

MULTINATIONAL INVESTMENT AND ECONOMIC STRUCTURE

Globalisation and competitiveness

Rajneesh Narula

Types of investment
in multinationals
Globalisation and
international business



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FOREWORD

John H. Dunning

The integration of research studies on technological development and foreign direct investment (FDI) is still at a rudimentary stage. It is, however, one of the fastest growing and potentially rewarding fields of study among scholars. It is also capturing the attention of researchers from many different countries, notably the US, the UK, Italy, Sweden and Canada, and, increasingly, from an interdisciplinary perspective.

While the role of technology as a vehicle of growth and development was implicitly acknowledged throughout the nineteenth century, it was only explicitly introduced into mainstream economics by Joseph Schumpeter in the early twentieth century.¹ Work on FDI is of even more recent origin, and dates back only to the early 1960s.² The first intellectual twinning of the two strands of thought was attempted by Raymond Vernon,³ who, in the 1960s, was actively involved in studying both the growth of multinational enterprises and the role of technology in international trade. His, justifiably famous, product cycle thesis attempts to show (a) why the technological advantages of multinational enterprises (MNEs) reflect the specific characteristics of their home countries, and (b) how the mode of servicing foreign markets to exploit these advantages may change over time. However, in the later 1960s and 1970s, the scholarly train of development of technology-related growth and FDI studies proceeded along very different lines. Each, indeed, spawned different explanatory models and theories, as Dr Narula details in this book. Although, periodically, bridges were built between the interests of the two groups of scholars, it was not until the 1980s that the dynamic interplay between technology and FDI was systematically examined.

The first glimpses of an integrated paradigm appeared in John Cantwell's book, *Technological Innovation and Multinational Corporations*, published in 1989.⁴ *Inter alia*, Cantwell attempted to marry Nelson and Winter's evolutionary theory of growth⁵ with that of the eclectic and internalisation paradigms of international production. In doing so, he

FOREWORD

proposed a developmental theory of FDI in which the competitive advantages of both firms and countries were seen to be the result of cumulative technological and organisational advances.

In the late 1980s and 1990s, further work on the interaction between technology and FDI was published. As often occurs, as a discipline develops, various different, but complementary, schools of thought emerge. Thus, today, the Sussex school and most Italian scholars are interested in technological innovation; the Swedish researchers are particularly concerned with the location of R&D; while the Reading and Canadian economists remain primarily interested in the innovative trajectories and organisational modalities of large MNEs.

Dr Narula begins by tackling his chosen research topic from the standpoint of an international business scholar. More specifically, he is using and extending a concept developed by me in the late 1970s – namely, the investment development path – to explain the interplay between inward and outward direct investment and the changing economic structure of both host and home countries over the past thirty years or so.

However, Dr Narula does much more than identify the characteristics of this relationship. The central core of his thesis concerns the ways in which the competitive (and largely mobile) advantages of firms and competitive (but largely immobile) advantages of countries may mutually reinforce each other over time. Among other things, he shows that the interface depends on (a) the economic and political characteristics of the countries concerned, (b) the type of FDI (e.g. whether it is market, resource or asset seeking), and (c) the policies pursued by home and host governments towards both FDI and the macro-organisation of economic activity.

Dr Narula's key finding is that, as countries go through various stages of their development, the dynamics of the juxtaposition of their location bound assets with those of their own foreign MNEs changes. While both too are, to a certain extent, path dependent, as countries mature, not only do the structures of their economies tend to converge, but the uniqueness of their location bound assets becomes less based on the comparative advantage of their *natural* factor endowments, and more on their ability to *create* new assets (e.g. technology and human capital). Dr Narula also reveals a similar convergence among the leading MNEs, with their core competencies shifting from the possession of specific assets to the way a unique portfolio of assets is organised on a global or regional basis. Indeed, he suggests that part of inbound FDI in industrialised countries is not to exploit the use of existing competitive advantages of the investing firms with those of the natural resources of host countries, but rather to use the created assets of these countries to protect or upgrade their capabilities.

ACKNOWLEDGEMENTS

Unfortunately, we live in an age when too many people are gifted with the commonest of all gifts: hindsight. This may account for the large number of people (most of whom are economists) who believe they know how anything, once done, could have been done better. Regrettably, I too must stand up and be counted among these multitudes: I am painfully aware, *ex post*, of how this could be a much better book, and how to do so. Nor is this the first time: this book is based on previous work I did for my PhD thesis, completed in 1993 at Rutgers University.

There are people I must thank for their instrumental role in terminating what might possibly have been a never-ending quest. First and foremost of this group is my PhD supervisor, Professor John Dunning. Not only has he generously given of his time to hear my ideas out, he has also been pivotal in keeping my thinking focused when I have (all too often) strayed from the main issues. Chapters 2 and 7 are based largely on a paper I co-authored with Professor Dunning entitled, 'Transpacific direct investment and the investment development path: the record assessed', *Essays in International Business*, no. 10, May 1994. I am grateful for his permission to do so. I must also thank Dr Kofi Afriyie, Professor H.P. Gray, Professor Farok Contractor and Professor Terutomo Ozawa, all members of my PhD committee, for their continuous encouragement, suggestions and advice. I have always had the good fortune of being surrounded by people who are not averse to outright honesty and infinite patience. Professor John Hagedoorn of the University of Limburg is perhaps more endowed with the first of these qualities than anyone I know, and he has exercised both in no small measure since I have worked with him.

However, there are those with whom my discussions have had much the opposite effect, introducing me to new concepts that have threatened to lead me astray (and to some extent have succeeded). These individuals are too numerous to mention, although many of them are associated with the Maastricht Economic Research Institute on Innovation and Technology (MERIT) at the University of Limburg. Prior to my arrival

FOREWORD

Another noteworthy feature of Dr Narula's monograph is that, unlike most studies of the investment development path, it pays special attention to the position of developed industrialised countries. Here, the author emphasises the growing role of national governments in organising or influencing the interface between FDI and technological development. Increasingly, as he points out, MNEs are investing abroad to acquire complementary assets to use with their own competitive advantages; and, more often than not, governments, by their education, industrial and transport and communication policies, critically influence the availability, quality and cost of these assets.

This is a brave and original study, and Dr Narula explores unchartered territory for the international business scholar. I am confident that his analysis and findings will be well received and provide the academic community with much food for thought. No less significantly, his research has considerable implications for national governments as they seek to reformulate their macro-organisational strategies in the light of the globalisation of economic activity. I congratulate him on the publication of this his first book, and look forward to reading more of his scholarly research in future years.

*University of Reading
and Rutgers University
August 1995*

NOTES

- 1 See, for example, his *Theory of Economic Development*, first published in 1912.
- 2 As described, for example, in Dunning, J.H. (ed.) (1992) *The Theory of Transitional Corporations*, London: Routledge.
- 3 See his classic article, 'International investment and international trade in the product cycle', *Quarterly Journal of Economics* 80: 190–207 (1966).
- 4 Basil Blackwell, Oxford.
- 5 Nelson, R.R. and Winter, S.G. (1982) *An Evolutionary Theory of Economic Change*, Cambridge, Mass., Belknap Press.

ABBREVIATIONS

DCMNE	developing country multinational enterprise
EC	European Community
ECU	European Currency Unit
EFTA	European Free Trade Area
EU	European Union
FDI	foreign direct investment
G-7	Group of Seven
GDP	gross domestic product
GNP	gross national product
I	internalisation
IDP	investment development path
IMF	International Monetary Fund
L	locational
M&A	mergers & acquisitions
MERIT	Maastricht Economic Research Institute on Innovation and Technology
MITI	Ministry of International Trade and Industry
MNE	multinational enterprise
NAFTA	North American Free Trade Area
NIE	newly industrialising economies
NOI	net outward investment
NSI	national systems of innovation
NTBs	non-tariff barriers
O	ownership
Oa	asset-based ownership advantages
OECD	Organisation for Economic Cooperation and Development
OLI	ownership, locational and internalisation
OPEC	Organization of Petroleum Exporting Countries
Ot	transaction-cost based ownership advantages
R&D	research & development
RCA	revealed comparative advantage

ACKNOWLEDGEMENTS

in Maastricht, I had been blissfully unaware of more than the basics about technology, innovation and evolutionary economics. Although there are those who believe I remain so, I am nevertheless grateful to them for expanding my horizons.

Data used here have come from a variety of sources. Gratitude is expressed to MERIT for providing some of the data used, and particularly Bart Verspagen who has been very generous with his time. Other data were kindly provided by various members of the UNCTAD Program on TNCs, formerly the United Nations Center on Transnational Corporations (UNCTC). The assistance of the reference librarians at Dana Library, Rutgers University, cannot go unmentioned – especially Ka-Neng Au and Roberta Tipton, who spared no effort in discovering new treasure troves of data and information concealed in all sorts of unlikely places!

Last but by no means least, I must thank Karin Kamp, who has put up with my alternating and erratic states of panic, depression and euphoria since we first met, and continues to listen patiently to unsolicited monologues on foreign direct investment. Although she sometimes sees less of me than my Macintosh does, I urge her to keep in mind that it is quality that counts, not quantity.

A cautionary word to those who intend to read further: the subject matter herein straddles economics and international business. This is still very much a grey area, and my attempts to shed light may not meet the expectations of those with a more puritanical and rigorous persuasion. The analyses and discussion in this book follow an evolutionary process, and amply demonstrate that my knowledge of the subject at hand is incomplete, and – as must be expected from my being boundedly rational – my thinking unfortunately path-dependent. I apologise in advance for all inconsistencies and errors. On one issue, though, I am gifted with perfect information: the reader is not likely to learn as much from reading this book as I did from writing it.

*Maastricht
March 1995*

INTRODUCTION

THE RESEARCH OBJECTIVES AND WHY IT MATTERS

There can be few areas of intellectual pursuit that have attracted as much interest as that of economic growth and development, as the almost infinite number of theories of economic development and learned publications on the causes of economics growth will attest to. A significant proportion of these efforts – explicitly or implicitly – regard the international economic activity of nations as being central to their economic prosperity. However, until relatively recently, international economic activity has been synonymous with trade. Over the post-war period, the activities of multinational enterprises (MNEs) have been seen to have grown at a phenomenal rate, primarily through foreign direct investment (FDI). Since 1981, FDI flows have consistently grown faster than GDP or exports on a worldwide basis. With the global sales of MNEs having exceeded \$4.8 trillion in 1991, compared with world exports of goods and non-factor services in the same year of \$4.5 trillion (UNCTAD 1994), this is increasingly seen as a significant phenomenon. The importance of FDI is further underscored by the growing role that MNEs play in international trade: one-third of world trade in 1991 was estimated to represent intra-firm trade.

