to a change in industry concentration and/or industry structure (Parry in Hawkins 1979:71-5; Cf. Dunning 1993:431).

A concise definition of a green-field entry, of which will constitute the prescribed definition to be used throughout this dissertation, is that given by Hoogvelt and Puxty (1987:109) as "*Investments involving the establishment of new firms,*

especially new factories or other physical assets, as opposed to the acquisition of existing establishments.” The multinational enterprise that enters an industry through a green-field investment will initially increase the number of firms in a given industry, thereby reducing seller concentration and positively affecting industry structure through increased competition. However, this circumstance may and often does change when the multinational enterprise becomes established in the industry (Parry in Hawkins ed. 1979:71-5; Cf. Dunning 1993:432-3). In this regard, it is important to note that long-term structural changes in the industry occurring after the entry of the multinational enterprise are largely independent of the form of market entry. This being noted, the possible short-run counterfactual outcomes of a green-fields multinational enterprise entry (where it is assumed that the multinational enterprise possesses monopolistic or oligopolistic advantages over domestic firms) may be that (Parry in Hawkins (ed.) 1979:71-5):

- (a) *Established* firms may either be displaced or induced to merge in the face of multinational enterprise entry, and/or;
- (b) *Marginal* firms may be forced out of the industry and some of the remaining indigenous firms may be forced to merge in order to compete with the new entrant.

Industry structure is expected to become more concentrated where firms (established or marginal) are forced out of the industry following an multinational enterprise green-field entry. This displacement of indigenous firms has implications for allocative efficiency, the term allocative efficiency being defined here as the efficient allocation of factors of production (labor, capital and technology) to their most productive uses such that aggregate factor productivity is optimized (Parry in Hawkins (ed.) 1979:85-7; Cf. Dunning 1993:417-20). Accordingly, where the majority of firms exiting the industry are inefficient marginal competitors, allocative efficiency in the industry is improved.

However, where efficient established firms exit the industry, allocative efficiency is diminished (Parry in Hawkins (eds.) 1979:85-7).

Where the multinational enterprise entry takes place through either take-over or merger with an established firm there will be no net change in the number of firms, unless the take-over or merger involves more than one established firm (Parry in Hawkins 1979:85-7). However, even if the number of firms in an industry remains unchanged thereafter, industry concentration and structure may still be altered due to the effects of having a new dominant firm in the industry that will most likely be able to create or amplify market imperfections such as barriers to entry.

Empirical evidence indicates that multinational enterprises tend to engage more frequently in mergers and takeovers in developed host nations than their indigenous counterparts (Parry in Hawkins 1979:72). Whereas, on the other hand, the principle form of entry by multinational enterprises into developing host industries is through green-field investment (Parry in Hawkins 1979:72).

2.5.5 Policy implications of regulating multinational enterprises to ensure competitive markets

The policy implications of regulating multinational enterprises to ensure competitive markets are relatively evident in anti-trust laws as well as in technology transfer laws and policies. The discussion that follows explores these two area of policy.

2.5.5 (a) Anti-trust regulation

Where industry structure is characterized by in-efficiently high levels of industry concentration, the regulation of multinational enterprises through anti-trust law

should be considered (Muchlinski 1995:384-6; Cf. Daniels and Radebaugh 2001:389-90). In the exercise of anti-trust laws under such circumstances, it is important to acknowledge that anti-trust laws should not, and normally do not, differentiate between foreign and domestic firms. However, certain characteristics of the multinational enterprise may require special treatment under anti-trust legislation. These characteristics reflect the international market power possessed by the multinational enterprise and its ability to develop international networks of production and distribution in what are often concentrated global markets (Muchlinski 1995:386-7; Parry in Hawkins (ed.) 1979:66-7). Thus, since multinational enterprises come into being as a result of market imperfections that give them a competitive advantage over domestic and/or single country firms vis-à-vis the internalization of markets in intermediate products across national boundaries, the industries in which multinational enterprises are present tend to be highly concentrated and multinational enterprises also tend to be the dominant firms in those industries. This process in particular leads to the development of characteristics in the multinational enterprise which are consistent with several significant barriers to entry into industries, such as (Muchlinski 1995:386):

- (i) Engaging in high cost advertising;
- (ii) Operating in industries where there are high capital costs to entry; and
- (iii) Engaging in high cost research and development.

