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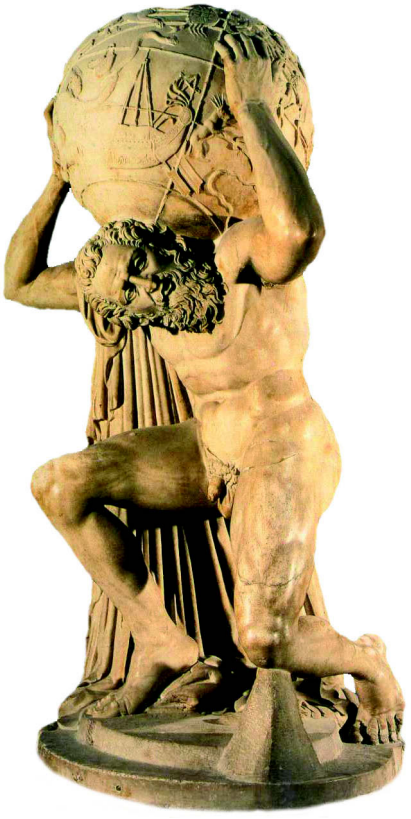
Erasmus University Rotterdam
Making Minds Matter



DOUGLAS A.F. VAN DEN BERGHE

Working Across Borders:

Multinational Enterprises and the Internationalization of Employment



WORKING ACROSS BORDERS: MULTINATIONAL ENTERPRISES AND THE INTERNATIONALIZATION OF EMPLOYMENT

Grensoverschrijdend werken: Multinationale ondernemingen en de internationalisering van werkgelegenheid

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For Esther & Bruun

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When I joined Erasmus University Rotterdam, School of Business in 1998 I did not intend to write anything of this length, let alone a thesis. With a background in Political Science and Economics, my knowledge of international business administration was limited. Not only did I learn to appreciate a new academic discipline, I also decided to write a thesis.

Over the past years I have met and worked with many colleagues, a few deserve a word of thanks.

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Douglas van den Berghe, Amsterdam 2003

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LIST OF ACRONYMS AND ABBREVIATIONS

ASEAN	**Association of Southeast Asian Nations**
BEA	**Bureau of Economic Analysis – US Depart of Commerce**
BIT	**Bilateral Investment Treaties**
DOI	**Degree of Internationalization**
DREE	**Direction des Relations Économiques Extérieures (France)**
DVI	**Degree of Vertical Integration**
EC	**European Community**
EFTA	**European Free Trade Area**
EMU	**European Monetary Union**
ERM	**Exchange Rate Mechanism**
EU	**European Union**
EUROSTAT	**Statistical Office of the European Communities**
FASB	**Financial Accounting Standards Board (United States)**
FDI	**Foreign Direct Investment**
GAAP	**General Accepted Accounting Principles**
GATT	**General Agreement on Tariffs and Trade**
GDP	**Gross Domestic Product**
IASC	**International Accounting Standards Committee**
ILO	**International labour Organisation**
IMF	**International Monetary Fund**
IGO	**International Governmental Organization**
IUI	**Research Institute for Industrial Economics (Sweden)**
M&As	**Mergers and Acquisitions**
Mercosur	**Mercado Común del Sur**
MAI	**Multilateral Agreement on Investment**
METI	**Ministry of Economics Trade and Industry (formerly MITI)**
MNE	**Multinational Enterprise**
MULTI	**Division on Multinational Enterprises (ILO)**
NIC	**Newly Industrializing Country**
NAFTA	**North American Free Trade Agreement**
NGO	**Nongovernmental Organization**
OECD	**Organization for Economic Co-Operation and Development**
R&D	**Research and Development**
RIA	**Regional Integration Agreement**
SADC	**South African Development Community**
SCOPE	**Studies and Competence Center for Organizational and Policy Research in European Business (Erasmus University)**
SEC	**Security Exchange Commission**
SEM	**Single European Market**
SFAS	**Statement of Financial Accounting Standards**
TNC	**Transnational Corporation**
TNI	**Transnationality Index**
UNCTAD	**United Nations Conference on Trade and Development**
WTO	**World Trade Organization**

PART I: INTRODUCTION TO THE STUDY

1. GENERAL INTRODUCTION

> *"In the final decade of the twentieth century, practically every government in the world has been preoccupied with the challenge of maintaining and expanding work opportunities in its jurisdiction. In the process many governments have conducted campaigns aimed at enticing foreign-owned enterprises into their economy."*
>
> *(Vernon, 1998: 31)*

1.1 AIMS AND SCOPE OF THE STUDY

Since the mid 1980s, the growth of worldwide foreign direct investment (FDI) has accelerated. FDI by multinational enterprises (MNEs) has become the primary 'glue' through which economies are inter-linked. The growth of FDI coincided with changing perceptions on the impact of the activities of MNEs. While a generation ago the investment strategies of MNEs were often seen as part of the development problem, many governments in both developing and developed countries in the 1990s increasingly started to see MNEs as one of the prime channels for generating wealth, economic growth, employment and export competitiveness (UNCTAD, 2002).

MNEs are increasingly regarded as the principal vehicle for the international transfer of capital, technology, know-how and management and marketing skills to employees and local producers and suppliers (UNCTAD, 1999). The effects of both inward and outward investments by multinational enterprises (MNEs) are numerous affecting a nation's level of development, production, its balance of payment, trade, and employment. Especially, the quantity, quality and location of employment in MNEs, associated with MNE investment, have immense implications for home and host countries and – it can be postulated - for the world economy as a whole.

In particular the relationship between internationalization by MNEs and employment in the domestic economy has been a point of major controversy within academia, among policy-makers and journalists. The controversy culminated in an expanding body of literature. Although, MNEs increasingly seem to be able to integrate and control flows of capital and technology across countries, they seem less able or willing to transfer large numbers of workers between various locations, except at prohibitively high costs. In principal, through their international network of subsidiaries and affiliates and internalized value chains, MNEs can reproduce national labor markets within their company boundaries, but not many MNEs have really developed internal labor markets nor have they increased the mobility of workers. National and local governments are mostly held responsible for the immobility of the labor factor within their jurisdiction. National and local labor market policies are often aimed at generating and maintaining employment. It is at this junction that the interests of MNEs seem to conflict with the interest of policy-makers.

This study focuses on the quantitative employment effects of internationalization firms in both home and host countries. From a home country perspective, MNEs are often held responsible for the 'relocation of production' and 'exporting jobs' to, often low-wage, countries at the expense of domestic jobs. This view can be found in most of the developed

countries. On the other hand host country governments – in particular developing countries - often perceive international production by MNEs as "the panacea for the dynamization of local economies and for the generation of employment" (Rodríguez-Pose & Arbix, 2001: 147). In this process many governments have not only adopted more favorable and liberal (industrial and investment) policies towards MNEs, but also campaigns aimed at enticing foreign-owned enterprises into their economy (Vernon, 1998). This process has often resulted in intense 'bidding wars' for 'FDI trophies' (OECD, 2002) and "locational tournaments" (Vernon, 1998; Mytelka, 2000). Locational tournaments appear not only between developing countries but also among developed countries, for instance among European Union member states or between US states. Locational tournaments and bidding wars are justified by individual actors mainly in terms of the employment generating potential of inward FDI by host MNEs. These jobs may not only be generated at high costs, but, as MNEs increasingly expand through cross-border M&As, may in the long term be less positive than in the case of new greenfield investments.

The *'international production-employment linkage'* debate has attracted major academic attention since the early 1970s. Notwithstanding the ever expanding library on the topic the OECD in 1995 concluded that: "Numerous studies have been undertaken throughout the last 20 years to examine the employment effects of FDI in manufacturing industries. No general conclusion has evolved either regarding the sign of neither the employment effects nor their magnitudes. The broad range of results is a reflection of both the complexities of the analysis and methodological shortcomings, combined with the generally poor data availability in most countries." (OECD, 1995:140). There are thus at least four reasons for this relatively poor state of affairs in such an important and politically sensitive area.
Firstly, there exists a conceptualization problem. The term *relocation* is for instance frequently used in academic research, public debates and policy-making processes, but it is a poorly defined concept and therefore needs further conceptualization. Secondly, the relationship between international production and employment indirectly depends on the relationship between FDI and trade, in the form of international intra-firm trade within MNEs. Whether and under what conditions trade and investment are complements or substitutes remains one of the unresolved issues in international business research. Thirdly, the analysis of the "international production-employment linkage" lacks a true firm level perspective. As chapters two and three will show, the extent to which the multinational enterprise is identified as a strategic actor in internationalization and relocation processes remains fairly limited. This reveals an empirical as well as a theoretical problem. For instance, establishing the relationship between international production and employment within MNEs always hinges on the counterfactual argument: what would have happened to employment in the absence of international production? Additionally, research is greatly hampered by a lack of representative data. Most empirical evidence refers to a limited number of countries (mostly the United States and Sweden), for which data, often at a high level of aggregation, are available. It is difficult to specify the direct employment effects of international production within the same firm, but it has been even more difficult to consider indirect employment effects of (internationalizing) firms. Furthermore, research is relatively idiosyncratic and one-dimensional. Much research has solely focused on the effects of outward FDI on domestic employment. However, for countries that are large receivers as well as senders of FDI (e.g. small open economies), the aggregate national employment effects depend on both outward *and* inward FDI. Finally, most empirical

work has largely focused on the employment effects of relocation of production by developed MNEs to low-wage developing countries associated with the rise of export led growth economies and the "new international division of labor" (NIDL)"over the mid 1970s and 1980s. Over the 1990s international production *and* employment within MNEs seems increasingly regionally concentrated in primarily developed (high-wage) countries of the European Union and North America (largely the United States). Hence, not only are the employment effects of international production by MNEs regional, they are also intertwined with processes of regional integration (e.g. the establishment of the Single European Market – SEM). The regional employment effects remains underexposed in the present body of literature.

This study addresses these problems by further analyzing the state of the debate on internationalization and employment, particularly in developed countries, debunk some of the most obvious myths on perceived trends by filling in some of the major empirical holes and re-conceptualize some of the most clear deficiencies in the existing literature by studying the phenomenon of international production and relocation at a firm level of analysis.

The general introduction of this study is structured as follows. Section 1.2 illustrates the multidimensionality and complexity of the problem at hand. It identifies the difficulties of establishing a clear-cut relationship between the internationalization of production and employment effects. Section 1.3 describes the historical context in which the issue of internationalization and employment within MNEs has matured. Five waves of internationalization are identified. The present study focuses in particular on the fifth and most recent wave of internationalization. Section 1.4 explores the academic, societal and managerial relevance of this study. Section 1.5, finally, gives an overview of the structure of this study.

1.2 COMPLEX INTERNATIONAL PRODUCTION-EMPLOYMENT LINKAGES GETTING THE SIGN RIGHT?

The relationship between international production strategies of multinational enterprises and direct employment, in its simplest form, boils down to the question whether foreign production substitutes (replaces [-]) or complements (adds to [+]) domestic employment, or *vice versa*. A substitutive relationship has a negative impact on domestic employment, while a complementary relationship entails a positive outcome for domestic employment. But finding an answer to the question is not as straightforward as it seems. The following numerical example illustrates why this is the case.
Consider a (multinational) enterprise that is engaged in international production. A particular strategic decision for instance to expand abroad by increasing foreign assets (taken at moment t=1) could have nine possible effects in t+1 n (Table 1.1).

Table 1.1 Employment developments within a MNE between t = 1 and t+1

	HOME	ABROAD	TOTAL	OUTCOME
Strategy 1	+	-	?	Undetermined/substitution
Strategy 2	+	+	++	Positive sum/complement
Strategy 3	+	=	+	Positive sum
Strategy 4	-	-	-	Negative sum/complement
Strategy 5	-	+	?	Undetermined/substitution
Strategy 6	-	=	-	Negative sum
Strategy 7	=	-	-	Negative sum
Strategy 8	=	+	+	Positive sum
Strategy 9	=	=	=	Indifferent/zero sum

All strategies might involve international expansion through takeovers, greenfield investments or retreat strategies on the domestic market. Strategies 1 and 5 reveal undetermined substitution effects between domestic and foreign employment. The net outcome depends on the magnitude of the domestic and foreign employment effects. Strategies 1, 4 and 7 reflect a de-internationalization strategy in terms of employment. . In strategy 1, domestic employment increases substitutes for employment abroad. In strategy 4 foreign and domestic redundancies complement each other. This strategy represents the most negative scenario for both sending and receiving economies. Complementary job displacement can appear when multinationals increase their efficiency levels or engage in more outsourcing (with possible indirect employment effects). In strategy 7 there are no domestic substitution or complementary effects at the level of the individual firm. In the case of strategy 3, 6 and 9 foreign employment in t=1 remains equal to that of t0. Depending on the magnitude of the domestic and foreign employment effects, there are various net employment effects possible.

Strategy 2 represents the most positive employment scenario*:* In this case international production leads to an increase of employment in the domestic economy as well as abroad. Whether the increase at home is greater than abroad depends on the growth rate in the parent country versus the growth rate in foreign affiliates between t0 and t+1. International production creates *complementary* (+) domestic and foreign employment effects., for instance because international production also requires additional workers at home or because the internationalization of production increases the competitiveness of the firm, which spurs its general growth and thus its general levels of employment.

Strategy 5 represents the case that is at the heart of the negative image of multinationals in developed countries in particular in the 1970s, when: foreign employment seemed to *substitute (-) or replace* domestic employment. This is the case for instance when a company moves to a low wage location in order to reap efficiency advantages and substitute for the high wages at home. But even in this case, the effect on the total number of employees within the firm remains largely undetermined. It could be possible for instance that the employment growth abroad compensates for the decline of employment at home through growth rates. Three possible scenarios exist between t0 and t+1 (Table 1.2). In case the employment decline at home in the parent firms is smaller than the employment increase in the foreign affiliates, there is still a positive outcome at the aggregate level (t+1b).

Table 1.2 Home country decline versus expansion abroad: three substitution scenarios

	HOME	ABROAD	TOTAL		RESULT	HOME	ABROAD	
Strategy 5								
T0	100	40	140					
T+1a	80	50	130	-	Negative sum	-20	+10	Decline(h)> Growth(a)
T+1b	80	70	150	+	Positive sum	-20	+30	Decline(h)< Growth(a)
T+1c	80	60	140	=	Zero-sum	-20	+20	Decline(h)= Growth(a)

Strategies 2 and, to a lesser extent, 8 would in general not lead to major anxieties about the 'export of jobs' and relocation of production in home countries. Corresponding a foreign employment increase, domestic employment increases (strategy 2) or remains equal (strategy 8) between t-1 and t=1. The outcome of strategy 5, 'restructuring at home and expansion abroad', has triggered the most heated debates on the negative employment effects associated with internationalization and the competitiveness of national economies in general and the 'runaway' phenomenon in specific. An even more specific case of strategy 5 entails the closing down of a production facility in the home country of the MNE, while *relocating* the facility or the productive activities performed in the facility abroad. This strategy in particular has prompted trade unions to organize major strikes, even when the net effect of the strategy might have been positive (t+1b).

The case of one illustrative MNE demonstrates the number of possible outcomes as regards the quantitative relationship between internationalization, MNEs and employment. The issue gets easily more complex when the analysis is extended to a number of additional questions: would the negative employment effects in the domestic country be greater in the absence of international production? Are the same jobs, which are lost in the domestic economy the same jobs that are created abroad? What are the long-term domestic employment implications of increased international production by the MNE? What happens to the international production-employment linkage when domestic affiliates start exporting to the foreign affiliates? What is the influence of geography on the relationship; is there a difference in the sign of the relationship when international production takes place in developed or developing countries or among developed countries?

To approach even a few of these questions, researchers must analyze how international production shapes the international division of labor within MNEs and hypothesize about the conditions under which MNE generate substitutive (negative) or complementary (positive) employment outcomes. This is a query into the nature and structure of international production by MNEs and the link between production and trade within the system of MNEs, explained by exploring the various motives of MNE behavior.

Finally, apart from the employment effects derived from internationalization of MNEs, accounting for the full range of quantitative total employment effects by large MNEs, additionally necessitates considering the wider context of economic restructuring of firms:(1) *International sourcing* and, (2) *technological progress implemented in manufacturing processes*.

Firstly, the view of large vertically integrated firms aiming at economies of scale has come under pressure both in the managerial literature as in day-to-day practice. Network-firms and/or vertically de-integrated firms like Nike and Reebok - firms that outsource almost all

the nodes in the value chain to suppliers while keeping only product design and marketing in-house, set the trend. There are many reasons for outsourcing (Besanko, Dranove & Shanley, 1996; Womack, Jones & Roos, 1991; Mol, 2001). The main driving forces are lowered transaction costs, a better focus on 'core competencies' (Prahalad & Hamel, 1990), better quality and more flexible delivery as a consequence of specialization advantages with suppliers. From a more political perspective some authors have pointed out to the advantages of the "externalization of labor" in terms of less labor costs and less trade union influence (Cox, 1987: Sugden, 1991). The effect outsourcing has on employment has two dimensions. It leads to the irrevocable trend that large companies are becoming smaller and more lean, through the externalization of employment, while employment gets spread over smaller entities in the national economy. Moreover, in case outsourcing increasingly gets international, indirect labor thus could also be relocated to other countries. This alternative avenue through which an MNE can take advantage of locational advantages for international production through subcontracting or buying from third parties, often pass the traditional aggregate flows of FDI and other firm level data, and are therefore difficult to trace. Figures on direct employment largely underestimate the employment impact of MNE strategies and neglect, the level of indirect employment attributable to *MNE activity* (i.e. indirect employment) within the network of MNEs that is largely generated through 'linkages' of MNEs in local economies that are largely determined by the international sourcing strategies of MNEs (UNCTAD, 2001). This study integrates this factor by considering the relative degree of vertical integration of firms.