The significance of FDI in the world economy is much less controversial than is its influence on economic growth, although an overwhelming majority of countries' economies now explicitly regard FDI as an integral and crucial part of their growth strategy. Our objective is to examine the dynamic interaction between MNE activity and economic development and restructuring in a country. The framework developed and utilised here is the dynamic version of the investment development path (IDP), originally postulated by Dunning (1981a, 1988a). Its primary thesis revolves around three issues. First, national economies undergo structural change as they grow. Second, the structure and level of development of the economy of a country are related in a systematic way to the

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(1988)

RPA	revealed patenting advantage
TPDI	transpacific direct investment
UN	United Nations
UNCTC	United Nations Centre on Transnational Corporations
Unesco	United Nations Educational, Scientific and Cultural Organisation
VCP	vicious cycle of poverty
VER	voluntary export restraints

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extent and nature of the FDI activity undertaken by its domestic firms (outward FDI), as well as by those of other nationalities within its national boundaries (inward FDI). Third, the relationship between the FDI activities (both inward and outward) associated with a given country and its economic structure is a dynamic and interactive one; i.e. FDI activity is influenced by the structure of the economy, as well as vice-versa. It is not our intention to evaluate *whether* in fact FDI promotes economic development. To the extent that we assume throughout this monograph that under certain conditions this is generally so, our analysis represents a normative one.

The objectives of this book are two-fold. First, we attempt to develop an understanding of the concurrent evolution of economic development and FDI. In particular, we focus on the changing nature of competitive advantages of countries as they move from a natural asset base towards a created asset one. The balance between the level of natural and created assets essentially determines their economic structure. The nature of their comparative advantages helps determine the nature of the firm-specific assets (i.e. competitive advantages of firms or ownership (O) advantages) of the firms operating in the domestic environment. The inter-temporal dynamics that lead to shifts in the economic structure are strongly associated with both the process of technological accumulation and the development of firms' competences, as well as with the role of governments in facilitating industrial development and economic growth through policy implementation and development. The role of government is highlighted in that it is significant in determining and facilitating the efficiency with which created assets are developed and used, through infrastructural development and national systems of innovation.

The second objective of this monograph is to analyse and evaluate the nature of the relationship between FDI activities and economic structure as a result of recent profound changes in the structure of the world economy. These changes have at least two major implications for the IDP, as well as for economic policy. The first implication concerns the possible changes in the nature of the IDP among the industrialised countries. These are associated with the phenomena of 'catch-up' and convergence among these countries that are not unrelated to the process of regionalisation among the Triad countries (the EU, Japan and the US). Industrialised economies have become increasingly linked through *de facto* and *de jure* integration, as well as through an increasing extent of MNE activity between and among this group of countries which has led their economies to a high extent of interdependence. Although the intra-Triad level of FDI has grown quite rapidly over this time, the economic growth of these countries has declined. This has led to a sort of equilibrium relationship in the IDP. We introduce a fifth stage to the IDP to explain this. Countries at stage 5 no longer exhibit a direct

INTRODUCTION

relationship between their FDI and their income levels, since they are no longer growing in an absolute sense, but through a process of structural adjustment *within* their individual economies and *between* sectors, as well as among themselves. Indeed, it is argued here that the structural evolution of these economies is facilitated in part by the growing MNE activity associated with the Triad.

However, this process of regional integration poses serious questions as to the continuing causality of country-specific characteristics and their FDI activity among the Triad countries. The more globalised the operations of a firm, the greater the extent to which its O advantages are likely to be firm-specific, rather than determined by the economic, political and cultural conditions of its home country. Moreover, the O advantages of a firm will increasingly be dependent on its ability to acquire and develop *created assets* and on its ability to organise efficiently these assets in order to exploit the advantages arising from common governance, making the MNE less dependent on its home country's natural resources. As such, O advantages become increasingly firm-specific as MNEs become more internationalised. The consequence of this is that the outward FDI of a country's firms at stage 5 is no longer entirely dependent on the economic status and competitiveness of its home country, and is increasingly affected by the conditions in the various other countries in which they operate. Since these MNEs are increasingly involved in higher value added production activities, the ownership advantages of these firms will reflect the firm-specific assets that they have generated in other locations and countries. Therefore we should expect to see, as a country evolves from a developing country to an industrialised one, a change in the nature of the country-specific determinants of FDI activity, as well as a decline in the significance of country-specific determinants, as firm-specific factors play a more important role. Indeed, it can be argued that, as countries become increasingly integrated and homogeneous through the process of globalisation, country-specific determinants might, in the limit, become insignificant in determining the extent and nature of FDI associated with a country, and the competitive advantages of their firms might become more similar.

The analysis conducted here suggests that differences between countries' MNE activity endure. On the other hand, the evidence suggests that, while countries are becoming similar in their economic structure and FDI profiles, they are by no means equivalent. A partial explanation suggested here is that there may actually be two types of country-specific characteristics. The first type concerns those that are natural-asset-based and associated with supply-side issues (e.g. natural resources) that determine the *kinds* of sectors in which firms are engaged in. This type of locational (L) advantage can be regarded as 'exogenous'. These are becoming relatively less important in determining the competitive advantages

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(Méjico)

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ficar y sistemi-
zar los datos]
para cada MNE con
sus más grandes
y más grandes
"activos creados" y
si la organiza e-
ficientemente.

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• países desarrollados: etapa 5 es la
última (totalidad)
desarrollada

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podría ser la 1 o la 2 (?)

3 - Ventaja de Mex con otros países de Latinoamérica (natural asset)
que viene FDI que "crea activos" tecnológicos y otras
disponibles
- Conocemos numeros de m FDI: las mayores MNE's
mejores son de industrias tradicionales (calzado, agricultura)

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of their firms. The second type relates to those that are created-asset-based and are significantly influenced by the actions and policies of governments (e.g. infrastructure) that determine the *extent or level* of the competitive advantages in these sectors. This type of L advantage can be regarded as 'endogenous', and it plays an increasingly important role in determining the competitiveness of firms from the industrialised countries. The policy implications of this finding are self-evident.

The second implication is closely related to the first. The increasing dominance of the industrialised countries as a destination for outward FDI, as well as their continuing dominance as the primary source of outward FDI, is closely associated with the failure of the developing countries to catch up with the industrialised world. The industrialised countries are home to over 90% of all MNEs. In terms of outward FDI, they account for about 97% of all outflows of FDI. This state of affairs has changed only marginally during this century. What has changed is the extent to which they have been seen to increasingly dominate inward FDI: in 1914 they were host to less than 37.2% of total worldwide FDI stock, and by 1990 they accounted for 81.2% of the total (Dunning 1988a, 1993b). This has severe implications for developing countries, who have over the past decade or so moved away from import-substituting regimes towards more open and export oriented regimes. Their development strategies are (often explicitly) increasingly reliant on the inward flow of FDI, as a source of both capital and technology. Technology spillovers and capital are both necessary inputs for economic development, especially in less developed economies which are caught in the vicious cycle of poverty. With FDI increasingly flowing among the industrialised countries, this has caused a divergence, as developing countries, with the exception of the newly industrialising economies (NIEs), are experiencing slowing growth, impairing their ability to catch up with the industrialised countries. It therefore becomes increasingly germane to understand the reasons behind the growth of FDI activity among the industrialised countries, and their increasing preference to invest intra-Triad.

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DYNAMIC ASPECTS OF FDI AND GROWTH: THE LINK TO 'NEW' GROWTH THEORIES

There is an increasing chasm developing within the world of international economics, between what Dosi *et al.* (1990) have referred to as the 'revisionists' and the 'heretics'. The 'revisionist' group relies on the modelling of economic activity through variants of the Hecksher-Ohlin-Samuelson framework by relaxing some of its restrictive assumptions. The 'heretic' school, on the other hand, takes a more dynamic view of international economic activity and economic development and places technology and innovation at the centre of its analysis. Differences in

INTRODUCTION

innovative activity determine the specialisation pattern of countries and the economic growth of countries. The process is regarded to be in a continuous state of disequilibrium, and the interaction between international economic activity, technology and economic growth is considered to be a dynamic and constantly evolving phenomenon.

There is no single unified theoretical approach to the 'heretic' school. However, although this is a field that is considerably fragmented and includes the neo-Schumpeterians, the evolutionary economists and the convergence theorists, their theoretical approaches share several fundamental features.

Much of the work in this area has focused almost exclusively on trade.
Despite the growing significance of FDI, little has been done to study its relationship to economic growth and development within a dynamic and evolutionary framework, with the notable exception of Cantwell (e.g. 1989, 1991). In this monograph we utilise theoretical concepts that derive from these new growth theories, but also develop a framework of analysis that is compatible with such approaches.

Given our aim of reconciling FDI to the 'heretic' school of economics, it is therefore appropriate to summarise some of the most salient features from the perspective of our subsequent discussion. There are two facets of this body of work that are crucial in understanding our subsequent work: the nature of technology, and the convergence and catch-up theory. We provide a brief synopsis of these two issues to facilitate our subsequent discussion.

First, central to economic growth is the role of technological accumulation¹ through innovation. Some of the most important features of technology can be summarised as follows.

- 1 Technology is cumulative in nature and occurs on a firm-level basis. Technological capabilities are developed by the gradual accumulation of skills, information and technological effort, and firms will develop their technological capabilities in response to market, supply and demand conditions, as well as from adapting and imitating other firms in the same or similar markets. Firms are boundedly rational, and prefer to engage in innovative activities that minimise the uncertainty of the outcome. Therefore, innovations tend to be related to a firm's existing technological competences. Given this tendency, technology is said to be path-dependent, in that current technological competences are a function of its past technological competences.
- 2 Although technology is primarily a firm-specific phenomenon, it is possible to speak of national technological advantages, which comprise more than the summation of technological advantages across firms in a given industry in a particular country.
- 3 Technology is localised in nature not only at a firm-level, because of

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its path dependency, but also on a country-specific basis, since cooperation between users and producers in the innovative process is often specific to a given location, and every location has different supply and demand conditions.

- 4 Technology has a partly public-good nature: although it is relatively less costly to acquire technology than to create it, because of its localised nature and its specificity to the innovating firm, there are costs to the recipient firm to utilise it efficiently in its own environment. In other words, technology is only partially appropriable by other firms, and the extent to which they can do so depends on the similarity of their environments and past technological capabilities.
- 5 Differences in levels of technological capabilities between countries in a particular industry determine the competitiveness of countries in that industry. Therefore they are fundamental in explaining differences in market shares between countries.
- 6 Technology may be said to consist of (a) ownership advantages that are generally firm-specific, both of the codifiable and non-codifiable variety, and which include knowledge pertaining to organising intra-firm transactions efficiently, and (b) the knowledge inherent in industry and the country-specific structure of markets that relate to the organisation of efficient transactions.