Moreover, where the multinational enterprise has put into place an international network for the distribution of its products through subsidiaries or through independent distributors, anti-trust regulation will be focused on the anti-competitive nature of any restrictive conditions that may be placed by the multinational enterprise on its controlled or independent distributors. The restrictive conditions in question may include, for example, binding the distributor to an exclusive contract in which the distributor may only distribute

the products of the multinational enterprise, while also limiting the distributors sales to a specified geographical territory. Across international boundaries this type of restrictive condition may result in the partitioning of world geographical markets by multinational enterprises effectively isolating them from competition originating from distributors, or third parties, operating outside the relevant sales territory (Muchlinski 1995:387-393; Cf. Parry in Hawkins 1979: 79-83; Cf. Chen 1983:20-1).

2.5.5 (b) Regulating technology transfer

As foreign direct investment by the multinational enterprise normally takes place as a package of collective inputs (such as technology, management, capital etc.), the degree of indivisibility of this investment package has the effect of creating monopoly power for the investing multinational enterprise, especially with respect to technology transfer (Muchlinski 1995:427-431; Cf. Parry in Hawkins 1979:68-71). That is, the collective nature of the investment package may limit or exclude potential competition in markets for individual inputs. Thus, the market for technology will be monopolized by the multinational enterprise to the extent to which that technology is supported by the other inputs making up the collective investment package (Muchlinski 1995:427-431; Cf. Parry in Hawkins 1979:68-71). Technological advantage also creates monopoly power when it is used to limit competition by restrictive conditions on the recipients of the technology (Parry in Hawkins (ed.) 1979:68-71; Cf. Chen 1983:69).

Antitrust laws can also be used to control the multinational enterprise monopoly element inherent in technological advantage and technology transfer. However, in addition to antitrust law many Less Developed Countries (LDCs) have developed a highly specialized and separate body of law referred to as technology transfer law that, unlike antitrust law, takes account of policy factors that go beyond regulation through competition policy. In fact, the essence of

technology transfer law is to ensure that transferred technology is appropriate to and benefits the host country usually with respect to development; development being defined here as in section 2.5.1 above (Muchlinski 1995:442.; Cf. Parry in Hawkins (ed.) 1979:70; Cf. Weinstein in Modelski ed. 1979:345-6).

The use of technology transfer laws has met with significant resistance in the negotiations in the Uruguay Round of the General Agreement of Tariffs and Trade (GATT) (Muchlinski 1995:254-7). This controversy stems from the fact that technology transfer laws may be interpreted as posing a challenge to laws on the intellectual property rights of technology transferors in a number of ways. Firstly, by regulating the terms of transfer, host states do not allow the technology transferor to earn monopoly rents on their technological innovations. Secondly, technology transfer laws may infringe upon the foreign patents and trademarks owned by the transferor through the imposition of performance requirements instituted by the host state. And thirdly, in principle, technology transfer laws generally do not afford foreign investors the same treatment and protection afforded indigenous firms in respect to intellectual property rights (Muchlinski 1995:443-4).

In determining how to proceed with policies that address monopoly creation through technology transfer, host governments are often faced with the dilemma of balancing the interests of the multinational enterprise investor, whose Research and Development commitments are grounded in the expectation of monopoly rents from the transfer or exploitation of its technological innovations, with the host governments interests in ensuring technology diffusion into the industry and economy while also protecting technology transferees and other market participants from unfair competitive practices. Thus, policy makers who choose to deny multinational enterprises full monopoly rights over their technological innovations run the risk of creating

a disincentive for technology-based foreign investment into their countries (Muchlinski 1995:442; Parry in Hawkins ed. 1979:68-71).

2.5.6 Balance of payments effects of foreign direct investment

A country's '*balance of payments*' refers to the net balance of financial transactions (both private and public) that a given country has with the rest of the world. In other words, the balance of payments is calculated as the difference (or net balance) between financial inflows from foreign sources into a country versus domestic financial outflows accruing to foreign countries. This measure does not take into account financial flows that occur between citizens within the same country (Klein 1986:504; Cf. Robock & Simmonds 1989:319-21).

The payments and receipts that make up the balance of payments account are usually not in balance as individual investors and borrowers enter into international transactions to advance their respective self-interests without regard to the choices of other individuals or the net balance of any country's balance of payments account (Klein 1986:504).