Secondly, there are technological developments at work. It is often argued that through the 'replacement of men by machines', large corporations have decreased their number of employees. Rifkin (1995) observed that work or employment in itself is disappearing; due to high tech capital intensive investments replacing labor intensive activities and calls this "The end of Work" (Rifkin, 1995). Aronowitz and DiFazio (1994) argue that industrialized economies in general are heading for a 'Jobless future'. Technological developments can to a certain extent be considered relevant for all firms concerned and thus represent a relatively autonomous factor. However, the impact of technology differs per sector and per time period. In consecutive Kondratieff wave – long waves of economic growth and decline – new technological 'paradigms' play an important role in the survival and creation of firms and sectors. Chapter two will further the issue of Kondratieff waves. What also will be shown in part III is that despite the job displacing potential of technological progress – also in combination with alleged outsourcing effects on direct employment - many of the largest firms have still substantially increased the numbers of their workers often through cross-border M&As.

1.3 HISTORICAL CONTINGENGIES: WAVES OF INTERNATIONALIZATION

Even on a superficial account of the phenomenon at hand, one can observe that the employment effects of internationalization differ over time. It has created a different problem definition over time. The way firms internationalized from major industrial countries depended on historical circumstances, which prompted a number of 'waves' of internationalization. Five waves of internationalization can be identified:

- Wave I: Imperialism and natural resource seeking MNEs: 1850-1900;
- Wave II: Hegemonic rivalry and 'first mover' MNEs: 1900-1950;
- Wave III: Nascent (US) internationalization: 1950-1970s;
- Wave IV: The New International Division of Labor (NIDL): 1970s-1980s;
- Wave V: Globalization and regionalization: Mid 1980s – present.

These five waves followed an evolutionary trajectory evolving in a specific historical period, but they cannot be strictly separated from each other nor did one wave sequentially replaced another. Each wave has tended to persist over time. As countries are in different levels of development, they can be positioned in different waves.

1.3.1 Wave I: Imperialism and natural resource seeking MNEs: 1850-1900

The first wave of internationalization covers a period of 50 years and can be situated in the period when many Western MNEs undertook their first FDI ventures in developing countries (often colonies), roughly 1850-1950[1]. Jones (1996) mentions a number of illustrative cases (p. 62):

- Gold mining by *St John d'el Rey* of the United Kingdom in Brazil in 1830;
- Germany's *Metallgesellschaft* in 1873, which set up smelting, refining and distribution of metals activities in the United States, Mexico and Europe
- *Royal Dutch Shell* who undertook its first FDI in 1890 in oilfields and refineries and distribution in the United States, Venezuela, Dutch East Indies, Russia and Europe;
- *United Fruit Company* which set up plantations in utilities in Central America and distributive and shipping activities in the United Kingdom and Europe.

Both mining and petroleum refining FDI rapidly grew in the 1870-1900 period. Natural resource seeking FDI thus largely shaped the first wave of internationalization. This wave of internationalization is associated with the rise of an Old International Division of Labor (OIDL), between industrializing developed countries and a number of resource-abundant developing countries. The employment effects of these first forms of FDI have largely been ignored. This is largely due to the relatively small scale of the first wave of relocation, but more importantly with the nature of the industries associated with the first wave of relocation and internationalization. Supply-based firms operating in the petroleum refining and mining industries have very specific motives to go abroad. Their internationalization strategies are often aimed at natural resource abundant countries. For these firms expansion is often inevitable as the resources are not available in the domestic market. Similarly, the non-tradability of services makes the internationalization of service type MNEs inevitable for firm growth.[2] Moreover, the internationalization strategies of

[1] Geoffrey Jones and Mira Wilkins are both pioneers in analyzing the history of international business. Their work focuses on the historic evolution and origins of foreign direct investment and MNEs (cf. Jones, 1996; Wilkins, 1974 and 1991).

[2] Jones (1996) mentions a number of examples of services-related FDI prior to 1914 (p. 148):
(1) The US insurance company *New York Life's* first ventures in 1858, setting up branches in Europe, Asia, Australia and Latin America; (2) The Japanese trading company, *Mitsui Bussan*, establishing more than 30

most of the supply-based and service-oriented firms were generally associated with employment growth in host countries.

1.3.2 Wave II: Hegemonic rivalry and first mover MNEs: 1900-1950

The second wave of internationalization of MNEs took place during the period of World War I, the recession of the 1930s and related protectionist policies in many countries, World War II and the 1940 reconstruction years. This period is also referred to as the first phase of 'globalization' of non-resource based production (Hirst & Thompson, 1999; Krugman, 1996). Many new MNEs thus took their first steps abroad amidst a period of political turmoil and hegemonic state rivalry.[3]

Around the turn of the century, improvements in communication and transportation technology, coupled with large increases in scale economies due to production automation (like the Fordist conveyor belt and Taylorism) in industrial production provided the initial foundations for – largely US - manufacturing MNEs (Vernon, 1992). By 1914 US firms had invested $2.5 billion in other countries (Hymer, 1979, quoted in Barff, 1995). As countries-of-origin of MNEs, the United States, along with France, Germany and the United Kingdom accounted for 87 percent of global FDI in 1914. As, recipients the total was much smaller – less that 30 percent. Most pre World War I FDI was targeted at countries in Asia and Latin America (Dunning, 1983). In contrast to the resource-based investments of the first wave, market oriented investments occurred mainly in other developed countries in the form of manufacturing investments. Especially, non-electric machinery makers and carmakers spearheaded the American manufacturing invasion in Europe at the beginning of the twentieth century. Companies like General Motors, Ford and General Electric than made their first moves abroad and tried to get a foothold in the European market. In response European companies responded. Fiat for instance already had manufacturing branches in Austria in 1907, the United States in 1909, and Russia in 1912 (Fridenson, 1986 in Barff, 1995).

Setting up distant production facilities during the second wave of internationalization often occurred when a first mover (often a rival firm) had made its initial investment, which thus represents a defensive reason for internationalization. In addition, tariff laws and discriminatory legislation, by raising the cost of transportation of finished goods across borders, provided a pervasive additional reason to establish foreign production affiliates in this period.

The early internationalization of US firms showed remarkable difference between industries. Unlike the leading American firms in the automobile and non-electrical machinery industries, firms like General Electric and Westinghouse had to compete fiercely for international market share with European *first* movers like Rathenau, AEG, Siemens, and Swiss Brown Boveri (later Swiss-Swedish ABB) and often relied on negotiations and contractual agreements to realize market share (Chandler, 1990: 217).

After the stabilization of World War I, many foreign (automotive) producers moved quickly into the German market. The Ford Motor Company AG was incorporated in 1925

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branches in Asia, Europe, Australia and the United States after 1877.

[3] Based on the 200 largest firms from the United States, Great Britain and Germany, Chandler (1990) provides an extensive historical study of the patterns of growth and competitiveness and the evolution of large firms into multinational corporations over the 20th century.

and the plants of General Motors and Chrysler neared completion (Chandler, 1990). By 1928, in addition to American cars assembled in Berlin, 40 percent of the cars sold in Germany were imports, causing domestic producers to request protection. In response the tariff on foreign cars was raised sharply in 1927 (*ibid.*). In response BMW started production of automobiles, while Chrysler left the German market (only to return back to Germany after the takeover by Daimler Benz in 1998). Ford and General Motors remained in the German market. The response of both was entirely different. Ford's response largely reflected Henry Ford's personal idiosyncratic decision-making[4], while GM's strategy was one of a careful collectively planned decision. Early 1929 GM purchased for $33.4 million an 80 percent stake in Adam Opel, Germany's leading producer. This combination resulted quickly in Opel as the largest European automobile producer. Its share of the German market rose form 26 percent in 1928 to 38 percent in March 1933 (*ibid.*: 529).
Additional barriers raised by governments - in particular tariffs - provided important incentives for direct production establishment in Europe (Chandler, 1990: 200). Forestalling competition in a new market and circumventing tariffs and protectionist legislation became the drivers behind some of the first initial foreign investments of MNEs and the second wave of internationalization. In order to face up to competition in a new foreign market and overcome the "liability of foreigness" MNEs investing abroad were often large firms with a specific competitive advantage built up in their domestic markets. The employment effects of these entry strategies on the domestic economy were in theory considerable: in case these markets could have been reached by increased exports, domestic production (and thus employment) could have increased likewise. Now, foreign production largely offset this potential growth, but because no re-imports were possible as well, foreign production did not substitute for domestic production.
In 1939 the geography of FDI had changed little from a quarter of a century earlier. Developing countries in Latin America and Asia received almost 67 percent of the world total (Barff, 1995). World War II caused a stagnation in FDI over the 1940s.

1.3.3 Wave III: Nascent (US) internationalization: 1950-1970

The third wave of relocation can be set in the 1950 – mid-1970s period. In most industrialized country this period was characterized by reconstruction and rapid economic growth. The end of World War II can be viewed as a historical turning point in the world economy as well. The 1950s showed a significant change in the rate of growth and the direction of FDI. During the second wave of internationalization the pre-World-War II FDI trend practically reversed. During the third wave of internationalization technologically advanced nations received roughly two-thirds of global FDI. The hegemony of the United States was reflected in its FDI figures, over the period immediately following World War II, the US was by far the largest sender of FDI, taking account of half the world's stock. "In any event the late 1960s registered a high watermark in the spread the multinational networks of U.S.-based industrial enterprises, as the number of foreign affiliates added

[4] Henry Ford completely misjudged demand. When the new Cologne factory was nearly opened in October 1930 Henry Ford was asked whether he thought that hard times would diminish the buying power of Germans. He stubbornly retorted that: "I don't see any hard times. The people look well fed and busy. Everywhere I've been I've seen people working, even little children."(Chandler, 1990: 530).

annually to such networks reached an all time high" (Vernon, 1993: 61). For example the accelerating growth of the international activities of US corporations in the post-war period is reflected in the growth of their foreign affiliates. Between 1950 and 1966 the number of US affiliates abroad increased three times from 7000 to 23000. The number of affiliates of the sample of HMEP 187 main US manufacturing MNEs increased almost 3.5 times during the same period (Curhan and Vaupel, 1973). At a later stage European MNEs experienced similar growth levels of their foreign activities in the post World War II period (Ietto-Gillies, 1998).

At the end of the third wave of internationalization the first concerns arise in the United States about the possible negative effects of foreign production on US domestic employment growth and the first pioneering studies were conducted. Concern was particularly expressed by the American Federation of Labor and the Confederation of Industrial Organizations (AFL - CIO). The 1971 AFL-CIO report by Stanley Ruttenberg stated that the number of jobs lost in the United States between 1966 and 1971, due to foreign investment by US MNEs, ranged between 500.000 and 900.000 (Ruttenberg, 1971). Senator Peggy Musgrave in the same period argued that the post World War II international expansion of US MNEs had slowed domestic employment growth considerable (Musgrave, 1975). Testimonial to the anxiety among US politicians is the passing of the Domestic International Sales Corporation (DISC) legislation in congress in 1971. The DISC legislation was set up as a way of promoting exports and discouraging the rising tide of FDI by US corporations. It was seen as a means to offset the beneficial aspects of foreign tax systems, favoring US foreign production over US domestic production (Gaspari, 1983: 78 in Bergsten, Horst & Moran, 1978)[5]. Similarly, the US-government set up the Overseas Private Investment Corporation agency (OPIC) that evaluated all applications for insurance from US firms investing abroad from the point of view of it effects on US employment and the balance of payments. It denied investment insurances to those projects that were considered to be detrimental to the US economy. According to Bergsten, Horst and Moran (1978) between 1971 and 1973 OPIC received fifty applications of which it rejected eleven because the foreign investment projects adversely affected US economic conditions.

The US situation was different from the European situation. "In the decades prior to World War II, the principal strategy of the leading European firms was to protect their home markets from competition (from the US firms), not to seek out new foreign markets. When they established subsidiaries in foreign countries, they tended to concentrate on countries to which their home governments had close political ties [i.e. colonies]" (Franko, 1976: 81). This trend largely continued in the post World War II period, with a large number of European MNEs clinging to their home markets (Vernon, 1993). In the 1950s and 1960s the uncertainty surrounding de-colonization, refrained many MNEs from further investing in developing countries. "De-colonization, or the threat of independence by colonized countries, also probably discouraged investment by European based firms in Latin America, Africa, the Middle East, and Asia, and helped reorient the global geography of FDI away from developing countries and toward (Western) Europe, where new fierce competition was erupting with American affiliates" (Barff, 1995: 55). Complemented with the formation of the European Economic Community (EEC) in the late 1950s, redirecting

[5] A negative byproduct of the DISC legislation is that it partially contributed to the growth of the US trade deficit over the 1970s (Gaspari, 1983 in Bergsten, Horst & Moran, 1978).

European FDI to neighboring European (EC) markets *and* reorienting US FDI to Europe, developed countries received the bulk of global FDI stock.
The redirection of European FDI towards Europe largely explains why the debate on internationalization and employment was largely ignored in Europe, but emerged intensely in the United States in the late 1960s and early 1970s. In contrast it was rather the threat to jobs (creation?) associated with inward FDI that attracted more attention as reflected in Servan-Schreiber's book "*The American Challenge*" (Servan-Schreiber, 1967). For the United States, which had very limited experience as a host country for FDI in the late 1960s and early 1970 the debate largely centered around the *outward* employment effects to the US economy.
The underlying motives of the post World War II expansion of US MNEs and to a limited extent European MNEs, ranges from a 'follow the leader' rationale to tariff jumping market-seeking FDI and the safeguarding of foreign market shares.

1.3.4 Wave IV: European internationalization and internationalization from the periphery: 1970s-1980s

The fourth wave of internationalization materialized over the 1970s and 1980s.
Over the 1960-1980 period US outward FDI grew from just over $30 billion in 1960 to about $250 billion in the mid-1980s. This rate of growth was increasingly matched by UK and French corporations but outpaced by MNEs from Germany and Japan (UNCTC, 1983 and 1988). During the fourth wave of internationalization the United States experienced a remarkably shift in the balance between outward and inward FDI (Table 1.3)

Table 1.3 The balance between outward to inward FDI, 1975 and 1983 for the Triad

	FDI RATIOS*	
	1975	**1983**
Western Europe	1.20	1.56
United States	4.48	1.66
Japan	10.65	12.32

*Note: * FDI ratio = Outward Stock/Inward Stock*
Source: Dicken, 1992

Between 1975 and 1983, the ratio of outward to inward FDI grew by about 20 percent in Western Europe and Japan, the ratio for the United States declined considerably by almost two thirds. From being the largest source of FDI during the entire post war period, the US had become a large recipient of FDI. Many MNEs from Europe and, especially, Japan were attracted by the large US domestic market. At the same time, as competition intensified, many corporation sought lower wage in developing countries to reduce production cost. It was in this period that the term "New International Division of Labor" (NIDL) was coined.
During the late 1970s and early 1980s many upcoming Newly Industrializing Countries (NICs) in Asia (Singapore, Taiwan, Hong-Kong and South Korea) adopted export-led growth policies and managed to achieve rapid economic growth. The growth in offshore manufacturing and export processing zones and the shift of labor-intensive production from industrialized countries to low-wage countries, it was argued, supposed to lead to a 'New International Division of Labor'. Under the NIDL theory the activities conducted in

the core and periphery, under the umbrella of MNEs, are changing. Low-skilled manufacturing employment will no longer take place among high-wage developed countries, but rather in developing lo-wage countries. High-skilled labor is maintained in the core developed market economies. Efficiency-seeking FDI largely determined investments by MNEs over this period.
In contrast to the previous waves, the fourth wave of internationalization encompassed more countries and regions and was wider in scope than previous ones. Many US MNEs sustained their international expansion and secured their foreign presence. European MNEs laid the foundations of their international presence, while 'latecomer' Japan experienced a large outflow of FDI directed to the United States, associated with tariff-jumping FDI. It was not until the mid 1970s that the third wave of internationalization 'struck' the Japanese economy and threatened domestic jobs, in particular, in the textile industry (Mucchielli & Saucier 1997; Shinohara 1979). In the 1980s, Japanese firms started to internationalize to Europe as well. Prime motive related to tariff jumping as well as the increasing fear for 'fortress Europe'. By internationalizing Japanese firms thus secured foreign market share and despite the fact that this strategy lowered the potential growth of domestic employment, it contributed to the general competitiveness of Japanese firms, and thus were considered much less of a problem.
The fourth wave of internationalization also witnessed the rise of developing countries' MNEs (Third World Multinationals: TWMs), a testimony of the growing strength of some emerging economies.6 The motives for TWMs to expand are of a diverse nature, but the small size of their domestic market has been an important explanatory factor. Internationalization for these TWMs has for a large part been 'pushed' and become a survival strategy.

1.3.5 Wave V: Globalization and regionalization: Late 1980s – present

The fifth wave of internationalization commenced in the late 1980s with the fall of the Berlin Wall (1989) and the opening up of many new markets. One of the challenges of this study is to understand the fifth wave of internationalization in order to analyze its employment effects. Three institutional developments in particular shaped the fifth wave of internationalization and accelerated the growth in worldwide FDI flows[7]: (1) integration in the world system, (2) regionalism, and (3) multilateralism.

Ad. 1. Integration in the world system
A large number of countries opened up their economies to international trade and investment during the 1990s. Trade and investment liberalization programs far outnumbered more restrictive measures. During the 1991-1998 period, 94 percent of an approximate 900 Foreign Direct Investment (FDI) related regulatory changes were in the direction of creating a more favorable environment for FDI, in both developed and developing countries (UNCTAD 1999:115). In particular South Africa, Central and Eastern Europe, the Russian Federation and China – mostly 'transition economies' – tried

[6] See the pioneering work of Louis T. Wells (1983) and Sanjaya Lall (1983) on the rise of TWMs. Bernard Yeung (2000) presents and excellent overview of the literature.
[7] These institutional developments are also described in Van Tulder, Van Den Berghe and Muller (2001), p. 3-6.

to integrate into the world economy. The multilateral Uruguay Round was finalized successfully in 1993, after which a more autonomous and stronger World Trade Organization (WTO) was founded in 1995, intended to give further impetus to a worldwide trade regime. WTO membership, at 97 countries by the end of the 1980s, jumped to 135 countries. Under the new WTO regime, the autonomy of countries to decide upon their (official) trade policy diminished. A growing number of topics were included in the expanded mandate for the WTO. Intellectual Property regulation was initiated on a worldwide scale, and the WTO regulatory regime was extended to include service sector industries. By the end of 1997 an agreement was reached within the WTO to open banking, insurance and securities markets to foreign competition. The entry of China remained an issue of debate, but was solved in 2001 when China became a full member, bringing the overwhelming majority of the world's population under the WTO's (free) trade regime.