Throughout the rest of this book, the role of technology is taken as the primary determinant of the ownership advantages, and it is assumed that technological capabilities are endogenous to firm, MNE and economic growth. In other words, technological capabilities and the process of technological accumulation underlie the structure of economies and the competitiveness of firms and countries.

The second essential issue germane to dynamic growth, particularly with reference to the economic growth of industrialised countries, is the convergence theory. This literature² is aimed at explaining the recent slowdown of productivity growth among industrialised countries as well as the tendency for the per capita income levels and labour productivity to converge among these countries to the level of the leading country in the long run. Within this group, it has been demonstrated that lagging countries grow faster, exhibiting growth rates that are inversely proportional to their productivity lag. The main thesis of the convergence theory is that the level of technology embodied in a nation's capital stock is greatest for the leading country. The greater the technological gap between the lag and the lead country, the larger is the pool of technology that the lagging country may acquire, provided it possesses the capabilities to utilise it, and the greater its potential for economic growth. Logically, therefore, the smaller the difference in the capital stock

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between the lag and lead country, the slower its economic growth. At the same time, income levels have also been demonstrated to be growing faster within the richer economies than within the poorer ones. This divergence has occurred despite technological catch-up arising from the proliferation of the activities of MNEs, the integration of world markets and information technology, which should, theoretically, increase technological spillovers to lagging countries.

It may be argued, then, that industrialised countries have, by default, benefited the most from the integration of the world economy. For this reason, the economic growth of industrialised countries deserves special attention, not just to the reasons why their growth rates are faster than those of non-industrial countries, but to why and how their economies have evolved differently *within this group* as well as the underlying reasons for the process of convergence. Abramovitz (1990) ventures to suggest that the tendency to converge depends on the countries in question having similar *social capability* and *technological congruence*. By social capability, he refers to the political, cultural, economic and social infrastructure associated with the country. The second condition, that of technological congruence, is a function of the capability of the country to benefit from technological spillovers from leading countries, and its ability to accumulate technology. Not all countries will be equally capable of catching up in all industries, as this depends on the nature and level of a country's created and natural assets as well as the characteristics of its markets. Not every country will be able to exploit its full potential for rapid growth because of different conditions of resource supply and markets, arising from, *inter alia*, a different mix of raw materials, capital intensity, scale of operations and/or underdeveloped markets. The role of competition in an integrated economy is crucial in promoting innovation. However, this will depend on the product and industrial overlap with the leading country. As the economic distance between the lag and lead country increases, the product overlap decreases, therefore inhibiting the ability to catch up with the lead country because of reduced technological spillovers.

The simultaneous divergence of the growth in income levels between rich and poor economies, and the convergence among industrial (and rich) economies, present a paradox that can in part be explained by the vicious cycle of poverty (VCP) (Alam and Naseer 1992) prevalent in poor (and non-industrialised) countries. The inability of these countries to escape from the vicious cycle, and therefore to converge, can therefore be explained by the absence of the same conditions that underlie convergence in industrialised countries, viz. that, while technological spillovers assist productivity growth in industrialised economies, non-industrialised, poorer economies are unable to utilise such spillovers, either because they are not available to them or because the countries do not

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have the social and technological capability. However, the divergence trend of productivity growth is true only for the industrial sector, while in agriculture there *has* been catch-up by poorer economies. Therefore, the VCP may also be explained by the failure of non-industrialised economies to restructure their economic structure away from an agricultural base to an industrial one.

HOW THIS BOOK IS ORGANISED

Chapter 2 examines the dynamic interaction between MNE activities and economic growth, highlighting the evolutionary trends behind this symbiotic relationship and their path-dependent nature. The central theme revolves around the argument that the extent and nature of the FDI profile and the economic structure of a country at a given point in time are determined by that in previous periods. Additionally, we highlight the role of government as a prime catalyst in determining the evolution and interaction between FDI and economic development. These concepts are introduced into the investment development path, originally developed by Dunning (1981a and 1988a). Using the stages-of-growth approach taken in previous versions of the IDP, and introducing the evolutionary forces behind inter-temporal changes, we develop a dynamic version of the IDP. We introduce a fifth stage to it which reconciles the framework to structural changes in the economic structure among and between the industrialised countries which are associated with the phenomena of globalisation and economic integration.

In Chapter 3 we evaluate the proposition that there is a systematic relationship between FDI activity and economic development using a cross-sectional approach across a sample of forty countries for two periods. The variables used for our regression analysis are the extent of net outward investment (NOI) and GNP, both normalised by population for 1975 and 1988. The use of a cross-sectional approach is a proxy for a longitudinal analysis and has several limitations, primary among them being the differences between countries arising from country-specific characteristics and the difficulties associated with evaluating economic development and FDI through a two-dimensional, static approach. These problems are particularly obvious when examining the nature of the relationship for industrialised countries, owing in part to the changing structures of their economies and the process of globalisation.

The use of both NOI as a measure of FDI activity and GNP as a measure of industrial development acts as a limitation to our analysis, since both these variables are aggregative and conceal considerable differences between countries. Throughout the rest of this volume, the framework of our analysis focuses on the evolutionary process underlying our central theme rather than on the stage-wise approach *per se*. In

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Chapter 4 we engage in some econometric testing by using pooled data and breaking up the sample into developing and industrialised countries. Our dependent variables are inward FDI stock and outward FDI stock, which are regressed against various measures of economic structure in order to evaluate how the extent of inward and outward FDI changes with changing economic structure as countries move from developing to industrialised, and to understand the changing significance of natural and created assets as well as the changing significance of country-specific advantages.

None the less, our results still indicate that countries are idiosyncratic, and that both the nature of their economic structure and FDI vary significantly within the broad country groupings used. We therefore narrow our analysis in Chapter 5 and subsequent chapters to the industrialised countries. We expand further on the nature of the dynamics between FDI and economic structure in the industrialised countries, given the increasing convergence among their economies. We review some of the evidence regarding the nature and pattern of FDI activity by and from industrialised countries. The evidence suggests a paradox. On the one hand, there is a trend towards regional integration and a convergence in their economic structures and the nature of their created assets. This has resulted in an increasing extent of intra-Triad FDI, while MNEs' ownership advantages are increasingly firm-specific. This argues for a declining role of country-specific factors. On the other hand, because of the path dependency of their created assets and the nature of their FDI activity and economic structure, there is a second trend, which argues that the role of country-specific factors should continue to be significant. We develop a partial explanation based on the argument that there are indeed two different types of country-specific factors at play here: 'exogenous' and 'endogenous' factors.

This theme is taken up again in Chapter 6, where we attempt to provide a theoretical justification to resolve this paradox, and evaluate this explanation using data on trade, FDI and technology variables for a sample of six industrialised countries. The results broadly confirm our hypothesis, albeit tentatively, given the poor quality of data on FDI. However, since the analyses are conducted based on exports, outward FDI and home-country-specific characteristics, it also becomes painfully clear that a comprehensive analysis of the role of country-specific factors in determining the nature and extent of FDI activity must necessarily include both home- and host-country-specific characteristics, and inward and outward FDI activity. Furthermore, the role of government is extremely difficult to proxy in a quantitative analysis.

Such an analysis also requires a longitudinal approach over a relatively long period. We attempt to do this in Chapter 7, where we conduct a bilateral study of FDI activity between Japan and the US from 1945

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onwards. We evaluate the changing nature of the competitive advantages of these countries and how these have evolved as a result of, and have led to, changes in their inward and outward FDI activity. We pay special attention to the role of government, and distinguish between different motives for MNE activity, especially highlighting the use of FDI activity to acquire assets rather than to utilise them. Chapter 8 presents a summary of our findings and provides some policy implications.

2

THE DYNAMICS OF FDI AND ECONOMIC GROWTH

INTRODUCTION

It has been argued that the structure and level of development of the economy of a country are related to the extent and nature of the FDI activity undertaken by its domestic firms (outward direct investment), as well as those of other nationalities within its national boundaries (inward direct investment). Indeed, the nature of this relationship is a symbiotic one – FDI activity is influenced by the structure of the economy, and at the same time influences its development. This relationship has been formalised by John Dunning (1981a, 1988a) in his seminal work on the investment development path (IDP) using the framework of the eclectic paradigm, as well as by Ozawa (1992).

In this chapter we develop a dynamic version of the investment development path which represents the theoretical foundation for the analyses and discussion undertaken throughout the rest of this volume. The dynamic IDP differs from the original in several ways. First, it is more of an analytical framework than an economic model. It does not offer any predictions as to the extent to which countries will engage in FDI at a given point in their economic development, save for the fact that there is a systematic relationship between them. Second, it explicitly examines the concept of economic growth and its relationship to FDI, emphasising that both have an evolutionary, path-dependent nature. Third, it emphasises the role of government in acting as a catalyst in the interaction between FDI and economic development. Fourth, it introduces a *fifth* stage to the IDP, which reconciles the framework to structural changes in the economic structure among and between the industrialised countries that are associated with the phenomena of globalisation and economic integration. Fifth, it acknowledges the importance of alternative forms of international economic activity and the growing use of FDI activity by MNEs to acquire assets rather than to utilise existing ones. Indeed, the term ‘investment development path’ is now somewhat of a misnomer, since MNEs are increasingly engaged in

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non-equity forms of international economic activity.¹ Sixth, although it utilises the stages-of-growth approach of the earlier versions of the IDP, this is no longer central to its application, as subsequent analyses in some of the chapters in the latter half of this volume demonstrate. By emphasising the inter-temporal processes underlying the symbiotic relationship between FDI and economic structure, its application is increasingly positive rather than normative. The novelty of the approach is in its synthesis of concepts utilised in several economics and business sub-disciplines into a single general framework.

The analytical framework used in the investment development path is that of the eclectic paradigm (Dunning 1981a, 1988a, 1993a), which will be used throughout the subsequent discussion and analysis. To facilitate this, we examine the basic tenets of the eclectic paradigm, before presenting the dynamic IDP.

THE THEORY OF INTERNATIONAL PRODUCTION

The eclectic paradigm (Dunning 1981a, 1988a, 1993a) offers a framework to explain patterns and the extent of international production undertaken by firms involved in foreign value adding activities. The theory of international production based on this approach suggests that the propensity of firms to engage in international production will depend on three main factors:

- 1 The extent to which they possess, or can gain access to, technology, know-how, resources or some other form of income generating asset/s which their competitors either do not possess or do not have access to; these are referred to as *ownership-specific (O) advantages*; poseer algo que su competencia no posee
- 2 given that firms possess certain O advantages, the extent to which it is to their advantage to utilise them themselves and add value to them in a foreign location, or to sell the rights to do so to foreign firms through licensing or some other contractual arrangement. To engage in FDI the firm must consider it advantageous to own or control these value adding activities. These advantages are called *internalisation (I) advantages*; obtener ventaja de el hecho de usar (ese algo) y agregarle valor en otro país
- 3 the extent to which it is in the interests of firms to internalise the use of these property rights in a foreign location. This suggests that there must exist natural endowments or created assets in a foreign country that firms find beneficial to combine with or add value to their ownership advantages, rather than undertake the production in their home country. These are called *locational (L) advantages*. encontrar (y aprovechar) activos creados o dotaciones en ese otro país que al combinarlos con sus propias dotaciones o activos creados (ese algo) le resulta más beneficioso que producir en su propio país.