The balance of payments account is considered to be in deficit when expenditures made by domestic residents' abroad are greater than receipts from other countries. A persistent balance of payments deficit normally leads to a decline in the value of a country's currency relative to other countries. Such a currency decline is normally corrected through the use of monetary policy instruments (Klein 1986: 504, 250-76; Cf. Dunning 1993:385).

In considering the balance of payments effects of foreign direct investment, Hufbauer and Adler (1968 cited in Dunning 1993:392-5) approached the analysis by assuming three possible outcomes or counterfactuals. These they

called the classical, the anti-classical and the reverse classical substitution models.

The classical substitution model postulates that domestically held financial capital that is invested abroad results in a net addition to capital formation in the foreign host country receiving the investment and is thus an improvement to that country's balance of payments, while on the other hand, that same investment represents a net capital outflow and a decrease to the balance of payments of the home country. In other words, under the classical substitution model, foreign direct investment is an improvement to the balance of payments of the host country at the expense of the home country.

Alternatively, the reverse classical assumption proposes that foreign direct investment has no effect on the balance of payments of either the host (recipient) or home (originating) country of the investment. Under this hypothesis, foreign direct investment merely displaces domestic investment that would otherwise have taken place in the host country while at the same time causing no change in capital formation in the home country.

Lastly, the anti-classical model assumes that foreign direct investment improves the balance of payments of the host country by increasing plant capacity there whilst leaving the balance of payments and plant capacity unchanged in the home country. The anti-classical approach differs fundamentally from the above mentioned models in that no substitution is assumed to take place at home or abroad. That is, under this approach, foreign direct investment is a net addition to global capital formation, whereas with the classical substitution and the reverse classical models foreign direct investment is assumed to merely shift investment resources between home and host countries without changing the global volume of investment.

Determining which of the three models to use for analyzing the balance of payments effects of foreign direct investment is further dependent upon the assumptions made regarding the macro-economic policy objectives of both the home and host country as well as assumptions pertaining to strategic options and behaviors of investing firms.

Lall and Streeten (1977) produced some empirical work on the balance of payments effects occurring within a host country as a result of foreign direct investment. Data was collected from 159 multinational enterprises with investments in six developing countries (Columbia, India, Iran, Jamaica, Kenya and Malaysia) between 1970 and 1973. The direct and total balance of payments effects for each firm were examined, with the direct effects being defined as those effects that have an immediate impact on the foreign exchanges (Lall and Streeten 1977:130).

In addition to examining the balance of payments effects of particular case studies of foreign direct investment, Lall and Streeten augmented their analysis of the net effects of FDI by comparing these effects with three possible counterfactual scenarios associated with the case in which the foreign direct investment under study does not take place. These they called the 'import substitution' scenario, the 'financial replacement scenario', and the 'most likely local replacement' scenario (Lall and Streeten 1976 cited in Dunning 1993:399).

According to the import substitution scenario, the assumption is that imported goods would substitute for foreign direct investment in the host country. Using this assumption, the balance of payments effect is calculated as the difference between the foreign exchange generated by the foreign direct investment and the foreign exchange that would have been spent on the imported goods assuming the absence of the foreign direct investment. The second approach – the 'financial replacement' scenario – assumes that locally-owned firms would

have made similar investments to those of the multinational enterprise under study. In this case, the net balance of payments effect is adjusted to reflect the difference between the costs of capital faced by the domestic firms and the foreign firm. The third scenario, the 'most likely local replacement' scenario attempts to calculate and make an allowance for that portion of inward foreign direct investment that is not readily substituted or replaced by domestic investment.

Lall and Streeten (1977) devised a composite index based on technological and entrepreneurial capabilities of host countries to assist in determining the most appropriate of these scenarios to use for given investments. Using this approach, Lall and Streeten (1977:Chapters 7 and 8) found that the direct balance of payments effects of sample firms was negative in all of the surveyed countries except Kenya. In the case of Kenya, inward investment was found to be beneficial to the direct balance of payments no matter which of the three scenarios was assumed. However, Kenya was not considered to be a typical host developing country, since an above average number of foreign firms there were export oriented (Lall and Streeten 1977:132).