Ad. 2. Regionalism

The 1990s saw a boost in the number of Regional Integration Agreements (RIAs) such as the North American Free Trade Agreement (NAFTA) and the European Union, limiting the policy autonomy of a considerable number of states. The number of RIAs notified to GATT over the whole 1948-1990 period amounted to around 30, whereas the number more than tripled during the 1990s. The fifth wave of internationalization was triggered by the consecutive advancement of the European Community into an integrated common market – the Single European Market (SEM) in 1992 complemented with a European Monetary Union (EMU) in 2002. Parallel to the European integration process, the United States Canada and Mexico formed the North American Free Trade Agreement (NAFTA) in 1994[8]. Both the SEM and NAFTA entailed RIAs in which developed market economies integrated with one or more peripheral countries. In both North America and Europe the fifth wave of internationalization, and related perceived employment effects, were increasingly associated and intertwined with the implementation and intensification of Regional Integration Agreements (RIAs) and processes of intra-regional international production. In the United States resistance against the *North American Free Trade Agreement* (NAFTA) between the United States, Canada and Mexico was stimulated by the fear of US job losses, due to the relocation of production to Mexico, thus aggravating the effects of existing competition from other low-wage countries in South-East Asia. In Europe it was widely argued that unemployment was often due to the relocation of European manufacturing MNEs to low-wage countries outside the European Union (EU), to South East Asia, China and more recently Latin America, and after 1989 also to Eastern Europe. Aggravating this trend was, according to many politicians and trade union leaders, the threat of *'social dumping'* within the EU itself (especially to Mediterranean countries) coinciding further European integration through the *Single European Market* (SEM) (Tsoukalis, 1993). 'Social dumping' implies "some form of unfair competition based on low wages and poor working conditions (Tsoukalis, 1993: 160).

[8] Other RIAs that matured over the 1990s are: Mercosur in South-America, ASEAN in South-East Asia, SADC in Southern Africa while other regional integration agreements either materialized or received a major boost.

Ad. 3. Insecure multilateralism
Whether multilaterlism has been influenced by growing regionalism, is still open for debate, but the move towards a more multilateral arena for investment and trade issues, reached a – temporary – zenith as well as its limits during the 1990s. On the hand, the World Trade Organization (WTO) materialized in 1995 after the finalization of the Uruguay Round. With international dispute settlement procedures, the WTO has added an unprecedented dimension of supra-nationality to the multilateral trade regime. With the entry of China to the WTO in 2002, the number of member countries to WTO reached an all-time high of 144. More countries – in particular the former Soviet Union – want to enter as well. But, while official trade barriers have slowly disappeared, non-tariff barriers grew in importance. The initiative in favor of a Multilateral Agreement on Investments (MAI) was terminated in the course of 1998. Partly as a cause and partly as a consequence of the failure of the MAI, the number of bilateral investment treaties (BITs) boomed throughout the 1990s: from around five hundred in 1990 to an accumulated number of treaties of 1,726 by the end of 1998 (UNCTAD 1999:117). The November 1999 millennium Round of the WTO was initiated to include more sectors and topics than ever. But at the Seattle talks, member countries failed to reach agreement even on a common agenda. Part of the explanation for this was that the developing countries felt that they had gotten the 'wrong' deal in the Uruguay Round in particular regarding the surrender to demands of developed countries in the area of intellectual property rights and the liberalization of services industries.
Driven by these trends, the growth in foreign direct investment accelerated, not least so due to the rise in cross-border M&As, over the 1990s, reaching its peak in 1999. The growth of FDI directed to emerging markets (former NICs) largely continued over the 1990s, aggravating existing fears about a widespread relocation of production to these export oriented low-wage countries (see section 1.2.4), but was complemented with a continued growth of outward FDI from these countries. Additionally, while the fourth wave of internationalization entailed the emerging international presence of European MNEs in foreign markets, the fifth wave of internationalization is characterized by the consolidation and 'fine-tuning' of this international presence by many European MNEs. Finally, the United States continued its international presence but also increasingly became a large host market for FDI.
Complementing the debate on the New International Division of Labor (NIDL) during the fourth wave of internationalization, the fifth wave of internationalization witnessed some prominent academic and societal debates on the employment effects of the internationalization strategies of MNEs within North America and Europe.

During the fifth wave of internationalization, two relocation debates received particular societal and scholarly attention. They are both intertwined with processes of regional integration during the 1990s: the North American Free trade Agreement and relocation, and the deepening and widening of European integration and relocation.

NAFTA and the threat of job relocation in the United States

Preceding the signing of the NAFTA agreement North American labor organizations and politicians opposed NAFTA on the basis that it would encourage firms to 'run away' to Mexico and 'export US jobs'. Hufbauer and Schott (1993) challenged this misconception,

expressed by populist politicians like Ross Perot, that NAFTA creates, rather than destroys jobs. Foreign investment by US firms creates US jobs, in the short, by boosting US exports of capital goods, and in the long run, by establishing channels for the export of intermediate products (components and replacement parts) to affiliates abroad (incl. Mexico). If US MNEs were to refrain from investing in Mexico, there is no reason to believe that the firms would invest in the United States instead (rather than in other countries than Mexico), nor is there any certainty that foreign multinationals firms would not seize the investment opportunities in Mexico that were passed over by US firms (Hufbauer & Schott 1993: 18; Krugman, 1996). Hufbauer and Schott (1993) therefore conclude that: "On balance we think that investment by US firms in Mexico is a 'good event' rather than a 'bad event' for the United States" (p. 18).

European integration, relocation and exports of jobs

Across the European Community (EC) it was widely argued that the emergence and consolidation of international production by European MNEs over the 1980s and 1990s threatened domestic employment growth. In a period of high unemployment rates across the European Community, any outward expansion of a multinational enterprise was treated with a certain degree of suspicion. This led to many heated debates in most European member-states, but in particular in France and Germany.

The acceleration of international production was perceived as a signal to a decline in national competitiveness. It was diagnosed that if Europe was to face up to competition from the Newly Industrialized Countries in South-East Asia, the transition economies in Eastern Europe and the United States and revive its competitiveness, it had to introduce greater flexibility in it's labor markets, reduce wages and reform it's welfare state in order to enhance greater competitiveness and resolve unemployment. In brief, Europe suffered from 'Euro Sclerosis'. According to the European Commission's White Paper *"Growth, Competitiveness and Employment"*, the most important factor for the high unemployment rates across the EU is the rise of nations that are competing with us at cost levels we cannot match (European Commission, 1994). The 'White Book', as it later became known, contained the guidelines to greater competitiveness and higher employment rates through, the Single European Market (SEM) complemented with a European Monetary Union (EMU).

In general it was argued that the intensification of the European integration process over the mid 1980s would, in general, lead to a greater convergence of national economies. The competitive advantage of one country would thus become the competitive advantage of the whole region. The removal of internal trade barriers through the Single European Market in 1992 and 'deeper' economic integration across Europe has not only widened the locational choice and created bigger (factor) markets for MNEs, it has also reduced the need for a market-to-market plant location strategy across Europe. The anticipated response of MNEs operating and producing across Europe towards this process of regional integration would be one of rationalization, restructuring and relocation of production networks across Europe into fewer, larger plants producing for multi-country markets (European Commission, 1994). The response of European MNEs to the 'new' macro economic environment should eventually culminate in a revival of their competitiveness relative to their US and Japanese counterparts and lead to the creation of a *'regional division of labor (RDL)'*.

The re-launching of the European integration process during the fifth wave of

internationalization coincided with fears of the industrialized Northern European member states of a possible shift of production (relocation) to Southern Mediterranean EU countries (e.g. Greece, Portugal and Spain) with lower wage rates and less stringent labor regulation.

In 1993, when French unemployment rates were at its post-World War II peak, a number of reports were presented to the French National Parliament, alarming the French government of the relocation of production. The much-publicized and criticized report by French Senator Jean Arthuis linked the high unemployment rates in France to the *"délocalisation"*[9] of production by MNEs operating in France (Arthuis, 1993). "That report presents an account of the alarming situation" regarding the increasing number of jobs lost due to the relocation of production, and estimates that over one million jobs are threatened in France as a result of délocalisation." (UNCTAD, 1994: 188).

In Germany the discussion that took place over the 1980s focused largely on the 'exodus' of German firms, jobs and technology. Jungnickel (1995), however, points to the fact that on average only 15 % of total German FDI is directed to typical relocation countries, those associated with wage-cost oriented FDI i.e. Ireland, Spain, Portugal and South-East Asia. More than 80 % of German FDI is of a market seeking nature. He argues therefore that the extent to which relocation from Germany takes place is negligible. Over the 1990s Germany experienced a growing discrepancy between its inward and outward FDI flows; German outflows were seven times greater than the inflows (Ferner, 1998, see also table 1.2 above). Germany was associated with high labor costs, inflexible employment and working practices, high corporate taxation and rigid labor market institutions (Tüselmann, 1998). Over the 1990s the discussion of the exodus of German jobs and firms was complemented with the "*Standort Deutschland*" debate preoccupying German policy-makers and economists. To what extent does Germany remain an attractive investment location for MNE and do international investors pass by Germany (Jungnickel, 1995: 94).

While Southern Mediterranean countries were often perceived as competitors to the more industrialized countries of the EU, it were also the Southern less developed and geographically peripheral EU countries which feared that European integration may lead to a concentration of production *and* ownership, crowding out their small and medium sized enterprises (SMEs) (Tsoukalis, 1993). Today, as the enlargement of the EU eastwards has become a fact, it are also the Southern Mediterranean member states that fear this enlargement as it may trigger relocation to the new accession countries (e.g. Poland, Hungary, Czech Republic).

[9] The term délocalisation is used here in reference to the specific French character of the relocation debate. The term *relocation* is more common and will be applied throughout this study.

Table 1.4 summarizes the characteristics of the five waves of relocation.

Table 1.4 Main characteristics of the five waves of internationalization

WAVES	PERIOD	CLAIMS ON THE TRIGGERS OF THE WAVE	FORM OF INTERNATIONAL STRATEGY	CLAIMS ON THE EMPLOYMENT EFFECTS OF THE WAVE	RESULTS
Imperialism and natural resource seeking MNEs	1850-1900s	Imperialism plus resource seeking (oil, mining and spices).	Natural resource seeking investments, through greenfield investments	Effects in the host country (largely developing countries)	Absolute comparative advantages. Old International Division of Labor (OIDL)
Hegemonic rivalry and first mover MNEs	1900-1950	Natural resource and market seeking (horizontal) FDI	Greenfield investments	Employment effects in other developed markets	OIDL and emerging Transatlantic division of labor
Nascent (US) internationalization	End 1950s - 1970s	Low wages in NICs and other developing countries (vertical FDI)	Low wage seeking investments in the form of greenfield investments and market-seeking	Employment and job substitution in OECD countries?	Relative comparative advantages. International Division of Labor (IDL)
Internationalization of European and Emerging MNEs	1970s – late 1980s	Low wages in largely emerging markets. Market-seeking (Horizontal vertical FDI).	Ibid. Plus re-imports. Greenfield FDI by emerging market MNEs	Employment and job substitution in OECD or NICs countries? Home country and host country employment effects.	New International Division of Labor (NIDL)
Globalization and regionalization	Late 1980s – end 1990s (present)	Low wages in the periphery of own region plus strategic-asset seeking FDI (horizontal and vertical FDI)	Brownfield FDI and cross-border Mergers and Acquisitions	Mixed effects on employment, but perceived 'race to the bottom' at a national and sub-national level.	Competitive advantages. Regional Division of Labor (RDL)

1.4 RELEVANCE OF THE STUDY

Academic research should ideally be relevant beyond the academic community alone. Most of the relationships studied in economic science have often an additional societal impact and managerial impact. Three areas of relevance can thus be defined for the present study: academic relevance, societal relevance and managerial relevance.

1.4.1 Academic relevance

The impact of international production and internationalization on home and host country employment remains an issue of considerable academic research. The debate on the employment side of internationalization of MNEs often contains an ideological bias against the operations of large multinational enterprises (MNEs), which leads to the fact that the whole debate is conducted in less precise language and focused on the short term effects.
The debate on employment generation in host economies, as a result of inward FDI by MNEs, tends to focus on the qualitative spin-offs of this employment (skills, training, R&D), with relatively little attention to the numerical employment contribution of MNEs nor the circumstances under which these arise. On the other hand the academic debate on the home country employment effects of internationalizing MNEs tends to be 'hijacked' by two diametrically counter-poised claims. From a 'business perspective' it is often argued that internationalization is a prerequisite for the economic survival of the MNE, while labor representatives ('labor perspective') claim that all foreign investments could have been maintained and conducted in the domestic market. The reality of internationalizing MNEs is far more complex than the two opposing assumptions. MNEs have many reasons to expand abroad or divest in foreign markets with necessary consequences for home and host country employment. The fact that internationalization often occurs in waves suggests that some of these reasons are much more important in specific waves than others. By studying the internationalization strategies and its employment effects of a large sample of firms, this study provides an investigation in the motives and determinants of these strategies and hence provides the context in which these employment effects arise. The study should help to theoretically 'getting the sign right' in equations on internationalization and employment.

1.4.2 Societal relevance

Ever since the oil shocks of the 1970s, societies have struggled to regain 'employment generating economic growth'. Not all countries - even within the same economic block - share the same employment problems. International differences are partly caused by differences in national employment 'regimes' or labor market policies (see the extensive literature on this in for instance, the OECD's "jobs study", 1997), but also by differences triggered by the restructuring and internationalization strategies of large MNEs within those countries. The latter often differs between large, relatively closed economies (e.g. Japan and to a certain extent the United States) and small open economies (e.g. Sweden, the Netherlands and Switzerland), in which, outward and inward stock accounts for a very substantial share of GDP.
This study does not focus in detail on the - nevertheless relevant - issue of the overall size

of employment in the economy, but explores the relationship between international production and employment within MNEs. The results of this study only partially provide solutions to the complexities governments face in reconciling policies of full-employment with an open economy.
In addition, the worry in society of the job displacement effects of foreign investments by MNEs is sufficiently known. The extent to which this displacement takes place is less known. This concern might not be justified. Many firms internationalize and relocate their activities abroad as part of the nature and dynamism of international business, which could imply that as many foreign firms enter the domestic market, thereby creating jobs. This study aims in particular to answer whether the popular views as proclaimed in the 1970s and 1980s on the substitutive relationship between internationalization and domestic employment are warranted in a contemporary era.
Through its focus on empirical employment effects and on the conditions and circumstances under which internationalization leads to employment creation and destruction at the level of individual firms, this study should provide a better understanding of the nature of the relationship between globalization and work.

1.4.3 Managerial relevance

Competitive advantages in the 1990s and beyond will increasingly be determined by the labor 'factor'. Sustainable competitive advantages will be based on innovation, quality, service differentiation and organizational flexibility. For this reason, a fuller understanding of the nature, importance and dynamics of the relationship between TNCs and human resources in general is imperative. The knowledge in firms on the (perceived) impact of their internationalization strategies on the international spread of job seems limited. Often firms are confronted with trade unions, societal groups and policy makers simplifying the effects of their strategies in terms of employment destruction. Managers and CEOs can play an informative role in these matters if they have the answers at hand. This study should provide analytical insights and tools for managers and CEOs when facing societal pressure.
Additionally, one of the central questions in management research is whether internationalization or multinationality leads to a better firm performance or (further) enhances the competitiveness of MNEs. Why would firms otherwise engage in an, often cumbersome, process of managing across borders? This study aims to analyze the competitiveness, in the form of labor productivity, of different types of internationalizing firms.

1.5 STRUCTURE OF THE STUDY

This study consists of five parts, including this introduction and the conclusion.
Part I consists of the present introduction, chapter one of this study, in which the aims, scope, historical contingencies and the relevance of this study are discussed.
Part II addresses results – the established links - and limitations – the missing links – in the present academic literature. As this particular field of study enjoys a relatively long gestation period. chapter two combines an overview of the contents and the origins of the

literature on internationalization and employment that has been published since the 1970s – parallel to the two last waves of internationalization. The chapter provides a discussion of the empirical results of previous research, discusses the existing links that are suggested in the literature. Chapter three positions the present study within the fifth wave of internationalization and identifies a number of missing links. The present phase of internationalization shows some characteristics that require an additional research agenda which is specified in this chapter. One of the primary missing links identified in researching the relationship between internationalization of firms and employment, is the lack of a firm level perspective.

Part III introduces a firm level perspective. Chapter four provides a multi-disciplinary view on internationalization that should enable linking the employment effects to motives for internationalization. Three perspectives on internationalization - *International Business (IB), International Management (IM)* and, *International Political Economy (IPE)* – are discussed. Chapter five operationalizes the concept of corporate multinationality and specifies the research questions that form the basis for the empirical part of this study.

Part IV consists of the empirical chapters of the study. Chapter six provides an overview of national accounting regulation regarding the reporting of geographic segments in corporate annual reports. In addition, it provides an assessment of the way core firms report their geographic segments in their annual reports in general and the geographic spread of their employees. Chapter seven and chapter eight empirically analyze the relationship between internationalization and direct employment, based on the framework provided in chapter five.

Part V contains the concluding chapter, chapter nine, summarizes the main findings of this study and deals with policy implications of this study and tries to anticipate the likely future(s) of internationalization, relocation and employment. Chapter nine also lists the limitations of this study and defines promising and needed areas for future research.