The failure of neo-classical trade theory in explaining the process of international production arises, *inter alia*, because of the assumption of perfect markets. There are two types of market failure that have been

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identified in the literature: structural and transactional (Dunning and Rugman 1985). The first gives rise to monopoly rents and stems from the possession of, or access to, income generating assets by a firm *vis-à-vis* other firms, and gives rise to asset-type ownership advantages (Oa). The existence of structural market distortions may also influence the location decisions of MNEs. Such distortions include the actions of governments.

However, while structural market failure explains some of the activities of international investment, the picture is incomplete without examining transactional market failure. This arises from the inability of arm's-length transactions to perform efficiently, and to provide firms *vis-à-vis* external markets with the capacity to capture the transactional benefits arising from common governance. Ownership advantages that stem from transactional market failure are termed transaction-type ownership advantages (Ot) and include those based on economies of common governance, arising from economies of scale and scope.

Such market failures help explain why firms expand their operations, either vertically or horizontally, be they unинаtional or multinational. The difference between MNEs and unинаtional firms is the added dimension of international market failure where transactions result in additional considerations to do with operating across borders, and therefore, in a sense, has to deal with more than one set of market failures in each country of operation.

Therefore, the character and composition of international investment undertaken by an MNE have to deal with at least two sets of country-specific factors. The nature and value of ownership–locational–internalisation (OLI) advantages are not assumed to be constant: they will change over time. Further, their configuration will vary with, and by, country (or region), industry and firm. Thus, the propensity of firms of a particular nationality to engage in foreign production will be affected by the level of political, cultural and economic conditions of both the home and the host countries. Attributes such as government policy and attitudes, natural factor endowments, the quality of human capital, the technological and communications infrastructure and the entrepreneurial and business culture of its people are perhaps the most important. In the case of industrialised countries, the characteristics of the particular industry, such as production and transaction economies peculiar to that industry, the extent of vertical/horizontal integration and the locational limitations of resources, are examples of industry-specific advantages. At a firm level, the OLI characteristics are dependent on variables such as size, degree of international involvement, management and organisational strategies and the innovative capabilities of firms.

It should be emphasised that, while government policy may be used as an instrument to change the OLI configuration facing a firm contemplating

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FDI, over time at least, the OLI variables are interdependent of each other.² Thus, the successful exploitation of a country's L advantages might strengthen the investing firms' O advantages. A firm that evolves a successful strategy towards the setting up of innovative activities in a foreign country might affect the L advantages offered by that country to other foreign firms. It follows that a policy that influences (or is designed to influence) one of the OLI variables is likely to affect the others.

Types of international production

Tipos
Five main types of international production have been identified. Each might be expected to be influenced by a different configuration of OLI variables.³

The first type of foreign production is intended to *supply the market in the country or region* in which it is located. The belief is that the L advantages offered by the host country for the creation and exploitation of the O advantages of the investing firms are greater than those offered by other countries. The important variables likely to influence such production include the size or character of a market, relative production costs, cross-border transportation costs and barriers to exports. FDI may also be prompted by the fear of losing a particular market, or share of that market, to competitors or potential competitors.

The second type of FDI may be referred to as *trade supportive*, and it is primarily designed to support the value added activities of the investing firm by providing sales outlets and distribution facilities, or as a means of acquiring cheaper or better-quality imports for other members of the MNE system.

The third type of foreign production is intended to supply raw materials, intermediate or final products to the investing company and/or to other foreign consumers. The location of the investment is largely determined by the availability and real cost of (1) natural resources, and the cost of extracting and transporting them to their final destination, and (2) unskilled and semi-skilled labour. Thus, the host country becomes a production base through a *resource seeking or supply oriented strategy*.

The fourth type of production is of an *efficiency seeking kind* or one of *rationalised investment*. This is a form of sequential (rather than initial investment) (Kogut 1983) and is directed towards achieving economies of scale or scope through the cross-border vertical or horizontal integration of production. It is best exemplified by the restructuring of US MNE activity in Western Europe since the formation of the European Economic Community (EEC) in 1958. Prior to that date, most US direct investment was of an import substituting kind designed to serve the

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domestic market. As a result of the past and anticipated future EC/EU integration, it is now mainly directed to supplying the EU market as a whole.

A fifth motivation for engaging in foreign production is to acquire 'created' factor endowments or intangible assets, e.g. technology and markets, with the specific purpose of protecting or advancing the global competitive position of the investing firm. We refer to this kind of MNE activity as *strategic asset seeking investment*. It usually takes the form of mergers and acquisitions (M&A) of an existing firm, or through strategic alliances.

These five types of international production are not necessarily mutually exclusive. International production may be undertaken initially as an import substituting strategy, but as the factor endowments of the host country change (such as the availability of skilled labour) the investing firm may integrate the foreign subsidiary into a regional or global network of efficiency seeking or asset seeking investments. It is also possible that the host country possesses factor endowments or intangible assets that make it attractive as a production site not only as an efficiency- or resource-based investment, but because of its market- or government-induced barriers to trade, as a market seeking investment.

THE ANALYTICAL FRAMEWORK

The investment development path represents an attempt to relate a country's net international direct investment position to its stage of development relative to that of the rest of the world. The stage of economic development is proxied by its GNP per capita and is assumed to be an indicator of its absolute and comparative competitive advantages. Therefore changes in its OLI characteristics indicate a country's propensity to invest abroad, or to attract inward direct investment, and, as changes occur in its OLI configuration, its net outward investment position⁴ will change. This presents the scholar with two questions: first, what activates these changes, and second, what are the dynamics that lead to and result from these changes? It should be noted that we assume, for the sake of simplicity of analysis, that this interaction is sequential in nature, and that the causes and effects are independent of each other.

In a developmental context, the evolution of competitive advantages derives from country-specific characteristics that determine domestic and foreign investment patterns. The capability of a country's firms to supply either a domestic or a foreign market from a foreign location depends on their ability to acquire, and/or efficiently utilise, assets not available – or not available as cheaply – to another country's firms. By 'assets' we mean resources capable of generating a future income stream

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(Dunning 1993a: 77). These are of two kinds. The first are *natural* assets, which comprise natural endowments such as unskilled labour and resource endowments. The second are *created* assets, which are those that derive from the upgrading of these natural assets. These latter assets may be tangible or intangible and include capital and technology, as well as those pertaining to skilled manpower such as technological, managerial and entrepreneurial skills. When assets of either kind are available to all firms and are specific to a particular location they are considered to be L-specific advantages, whereas if they are proprietary to a particular firm irrespective of where they are used they are considered to be O-specific advantages. Natural assets are normally less mobile than created assets even though their use may be monopolised by a single firm. Trade between countries in the neo-classical sense is based entirely on the geographic distribution of natural assets. The ownership of such assets alone does not lend itself to production, and in order to derive rent from such assets it must utilise them in conjunction with both intangible (such as managerial and technical manpower) and tangible (such as capital) created assets. The evolution of the competitive advantages of both firms and countries can be said to rest on the extent to which they are able to create or acquire new assets, or more effectively to utilise existing assets.

The interactive process

We shall now consider two types of catalyst for change: those that are non-FDI-induced and those that are the direct result of FDI.

Non-FDI-induced changes

These essentially represent those changes that are exogenous to particular firms but endogenous to countries, and mainly reflect the influence of government policy and the economic system associated with the country. By economic system we mean the overall system adopted by a government to determine the way in which resources and markets are organised. Most economic systems lie somewhere along a continuum between free markets at the one extreme and central planning on the other. From a developmental perspective, there are two possible economic orientations: outward-looking, export oriented (OL-EO) and inward-looking, import substituting (IL-IS) (Ozawa 1992). Depending on the orientation of an economy, the use of either (or a hybrid of the two) will substantially affect both the structure of economic development and, hence, the nature of the investment development path taken by a particular country. Government involvement embraces specific actions taken by governments towards ensuring that the system works in a way that achieves (or } wypis

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comes the nearest to achieving) their objectives. These include macro-organisational policies (e.g. towards resource allocation, innovations, education, trade, FDI competition), macro-economic policies (fiscal, monetary, exchange rates, etc.) and the setting up and maintenance of an efficient legal system and commercial infrastructure. Over time, each of these variables is likely to critically affect the OLI configuration facing MNEs. However, what we wish to emphasise here is the way in which they influence the level and nature of the L advantages of a country, in so far as they determine the restructuring of an economy through the development of created assets such as new technology, better access to information, upgraded human capital and improved communications infrastructure. In other words, we hypothesise that both government policy and the economic system determine how the L-specific natural and created assets are organised. The investment development path in its idealised form may be applied to all countries, but it implies the assumption of a free market economy. Therefore, throughout the ensuing discussion, we shall define government as a variable that encompasses only government involvement as defined above.

FDI-induced changes

The activities of domestic MNEs abroad through outward direct investment, and of foreign MNEs in the domestic economy through inward direct investment, represent two ways in which the location-bound competitive advantages of particular economies may interact with each other. Such interaction may also occur through other forms of international commerce, e.g. non-equity strategic alliances, but because FDI shifts both resources and capabilities, and changes the ownership or control over the use of these resources, it is likely to exert a very specific impact.