In Latin America, Vernon (1973 cited in Dunning 1993) found that, inward foreign direct investment has a positive effect on the balance of payments account for a given sample of firms, unless it is assumed that the goods and services arising from the investment would have otherwise been imported. Biersteker (1978 cited in Dunning 1993) obtained similar results for a sample of foreign firms in Nigeria.

2.6 Conclusion

In order to understand the policy implications faced by governments with regard to inward foreign direct investment, it is essential to review the theoretical,

empirical and even anecdotal evidence on the expected long-run effects of this type of investment that may occur within the host country. In this regard, macro-economic variables (employment, the balance of payments account, and the structure of the market) that are hypothesized to be affected by foreign direct investment have been analyzed.

Chen (1983) proposed that foreign direct investment affects employment through either of two channels - the choice of technology used and/or export propensity. The nature of this relationship is that technologically advanced foreign firms have little or no positive effects on employment, whilst the propensity of foreign firms to export is significantly positively correlated with employment. These findings, however, are somewhat inadequate as they simply allude to the total number of jobs created rather than bringing into the analysis more subtle but important criteria such as the quality of jobs, whether there has been a trend to more or less skilled employment, the level of expatriate employment, training, and the indirect employment effects brought about through sub-contracting.

As to the balance of payments, a host state's balance may be improved by the inflow of new capital represented by a direct investment. However, this initial effect is countered by the long-term outflow of capital through repayment of loans and through dividend remittances. A balance of payments deficit would be recorded in circumstances in which these financial outflows exceed the initial investment.

With regard to the competitive effects of foreign direct investment on the host economy, it is often asserted that multinational enterprises will spur domestic firms into greater efficiency by exposing them to new competition. However, in the absence of significant spill-over effects that make new techniques available to local firms, and in the absence of adequate investment capital for local firms

to develop, the net result may be that the foreign firm will drive the local competition out. Given the highly concentrated nature of many of the markets in which multinational enterprises operate, significant anti-competitive effects may result.

Complicating the evaluation of the effects of foreign direct investment on the host country, is the necessity for quite subjective assumptions to be made as to most likely state of affairs given the absence of foreign direct investment. That is, effects can only be meaningfully measured by comparing a state of being with some explicit alternative. Thus, to measure the effects of the foreign direct investment one has to assume what would have happened in the host country if this investment had not been made. Past efforts to measure the effects of foreign direct investment have demonstrated that the results are quite sensitive to the assumptions made.

In addition to examining specific economic effects of inward foreign direct investment, it is also crucial for the policy process that an understanding be cultivated of the factors that motivate a national firm to choose to become multinational in scope. To this end, the theoretical literature reviewed in this chapter also deals with explaining the existence and proliferation of foreign direct investment. Theories of the multinational enterprise and foreign direct investment gained momentum in the 1960's with the comprehensive works of Hymer (1960, 1968, 1976), Coase (1937, 1960), Knickerbocker (1973) and others whose concerns centered around market imperfections and the possible disruptive forces of foreign multinational firms in developing countries.

One of the major justifications put forward for the essentiality of multinational enterprise policy is related to the issue of their tendency towards restricting competition in the industries and markets in which they operate. To this end, a number of conclusions can be drawn from what has been theoretically and

empirically demonstrated in the literature. Caves (1988), for example, argues that multinational enterprises are prevalent in industries with high levels of concentration simply because the factors that give rise to entry barriers and thus high concentration are the same factors that give rise to the multinational enterprise form of business. Knickerbocker (1973) reached a similar conclusion through empirical testing, showing that a correlation exists between multinational enterprises and market concentration.

Of all of the studies surveyed, none was able to establish directional causation between the foreign direct investment of multinational enterprises and market concentration. Thus, based on the inconclusive nature of the evidence it is doubtful that this issue by itself is enough to establish grounds for the justification of a separate regulatory regime for multinational enterprises. A more realistic and limited approach to giving the issue some consideration in the formulation of foreign direct investment policy specific to multinational enterprises is to explicitly take account of the fact that multinational enterprise investments should take place in a legal environment that is characterized by a well developed competition and anti-trust policy regime. It may be difficult to discriminate against foreign businesses on this or any other basis; however, an awareness of the potential for abuses of a dominant position can at minimum be addressed through improved monitoring in the foreign direct investment policy framework.