PART II: LITERATURE REVIEW AND RESEARCH AGENDA

2. LITERATURE REVIEW: IDENTIFYING ESTABLISHED AND EMERGING LINKS

2.1 INTRODUCTION

The mainstream literature on the (inter)relationship between international production, relocation strategies, and possible effects on employment has largely focused on 'getting the sign right': does internationalization have positive or negative effects on domestic employment? Often, studies have been conducted for defensive reasons, in particular because of a (perceived) weakening in the international position of the national economy. This is a normal phenomenon with social economic research in general and research on politically sensitive issues in particular. More than three decades of scholarly attention for the problem has resulted in a large number of studies with heterogeneous methodological approaches, different levels of analysis and a wide range of empirical findings. Beside nationally focused and policy driven studies, empirically based research has been conducted in order to unravel the exact nature of the causal relationship between international production and employment within MNEs. Any categorization of the literature, therefore, does not *a priori* do justice to the originality and richness in conceptual reasoning of individual studies. This chapter nevertheless tries to get to grips with the occasion and contents of studies, by introducing a number of relevant clusters.

Section 2.2 should make it possible to cluster the research on internationalization, relocation and employment along national and historical lines. By linking the international position of particular countries in trade and FDI (cf. section 1.3 on general developments) to the development of the national 'job machine', the nature and intensity of the debate in some countries can be better understood. Sections 2.3 to 2.6 cluster the contents of mainstream research on internationalization, relocation and employment. Section 2.7, finally, identifies the established relationships between internationalization and employment.

2.2 HISTORICAL PATTERN OF ACADEMIC RESEARCH

It can be argued that studies on the (perceived) job displacement or job creation effects of internationalization are often triggered by changes in the macro-economic position of a country in terms of trade and FDI. This section investigates country characteristics on four key macro-economic indicators: (1) FDI position (deficit/surplus), (2) Trade position (Export/import deficit), (3) periods of rapidly rising unemployment and (4) the nature of the national 'job machine' (absolute growth in the number of jobs). They are bound to frame the national debate.

2.2.1 Framing expected (national) debates

In every country, as soon as substantial and over a longer period job displacements appear, (un)employment is bound to receive booming attention. Governments sponsor research after the causes and consequences of the phenomenon, firms are sometimes held responsible (prompting them to sponsor research as well), and trade unions strike in an effort to sustain employment and likewise add to the body of studies after the phenomenon. In case the total workforce decreases the debate will be more intense, while under increasing absolute job numbers the intensity of the debate is bound to be moderated by the positive overall impression of an active domestic "job machine" as the American job machine in the mid-1990s or the Dutch job machine in the second half of the 1990s. Under those circumstances the attention is drawn to cyclical factors of job displacement (like lacking demand, higher oil prices and inflation). In the 1980s and 1990s attention became increasingly drawn to structural factors of job displacement (like technological developments or outsourcing strategies).
At specific moments in time the international dimension will most probably receive extra attention, in particular when balance of trade and the balance of capital problems appear at the same time. Countries that suffer from a trade deficit (i.e. imports exceed exports) will fear that jobs are lost due to more competitive firms abroad (or a weak composition of its trade portfolio). In case of a trade surplus, the debate will be dampened, because the national economy seems to be competitive and therefore job displacement might be only temporary. In case the trade surplus rises quickly, the debate will be curbed even more. As regards the capital accounts and the investment factor, when a country suffers from a foreign direct investment surplus, inward investment is bigger than outward investment. The nature of the surplus – and thus the employment debate – changes with the nature of the investment. In case foreign firms in a country invest in the form of greenfield sites, the debate will be less negatively affected, because foreign direct investment tends to bring in complementary jobs. Although the case for crowding-out effects is also made, but often primarily for developing countries. In case foreign firms take over or acquire domestic firms, the debate has tended to be more intense. Firstly, because of nationalistic sentiments, but secondly also because it can be theoretically anticipated that one of the first effects for the (theoretically less efficient) firm that is taken over by its (more efficient) foreign firm will be the shedding of local jobs. Trade unions and governments will be very alert to such outcomes. The trend of FDI through M&As (rather than through greenfield investments) has been particularly pervasive in the 1990s. In case of an FDI deficit (outward FDI exceeds inward FDI), the country suffers from an investment 'leakage' that drains the financial resources out of the country and thus is generally considered to negatively affect job opportunities. Only in case the FDI deficit is combined with a trade surplus the debating parties will, relatively easy, come to the conclusion that the two are related and both relate to an increase in the competitive position of the country's firms. A better competitive position results in higher outward FDI flows, combined with a trade surplus. But in case the total number of jobs in the country decreases, local stakeholders can also come to the conclusion that the net effect is negative, which triggers a more heated debate.

Figure 2.1 classifies assumptions about the macro-economic trade and FDI position, the direction of employment development and hypothesizes about the nature of the internationalization-employment debate.

		FDI POSITION		
		"DEFICIT" (OUTWARD > INWARD) net foreign job growth, c.p.	**BALANCED**	**"SURPLUS" (INWARD>>OUTWARD) net domestic job growth, c.p.**
TRADE POSITION	**DEFICIT (IMPORTS> EXPORTS) = net foreign job growth**	CRISIS	DEFENSIVE	MIXED, BUT PROBABLY NEGATIVE 'sell out to foreign companies"
	BALANCED	DEFENSIVE	EQUILIBRIUM	Greenfield: POSITIVE Acquisitions: MIXED to NEGATIVE
	SURPLUS (EXPORTS> IMPORTS) = net domestic job growth	MIXED, BUT PROBABLY POSITIVE 'outward investment as complementary to job creation at home'	POSITIVE	PROBABLY POSITIVE (Greenfield investment very positive)

Figure 2.1: Expected nature of the employment debate in relation to FDI and trade positions

Figure 2.1 shows nine possible outcomes and nature of debates, ranging from a crisis (upper left corner) to a positive outcome (lower right corner). In many cases the debate is often dependent upon the type of investments (Greenfield versus cross-border M&As).

2.2.2 Waves of internationalization, Kondratieffs and national debates

In the post-war period, two long waves of economic growth and decline materialized: the Fourth and the Fifth Kondratieff. The innovation, employment and industry characteristics of these waves were connected with particular patterns of internationalization:

- **1945 – 1960:** fourth Kondratieff reaches its peak (on the basis of mass production; leading sectors: cars, trucks, weapons, aircraft, food) reconstruction period; largely national debates on job creation; (limited internationalization)
- **1960 – 1974**B birth of the Fifth Kondratieff (on the basis of Information Technology revolution; leading sectors: micro-electronics and telecommunication, new materials, biotechnology); stable job growth period; no major displacements due to any effect; nascent US internationalization in the direction of other OECD countries; job growth on the basis of mass production; (market seeking internationalization)
- **1974 – 1986:** fourth Kondratieff reaches maturity and declines; efficiency competition; low cost, shrinking markets; increased competition between 'old' – fourth Kondratieff and 'new' – fifth Kondratieff – companies; energy crises; runaway job displacement (efficiency seeking internationalization)
- **1986 – 2000:** fifth Kondratieff approaches maturity (well established technology paradigms in IT, biotech and new materials) Japan is in new technologies, US is leading again; Europe is trailing behind in job creation potential; job competition on the basis of implementation of new technologies in manufacturing and services (asset

seeking internationalization); due to opening up of plan economy markets, Kondratieff could be prolonged,

- **2000– 2015:** fifth Kondratieff reaches maturity and starts to decline, search for new technological paradigms and leading sectors; intensified fight over job-creation potential within the OECD region; job displacement fight: who is going to suffer most from the expected structural job displacement; competitive internationalization (strategic-assets seeking) prevails; regionalism provides new dynamism to this process.

The 1945-1960 period is generally considered as the reconstruction period, in which most OECD countries focused on rebuilding their national economies. Some with Marshall aid, some on their own, managed to recoup most of their industrial dynamism and consequently reached a stage of relatively high employment. Since 1960, the rivalry between a maturing fourth Kondratieff and start-up Fifth Kondratieff, matched with rivalry between particular sectors and countries, slowly took up pace. The rivalry also had major consequences for the size and composition of the workforce in most OECD countries. Since the early 1960s, for eight leading developed countries, specific periods can be identified when unemployment (as % of the total workforce) increased rapidly. Figure 2.1 includes key indicators for (a) the employment and (b) the international position of the five biggest and three (small) most open OECD countries. The employment position of countries over time for each country is measured by (a) total employment (in absolute numbers) and (b) unemployment (measured as percentage of the workforce). The international position is measured by (a) the trade balance (measured by exports – imports), (b) the investment balance (measured by FDI outflows – FDI inflows) and (c) the absolute volumes of FDI outflows and inflows.

Table 2.1 departs from the periods in which each of these countries suffered from rising unemployment levels for at least two consecutive years and links that to the international position of a particular national economy. Rises in unemployment are unequally distributed over the countries. The United States suffered from three such periods, with relatively short duration, while Japan had three periods with relatively long duration. The two first periods run parallel, whereas the third period in Japan follows that of the United States, which might lead to the observation that the two are related (the Japanese unemployment as a result of the US policy to solve its own unemployment). Both countries, however, experienced a continuous growth of the total number of jobs in these periods which is bound to dampen the intensity of the national debate. Most other (European) countries suffered from two relatively long periods of increasing unemployment, with stable or decreasing levels of total numbers of jobs.

Table 2.1: Clustering employment problems and international position of countries

COUNTRY	KEY PERIODS*	NATURE OF JOB MACHINE**	TRADE POSITION	FDI POSITION
USA	I.1974-1976	Growth	Balanced	Balanced***
	II. 1980-1982	Growth	Balanced	Low surplus
	III. 1990-1992	Growth	Deficit ↑	First deficit
Japan	I.1974-1978	Growth	Small surplus	Balanced
	II.1981 – 1987	Growth	Surplus↑	First deficit ↑
	III.1992 – 1999	Growth	Sustained high surplus	High deficit ↓
Germany	I.1981 – 1985	Stable	Surplus↑	Balanced
	II.1992 – 1998	Stable ↓	Surplus↑↑ (after ↓↓)	Deficit↑
France	I.1971 – 1987	Stable↑	Deficit↑	Balanced (low)
	II.1991 – 1996	Stable↓	Deficit → Surplus↑	Deficit
United Kingdom	I.1975 – 1977	Stable	Deficit↓	Balanced***
	II.1980 – 1987	Fluctuating↓↑	Deficit↓↓	First deficit
	III.1991 – 1993	Decreasing	High Deficit	Balanced→deficit
Netherlands	I.1971 – 1976	Stable	Low deficit	Deficit
	II.1979 – 1983	Stable	Surplus↑	Limited deficit
	III.1993 – 1994	Increasing	High surplus	Deficit↑
Belgium	I.1972 – 1984	Decreasing	n.a.	Balanced***
	II.1992 – 1994	Decreasing	Surplus	Surplus (acquisitions)
Sweden	I.1980 – 1983	Stable	Balanced	Balanced
	II.1990 – 1997	Decreasing	Surplus↑↑	Deficit→balanced

** key period = rapidly rising unemployment as % of workforce for more than one consecutive year*
*** Growth in number of jobs*
**** approximation*

- In the years 1974/75, 1980/81 and 1991/92 almost all countries experienced rapid rises in relative unemployment. So the general 'employment debate' in these years is bound to intensify
- The European countries showed relatively weak 'job machines' over the whole period, so we can expect a continuous demand for employment policies and debates that cover the whole region.
- The need to introduce the international dimension in the debate only augmented in the 1990s. But not every country had the same problems. Japan for instance suffered from an investment deficit, which is largely compensated for by a trade surplus. However, when this surplus comes under pressure, the investment deficit is also bound to be considered more problematic. This will probably have been the case in the prolonged crisis of the 1990s. The combined deficits in trade and investment and the rapid growth in unemployment in the early 1990s for the United States is bound to have triggered considerable debate.
- Following the above reasoning it can be expected that the discussion on the negative

effects of FDI and trade on domestic employment has been particularly fed by authors from or studying the United Kingdom. Not only has the total job volume fluctuated sharply and often decreased, but the country also suffered from considerable investment leakages combined trade deficit throughout the three sustained unemployment periods.

- The investment leakage problem is especially experienced by smaller countries, which are more often generally faced with more dominant and mature multinationals (cf. UNCTAD, various issues). So, we can expect the international debate on the relationship between internationalization and employment to be strongly influenced by authors writing about and coming from smaller countries.

2.3 CLUSTERING THE MAINSTREAM LITERATURE

Previous literature overviews can be used as a first step to select leading studies on the issue of internationalization, relocation and employment effects. Key studies have been: Hawkins and Jedee (1977), Caves (1996: 110-32), Dunning (1993: 349-84), UNCTAD (1994), Mucchielli and Saucier, (1997: 16-17) and Fors and Kokko (1999). Secondly, relevant literature with high impact can also be obtained from international organizations. The International Labour Organisation (ILO) in Geneva, one of the leading international organizations conducts regularly research on employment trends, labor institutions and industrial relations in developed and developing economies. The Multinational Enterprise Program (MULTI) division of the ILO in particular publishes specific working papers on home *and* host country employment effects (both quantitative and qualitative) of MNEs in developing as well as developing countries. In addition, the *Organisation of Economic Cooperation and Development* (OECD) in 1995 published the results of an international round table discussion on FDI, relocation, trade and employment in industrialized OECD countries (OECD, 1995). In 1994, during the fifth wave of internationalization, UNCTAD dedicated its entire World Investment Report to the subject of transnational corporations and employment (UNCTAD, 1994). Finally, UNCTAD's 1994 World Investment Report extensively dealt with the relationship between FDI and employment and provided useful additional literature. Thirdly, scientific databases can provide additional sources. A literature search through the ProQuest and JStor databases provided a large number of articles on employment within MNEs, internationalization and relocation. Both databases are widely used by business science researchers and economists and provide multiple search options (i.e. by topic, journal, author and year and, Boolean search strategies). Entry words that were used were: employment, FDI, international production, internationalization, relocation and multinational enterprises (or multinational corporations, transnational corporation, international firms and global enterprises).[10]
This search strategy resulted in the identification of 64 key articles and 11 key books of an empirical, conceptual and policy oriented nature.

[10] The main journals from which articles were reviewed are: *Journal of International Economics, Journal of International Business Studies, International Business Review, The Review of Economics and Statistics, Weltwirtschaftliches Archiv* and working papers *of the National Bureau of Economic Research* (NBER), the *International Labor Organization* (ILO), the *Organisation for Economic Co-operation and Development* (OECD) and the *United Nations Conference on Trade and Development* (UNCTAD), as well as the books discussed separately throughout this chapter.

The international production-employment linkage literature can be separated in two types of studies: (1) analyzing the employment effects in the source (or home) country of the MNE - the *outward employment effects or home country employment effects* - and (2) studies analyzing the employment effects in the country of destination (host country) where the MNE operates - the *inward or host country employment effects*. The bulk of the research focuses on the inward and outward quantitative – as opposed to qualitative - employment effects of international production. .

Three broad strands of research can be identified in the literature:

1. Direct approaches. The common denominator in the direct approaches is that all these studies explicitly analyze how international production influences employment levels within MNEs. Many of these studies tend to stress the job displacement effects of internationalization.
2. Indirect approaches. Indirect approaches focus on the stimulus effect to exports and investments from international production. Econometric regression techniques prevail and in which it is analyzed whether international production, stimulates trade (exports) and investments (or a combination of both) and only by implication indirectly what the effects are on employment levels..
3. Dual approaches. While the first two approaches largely focus on the relationship between outward FDI and domestic employment in industrialized countries, dual approaches either analyze the host country employment effects of inward FDI or adopt a dual outward *and* inward FDI-employment perspective. These studies tried to analyze the net employment contribution of inward FDI and argued that the relationship between FDI and employment can only be assessed at an aggregate level on inward *as well as* outward employment effects, caused by home-firms and host-firms respectively.

Sections 2.4 to 2.6 will discuss the main findings of key studies belonging to each approach. In Annex A the *empirical* studies of each approach are grouped together in chronological order and by *geographical focus, source of data, methodology, choice of industry and research findings*. Most studies focus on the manufacturing industry.[11]

2.4 DIRECT APPROACHES

Early research within the strand of direct approaches dates back to the early 1970s. They can be subdivided in four categories: *displacement and counterfactual studies, studies of the New International Division of Labor (NIDL), labor demand studies and international relocation studies.* Displacement and counterfactual studies originated in the late 1960s and analyzed to what extent foreign production and employment have replaced domestic employment and whether foreign production could also have taken place in the domestic economy. Since the 1980s, studies on the New International Division of Labor (NIDL) complemented these first studies. Both studies were primarily interested in the

[11] Research on the employment effects of FDI in the service sector is limited (for exceptions see UNCTC, 1989; Dunning, 1989). This can largely be explained through the non-tradability of most services, leading to local production of most services. Therefore, *tradability* of products is itself a determinant of FDI.

displacement effects of internationalization. Closely, associated to NIDL studies are studies using labor demand equations in domestic and foreign affiliates of MNEs, while the fourth category of direct approaches largely focuses on international relocation of production and its employment effect.

2.4.1 Displacement and counterfactual studies: "the alternative scenario"

Hawkins (1972) analyzed, in a pioneering study, the domestic employment effects in the United States of outward FDI in 1968. He subdivided possible quantitative direct employment effects into four categories:

1. The production or job displacement effect (DE);
2. 'The export stimulation effect (XE);
3. The home office effect (HE);
4. The supporting firm employment effect (SE).