As Figure 2.1 illustrates, it is hypothesised that these two forces at a period t influence the nature of OLI in that period, and lead to the dynamic evolution of OLI in consecutive periods. First, there is the static or *intra-period interaction* at a particular stage of development. During any given time frame, country-specific characteristics influence the kind of O advantages possessed by firms and the L advantages offered by countries. They also may affect the propensity of firms to internalise cross-border transactions, or, in the parlance of the eclectic paradigm, to influence the configuration of their I advantages. Some of these country-specific characteristics, such as the quantity and quality of natural and created assets, are assumed to be fixed in a single time frame, but the manner and extent to which these are utilised, and by whom, may vary according to the actions of governments. Government may influence the L advantages of a country in various ways. It may do so

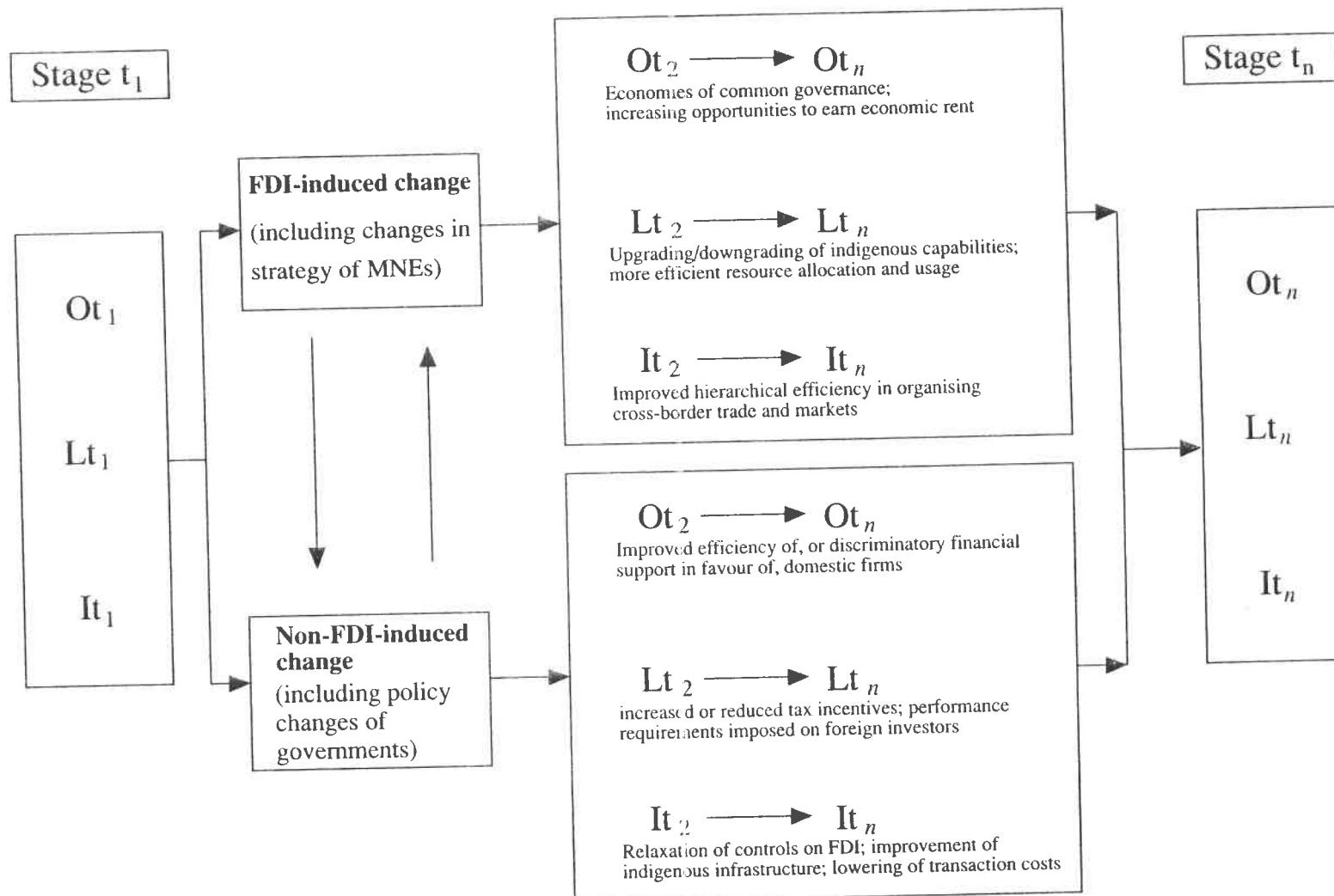


Figure 2.1 Some dynamics of the stages of growth using the eclectic paradigm

Source: Dunning, (1993a)

Note: Only two stages illustrated

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directly, through the fiscal and/or regulatory framework it provides to encourage investment, and indirectly, through a wide range of policies designed to affect both the supply capabilities and the demand characteristics of a nation. Policies that influence the modality through which international business activity is undertaken, i.e. whether firms use a hierarchical, cooperative or market route to undertake cross-border activities, also create L-specific advantages. Government may further impact on the creation and development of the technology of firms operating within its jurisdiction through its policies towards property rights (patenting, trademark laws, etc.) as well as through subsidies or tax breaks it might provide for R&D. However, these government-induced L advantages are related to general or overall policies, in so far as they apply across the board and affect all firms operating within its governance. But when, for example, subsidies for exports are provided exclusively to domestic firms, they change the O advantages of these firms *vis-à-vis* foreign firms. Similarly, if foreign firms are prevented from undertaking inward direct investment in certain sectors, this affects the I advantages of these firms. This interaction may also affect the strategy of foreign and domestic firms in that period. During a single time frame, the extent of international business activity is taken as a constant and is assumed to be a consequence of the OLI configuration facing firms in that period.

Second, we are faced with the *dynamic change* associated with changes in the stage of development, or that of *inter-period interaction*. The point we wish to highlight here is that the OLI configuration in period t_1 will affect not only the strategy of firms (both foreign and domestic) in that period but also the OLI configuration in t_2 . A shift in stages implies a change in the nature of the competitive advantages of firms and countries, primarily because of a change in the relative significance of their natural and created assets. Essentially, a forward inter-period interaction leads to an increasing significance of created assets, and a decreasing significance of competitive advantages arising from natural assets, and leads to economic restructuring. The nature and form of the impact of FDI-induced changes will vary according to (1) the kind of FDI undertaken, and (2) the particular stage of a country's development. The extent of the change of the OLI variables will vary across industries and firms. In a similar manner, non-FDI-induced changes will also occur. It is pertinent to note that these two types of change are themselves interrelated – and it is the configuration and interaction of these forces that will determine the OLI characteristics facing firms in t_2 . It may also lead to a reorganisation of the balance between natural and created assets as well as affecting the efficiency of markets, thereby influencing the extent of international business activity in this period.

Given that the O, L and I variables are themselves interdependent, it

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is clear that we are faced with an exceedingly complex phenomenon (Agarwal and Ramaswami 1992). To conduct a thorough examination of all these links is outside the scope of the present work. In the current context, we shall give special attention to two kinds of interactions that are critical to the process of economic restructuring. The first is that between the O advantages of a country's firms in one period of time (Ot_1) and those of a subsequent period (Ot_2); and the second is the effect that Ot_1 will have on the L advantages of a country in subsequent periods.

The Ot_1 - Lt_2 relationship occurs through the upgrading of resources, changes in the conditions of demand, and the evolution of support and related industries partly due to technological spillovers from firm (domestic and foreign owned) activity. The Ot_1 - Ot_2 relationship will especially be reflected in the process of technology accumulation (i.e. the development of created assets) that occurs through a gradual and cumulative process. It has been suggested by various scholars⁵ that the firms of a particular nationality develop technological capability⁶ (and assets) through an incremental process in which they build upon their existing and prior O advantages, which have been either acquired (in which case they will most likely be based on exclusive use of natural assets) or developed (i.e. created assets), and, through a dynamic interaction with other firms and market forces, develop and modify technologies that are idiosyncratic and more firm-specific. The development of O advantages through interaction is not limited to that involving domestic firms, but also pertains to those involving foreign firms both in the domestic economy (through inward direct investment) and in foreign economies (through outward direct investment).

The relationship between the Ot_1 - Ot_2 and the Ot_1 - Lt_2 interaction is self-evident: government-induced L variables affect the O advantages in the same period, and therefore Lt_2 will affect Ot_2 .

This raises the issue of cumulative causation of trade, technology and production (Cantwell 1987, Dunning 1988b, Dunning and Cantwell 1989). Not only is a forward shift in a country's stage of development associated with the occurrence of a virtuous technology circle, but the ability to maintain a virtuous circle is associated with structural adjustments that may be necessitated by, among other things, wage rates rising faster than productivity in particular sectors of the economy. Here the role of government is relevant in sustaining growth in mature industries and creating and fostering innovation in nascent ones, as well as maintaining an appropriate macro-economic climate. Markets, on their own, are unlikely to respond to such shifts to the extent necessary to prevent a vicious circle.⁷

Two caveats in respect to the significance of a country's L-specific characteristics need to be noted here. The O-specific advantages of firms

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from countries at early stages of the investment development path are primarily a function of the economic structure of their home economies. In the context of the eclectic paradigm, this refers to the ownership advantages of other (mainly domestic) firms, which in the aggregate may be said to define the technological capability of the country, or its L advantages. The pattern and extent of the outward investment of its firms will therefore be based on their competitive advantages derived from their home country's economic structure. Likewise, inward investment will be based on these advantages *vis-à-vis* those possessed by the home country of the investing MNEs.⁸ Regardless of whether the motives for investment activity are market seeking, resource seeking or strategic asset acquiring, firm-specific technological capability will grow, leading to the generation of new O advantages which are transferred back to the parent firm in the home country. Over time, and as the firm becomes increasingly internationalised, this interactive process therefore will result in the O advantages of firms of a particular nationality becoming increasingly firm-specific, i.e. less a function of the economic structure of its home country and more a function of the economic structure of the various locations of its operations. Therefore, *ceteris paribus*, the significance of country-specific characteristics in determining the extent and pattern of FDI activity and its relation to the economic structure of a country becomes increasingly complex as its extent of internationalisation increases. Therefore, the non-explanatory power of the IDP with regard to the extent and pattern of FDI activity, and its relation to the economic structure of the country with which it is associated beyond the fourth stage of IDP, is due to firm-specific rather than country-specific factors (Gray 1982). These issues are further explored in Chapters 5 and 6.

Second, the presence of a certain level of natural assets is assumed in an economy at the initial stages of the idealised investment development path. These include the presence of some extent of natural resources, unskilled labour and domestic market potential. The absence of one or more of these country-specific characteristics will lead domestic firms, *ceteris paribus*, to undertake FDI in overseas markets to acquire these assets. For the same reasons, inward investment in such an economy at an early stage will be muted. In sum, the net outward investment position of such a country is likely to be more positive at all points of the investment development path relative to the 'average' path discussed below. Likewise, a country with unique factor endowments that provide it an absolute advantage in some natural asset (for instance, a large domestic market potential such as the US, or natural resources such as in Australia) will have a net outward investment position that is more negative at all points relative to the 'average' path.⁹

FDI and economic development in a stages-of-growth framework

So much for the way in which MNE activity might interact with economic development. Let us turn to examine its role at different stages of development. The IDP framework suggests that countries tend to go through five main stages of development – and that these stages can be usefully classified according to their propensity to be outward or inward direct investors. A diagrammatic representation of these stages, not drawn to scale, is presented in Figure 2.2.