Hawkins calculated the net domestic employment effect (NE) of overseas investment on the US economy through the following formula: NE = - DE + XE + HE + SE[12]. Hawkins (*ibid.*), next, linked the net results of this calculation to different mixes of "aggressive" (offensive) and "defensive" investment assumptions. As a reference point he used Ruttenberg's (1971) study who assumed that all US outward FDI could have taken place in the domestic economy, hereby adopting a 100 percent "aggressive assumption" of FDI motives. Instead, Hawkins (1972) calculated the domestic employment effects related to outward US investment of different degrees of aggressive assumptions: 25 percent, 10 percent and 5 percent aggressive assumption. The employment effects ranged respectively from – 322 (under a 25 percent assumption) to + 89 (10 percent) to + 279 (5 percent).
One of the major problems in assessing the home and host employment effects of international production thus boils down to assessing *what would have happened in the absence of international production*. This line of reasoning is referred to as the *counterfactual argument* of international production.[13] The effect of the alternative option is difficult to establish empirically. So researchers had to make assumptions and estimates of the possible domestic employment effects (Dicken, 1998). Not surprisingly, different approaches have been adopted to assess the counterfactual hypothesis, leading to different conclusions.
Musgrave for instance argued that the post World War II growth of US FDI had

[12] The displacement and stimulus effect relate to what Caves (1994) later dubbed the "investment-substitution question" and "export-substitution question". Caves (1994) originally phrased the substitution question as follows: "When a unit of capital is transferred from Home to Foreign, does it add exactly an extra unit to Foreign capital stock and subtract one from Home's?" (p. 115). The export-substitution question was phrased as follows (Caves, 1994): "When a unit of capital has been transferred from Home to Foreign *and* changed the two countries' capital stocks unit for unit, does it reduce the scope for commodity trade as the Hekscher-Ohlin model predicts?" (p. 115). These questions are important in assessing the effects of FDI on domestic and foreign capital stocks and investments, and ultimately on the balance of payment, but can equally be applied to analyzing the relationship between FDI and domestic employment.

[13] Other terms are: *"alternative hypothesis"* (Kreye, Heinrichs & Fröbel, 1988; United Nations, 1988), *"opportunity cost"* (UNCTAD, 1994), "what if" (OECD, 1995) or from a more econometric perspective: *with or without analysis*, often referred to as a *base case or autonomous scenario*.

considerably slowed down the growth of domestic employment and productivity. In a study for the US senate on the US economy, Musgrave (1975: 137) distinguished four initial assumptions about the counterfactual situation:

a) Would the investment have been made in the US economy?
b) Would these resources, which went into the foreign investment have otherwise been used in higher levels of consumption?
c) Would the foreign sales of the product (locally produced) have been filled by exports from the United States in the absence of the investment?
d) Would they have been taken over by competitors?

Musgrave argued that, those who contend that international production is 'good' for the US economy in general and employment in particular, tend to take positions (b) and (d) while opponents take positions (a) and (c).
Stobaugh (1976) provides an example of a study taking position (b) and (d). He analyzed the impact of FDI on the US Balance of Payments (BOP) and US employment. Nine foreign investment decisions of MNEs operating in different industries were analyzed through in-depth interviews.[14] The study attempted to assess *what would have happened* to the US balance of payment and US employment in the absence of the foreign investment by the firm, under the assumption that no other US MNE could have expanded production abroad by the facility actually built. The "what might have been" scenario was crucial for the effects on the US economy (Stobaugh, 1976: 11). Stobaugh (*ibid.)* argued that US firms tended to build foreign affiliates abroad if the respective market could not be served profitably with exports from the US. Through a detailed analysis of the individual investment decisions, it was shown that the investment managers of the nine companies were often 'pushed' into the investment decision by external pressures, "usually associated with holding or maintaining a long-term position in an oligopolistic market structure" (Stobaugh*,* 1976: 187). As a previous study by Hufbauer and Adler (1968) suggested, the prime competitors in foreign markets were actually often affiliates from MNEs originating in Japan or Europe, instead of local competitors. The principal finding of Stobaugh's study was that, although the financial benefits of an investment decision were sometimes unclear, all nine firms would have lost their entire foreign markets within five years in the absence of the foreign investment. In other words the MNEs had no alternative. Stobaugh nevertheless also argued that the net employment and BOP effects of these foreign investments were favorable to the US economy. The employment effects had, on average, a lower "recoupment period" than the BOP effects; that is the period for domestic employment and BOP levels to be back at the level of the initial foreign investment. Only in two out of nine cases (electronics in Taiwan and tires in Canada) did the output of the US owned plant abroad substitute for domestic US output (Stobaugh, 1976: 189-97).
Similar to Stobaugh's (1976) "recoupment period" Frank and Freeman (1978) calculated "survival rates" or "rates of substitution" through which they assessed the counterfactual hypothesis and the domestic employment displacement effect. But contrary to Stobaugh, Frank and Freeman argued that investment managers are by the nature of their work not

[14] The nine MNEs studied operated in the following industries: food products, paper and allied products, chemicals and allied products, petroleum, rubber products, primary and fabricated metals, non-electrical machinery and electrical machinery (Stobaugh *et. al.,* 1976).

objective in providing answers to the counterfactual argument. Frank and Freeman therefore based their survival rates on revenue and cost data, hereby circumventing interviews with company managers. They concluded that FDI had substituted for US exports, leading to an annual employment loss between 120.000 and 160.000 US jobs (Frank & Freeman, 1978: 62). In a comment, Fors and Kokko (1999) noted that the period examined by Frank and Freeman, however, was not representative for a general pattern, as it reflected the height of US internationalization.
Similar to Stobaugh's (1976) study, Jordan and Vahlne (1981) also conducted firm level case studies and proximated the counterfactual argument through the calculation of "export survival rates" - i.e. how much market share could have been maintained through domestic exports in the absence of FDI. Jordan and Vahlne (1981) compared the domestic employment effects of FDI by Swedish MNEs with alternative ways to exploit their competitive advantage in foreign markets through exports from Sweden, licensing and minority joint ventures. Jordan and Vahlne (1981) concluded that FDI had lead to large increases in foreign market shares and, in addition, to increased exports from Sweden of intermediate products to affiliates abroad. Similar to Stobaugh's (1976) "recoupment period", the "export survival rates" were based on interviews with investment managers. The outcome was therefore equally biased by subjective information on the motivations for foreign investment.
In a more conceptual article, finally, Chaudhuri (1983), related the net US employment effects to the underlying assumptions made by three previously discussed studies about the counterfactual argument. Ruttenberg (1971) assumed that all foreign investment could have taken place in the domestic economy, hereby adopting a 100 percent aggressive assumption, Stobaugh (1976) assumed that all FDI was necessary to remain competitive and thus adopted a 100 percent defensive investment assumption, in which not investing implies loosing all foreign investments to competitors. In contrast, Hawkins (1972) calculated the net employment effects of different 'degrees' of aggressive assumptions. "Instead of assuming that foreign investment is either purely aggressive or purely defensive, he showed the quantitative implications of making such assumptions" (Chaudhuri, 1983: 274).

The results of the different counterfactual studies are listed in table 2.2.

Table 2.2: Different counterfactual assumptions and related domestic employment effects

AUTHOR	ASSUMPTION	DISPLACEMENT OF PRODUCTION OF WORKERS	EXPORT STIMULUS	HOME OFFICE AND SUPPORTING EMPLOYMENT	NET EFFECT
Ruttenberg	100% aggressive	- 700	200	…	- 500
Stobaugh	100% defensive	…	250	350	+ 600
Hawkins	(a) 5% aggressive	- 190	260	209	+ 279
	(b) 10% aggressive	- 381	260	209	+ 89
	(c) 25 % aggressive	- 791	260	209	- 322

Source: table reproduced in Chaudhuri (1983) from Hood and Young (1979) p. 317. Original data are from the US Tariff Commission (1973) and Hawkins (1972).

The domestic employment effects of the Ruttenberg (1971) and Stobaugh (1976) studies are almost the exact opposite of each other, while Hawkins' effects depended upon the

different degrees of the aggressive assumption. Because a large share of outward US FDI in the 1970s had been classified as harmful to US jobs (cf. Bergsten, Horst & Moran, 1978), Chauhuri (*ibid.*) concluded that Hawkins' scenario of 25 percent aggressive investments associated with a net negative domestic (US) employment effect of foreign production tended to be the most realistic assumption.
Adopting a similar approach as Hawkins (1972), but using data from the Bureau of Economic Analysis (BEA) of the US Department of Commerce, Glickman and Woodward (1989) analyzed the domestic US employment effects of outward manufacturing FDI in the 1977-1986 period. They suggested that two key mechanisms are involved in the relationship between international production and domestic employment. The first is the *displacement effect:* the loss of domestic production and employment through foreign investment. The second effect is the *stimulus effect:* job creation through increased exports to foreign affiliates. Glickman and Woodward (1989) used a "rate of substitutability", through which they calculated the displacement effects and the stimulus effects of foreign production by US MNEs. The net result of the displacement and stimulus effect is the amount of employment lost or gained for the US economy. The main finding of their study points the sign in the same direction as the Hawkins study: "a loss resulting from the displacement of 3.3 million jobs by foreign investment compared with only 588.000 jobs being stimulated, resulting in a net job loss of 868.000 manufacturing jobs, largely the result of displacement by overseas US manufacturing" (*ibid p. 84*).

2.4.2 Studies of the New International Division of Labor (NIDL): job losses to developing countries

The Canadian economist Stephen Hymer was probably the first who, in his later works in the 1970s, coined the term *"New International Division of Labor"* (NIDL) (Hymer, 1972 and 1976). The NIDL opposed the Old International Division of Labor (OIDL) that characterized the first and second wave of internationalization (Cf. chapter one). "Under the OIDL the global periphery was seen and theorized as the provider of many primary goods and raw materials for processing in the core countries of Western Europe, North America, and Japan" (Barff, 1995: 57). The OIDL theory is largely based on Ricardo's basic law of comparative advantages, supporting contemporary trade theory.
The NIDL thesis is very much intertwined with the rise of the oligopolistic MNEs in the post World War II era. According to Hymer (1972) a "regime of North Atlantic MNEs" tends to (re)produce a hierarchical division of labor between geographic regions corresponding to the vertical division of labor within the firm. Hence the MNE would centralize high-level decision-making jobs (and R&D) in a few key cities in industrialized developed countries and confine the rest of the world to lower levels of activity, less sophisticated jobs and lower income. The key argument is the move towards industrialization in developing countries and a decline of manufacturing activity in developed countries.
Based on the trends in internationalization of German MNEs during the fourth wave of relocation in sectors like textiles– and triggered by the first signs of job displacement in Germany (see section 2.2) - Fröbel, Heinrichs and Kreye (1980), popularized and restated the NIDL thesis in the early 1980s. They stated that "the development of the world economy has increasingly created conditions (forcing the development of the new

international division of labour) in which the survival of more and more companies can only be assured through the relocation of production to new industrial sites, where labour power is cheap to buy, abundant, and well disciplined; in short through the transnational reorganization of production" (Fröbel, Heinrichs & Kreye, 1980: 15). According to the restated NIDL thesis, , MNEs had to relocate in response to pressures of competitiveness and profitability and hence shifted production (in particular the textile and clothing industry) to peripheral sites in order to take advantage of low-cost labor (cf. Lipietz, 1982, 1986; Schoenberger, 1988). French author Lipietz (1985) argued that the role of developing countries in world production had changed from being mere raw material producers (as in the first and second wave of internationalization, prior to World War II) to integrated in the production process of modern capitalism. Accordingly, MNEs had established a global manufacturing system based on labor-intensive export platforms in low wage areas.

Most NIDL theorists assign a major role to the search of MNEs for cheap and controllable labor to minimize labor costs as *'pull factors'* of the shift of international production. But others have also referred to *'push factors'* in industrialized countries such as the growing bargaining power of labor unions that raised wages and therefore increased labor cost to the employers (Dicken, 1998). NIDL theorists focused in particular on explaining the shift of industrial production from the industrialized core economies to peripheral developing countries that took place since the second halve of the twentieth century. In particular they tried to assess the impact this 'runaway' process has on labor and employment levels in developed countries. In the mid 1980s conservative estimates indicated that worldwide direct employment within MNEs was around 65 million, of which 43 million (66.2%) were employed in the home country of the MNE (primarily developed industrialized countries), 15 million (23%) in other industrialized countries, while only 7 million (10.8 %) in developing countries (Bailey & Parisotto, 1991; Kreye, Heinrichs & Fröbel, 1988). With a world total labor force of around 2.160 million, MNEs direct employment accounted for only 3% of world total. In developed countries this share was 10% while in developing countries it was less than 1%. However, these figures represented the actual numbers employed, not the net employment attributable to MNE activity (Dunning, 1993: 353)[15]. The thesis outlined in the studies of Kreye, Heinrichs & Fröbel (1982,1988) stimulated many quantitative studies in other countries on the relationship between international production and employment in industrialized countries throughout most of the 1990s (Dicken, 1998)[16].

2.4.3 Labor demand studies

More recent, researchers have started to apply 'labor or factor demand equations' within foreign subsidiaries (Blomström, Fors & Lipsey, 1997; Brainard & Riker, 1997; Riker &

[15] Nor did these figures represent the changes that have been taken place since the mid 1980s. Recent UNCTAD (2001) estimates for the year 2000 come to more than 62.000 MNEs, with almost 50.000 located in the Triad economies. The foreign affiliates of these MNEs employed more than 45 million workers worldwide in 2000 (ibid:10). According to UNCTAD, the number of direct employees in the foreign affiliates of MNEs (45 million) surpassed the number of employees in the home country of the MNE in 1986 (43 million).

[16] A popular and recent version of the NIDL thesis is for instance Rosecrance's (1999) rise of head nations (in the periphery) and body nations (developed market economies) due to de-industrialization.

Brainard, 1997; Braconier & Ekholm, 1999) and wage costs in subsidiaries abroad (Konings & Murphy, 2001) to directly determine the domestic employment effects of international production. Blomström, Fors and Lipsey (1997) concentrated on the issue of factor proportions in home country operations and analyzed, through production, factor demand equations and price elasticity's, whether production abroad tends to raise or lower the labor intensity of home production, or its skill intensity. Blomström, Fors and Lipsey (*ibid.*)compared foreign affiliate production and employment effects in American and Swedish manufacturing firms They found cross-national differences. Most US foreign affiliate production of labor-intensive goods was located in developing countries, reducing the labor intensity in their home production, while most Swedish foreign affiliate production took place in developed countries and was associated with greater labor intensity in Sweden.

Applying panel data on foreign manufacturing affiliates of US MNEs in 90 countries from 1983 to 1992, Riker and Brainard (1997) analyzed, through production and factor demand equations, the impact of FDI on labor demand in the USA and other countries. The study confirmed a strong complementary cross-border relationship between relative wages, employment and, between the activities of US affiliate in developing countries and the activities of MNEs in industrialized countries.[17] "This relationship takes the form of a vertical decomposition of complementary stages of production" (*ibid*: 18). Within MNEs , thus, labor demand largely depends on the cost and demand of other affiliates owned by the same MNE. Furthermore, the authors argued that through the specialization in complementary stages of production there was competition amongst workers in different affiliates of the MNE, while competition was more intense between workers in affiliates in countries with similar workforce skill levels. The fear of industrialized workers need not be directed to low-wage workers, but rather towards workers in other industrialized countries. In a similar study, Brainard and Riker (1997) concluded that in contrast to the "labor competition story" there is only a modest substitution effect between foreign affiliate employment and U.S. parent employment. Labor substitution is far greater between affiliates in alternative low-wage developing countries. "In contrast, activities performed by affiliates at locations with different workforce skill levels in the same region appear to be complements. The results suggest a vertical division of activities among countries with different workforce skill level" (p. 1).

Taking account of the smaller size of the Swedish economy Braconier and Ekholm (1999) adopted a similar approach as Brainard and Riker (1997) and Riker and Brainard (1997). They explored the relationship between employment within Swedish MNEs and wages in high and low income countries. Data were used from the Research Institute for Industrial Economics of the University of Stockholm (IUI). The full sample of Swedish MNEs consisted of 700 observations at the firm level and 3.000 observations at the affiliate level. Only producing affiliates were included and data were for the years 1970, 1974, 1978, 1982, 1986, 1990 and 1994. Braconier and Eckholm (1999) found no evidence of competition from low-wage countries having a negative impact on domestic Swedish employment through the activities of multinational firms. Supporting the findings of Riker and Brainard (1997), Braconier and Eckholm stated that if there is an element of wage competition from other countries, it seems to stem from other high-wage countries rather

[17] Through a brief case study of the US vertically decomposed electronic industry Riker and Brainard (1997) exemplify a complementary effect between FDI and employment.

than from low-wage countries. "Overall, the employment in different parts of firms seems to be linked through a relationship of complementarity rather than substitution" (*ibid*: 20).
Based on a panel data set of more than 1.200 European MNEs and their subsidiaries in the European Union and Central and Eastern Europe, Konings & Murphy (2001) explored whether employment in subsidiaries is a substitute for home employment. They also explored whether European MNEs can easily relocate employment between the parent firms and their foreign subsidiaries. Relating the employment effects to wage costs in the parent and the subsidiaries, the study found that substitution effects take place more between (manufacturing) parent firms and their subsidiaries located in the European Union than between parent firms and subsidiaries located in Eastern Europe. There were no substitution-effects for non-manufacturing firms observed, while there were *positive* substitution effects between parents and subsidiaries located in Eastern Europe that operated in wholesale trade and construction. They conclude that the opening of Central and Eastern Europe should not pose a direct threat to European employment. "It is rather competition between EU countries that lead multinational parent firms to relocate employment between EU locations" (Konings & Murphy, 2001: 21).
Mariotti and Piscitello (2002) addressed the impact of FDI on the labor intensity of home, Italian, production over the 1985-1995 period. The model developed focused on the FDI effects on factor proportion in domestic production. They advanced two hypotheses (Mariotti & Piscitello, 2002: 26-27):

1. FDI undertaken in less developed countries – vertical investment – tends to reduce the labor intensity of the home country domestic production;
2. FDI undertaken in advanced countries – horizontal investments – tends to increase the labor intensity of the home country domestic production.