Before embarking on a discussion of the characteristics of each of the five stages, a clarification is necessary. The IDP as described here is a normative, idealised example. Although the IDP has been demonstrated here (see Chapter 3) as well as elsewhere (Dunning 1981a, 1988a, Tolentino 1993, Dunning and Narula 1995b) on a cross-sectional basis, this is merely done as a proxy for a longitudinal approach. The IDP represents a paradigm that is idiosyncratic and country-specific, while in fact the shape and nature of the IDP are individual and unique for every country. Even on a general level, there are in fact several different paths that are taken by countries, and each of these possible paths can be examined in five different stages, although the extent and pattern of the FDI activity may differ from the normative one. As the various country studies undertaken in Dunning and Narula (1995b) and Chapter 7 of this

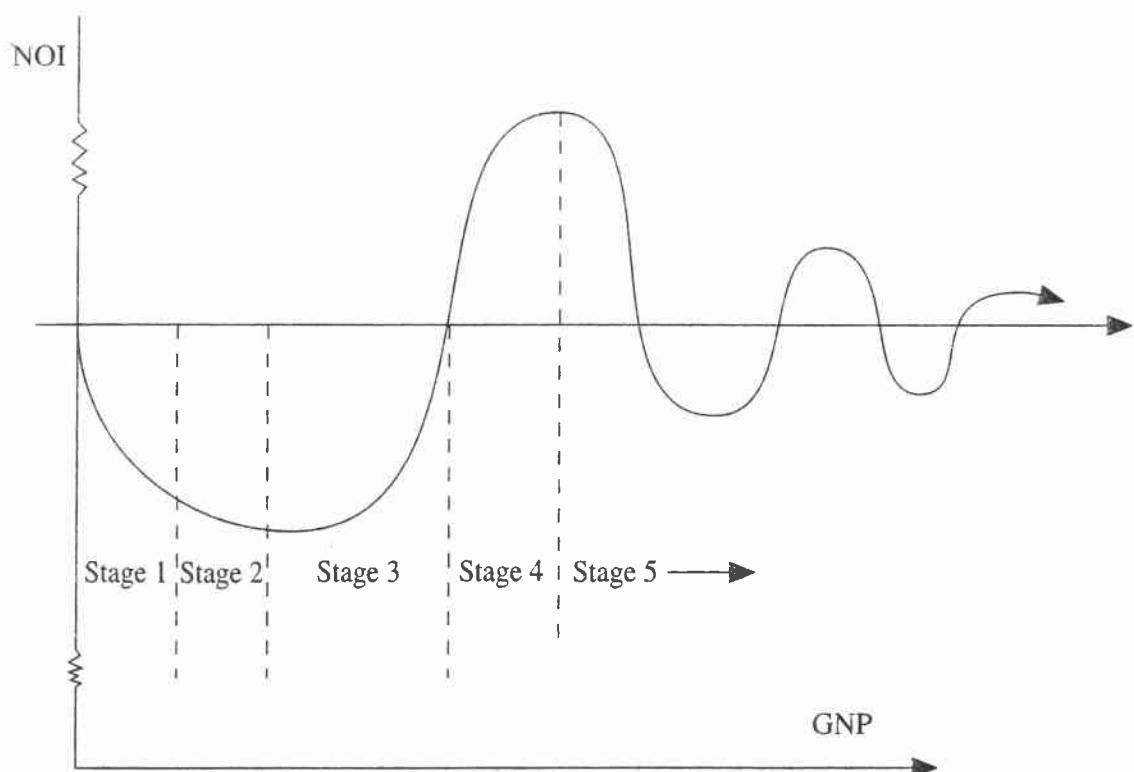


Figure 2.2 The pattern of the investment development path
Note: not drawn to scale; for illustrative purposes only.

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volume show, the exact circumstance of each country is unique, and, while there are some general similarities between groups of countries, the explanatory power of the 'ideal' IDP based on cross-sectional analysis of a large group of countries is severely limited. This aggregation of countries for a given time period assumes that countries follow a broadly similar IDP, whereas, in fact, each country follows its own particular path which is determined by four main variables: (a) its resource structure, (b) its market size, (c) its strategy of economic development, and (d) the role of government in the organisation of economic activity. These factors essentially determine the nature and extent of the firm-specific assets of both foreign MNEs and domestic firms operating within its borders.

1 Resource structure A country may possess a significant comparative advantage, or an absolute advantage in primary commodities. Such a country is likely to spawn domestic firms that possess O advantages in exploitation of such assets. However, if such an advantage is a near absolute one, it is likely to be the recipient of considerable inward investment from MNEs that wish to internalise the supply of raw materials to their upstream activities located in other countries, and the extent of this inward investment will almost certainly continue to rise as the other L advantages associated with the host country develop. These L advantages include the availability of skilled manpower and other infrastructural facilities, and may lead to sequential vertical investment in upstream activities by both domestic firms and MNEs. As a result, an absolute or comparative advantage in a natural-resource-based industry may be sustained even where income levels rise towards a developed country standard. Such a scenario would result in a NOI position that continues to be negative, as for example in Australia. Any outward investment would also tend to be in industries that are either in or related to the primary sector, and would be dwarfed by the increasing extent of inward investment. Such countries would tend to have much greater levels of inward FDI than outward FDI, resulting in a much lower NOI at even considerably lower stages of development. This is shown in Figure 2.3.

The lack of a natural resource base (i.e. a comparative disadvantage in necessary primary commodities) would, *ceteris paribus*, result in the opposite effect. Inward investment at earlier stages would be muted, and outward investment might begin at an earlier stage to secure the availability of necessary natural resources. Such a country is also more likely to begin strategic asset seeking investment at an earlier stage (e.g. Japan). Overall, these countries would become net outward investors at considerably earlier stages of development than a country endowed with natural resources. This too is illustrated in Figure 2.3.

2 Market size Countries that are small in terms of market size, such as Hong Kong, Singapore, and Switzerland, are likely to have not just

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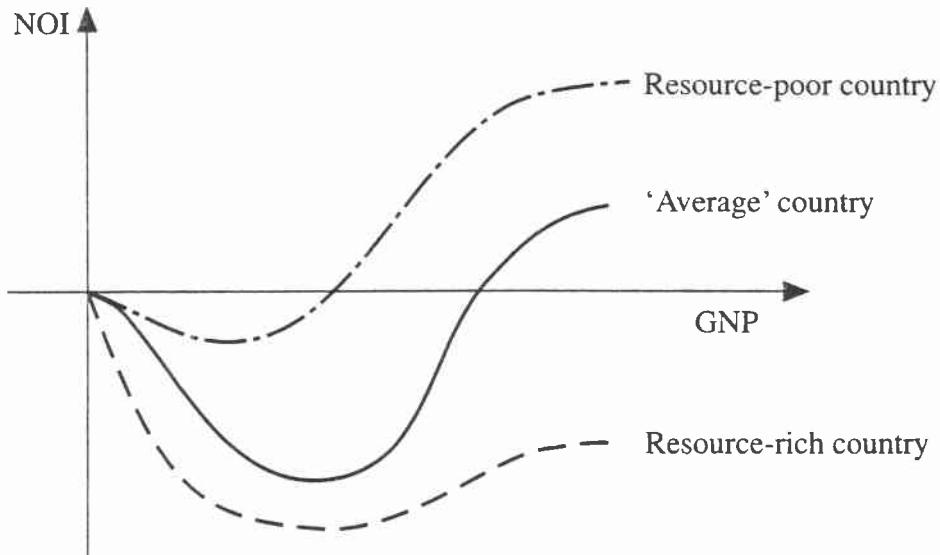


Figure 2.3 Examples of variances in individual IDPs

limited natural resources such as primary commodities, but limited attraction in terms of market size. Thus, the lack of economies of scale will inhibit foreign investment in earlier stages. As their human capital and infrastructure improve, some inward FDI may occur for export processing purposes. Small populations mean small aggregate consumption and low demand, forcing firms to engage in outward FDI or exports at an early stage to seek larger markets, which will result in a greater extent of outward FDI at earlier stages of development. As income levels rise, domestic investors that were involved in export oriented production will seek overseas locations to compensate for the shortage of low-wage human capital for labour intensive production. Such countries will reach (and remain at) a positive NOI position at a considerably earlier stage of development (e.g. Taiwan). The opposite scenario would apply for large countries; they would attract large amounts of inward FDI because of the attractions of their large markets, and their domestic firms might not have as much incentive to seek overseas markets, since economies of scale could be achieved at home (e.g. the US).

3 *Economic system* The economic orientation of a country may either be outward-looking, export oriented (OL-EO) or inward-looking, import-substituting (IL-IS) (Ozawa 1992). Depending on the orientation of an economy, the use of either (or a hybrid of the two) will substantially affect both economic development and the extent and pattern of FDI, and hence the nature of the path taken by a particular country. An OL-EO regime is likely to achieve faster growth and structural upgrading. Ozawa (1992) argues that an OL-EO regime is a necessary condition for FDI-facilitated development. We suggest here that, although it is not a

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necessary condition for growth in the first two stages, the greater the extent of OL-EO policy orientation, the faster the process of structural adjustment and economic growth and the quicker a country's progress through the stages of the IDP. Our ensuing discussion of the various stages assumes an OL-EO-type policy regime beyond the second stage, but not for the first two stages.

The failure of countries that undertake an IL-IS orientation to proceed beyond the second stage is associated with the vicious cycle of poverty (VCP). This, when applied in the traditional sense, is explained as follows: low income levels in less developed countries are associated with low savings rates, which in turn result in low capital investment, thereby keeping income levels low. In the parlance of the eclectic paradigm, this is the lack of ownership advantages of domestic firms and location advantages of the country, and their inability to develop or acquire these. The O advantages referred to here include financial asset advantages, i.e. Oa and Ot type advantages, whereas the L advantages are those of infrastructure. This cycle can be broken through, *inter alia*, the infusion of capital through FDI, which allows for technological spillovers and financial capital inflows.

4 *Governments and the organisation of economic activity* Although, as we have illustrated above, the kind of economic system associated with a country broadly determines the path taken by a country, the nature of government policy associated with a particular system can vary between countries with the same economic system and at the same stage of development. There are two main areas of government strategy that directly impinge on the nature of the IDP of a country: macro-economic strategy and macro-organisational strategy (Dunning 1992c). The role of governments in determining macro-economic policy is relatively well defined, and is often associated with the economic system. On the other hand, there is considerable variance among countries in the role of governments in determining macro-organisational strategy. Macro-organisational strategy primarily influences the structure and organisation of economic activity, and the nature of the policies most appropriate at a particular stage should, in an 'ideal' situation, change as the economy evolves, reflecting the nature of market imperfections that the policy is designed to circumvent (Hamalainen 1993). Essentially, in such a best-world scenario, government plays a *market-facilitating* role in which its macro-organisational policy dynamically evolves over time. Increasing economic specialisation associated with economic development leads to a growth in market failures and increases the potential benefits of government macro-organisational policy (Durkheim 1964). However, as Hamalainen (1993) points out, governments may also fail, and society is often faced with a choice between imperfect markets and imperfect governments. Given that macro-organisational policy embraces a wide

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variety of issues (see Dunning 1992c, 1993d), and that there is little agreement on what the optimal involvement of government should be, the macro-organisational policy stance varies widely among countries. The differences between the macro-organisational strategy of countries at the same stage of development influence both the structure of markets and the extent to which economic activity is efficiently conducted, thereby affecting the specialisation and economic structure of the country, as well as the extent of FDI activity associated with it.