Although, the approach adopted largely follows the method of Blomström *et. al.* (1997), it was slightly different as it analyzed the industrial region instead of the single firm and referred to the variation in domestic and foreign employment rather than focusing on absolute levels of employment. The obtained empirical findings confirmed that an increase in foreign employment in foreign affiliates - of Italian MNEs - in less developed low-wage countries (vertical FDI) tends to reduce the labor intensity of domestic production. However, this did not apply for extra-European less developed countries for which the relationship was non-significant. This exception can be explained by the fact that Italian MNEs combine traditional de-localization (or relocation) with local market seeking investments in less developed extra-European countries. This latter effect proved stronger as the market size and the geographical distance increased (Mariotti & Piscitello, 2002: 35). The positive impact of Italian FDI directed to advanced countries (i.e. horizontal FDI) on domestic labor intensity can be explained through the additional demand for skilled labor due to additional supervision and coordination, R&D and marketing activities. Remarkably, Mariotti and Piscitello (*ibid.*) noted that their study did not allow them to infer anything on the net effect of FDI on the absolute levels of domestic employment. They argued that this would require a more micro-founded structural model that takes into account the complex relationship between foreign production, domestic employment and production and, moreover, the competitive advantage of MNEs.

2.4.4 International relocation studies[18]

One of the first studies on the phenomenon of international relocation and employment was conducted by the American Federation of Labor and the Confederation of Industrial Organizations (AFL - CIO). The 1971 AFL-CIO report by Stanley Ruttenberg stated that the number of jobs lost in the United States between 1966 and 1971, due to the 'relocation' of foreign investment by US MNEs, ranged between 500.000 and 900.000 (Ruttenberg, 1971). Since its first application by Ruttenberg (*ibid.)* the concept of 'relocation' has been used in a variety of ways describing different ways of foreign expansion by MNEs in distant markets.

Van Liemt (1992) argued that relocation takes many forms, the most spectacular form is the plant that closes today, opening soon after at a different location. Although these cases do occur, they are less important and incompatible with many types of production process, such as those with high sunk costs or those essentially supplying a local market (Van Liemt, 1992: 5). Van Liemt (1992) mentioned many reasons why companies may want to relocate: (1) limited room for expansion, (2) move to promising but protected markets, (3) firms may be attracted by lo labor costs, while automation is more expensive, (4) natural resources, (5) taxes, (6) proximity to airports or easy access to high quality affordable telecommunication, (7) high skilled labor or, (8) firms may want to be closer to a particular innovative environment. These motives, at differing degrees, have played a significant role in the relocation of four industries from industrialized market economies: automotive, steel, aircrafts and clothing (Van Liemt, 1992).

The Arthuis report (1993; see also chapter one) used a similar broad definition of relocation when it linked the high unemployment rates in France to the *"délocalisation"* of production by MNEs operating in France. It argued that over one million French jobs were at stake as a result of délocalisation (Arthuis, 1993; UNCTAD, 1994).

Madeuf (1995) argued that: "In the strictest sense of the term, délocalisation means the transfer abroad of a production unit coupled with the closure of a domestic production unit. Délocalisation in the strict sense often implies that after the relocation process, the domestic market may be served through re-imports from the foreign relocated manufacturing unit of goods previously manufactured in the home country. "The sequence is thus as follows: closure of plant, investment flow, transfer of production abroad and re-importation." (Madeuf, 1995: 43). Similarly, Fröbel *et. al.* (1988) use the term "pure relocation" in their description of German relocated textile production intended to serve the German domestic market through re-imports. In the case of re-importation into the country of origin, apart from the job consequences, there is also a balance of payment effect, as there is an outflow of currency to pay for the re-imports. Madeuf (1995) also stated that relocation may take other forms where it is not accompanied by the establishment of a wholly owned affiliate. She distinguished three broader forms:

(1) délocalisation with an input of capital (i.e. joint ventures);
(2) délocalisation without an input of capital (partnership agreements without equity participation, licenses, international subcontracting);
(3) international trade (i.e. where distribution networks procure their supplies from

[18] Relocation can also take place within national economies, between sub-national regions or cities. But this study's prime focus is on the link between international relocation and employment

foreign manufacturers rather than local suppliers).

The latter type is perceived as délocalisation in the very broadest sense, as it does not involve a transfer of manufacturing activity abroad (*ibid.*). Madeuf (1995) showed that French FDI outward stock over the 1980s and early 1990s, despite its growth over this period, was increasingly concentrated in developed market economies and actually declined in developing low-wage countries. Outward FDI stocks from France to NICs, i.e. those countries typically associated with relocation, accounted for only 1.5 percent of the total in 1990. Drawing upon a DREE (Direction des Relations Économiques Extérieures) study Madeuf showed that NICs in Asia and Latin America still played a limited role in relocation, despite the fact that some large French MNEs had major affiliates in those regions, in the relatively late internationalization of French firms.

Horman's (1996) initial description of relocation was very strict and similar to Madeuf (1995). Horman (*ibid.*) subsequently widened the concept considerably to include subcontracting strategies of MNEs and the implantation of subsidiaries abroad to conquer market shares. The European Commission (1996) also included subcontracting in its definition of relocation.

Similar to Madeuf (1995) Mucchielli and Saucier (1997) contributed largely to the heated debate on relocation in France as initiated by the Arthuis (1993). Presenting FDI data and the main host countries of the top ten French MNEs, Mucchielli and Saucier (1997) argued that not labor costs but foreign market penetration is the main determinant of relocation. Additionally, Mucchielli and Saucier (1997) used a straightforward and more *narrow* definition of relocation and stated "to relocate simply means to move a manufacturing process from one place to another. Similar, to Madeuf (1995) the *most extreme case of relocation* is when after the relocation process the home market is served through re-imports (Mucchielli &Saucier, 97). As far as the multinational activity of a firm is concerned, relocation involves the closing down of a manufacturing unit in the home country to replace it with a new unit in a foreign country" (p. 5-6). Against this background relocation can be seen as a process of 'Schumpeterian creative destruction' in which some industries will disappear while others will gain in importance. On relocation and unemployment in Europe they concluded that: "there is no empirical evidence of industrial decline as a consequence of relocations, although there may be a shift from low-qualification declining industries to new innovation intensive sectors. Relocation is just a side-effect of the evolution of dynamic comparative advantage." (*ibid*: 20). The underlying argument is that industrialized countries will have to cope with declining employment levels in some industries and rising employment levels in others due to international specialization, it is part of a dynamic capitalist economic system.

Ferner (1998) analyzed the political-economic context in which the debate on relocation re-emerged in the early 1990s (the fifth wave of relocation). He argued that there are two major – and interconnected – factors that caused relocation to become a burning issue again. "One is a set of structural changes in the way in which MNCs operate in the international economy, and in particular the growth of internationally integrated industries. The second is the changing nature of world markets" (Ferner, 1998: 25). The integration of world markets is due to the fall of Communism integrating a large number of low wage economies into the global economy (in particular Eastern Europe and China) and the consolidation of common markets (in particular the EU and NAFTA). In his analysis Ferner (1998) maintained a specific definition of relocation and stated that relocation is "the loss of productive activities to countries with lower wages and more accommodating

labor regulation" (Ferner, 1998: 172). Ferner (1998) argued that there are two common factors in most studies that determine relocation: labor costs and labor market rigidities in particular in European countries. Based on employment data on the largest Top 100 MNEs as collected by the Erasmus University and UNCTAD (e.g. UNCTAD, 1997). Ferner (*ibid.*) showed that employment in home countries stagnated, while that in foreign affiliates expanded rapidly. Additionally, he argued that the scale of the phenomenon of relocation has been exaggerated and that most FDI to lower cost countries is often driven by a market seeking rather than an efficiency-seeking rationale.

Bruinsma, Gorter and Nijkamp (1998) looked at the location behavior of what they call 'nomadic firms', characterized as 'spatial opportunity seekers'[19]. The nature and motives of these nomadic firms were assessed by means of empirical data originating from a field study among 21 actual or potential nomadic firms. The sample consisted of 12 foreign companies operating in the Netherlands (6 North American and 6 Japanese) and 9 Dutch companies operating abroad (mainly Poland). The authors argued that most relocations were driven by the *expansion of existing activities abroad*, which did not mean that those activities are discontinued in the country of origin. Often relocation involves activities related to the adjustment of the product to the local market (Bruinsma, Gorter & Nijkamp, 1998: 12). The authors concluded that really footloose nomadic companies only rarely exist due to physical linkages, to transport infrastructure and sunk costs that may prohibit relocation. Zero entry and exit cost may initiate a frequent relocation pattern of company activities. "This means that even in an international economy, pure 'nomadism' will probably not become a phenomenon of considerable size in terms of entire physical company relocations" (Bruinsma, Gorter & Nijkamp, 1998: 22). Nevertheless, they argued that flexible relocation in several phases (dubbed incremental relocation processes), in which firms open a subsidiary that will expand their activities and gain in importance over time (evolutionary trajectory), will most likely become more important.

Pennings and Sleuwaegen (2000 and 2002) used a similar definition of relocation as Mucchielli and Saucier (1997), including subcontracting but excluding cases of complete disinvestments with a relocation of all activities to another country. Based on data on collective lay off announcements of more than 10 percent of the labor force of the Belgium Federal Planning Bureau (FPB) and the National Institute of Statistics (NIS) between 1990 and 1996, they analyzed (through a questionnaire) the relocation decisions of 372 firms. Labor-intensive firms tended to relocate more to other countries than the more capital intensive firms. Access to a global network and the rate of innovation had a positive effect on the probability of relocation, while market uncertainty had a negative effect. Sleuwaegen and Pennings (2002) found a positive relationship between a company that is part of a global network and hence possesses "operational flexibility" (a concept derived from Kogut & Kulatilaka, 1994) to shift production within its network without incurring sunk costs. Sleuwaegen and Pennings (*ibid.*) provided unique empirical evidence of the importance of state aid in host countries on relocation decisions within MNEs. One of their observations is that in studies on relocation there appears to be a dichotomy in the type of firms that undertake relocation. "A relatively small number of relocations (30 per cent)

[19] According to (Bruinsma, Gorter & Nijkamp, 1998) international relocation behavior may be considered to be 'nomadic' when: (1) it is a temporary (re)location; (2) few durable investments of a fixed or lumpy nature are involved; (3) there are clear cost reductions at stake in the (re)location; (4) the (re)located activities are foot-loose; (5) the company is not clearly embedded in the local or regional economy; (6) the company is part of an international industrial network producing for the international market (p. 5-6).

involves firms that move cross border for the first time. However, the most important relocations take place within the structure of established multinational enterprises (MNEs). Therefore, the phenomenon of relocation cannot be seen in isolation from the ongoing evolution of globalization and Europeanization of economic activities" (Sleuwaegen & Pennings, 2002: 182). The study linked relocation to the evolution of worldwide economic restructuring of MNEs and the organization of the value chain of MNE and concluded that if different regions do not exhibit particular differences in location factors (costs of production and infrastructure), public aid may be the decisive factor in relocation to new regional sites. In contrast to what is often argued, relocations to adjacent countries are also often subsidized as opposed to those to peripheral (European) countries.
Finally, other researchers assessed the impact of environmental regulations on relocation (Motta & Thisse, 1994). Others explored the effects of wages and trade barriers on relocation. They found that relocation is attractive when the wage differential between the home country and the foreign country is high enough (Cordella & Grilo, 1998a, 1998b; Collie & Vandenbusscche, 1999).

Table 2.3 summarizes the definitions and descriptions of relocation suggested in the literature.

Table 2.3 Different definitions and descriptions of international relocation

AUTHOR(S)	DESCRIPTION – DEFINITION OF RELOCATION
Fröbel Heinrich and Kreye (1980)	*"pure relocation"* is to replace domestic production for foreign production after which the domestic market will be served through re-imports.
Van Liemt (1992)	*Relocation* takes many forms. The most spectacular instance is of course the plant that closes today, opening soon at a different location. Such cases do occur but, compared to others, they seem to be less important, and would be incompatible with many types of production process, such as those with high sunk costs (e.g. steel, shipbuilding, energy production) or those essentially supplying a local market. Relocation may take place within the same company. Firms may relocate because they have no more room for expansion at their original site. They may want to move to promising (but protected) markets. They may be attracted by lower labor costs or their move may be related to the discovery of natural resources or they may want to be close to an innovative environment. Other motives may be in the sphere of following other firms, attractive tax regimes and environmental standards.
Madeuf (1995)	In the strictest sense of the term, délocalisation means the transfer abroad of a production unit coupled with the closure of a domestic production unit. Délocalisation in the strict sense often implies that after the relocation process, the domestic market may be served through re-imports from the foreign relocated manufacturing unit of goods previously manufactured in the home country. "The sequence is thus as follows: closure of plant, investment flow, transfer of production abroad and re-importation." (Madeuf, 1995: 43). Mucchielli and Saucier (1997) label this as the *most extreme case of relocation*. Maduef (ibid.) broadens the concept of relocation to include joint ventures and subcontracting.
European Commission (1996)	Relocation is no more a matter of the physical movement of a facility, performing the same task in a different location. Today relocation takes place in a wide variety of ways, including transfers of investments, subcontracting, alliances within and between firms, portfolio investments, forms of debt management and redistribution of a firm's value added chain across the globe to destinations which can turn a good profit. Indicator most frequently used, as proxy for relocation is that of FDI.
Horman (1996)	*Restrictive* form of relocation: a process which "consists of a partial or total transplantation of a unit of production or of a service to a host country with the cessation of the corresponding activity in the country that is vacated by the enterprise that relocates." Other forms of relocation are subcontracting and the implantation of subsidiaries abroad to conquer parts of a market or to obtain the market for one product of another. Relocation in the *wider sense* is defined, as termination of production with the aim to expand and diversify is more common.
Mucchielli and Saucier (1997)	To relocate simply means to move a manufacturing process from one place to another. As far as the multinational activity of a firm is concerned, relocation involves the closing down of a manufacturing unit in the home country to replace it with a new unit in a foreign country. *Extreme cases of relocation* (or *relocation in the strict sense as Madeuf, (1995)*, are characterized by re-imports after the relocation process.
Ferner (1998)	The loss of productive activities to countries with lower wages and more accommodating labor regulation.

2.5 INDIRECT APPROACHES

The reports by Ruttenberg (1971) and the French Senator Arthuis (1993) argued that the internationalization of MNE activity had led to declining employment levels in the domestic economy. Both Ruttenberg (1971) and Arthuis (1993) assumed no counterfactual argument. More importantly, they ignored the stimulus effects of international production to domestic employment. The work of Hawkins (1972) and Glickman and Woodward (1989) emphasized, in addition to the displacement effects, the stimulus effect to domestic employment that arises out of foreign production through increased home office employment for the coordination of international production (Hawkins, 1972) and

increased exports (Hawkins, 1972; Glickman & Woodward, 1989). Over the 1980s, researchers increasingly started to analyze whether international production created a domestic *export stimulus effect*, and hence indirectly influenced domestic employment levels within MNEs. Over the 1990s the additional question whether international production created an *investment stimulus effect* featured among a number of studies. Not all of these studies explicitly analyzed domestic employment effects. Some only by assumption claimed that, if there is a stimulus effect to domestic exports and investment, domestic employment must per definition move in a similar direction as domestic exports and domestic investments effects. These indirect approaches consist of two sub-categories: *outward FDI and domestic export studies and outward FDI and domestic investment studies*. In a few cases did researchers explore both effects in the same study.

2.5.1 Outward FDI and domestic export studies

The main focus of FDI and domestic export studies has been whether and to what extent foreign production replaced domestic exports. The sign and magnitude of the relationship determines the domestic employment effects within the parent or home country subsidiaries. Most of these studies in principle argued that, although initially international production by MNEs may lead to substitution between domestic and foreign employment (through the loss of previous domestic exports, i.e. export-substitution), in the long run the initial loss of production is compensated by *increased exports* to foreign affiliates of intermediate products or finished goods to support the productive activities abroad (export-stimulus). Empirical research of this nature focused on the United States (U.S. Tariff Commission, 1973; Horst, 1974; Bergsten, Horst & Moran, 1978; Kravis & Lipsey, 1988, Lipsey & Weiss, 1981; Lipsey & Weiss, 1984; Lipsey, 2002), on Sweden (Swedenborg, 1979: Swedenborg, 1985; Blomström & Kokko, 1994; Svensson, 1996; Braunerhjelm & Oxelheim, 1998; Fors & Kokko, 1999), Japan (Buigues & Jacquemin, 1994), France (Mucchielli & Chédor, 1999), and the United Kingdom (Reddaway & Associates, 1967). Blomström and Kokko (1994) and Fors and Kokko (1999), next from finding a complementary effect between international production and domestic Swedish employment and exports, concluded that internationalization increasingly created a changed division of labor between Swedish MNE and their foreign affiliates. Nevertheless, all of these studies concluded that international production, through an export stimulus effect, is complementary to domestic employment.

In contrast, studies by Bergsten, Horst and Moran, (1978), Svensson (1996), Markusen, Venables, Konan and Zhang (1996) and Braunerhjelm (1996) – albeit a smaller number of studies - found a substitution effect between international production, domestic exports and domestic employment. Svensson (1996) counter-claimed many of the findings on the complementary employment effects of FDI, due to increased exports (in the form of capital and intermediate products) from the parent country. Svensson (1996) analyzed the employment effects over a long-term (1965-1990) and argued that an initial complementary relationship between international production, exports and, hence employment, in the long run becomes substitutive. Domestic exports are substituted, as foreign affiliates will increasingly produce for third markets, previously served through exports from the country of origin of the MNE. The debate as to the nature and direction of the sign in these types of studies still remains largely unresolved.

2.5.2 Outward FDI and domestic investment studies

Extending the relationship further than the analysis of the effects of foreign production on home country exports, a limited number of scholars have analyzed the impact of FDI on home country investments. They analyzed whether international production leads to investment substitution between the domestic and foreign subsidiaries. Although the studies do not specifically deal with the employment effects, they often assumed that if foreign production substitutes for domestic production, it will also have substitutive domestic employment effects.

Herring and Willet (1973), Noorzoy (1980) and Graham (2000) found a positive relationship between FDI and home country investments. In contrast, Stevens and Lipsey (1992) and Belderbos (1992) found a negative relationship. Braunerhjelm and Oxelheim (2000) explored the wider implications of European integration on the location of Swedish investment, as well as the extent to which Swedish FDI is at the expense of home country investment. They found a more mixed effect. Braunerhjelm and Oxelheim (*ibid.*) argued that a more substitutive relationship applied for R&D intensive production (or "Schumpeter industries"), while the opposite trend prevailed for industries based on 'traditional comparative advantages'. They implicitly assumed that if outward FDI substitutes for home country investments, the employment effects will also most likely be substitutive. In addition, their study showed the need to disaggregate the analysis to the industry level to improve the understanding of the home country effects of FDI (*ibid*: 217).

Mucchielli and Chédor (1999) combined an analysis of the effects of outward FDI on domestic exports *and* domestic investment in one study, using the methodology developed by Kravis and Lipsey (1988) and Blomström *et. al* (1997) respectively. Studying a sample of 922 French MNEs with production subsidiaries abroad they found that, although relocation has been a sensitive and hotly debated topic in France for many years, the debate has not been supported by serious statistical analyses. Similar to Kravis and Lipsey (1988) they found a complementary relationship between international production and domestic exports and similar to Blomström, Fors and Lipsey (1997) a complementary relationship between foreign production by French MNEs and French (parent firm) employment. However, Mucchielli and Chédor (*ibid.*) stressed that complementary effects, between international production and both domestic exports and employment, tended to vary across different destinations of FDI and trade. Complementary effects appeared to be stronger in industrialized countries.

2.6 DUAL APPROACHES

Direct and indirect approaches are often primarily concerned with the outward employment effects of FDI - often only focus on the causal nature and structure of the relationship between international production and *domestic* employment. The concern over 'job exports' reflected in most of the direct and indirect approaches "preserve an inherently 'national' focus which with rising labor market interdependence, seems too narrow or parochial, suggesting as it does only part of the picture" (Campbell, 1994: 196).

There is also a large body of literature focusing on the employment effects of FDI in host countries, i.e. inward employment effects. This literature tends to be focused on developing countries and very often emphasize the qualitative dimension of the

relationship between inward FDI and employment over the quantitative dimension. Main research areas are: the impact of inward FDI or foreign MNEs on (core) labor standards, freedom of association, income distribution and productivity (OECD, 1996 for an update see OECD 2000), differences in wage rates between foreign affiliates of MNEs and domestic firms (OECD, 1998), and the contribution of MNEs to skills and training of the workforce. In general though, there have been limited attempts to evaluate the net employment contribution of foreign owned firms in developing countries (Dunning, 1993). The implicit assumption is that inward FDI by definition creates jobs in host economies. Nevertheless, the ILO in 1981 in fact expressed serious doubts on whether this question can be answered in any meaningful way due to methodological and data related problems, but also because employment generation of MNEs in host developing countries is largely of an indirect nature (cf. (Lall, 1979; Jéquier, 1989; Dupuy & Savary, 1993).

In contrast to the qualitative focus of inward employment effects in developing countries, there is a considerable body of literature on the quantitative inward employment effects of FDI in developed countries. This is understandable because in particular in countries where the balance between inward and outward FDI has grown apart in specific periods, the concern about relocation and the bypassing of foreign MNEs to invest in the country, triggers academic research (see section 2.2). Many developed industrialized economies, have increasingly, in contrast to earlier waves of internationalization, become both home (investor) as host (destination) to FDI. Even the United States has gradually become a large host for foreign FDI over the 1980s and 1990s. Small-developed open market economies have traditionally been large senders as well as receivers of FDI (see section 1.2.5). For countries that are either large hosts to foreign MNEs or for countries that have a more equal balance between their outward and inward FDI stock, the relationship between internationalization and employment can therefore at an aggregate level only be based on an assessment of the inward *as well as* the outward employment effects, caused by home- and host country MNEs respectively. Against this background a large number of studies have not only focused on outward or inward (in) direct employment effects, but have adopted a more specific dual home-host firm/country perspective. They focused on the aggregate employment effects of both inward and outward FDI in industrialized countries like: Belgium (Van Den Bulcke & Halsberghe, 1979), Germany (Bailey, 1979; Kreye, Heinrichs & Fröbel, 1988; Olle, 1985), the United Kingdom (Stopford, 1979), United States (Kujawa, 1980; Campbell & McElrath, 1990; Lipsey, 2002), Sweden (Jordan & Vahlne, 1981), France (Savary, 1980), Greece, Portugal and Spain (Buckley & Artisien, 1987), Australia (MacDonald, 1989), Canada (Bradley & Kumar, 1990; Ray, 1990), Nordic countries (MacDonald, 1994) and the OECD member states (Hatzichronoglou, 1997).

Much that has been written about evaluating the domestic employment effects of outward MNE activity also applies to assessing the inward employment effects in host countries (Dunning, 1993: 366). In particular the case of the counterfactual argument is equally relevant: would employment in host countries have been at the same level as without foreign MNEs; would this employment have been picked-up by domestic firms? In a study on host MNEs in Belgium Van Den Bulcke and Halsberghe (1979) argued that: "In view of the oligopolistic nature of the markets in which many MNEs are found and the extremely open character of the Belgian economy, such an effect might have been smaller in Belgium than in certain other industrialized countries, however" (p. 60).

Similar in its methodological approach as most export-stimulus studies, a recent study by

Altzinger and Bellak (1999) focused on both *direct* and *indirect* FDI from Austria to Central and Eastern European countries. Indirect FDI was defined as FDI from a foreign affiliate located in Austria (host MNEs). They found that direct FDI (outward investment by Austrian owned MNEs) was more of efficiency-oriented than indirect FDI. The ownership of FDI plays a determining role in assessing the employment effects. Butthe authors conclude that: "Fears of welfare loss of the developed region when integrating with a less developed region seem to be unjustified, concerning trade and FDI relationships. On the contrary, the evidence points to positive employments effects at home" (Altzinger & Bellak, 1999: 24).

Most of the dual (inward-outward) approaches argued that the inward employment effects depend upon the country studied, firm size, the nature of the industry in which the host MNE operates and, the period under investigation. Therefore, it is difficult to present one single general conclusion on the resulting sign of the dual inward-outward employment effects.

In contrast to the studies focusing solely on outward employment effects, the mode of entry of MNEs in host- countries influences the employment effects. Entry through greenfield investments often generate demand for labor. Entry through Mergers and Acquisitions (M&As), on the other hand, "not only does *not* create new demand for workers but may lead to labor shedding, either immediately or with a time lag. In developed countries, where M&As are the major mode of entry for FDI, they almost invariably lead to lay-offs, at least initially; in developing countries, the effects are less clear." (UNCTAD, 1999: 263). In addition, the employment effects of cross-border M&As tend to vary considerably depending on the motivations underlying the deal. It is therefore important to make a distinction between M&As aimed at improving international competitiveness through product strengthening and geographic market expansion, on the one hand, and cost/efficiency driven M&As, on the other. (Hamill, 1993). Efficiency driven M&As often have adverse employment effects, through crowding-out effects and post-acquisition rationalization (Enderwick, 1985: 47).

But, again, it is the counterfactual argument that should play an important role, but is rarely addressed in most studies would employment have been reduced or would the operations have been closed down altogether in the absence of the cross-border M&A deal by a host MNE (Köhler, 2001)? Kreye *et. al.* (1988) concluded that if direct employment within foreign subsidiaries is growing at all it did so due to acquisitions and mergers rather than due to the creation of new employment opportunities (p. 25). Using data from the Workplace Industrial Relations Survey 1990, Ietto-Gillies *et. al.* (2000) analyzed, the impact of cross-border M&As on , amongst others, employment. The reduction in employment in acquired firms appeared to be due to a change in capital endowments. The worst hit by job cuts were recently acquired affiliates in the manufacturing industry, showing also the largest gains in (labor) productivity (*ibid.*).

2.7 DISCUSSION OF THE MAINSTREAM LITERATURE: IDENTIFYING ESTABLISHED LINKS

Sections 2.4 to 2.6 elaborated the three main(stream) approaches through which the relationship between international production by MNEs and employment have been analyzed since the 1970s. The first two approaches largely dealt with outward employment effects of internationalization. The latter approaches dealt with the inward employment effects of international production or both outward and inward effects, in case a country was taken as a case study. This fairly large number of studies produced a variety of outcomes regarding the sign of the relationship between international production and home/host employment (2.7.1). Additionally, this literature established a number of important links in exploring this relationship (2.7.2).

2.7.1 General findings on complementarity and substitution

Research on the employment effects of international production and relocation has been largely absent in the first and second wave of internationalization (section 1.3). The third wave of internationalization, dominated by US MNEs, triggered a number of studies largely based on the US economy and conducted in the late 1960s and 1970s. During the fourth wave of internationalization an increased number of countries were confronted with the possible negative employment effects of internationalization by their MNEs, research increasingly encompassed a larger number of countries. Research on both the third and fourth waves commenced with the publication of two policy reports: the 'Ruttenberg Report' (Ruttenberg, 1971) and the 'Arthuis Report' (Arthuis, 1993), both identifying an alarming employment situation due to the internationalization and relocation of production in the United States and France respectively.

Since the 1970s, the approaches towards analyzing the relationship between international production and employment shifted. The employment effects of the third wave of internationalization were largely explored through counterfactual and displacement studies. The fourth wave of internationalization, triggered by export-led growth in NICs was largely touched upon by NIDL theorists, while during this period also studies that analyzed the relationship between FDI and home country exports and employment emerged (indirect approaches). Research on the fifth wave is just emerging, but is still very diverse in its approach. Chapter three will further discuss this particular period.

In general, it can be argued that research on the qualitative inward employment effects has tended to focus on developing countries, while research on the quantitative inward employment effects (i.e. the job generating potential of inward FDI) has focused largely on developed countries. Research on outward employment effects is generally quantitative, focused on developed countries and on issues like the 'exports of jobs' and the 'relocation of production' to low wage countries. The reason for this orientation is probably that the source of FDI has traditionally been more concentrated than the destination. Most FDI originates in developed market economies. So, the debate on the 'exports of jobs' is bound to be much less researched from a developing country perspective. Figure 2.1 relates the inward/outward focus of research on internationalization and employment to the dominant emphasis in the mainstream literature.

RESEARCH EMPHASIS	EMPLOYMENT EFFECTS: OUTWARD	EMPLOYMENT EFFECTS: INWARD
DEVELOPED (QUANTITATIVE)	• Exports of jobs • Relocation	• Dual inward-outward approaches
DEVELOPING (QUALITATIVE)	• Limited research	• Labor relations • Skill-upgrading • Training • Wages

Figure 2.2: Research on outward and inward employment effects and developed-developing countries

Studies reveal mixed results as regards their assessment of the nature of the relationship between international production and employment: substitutive, complementary, and/or mixed (see chapter one). Table 2.4 subdivides the studies discussed in this chapter (and listed in Annex A) within each research approach.

Table 2.4: Main findings of the empirical studies analyzed

APPROACH/EFFECT	SUBSTITUTIVE	COMPLEMENTARY	MIXED	TOTAL
Direct approaches	**7**	**4**	**7**	**18**
Counterfactual studies	2	2	1	5
NIDL theories	1			1
Labor-demand studies			4	4
Relocation studies	4	2	3	9
Indirect approaches	**9**	**17**	**6**	**32**
Export-stimulus studies	6	14	5	25
Investment-stimulus studies	3	3	1	7
Dual outward-inward approach			**13**	**13**
Total	**16**	**21**	**26**	**63**

45 percent of the studies concluded that the domestic employment effects of international production are mixed. 31 percent concluded that there is a complementary relationship between international production and domestic employment, while 24 percent concluded that this relationship is substitutive. A large share of the stimulus (indirect approach) studies concluded that the relationship between international production and employment is complementary to domestic employment, through its positive effects on domestic exports. The displacement (direct) approaches to the problem show more ambivalent findings. Dual approaches, almost by definition, emphasize mixed effects, but are difficult to generalize. They for instance emphasize that in the case of open economies with a reasonable balance between outward and inward FDI, the employment effects can be balanced as well. But in case of large unbalances in outward/inward FDI for instance it has been difficult to establish a more sophisticated measure at the macro-economic level. The large volume of studies, the heterogeneity of approaches, the wide range of results and methodologies applied hinder any researcher to infer general conclusions of the relationship between international production and employment in general (OECD, 1995).

2.7.2 The nature of the relationship and debate intensity in OECD countries

Table 2.5 adds a final column on the debate and study intensity to table 2.2 that clustered the relevant periods for the OECD countries.

Table 2.5: Linking employment – internationalization problems with debate intensity

COUNTRY	KEY PERIODS*	NATURE OF JOB MACHINE**	TRADE POSITION	FDI POSITION	DEBATE INTENSITY
USA	I.1974-1976	Growth	Balanced	Balanced***	## First studies appeared
	II. 1980-1982	Growth	Balanced	Low surplus	# Indifferent
	III. 1990-1992	Growth	Deficit ↑	First deficit	# Negative
Japan	I.1974-1978	Growth	Small surplus	Balanced	# First studies appeared
	II.1981 – 1987	Growth	Surplus↑	First deficit ↑	Relatively positive
	III.1992 – 1999	Growth	Sustained high surplus	High deficit ↓	# Growingly negative
Germany	I.1981 – 1985	Stable	Surplus↑	Balanced	# Start of key debate
	II.1992 – 1998	Stable ↓	Surplus↑↑ (after ↓↓)	Deficit↑	# Negative
France	I.1971 – 1987	Stable↑	Deficit↑	Balanced (low)	# Start of key debate in 1980s
	II.1991 – 1996	Stable↓	Deficit → Surplus↑	Deficit	# Negative
United Kingdom	I.1975 – 1977	Stable	Deficit↓	Balanced***	# Start of debate
	II.1980 – 1987	Fluctuating↓↑	Deficit↓↓	First deficit	
	III.1991 – 1993	Decreasing	High Deficit	Balanced→deficit	
Netherlands	I.1971 – 1976	Stable	Low deficit	Deficit	Start of debate
	II.1979 – 1983	Stable	Surplus↑	Limited deficit	Structural causes of unemployment
	III.1993 – 1994	Increasing	High surplus	Deficit↑	Start of 'jobs , jobs, jobs' policy
Belgium	I.1972 – 1984	Decreasing	n.a.	Balanced***	
	II.1992 – 1994	Decreasing	Surplus	Surplus (acquisitions)	
Sweden	I.1980 – 1983	Stable	Balanced	Balanced	# start of major studies
	II.1990 – 1997	Decreasing	Surplus↑↑	Deficit→balanced	## very intense debate

** key period = rapidly rising unemployment as % of workforce for more than one consecutive year;** approximation; # period of major studies (with 2-3 year delay facto*

- In the years 1974/75, 1980/81 and 1991/92 almost all countries experienced rapid rises in relative unemployment. The general 'employment debate' in these years indeed intensified as expected. The nature of the (un)employment debate changed from one of job displacement due to runaway jobs to low-wage developing countries, to one of unemployment because of lacking technological competitiveness with other developed countries, thus following also the change from Fourth to Fifth Kondratieff.
- The relatively weak 'job machines' of the European countries over the whole period, prompted relatively continuous debates covering the whole region. Studies of the European Commission, partly also displaced the need for individual (small) countries to come up with their own job studies.
- In table 2.6, the intensity of the debate is indicated by shades of gray, but also by bullet points that locate the bulk of the leading empirical studies published in and on these countries (See Annex A and table 2.4). A delay factor of two years in case a period of job displacement has been very short, was added. Debating periods depends on to the number and length of key periods in forty years' period (1960-2000): USA (9), Japan (20), Germany (12), France (23), United Kingdom (14), Netherlands (7), Belgium (16), Sweden (12). In the United States and the Netherlands, periods of rapid unemployment increases have been relative short. The debates have been equally less prolonged. In Japan and France in particular, periods of consecutive unemployment problems have been long which has triggered ample debate.
- Combined deficits in trade and investment and the rapid growth in unemployment in the early 1990s for the United States triggered considerable debate. When the FDI deficit changed into a surplus (based on in particular international acquisitions of home-based firms) the debate did not stop, but changed in character.
- In periods of clear job displacements, there is an inclination in many studies to focus on the substitutive effects of internationalization. But, it has been much less clear whether the theories proposed and the empirical data presented indeed support the presented conclusions. The occasion creates the explanation and methodology?
- It was expected that the argumentation on the negative effects of FDI and trade on domestic employment would be particularly fed by authors from or studying the United Kingdom. Interestingly, after indeed a take-off in the 1970s of studies after unemployment, the British seemed to be relatively indifferent to the issue, despite increasing deficits in trade and investments and a shrinking total employment population. It is not clear whether this can be derived from the already high dominance of 'foreign' capital in large parts of the British industry. Additional research on the causes and consequences of the intensification of debates is needed, but beyond the scope of this particular study.

Figures 2.3 and 2.4 are graphical presentations of the development in the Trade Balance (defined as Export – Import in mln. $US), FDI Balance (defined as outflows – Inflows in mln. $US), Years of Increasing Unemployment, and Total Employment (in 000s).

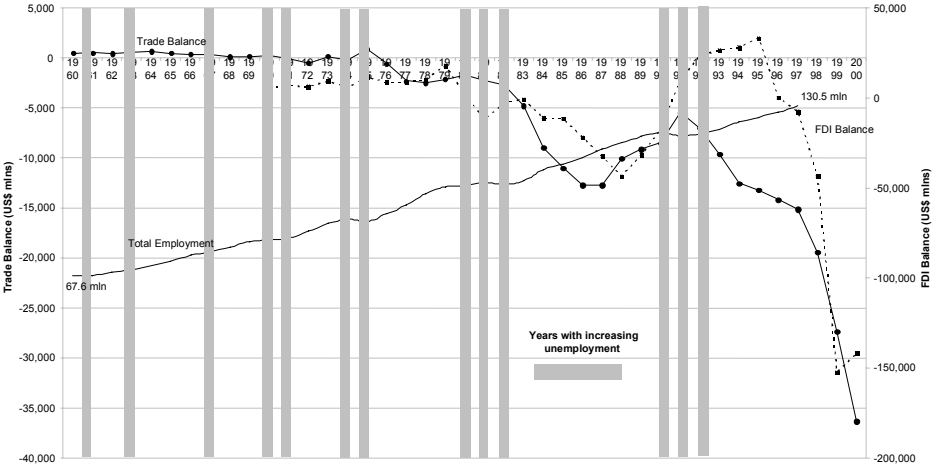


Figure 2.3: Development of trade, FDI and (un) employment in the United States, 1960-1997
Source Trade data: calculated on the basis of "Source OECD Monthly International Trade Aggregates Published by OECD and Development Monthly Statistics of International Trade. Source FDI data: UNCTAD online interactive Global FDI database. Source Years of Increasing Unemployment: calculated on the basis of OECD data: (Additive or stock figures) SA /Unemployment\Unemployment. Source Total Employment data: OECD Labour market and social issues database.