ETAPAS

The five stages of the IDP

We present a summary of the five stages of the IDP, in which we assume some degree of OL-EO policy regime.

Stage 1

During the first stage, the L advantages of a country are insufficient to attract inward direct investment, with the exception of those arising from the possession of natural assets. Its deficiency in created factor L advantages may reflect inadequate domestic markets – demand conditions are minimal because of the low per capita income, inappropriate economic systems or government policies, insufficient infrastructure such as transportation and communication facilities and, most important of all, a poorly educated, trained or motivated labour force. Government-induced L advantages (or disadvantages) are likely to be significant in this stage. O advantages of domestic firms are few as there is little or no indigenous technology accumulation and hence few created assets. Those that exist will be in labour intensive manufacturing and in the primary product sector (such as mining and agriculture), and may be government-influenced through infant industry protection such as import controls. Domestic firms from countries at this stage do not have the necessary O advantages to engage in outward direct investment. At the same time, there is unlikely to be much inward direct investment except for the purpose of exploiting natural resources and trade-supportive activities, as the L and I advantages of the recipient nations are too few to induce foreign investors to undertake higher value added operations. *Ceteris paribus*, they will prefer to export to and import from this market, or to conclude cooperative non-equity arrangements with indigenous firms.

Government intervention during stage 1 will normally take two forms. First, governments will attempt to reduce some of the endemic market failure that holds back development by providing basic infrastructure, and upgrading human capital via education and training. Second, they will engage in a variety of economic and social policies, which, for good or bad, will affect the structure of markets. Import protection,

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domestic content policies and export subsidies are examples of such intervention at this stage of development. At this stage however, there is likely to be limited government involvement in the upgrading of the country's created assets, e.g. innovative capacity.

Stage 2

In stage 2, inward direct investment starts to rise, while outward investment remains low or negligible. Domestic markets may have grown either in size or in purchasing power, making some local production by foreign firms a viable proposition. Initially this is likely to take the form of import substituting manufacturing investment – based upon the domestic market's possession of intangible assets, e.g. technology, trademarks, managerial skills. Frequently such inward FDI is stimulated by host governments imposing tariff and non-tariff barriers. In the case of export oriented industries (at this stage of development, such inward direct investment will still be in natural resources and primary commodities with some forward vertical integration into labour intensive low technology and light manufactures) the extent to which the host country is able to offer the necessary infrastructure (transportation, communications facilities and supplies of skilled and unskilled labour) will be a decisive factor. In summary, a country must possess some desirable L characteristics to attract inward direct investment, although the extent to which foreign firms are able to exploit these will depend on its development strategy, and the extent to which it prefers to develop technological capabilities of domestic firms.

The O advantages of domestic firms will have increased from the previous stage through technology accumulation, partly as a result of the government-induced advantages that have generated a virtuous circle of technology accumulation. These O advantages will exist as a result of the development of support industries clustered around primary industries, and production will move towards semi-skilled and moderately knowledge intensive consumer goods. Outward direct investment begins to grow at this stage. This may be either of a market seeking or trade related type in adjacent territories, or of a strategic asset seeking type in developed countries. The former will be undertaken characteristically in countries that are lower in the investment development path than the home country. When the acquisition of created assets is the prime motive, these are likely to be directed towards countries higher up in the path. The extent to which outward direct investment is undertaken will be influenced by the home-country government-induced 'push' factors such as subsidies for exports and technology development or acquisition (which influence the I advantages of domestic firms), as well

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as by the changing (non government induced) L advantages such as relative production costs. However, the rate of outward direct investment growth is likely to be insufficient to offset the rising rate of growth of inward direct investment, and in consequence, during the second stage of development, countries will increase their net inward investment, although towards the latter part of the second stage the growth rates of outward direct investment and inward direct investment will begin to converge.

Stage 3

Countries in stage 3 are marked by a gradual decrease in the rate of growth of inward direct investment,¹⁰ and an increase in the rate of growth of outward direct investment that result in increasing net outward investment. The technological capabilities of the country are increasingly geared towards the production of standardised goods. With rising incomes, consumers begin to demand higher-quality goods, fuelled in part by the growing competitiveness between the supporting firms. Comparative advantages in labour intensive activities will deteriorate, domestic wages will rise, and outward direct investment will be more to countries at lower stages in their investment development path. The original O advantages of foreign firms also begin to be eroded, as domestic firms acquire their own competitive advantages and compete with them in the same sectors.

The initial O advantages of foreign firms will also begin to change, as domestic firms compete directly with them in these sectors. This is supported by the growing base of created assets of the host country arising from increased expenditure on education and innovative activities. These will be replaced by new technological, managerial or marketing innovations in an attempt to compete with domestic firms. These O advantages are likely to be based on the possession of intangible knowledge, and the public-good nature of such assets will mean that foreign firms will increasingly prefer to exploit them through cross-border hierarchies. Growing L advantages such as an enlarged market and improved domestic innovative capacity will make for economies of scale, and with rising wage costs will encourage more technology intensive manufacturing as well as higher value added locally. The motives of inward direct investment will shift towards efficiency seeking production and away from import substituting production. In industries where domestic firms have a competitive advantage, there may be some inward direct investment directed towards strategic asset acquiring activities.

Domestic firms' O advantages will have changed too, and will be based less on government induced action. Partly because of the increase

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in their multinationality, the character of their O advantages will change as a result of the coordination of geographically dispersed assets. At this stage of development, their O advantages based on possession of proprietary assets will be similar to those of firms from developed countries in all except the most technology intensive sectors. There will be increased outward direct investment directed to stage 1 and 2 countries, both as market seeking investment and as export platforms, as prior domestic L advantages in resource intensive production are eroded. Outward direct investment will also occur in stage 3 and 4 countries, partly as a market seeking strategy, but also to acquire strategic assets to upgrade their O advantages.

The role of government induced O advantages will have become less significant, as those of FDI induced O advantages take on more importance. Although created factor L advantages will increase relative to natural resource L advantages, government policies will continue to be directed to reducing structural market imperfections in resource intensive industries. Thus, governments may attempt to attract inward direct investment in those sectors in which the comparative O advantages of its enterprises are the weakest but the comparative advantages of location bound assets are the strongest, while encouraging its own enterprises to invest abroad in those sectors in which its O advantages are the strongest and its comparative L advantages are the weakest. Structural adjustment will be required if the country is to move to the next stage of development, with declining industries (such as labour intensive ones) undertaking direct investment abroad.

Stage 4

Stage 4 is reached when a country's outward direct investment flows exceed or equal the inward investment flows from foreign-owned firms and the rate of growth of outward direct investment is still rising faster than that of inward direct investment. At this stage, domestic firms can now not only effectively compete with foreign-owned firms in domestic sectors in which the home country has developed a competitive advantage, but are able to penetrate foreign markets as well. Production processes and products will be state-of-the-art, using capital intensive production techniques as the cost of capital will be lower than that of labour. In other words, the L advantages will be based almost completely on created factor endowments. Inward direct investment into stage 4 countries is increasingly sequential (Kogut 1983) and directed towards rationalised and asset seeking investment by firms from other stage 4 countries. The O specific advantages of these firms tend to be more 'transaction' than 'asset' related (Dunning 1993a), and derived from their multinationality *per se*. Some inward direct investment will

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originate from countries in lower stages of development, and is of a market seeking, trade related and asset seeking nature.

Outward direct investment will continue to grow, as firms seek to maintain their competitive advantage by moving operations that are losing their competitiveness to offshore locations (in countries at lower stages), as well as responding to trade barriers installed both by countries at stage 4 and by those at lower stages. Firms will have an increasing propensity to internalise the market for their O advantages by producing in a foreign location rather than through exports. Since the O advantages of countries at this stage are broadly similar, intra-industry production will rise in significance, and generally will follow prior growth in intra-industry trade (Dunning 1988a). However, both intra-industry trade and production will tend to be increasingly conducted *within* MNEs.

The role of government is also likely to change in stage 4. While continuing its supervisory and regulatory function, e.g. to reduce market imperfections and maintain competition, it will give more attention to structural adjustment of the country's resources and capabilities by fostering technological accumulation in infant industries (i.e. promoting a virtuous circle) and phasing out declining industries (i.e. promoting a vicious circle). Put another way, the role of government is now moving towards reducing transaction costs of economic activity and facilitating markets to operate efficiently. At this stage too, because of the increasing competition between countries with similar structures of resources and capabilities, governments begin taking a more strategic position in their policy formation. Direct intervention is likely to be replaced by measures designed to aid the upgrading of domestic resources and capabilities, and to curb the market distorting behaviour of private economic agents.

Stage 5

As illustrated in Figure 2.2, in stage 5 net outward investment begins to fall back as outward and inward investment become more balanced. This is the situation that advanced industrial nations are approaching as the century draws to a close, and it possesses two key features. First, there is an increasing propensity for cross-border transactions not to be conducted through the market but to be internalised by and within MNEs. Second, as countries converge in the structure of their competitive advantages, and as these advantages increasingly take the form of the ability of countries to create and efficiently organise technological and human assets and to tap new markets, their international direct investment positions are likely to become more evenly balanced. It has been suggested elsewhere (Dunning 1988a) that these phenomena represent a natural and predictable progress of the internationalisation of firms and economies. Thus, the nature and scope of activity gradually shift from

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arm's-length trade between nations producing very different goods and services (Hecksher-Ohlin trade) to trade within hierarchies (or cooperative ventures) between countries producing very similar products.

Unlike previous stages, stage 5 in the investment development path represents a situation in which no single country has an absolute hegemony of income creating assets. Moreover, the O advantages of MNEs will be less dependent on their country's natural resources but more dependent on their ability to acquire assets and on the ability of firms efficiently to organise their advantages and to exploit the gains of cross-border common governance. Another development is that, as firms become globalised, their nationalities become blurred. As MNEs bridge geographical and political divides and practise a policy of transnational integration,¹¹ 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. Increasingly, MNEs, through their arbitraging functions, are behaving like mini-markets. Both the ownership and the territorial boundaries of firms become obscured¹² as they engage in an increasingly complex web of trans-border cooperative agreements (see Gugler 1991).

The tendency for income levels to converge among the Triad countries has been noted by, among others, Abramovitz (1986), Baumol (1986) and Dowrick and Nguyen (1989). And, indeed, during the 1970s and 1980s Japan, the EC and EFTA countries have experienced a 'catching-up' in their productivity and growth relative to the US (the 'lead' country), while a range of the newly industrialising countries began to move from stage 2 to stage 3 in their investment development path. As a result of these developments, the economic structures of many industrial economies have become increasingly similar. Countries that were once the lead countries in stage 4 now find themselves joined by others. This tends to reduce their net outward investment position and pushes them into stage 5 of the investment development path. At the same time, there has also been a 'catching-up' effect among MNEs since the 1970s (Cantwell and Sanna Randaccio 1990). Firms that have had relatively low levels of international operations have been internationalising at faster rates than their more geographically diversified counterparts. These two effects are not unrelated; firms have had to compensate for slowing economic growth in their home country by seeking new markets overseas. Given the similarity in income levels, the factors of production are broadly similar, and, as Cantwell and Sanna Randaccio (1990) have shown, firms that are trying to catch up seek to imitate competitors and develop similar O advantages as their competitors in the same industry, but not necessarily in the same country.

To take this argument a step further, as income levels, economic

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structures and patterns of international production among the Triad countries converge, the relative attractions of a particular location will depend less on the availability, quality and price of their natural assets and more on that of their created assets. It has been noted elsewhere that the prosperity of modern industrial economies is increasingly dependent on their capacity to continually upgrade, or make better use of, their technology and human capital (Dunning and Cantwell 1991). Since many of these advantages are transferable across national boundaries, it may be predicted that, in the long run, this should lead to a more balanced international investment position, and to an increasing convergence of created asset L advantages. However, the ability of a country to upgrade its technology and human capital is a function of its country-specific characteristics and, in particular, the extent of its natural assets, demand characteristics and macro-organisational strategies of its government. We believe the role of government in affecting dynamic economic restructuring cannot be overstated. In a myriad of ways governments can promote new trajectories of economic growth which some countries are better able to cope with than others. This has been amply illustrated by the evolution of Japan's economy compared with that of the US, especially in the 1980s.

In terms of their inward and outward direct investment positions, stage 5 countries, after an initial burst of new inward direct investment (e.g. as occurred in the US in the 1980s), may be expected to settle down to a fluctuating equilibrium around a roughly equal amount of inward and outward investment. Inward investment will be of two kinds. 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 who will continue to indulge in rationalised investment among themselves, as well as making outward direct investment in less developed countries, especially in the natural resource intensive sectors. In other words, truly rationalised or efficiency seeking investment will take place as plant and product specialisation is encouraged in sectors where economies of scale and scope are important. As the world economy begins to resemble a global village, strategic asset seeking investments will continue to take place, and this too will lead to increasing convergence among countries as firms seek to improve their O advantages by cross-border mergers and acquisitions (M&A) or strategic alliances. Therefore, in the shorter time frame, inward and outward investment will fluctuate depending on relative innovative and organisational strength of the participating countries. But, as Cantwell (1989: 45) has noted,

The sectoral pattern of innovative activity gradually changes as new industries develop and new technical linkages are forged

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between sectors. Yet this is a slow process which in general only slightly disturbed the pattern of technological advantages held by firms of the major industrialized countries in the 20 years between the early 1960's and the early 1980's.

Thus, *pro tem* at least, it is possible for one country to be a net outward investor compared with another. But over time, according to the extent and speed at which created assets are transferable,¹³ the investment gap will close again, leading to a fluctuating investment position around an equilibrium level. It is within this context that the fifth stage will exist.

In other words, an equilibrium of sorts will be perpetuated, but it will not be a stable equilibrium as the relative comparative and competitive advantages of countries and firms are likely to be continually shifting. Hence, these fluctuations in relative comparative advantages, when combined with external and internal changes in the domestic economy, gradually lead to a fluctuation of the number of countries at stage 5.

The acquisition, diffusion and transfer of O advantages will be influenced by the cumulative causation in trade, production and technology, and whether the industry or sector in each of the countries at stage 5 experiences a 'vicious' or a 'virtuous' circle (Dunning 1988b, Cantwell 1989). In the former case it may serve to increase technological divergences between countries, in the latter, it may strengthen the technological linkages between them.

In summary, stage 5 is marked by a gradual convergence of industrial structures among countries and a change in the character of international transactions. MNE activity, in particular, will be directed to efficiency seeking investment with greater emphasis on cross-border alliances, mergers and acquisitions; and the governance and equity position of MNEs will become increasingly *transnational*. The success of countries in accumulating technology, as well as in inducing continued economic growth, will depend increasingly on the ability of their firms to coordinate their resources and capabilities at a regional and global level. The simultaneous trend of economic convergence of industrialised countries on one hand, and high rate of intra-Triad FDI growth on the other, will lead to an increasing economic interdependency as well as to a lessening of the role of natural assets as a country specific determinant of FDI. In stage 5, governments will increasingly assume the role of strategic oligopolists, taking into account the behaviour of other governments in the formation and execution of their own macro-organisational strategies. In this stage too, governments are likely to play an increasingly proactive role in fostering efficient markets, and in cooperating with business enterprises to reduce structural adjustment and other transaction costs.

We conclude. Beyond a certain point in the investment development

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path, the absolute size of GNP is no longer a reliable guide of a country's competitiveness; neither indeed is its net outward investment position. This is for two reasons. First, the competitiveness of a country is better measured by the rate and character of growth of GNP *vis-à-vis* that of its major competitors. Second, as the motivation of FDI has evolved away from being geared primarily to the exploitation of existing O advantages to the simultaneous acquisition of new O advantages, countries that offer L advantages for the production of such advantages may increase their attractiveness to inward investment. Investments made to acquire or exploit indigenous competitive advantage, far from representing a weakness of the recipient country, could represent a strength. Certainly, recent evidence seems to suggest that, in the Triad at least, inbound and outbound FDI are increasingly complementary to each other, especially at a sectoral level (UN 1993d).

SUMMARY AND CONCLUSIONS

This chapter has examined the dynamic interaction between MNE activities and economic growth, highlighting the evolutionary trends behind this symbiotic relationship. The extent and nature of its FDI profile and the economic structure of a country at a given point in time are partly determined by that in previous periods. Additionally, we have highlighted the role of government as a prime catalyst in determining the evolution and interaction between FDI and economic development. Government represents a crucial determinant in the innovation and maintenance of 'created' assets, an issue that is highlighted by the literature on national systems of innovation (NSI) (see e.g. Lundvall 1992, and Nelson 1993). These concepts have been introduced into the investment development path, originally developed by Dunning (1981a and 1988a). Using the stages-of-growth approach taken in previous versions of the IDP, and introducing the evolutionary forces behind inter-temporal changes, we have developed a dynamic version of the IDP.

A particular feature of the 'new' IDP developed here is a clearer understanding of the changing relationship between FDI and development in industrialised countries, previously examined only briefly in the literature. Stage 5 reflects the changes in the world economy, and particularly the convergence and catch-up process that is occurring among the countries of the Triad. As countries reach stage 4 and begin to enter stage 5, the activities and growth of their MNEs are no longer a function just of the economic conditions of its home country, but of the various host countries in which it has subsidiaries. The more globalised the operations of a firm, the greater the extent to which its O advantages are likely to be firm-specific, rather than determined by the economic,

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political and cultural conditions of its home country. Moreover, the O advantages of firms will increasingly be dependent on its ability to acquire and develop *created assets* and on its ability to efficiently organise these assets in order to exploit the advantages arising from common governance, making the MNE less dependent on its home country's natural resources. As such, O advantages become increasingly firm-specific as MNEs become more internationalised. The consequence of this is that the outward FDI activities of a country's firms at this stage are no longer entirely dependent on the economic status and competitiveness of its home country, and increasingly affected by the conditions in the various other countries in which they operate; and therefore, after reaching a certain NOI position, a country's investment position will not necessarily be proportional to its income level or relative stage of development. To put it another way, we hypothesise that, *ceteris paribus*, a stage 5 country will continue to experience change in its FDI position regardless of whether its relative stage of development or income levels change. This is not to say that the causal relationship between FDI and economic growth will diminish to insignificance at stage 5. It is simply that the emphasis on changes in economic development as an aggregate phenomenon, and the use of per capita income as an indicator of competitiveness, are no longer appropriate. For industrialised countries, economic growth as an aggregate has slowed, but there are considerable changes taking place between sectors. This is associated with the fact that firm-specific assets and competitiveness are becoming increasingly important, and that growth takes place because of changing competitiveness and structural adjustment between sectors. It may be more appropriate, therefore, to use technological advantage as an indicator of competitiveness.¹⁴

Furthermore, as these countries have experienced economic convergence and *de facto* and *de jure* integration, their income levels and economic structures have become increasingly similar. They have increasingly similar factor endowments, as the competitiveness of their economies has become dependent on created assets and decreasingly a function of their natural assets. This approach explicitly relates to the neo-Schumpeterian belief that innovation is central to competitiveness (Wakelin 1995), as well as the evolutionary economics approach that technology development is endogenous and cumulative. The kind of created assets that a country possesses in this (and our) view are determined by institutional factors, which we have classified as the role of government. For this reason, we have argued that, although the competitive advantages of industrialised countries are similar, they are by no means identical, since the individual competitive advantages of a particular country are path-dependent (and therefore influenced by traditional supply conditions) and the nature of their policies idiosyncratic. This

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may help explain why there has been an increasing amount of FDI activity taking place among and between the countries of the Triad, often in similar sectors. This phenomenon can also be explained partly because of the increasing homogeneity in their economies, in terms of both their income levels and their consumption patterns. This explanation is reminiscent of the hypothesis proposed by Linder (1961) in reference to the increase in intra-industry trade flows among the Triad. The fact that firms and MNEs from the industrialised world are increasingly engaged in high value added activity that is knowledge intensive and of a public good nature has led to an increase in strategic asset acquiring FDI activity. The simultaneous and continuous process of asset acquiring FDI and asset exploiting FDI, together with the fact that technological leadership and competitiveness are steadily shifting, leads us to argue that countries in stage 5 will fluctuate along a kind of long-term unstable equilibrium in terms of their net outward investment position.

The issues brought up in this chapter have been several and varied. Much of the rest of this book is devoted to analysing, with the aid of both empirical and qualitative methods, some of the propositions put forward in the theoretical framework. We begin by evaluating the stage-wise approach on a cross-sectional basis in Chapter 3, to confirm that the general relationship between FDI and economic development postulated by the IDP is still valid.

Textos para armar
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