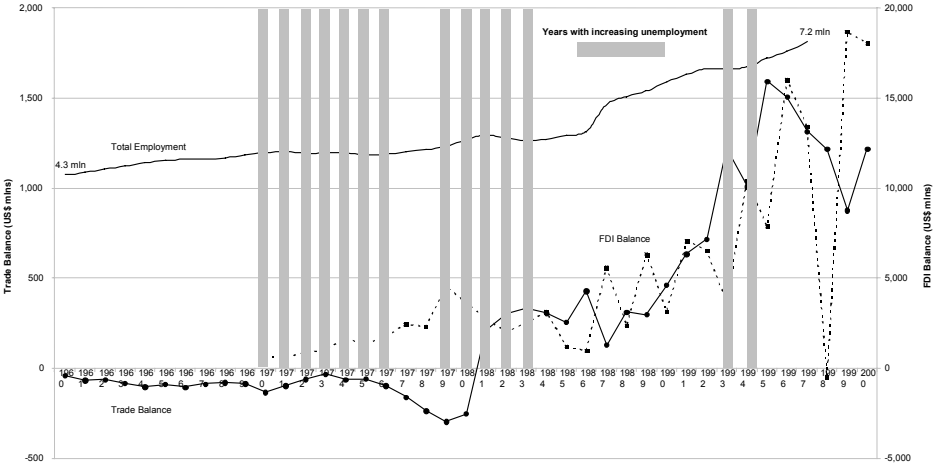


Figure 2.4: Development of trade, FDI and (un) employment in the Netherlands, 1960-1997
Source Trade data: calculated on the basis of "Source OECD Monthly International Trade Aggregates Published by OECD and Development Monthly Statistics of International Trade. Source FDI data: UNCTAD online interactive Global FDI database. Source Years of Increasing Unemployment: calculated on the basis of OECD data: (Additive or stock figures) SA /Unemployment\Unemployment. Source Total Employment data: OECD Labour market and social issues database.

As figures 2.3 and 2.4 show for a small and large economy there is no specific relationship between, job crises, FDI and trade. Nonetheless, most studies and societal debates take place when labor markets and the overall economy is experiencing a downturn. It was expected (section 2.2) that in particular authors from smaller countries would be equally active in studying the relationship between internationalization and employment. Indeed, leading studies came from Sweden, but for instance not from the Netherlands. One explanation might be that investment leakages over most of the period were accompanied by structural trade surpluses. FDI leakages can be supposed to be part of the price to be paid for the international position of the countries (outward FDI also triggers strong exports). In countries like the Netherlands this has certainly dampened a sophisticated debate on the link between internationalization and employment. Studies where particularly triggered when particular job crises (of major cases of relocations could be witnessed) appeared and the overall level of employment decreased – whereas unemployment increases sharply - as happened in Belgium and Sweden in particular periods. From the smaller countries, the number of studies with a 'dual' approach, however, seems above average. This stems from the particularly open position of the country, and the almost historical need for a more sophisticated debate on the topic.

2.7.3 Identifying established and emerging links

It was perhaps the pioneering study by Hawkins (1972), that analyzed both the displacement effect and the stimulus effect of international production to domestic employment. He related the empirical outcome to different basic assumptions one makes regarding the counterfactual argument of international production, ranging between 100 percent aggressive (cf. Ruttenberg, 1971; Arthuis, 1993) and 100 percent defensive (cf. Stobaugh, 1976; Jordan and Vahlne, 1981). Hawkins (ibid), argued that the reality of FDI decisions is somewhere in between these counter-poised claims. The nine case-studies by Stobaugh (1976) additionally revealed that the oligopolistic nature of the market in which MNEs operate urges managers to internationalize in order to safeguard foreign markets.
The evidence found for a complementary relationship between domestic employment and international production in more than half of the stimulus studies, in particular those analyzing whether export-substitution or export-complementary effects takes place, suggest that there is consensus regarding the sign of the relationship. But, the degree to which export substitution or export complimentary effects take place due to international production depends on four conditions:

1. The extent to which, in the short term, international production replaces former domestic export sales from the home country to the foreign market in which production now takes place;
2. The extent to which, in the medium to long term, exports e.g. in the form of intermediate products, from the home country to the foreign affiliates increase;
3. The extent to which the foreign affiliates, in the medium to long term, serve third markets through exports, previously served through domestic affiliates;
4. The extent to which the industry or production process is vertically integrated across borders. The exports of intermediate products can only take place in vertically integrated firm activities (in the form of intra-firm trade).

The results of most of the export-stimulus studies suggest a complementary relationship between outward FDI and domestic employment. The short-term negative domestic employment effects (condition 1) are compensated through renewed exports in the form of intermediate products (condition 2). Condition three negatively influences exports from the domestic parent companies as the study by Svensson (1996) demonstrated. By adopting of a long-term perspective (1965-1990, with five year intervals), Svensson (1996), found a substitutive relationship between international production and home exports, as foreign affiliates 'crowd out' exports from the domestic country to third markets and, consequently, affect employment. Although, Braunerhjelm and Oxelheim (1998) argued that the findings by Svensson (1996) are largely attributable to industry characteristics and specific Swedish characteristics of the MNEs ('country of origin effect'), the length of the period of analysis (1965-1990) appears to be a stronger explanatory factor influencing the sign of the relationship. The latter is confirmed by the studies of Bergsten, Horst and Moran, (1978), Markusen, Venables, Konan and Zhang (1996) and Braunerhjelm (1996) who, for different samples but similar time frames, find similar results as Svensson (1996). The argument is that, as the multinational strategy of MNEs *evolves*, foreign production (to third markets) may increasingly replace former domestic production and exports, affecting domestic employment levels.

One of the disadvantages of some of the indirect approaches is that it is not possible to infer directly whether an expansion of foreign activities tends to reduce or expand domestic employment (Braconier & Ekholm, 1999). Only by implication can the employment effects be derived. For instance, if downstream activities are relocated from the home country abroad, there could well be a positive effect on home country investment and exports even though home country employment may be reduced, and vice versa. The assumption that the loss of domestic employment and exports is compensated through increased exports to foreign affiliates, in the form of intra-firm trade, and hence necessarily leads to increased employment levels in the parent firms does not automatically hold.

The dual outward-inward studies towards the relationship between international production and domestic employment have largely focused on the inward and outward employment effects of international production. Through this duality these studies have integrated the home-host dimension to the relationship between both inward and outward FDI and employment in different industrialized countries. From a national perspective it is argued that FDI is a two-way phenomenon and to assess the national impact of FDI on employment within MNEs, one has to take account of both outward and inward FDI and hence adopt a home and host MNE perspective. Nevertheless, these type of studies adopt a broad macro-economic perspective and are often of a descriptive nature, in highlighting trends in FDI and MNE employment. The studies are less focused on exploring and unraveling the nature and structure of the relationship between international production and employment and testing *causality* between international production and domestic employment. Nevertheless, finding statistically significant results, although economically interesting does, in general, not lead to policy contributions. The bilateral and multilateral approaches have given an important contribution to the national and multilateral policy dimensions of the relationship between international production and domestic employment. Furthermore, most of the displacement approaches in particular the more sophisticated labor-demand studies, and the dual inward-outward approaches are more ambivalent in their findings. This implies that at an aggregate country level it is difficult to draw a single conclusion regarding the outward and inward employment effects of FDI.

The loss of employment of outward FDI can, in the case of open economies, be compensated through inward FDI by employment generation of the subsidiaries of foreign MNEs, explaining the mixed effects of all these studies. Recent research has also emphasized different *dimensions* of the relationship between international production and domestic employment. Blomström, Fors and Lipsey (1997), for instance pointed to the determining role of the country of origin in the relationship between international production and domestic employment, while Braconier and Ekholm (1999) attribute a leading role to the size of the home economy in which the MNE originates. Still others have focused on the difference between horizontal and vertical industries, triggering horizontal and vertical FDI respectively, in analyzing the domestic employment effects of international production (Braconier & Ekholm, 1999). In addition, (Braunerhjelm & Oxelheim, 2000) argue that the nature of the relationship between foreign and home country investments largely rests on the more R&D intensity of the production investments. This study also called for the need to disaggregate the analysis to the industry level to increase the understanding of the home country effects of FDI (Braunerhjelm & Oxelheim, 2000), while Mariotti and Piscitello (2002) urged researchers to conduct more micro firm level studies. Additionally, a number of authors conclude that international production leads to a changing structure and specialization of the labor force (Blomström & Kokko, 1994; Mucchielli & Saucier, 1997; Fors & Kokko, 1999). The findings of these studies relate to the fact that the primary impact of international production will eventually be greater on the industrial structure of the labor force and productivity of direct employment within large firms, rather than the numerical (quantitative) effect (Dunning, 1993). This argument is similar to the 'consensus' reached in the trade-employment debate[20]. Graham and Krugman (1989: 62) concluded that in the long term trade and outward investment do not alter the aggregate labor demand of a country, but rather affect the employment structure and factor allocation of a country. International production leads to a changing international composition of labor. Similarly, Mucchielli and Saucier (1997) place the issue of relocation in a process of 'Schumpeterian creative destruction', some industries will disappear while others will gain in importance. Finally, recent research has suggested that the employment effects depend upon the destination of international production or in other words the spatial organization of MNE activity. This research has explored the employment effects of international production in developed countries by MNEs originating in other developed industrialized countries (cf. Brainard & Riker, 1997; Riker & Brainard, 1997; Tüselmann, 1998; Mucchielli & Chédor, 1999; Braconier & Ekholm, 1999; Konings & Murphy, 2001). Many have found a substitutive relationship between domestic employment and international production in other industrialized countries. Within vertically integrated industries, it is argued that the extent to which labor

[20] In contrast to the theory of FDI, trade theories and trade models have evolved over a period of more than 100 years. Hence, the controversy on the effects of international trade on employment have been analyzed in detail for many years, which has led to greater consensus (for an overview see Gual, 1998). The main conclusion is that international trade affects the industrial specialization of countries, leading to industrial restructuring and inter-industry specialization (cf. Goedegebuure & Van Tulder, 2002) in some sectors (associated with declining employment and wages), and increasing employment and wages in other sectors. At a macro level employment levels may not be affected, while the comparative advantages of countries may have changed considerably. In industrialized countries, this process is often qualified as de-industrialization, with more high-skilled work being performed in these countries and low-skilled jobs being performed in low wage developing countries. The effective and proper functioning of labor markets and institutions is crucial in the industrial reallocation of workers (Gual, 1998).

competition occurs is for a large extent determined by the similarity in locational conditions (i.e. workforce skills). This implies that competition among workers in alternative low wage countries or regions and among industrialized countries, is greater than between high and low wage countries. Tüsselmann (1998) for instance argued that cost-oriented FDI into Western industrialized countries sharing similar location conditions as Germany, have stronger substitutive effects on domestic investments and jobs. Research linking the employment effects to the spatial organization of MNE activity is still in a nascent stage and hence requires further exploration.

2.8 CONCLUSION

This chapter reviewed the existing literature on the relationship between internationalization and employment. Firstly, it was shown that studies on this relationship have often (not always) been triggered by cyclical and structural changes in the position of the country and the nature of the national 'job machine'. In many countries the debate became more intense and the nature of the debate grew more defensive in case trade deficits were accompanied by deficient investment positions. Lengthy periods of rapidly rising unemployment combined with clear deficiencies in the national 'job machine' – exemplified by stable or decreasing absolute numbers of jobs – further triggered studies. Secondly, this chapter clustered the literature in three main(stream) approaches:

- Direct approaches;
  - Displacement and counterfactual studies;
  - Studies of the New International Division of Labor (NIDL);
  - Labor demand studies;
  - International relocation studies.
- Indirect approaches;
  - Outward FDI and domestic exports studies
  - Outward FDI and domestic investment studies
- Dual approaches: Host country effects and dual inward-outward approaches

Neither studies dealing with outward, inward or mixed employment effects of internationalization and relocation have yet established clear and undisputed relationship between internationalization and employment. The lack of consensus regarding the sign of the relationship between and the lack of a solid theoretical framework enabling further empirical testing makes the research area still not very mature. This is in itself a justification to continue explorative research into the relationship between internationalization and employment. Nevertheless, the literature review showed that there are a number of established links, which were discussed in section 2.7.2. Table 2.6 provides a summary of the nature of the already identified 'established links' and the 'emerging links' that have received attention in recent research.

Table 2.6: Established and emerging links in research on internationalization and employment

ESTABLISHED LINKS	NATURE
Counterfactual argument	What would have happened in the absence of FDI?
Displacement effect	Employment displacement, but also home office stimulus effect
Export stimulus effects	Complementary effects trough exports of intermediate products
Length of period of analysis	Evolution of MNE strategy
Industry	Vertically integrated industries, R&D intensity
Country of origin of FDI	Size of home market, incorporation of MNEs
Industrial structure	Internationalization has impact on employment composition
EMERGING LINKS	**NATURE**
Home-host perspective	Open economies are both home and hosts to FDI
Spatial organization of production	Similarity in location conditions determines nature of effects

Next to the established and emerging links identified in the chapter, there are also a number of missing links in the literature that have not been dealt with. Additionally there has (yet) not been substantial research into the employment effects related to the fifth wave of internationalization (section 1.3). Chapter three will focus on these issues in order to set a more specific research agenda.

3. SETTING A RESEARCH AGENDA: ADDRESSING CONTEMPORARY MISSING LINKS

> *"The impact on employment and income in both host and home countries has been the subject of considerable debate for the past two decades. Concern has been fuelled by the growth of international production, export- oriented growth strategies based on the attraction of FDI adopted by a number of developing countries and the massive restructuring undertaken by a number of TNCs in recent years. Attempts to quantify the importance of TNCs in those processes have met with only limited success. The problem lies in the specification of underlying assumptions of the analysis." (Enderwick, 1994: 5)*

3.1 INTRODUCTION

The fifth wave of internationalization poses a number of challenges to the existing insights on the relationship between internationalization and employment. Complementing the change in the nature of internationalization is a shift in the role of MNEs in international trade and investment flows, the nature of international competition, and a simultaneous development in global and regional institutional settings. Contemporary studies on internationalization and employment not only have to deal with a number of traditional established and emerging links already discussed in chapter two, but also with a number of missing links that are closely associated with the nature of the fifth wave of internationalization. Only on the basis of a more thorough understanding of characteristics of the present phase of internationalization can a final list of missing links, data collection problems and an appropriate and more contemporary research agenda be established. That is the aim and function of this chapter.

This chapter will first explore the nature of the fifth wave of internationalization (section 3.2). Rival trends seem to exist: globalization versus regionalism, horizontal versus vertical flows of FDI, M&As versus greenfield investments. Integrating these characteristics of the fifth wave of internationalization adds to a number of underexposed areas in existing research approaches. Section 3.3 specifies the contemporary missing links in research on the link between internationalization and employment that complement the established and emerging links identified in chapter two. But this does not suffice. A fundamental level-of-analysis problem exists. Section 3.4 addresses this problem and presents a solution: a firm-level approach. This approach is not without problems, in particular as regards data-gathering difficulties that are elucidated in Annex B. Nevertheless, this chapter still concludes that a firm level of analysis is the best option to address most of the missing links in the literature on the FDI-employment linkage, whereby the characteristics of contemporary developments are taken into account.

3.2 ASSESSING THE NATURE OF THE 5TH WAVE OF INTERNATIONALIZATION[21]

The 1990s have often been qualified as the decade of *(economic) globalization*. Globalization, however, is a debated issue subject to numerous interpretations, and studied at different levels across various academic disciplines. Mc Grew (1992) defined globalization as follows: "Globalization refers to the multiplicity of linkages and interconnections between the states and societies which make up the present world system. It describes the process by which events, decisions, and activities in one part of the world come to have significant consequences for individuals and communities in quite distant parts of the globe. Globalization has two distinct phenomena: scope (or stretching) and intensity (deepening). On the other hand, it defines a set of processes which embrace most of the globe or which operate worldwide: the concept therefore has a spatial connotation. On the other hand, it also implies intensification on the levels of interaction, interconnectedness or interdependence between the states and societies, which constitute the world community. Accordingly, alongside the stretching goes a deepening of global processes." (p. 23). Kobrin (1997) used similar words, as *broader* and *deeper* to describe the historically uniqueness of current globalization. In contrast to earlier periods (1870-1914) "national markets are *fused* transnationally rather than linked across borders." *Scale (or intensity),* s*cope (or stretching), and integration (or interconnectedness)* are common concepts used to describe the *quantitative* and *qualitative* transformation of the world economy over the 1990s.

'Globalization' remains an ill-defined and difficult-to-assess phenomenon. But there is general agreement that the main carriers of 'globalization' are multinational enterprises (MNEs). They are responsible for the rapid growth in FDI since the 1990s (UNCTAD 2002) that surpassed the growth in trade. But the geography of foreign direct investment and the exact nature of MNE's strategic involvement remains a subject to major discussions in the field of international business and economics. Four rival insights on the globalization of MNE activity can be distinguished. Firstly, some argue that globalization is simply the return to previous levels of 'global' MNE activity at the beginning of the 20th century' (Krugman, 1998; Hirst & Thompson, 1996). The first 'wave' of globalization was even assessed to show higher levels of international trade and investment (as % of the GDP). So the second 'wave' of globalization is not only nothing new, but perhaps also less pervasive than generally coined (Cf. Braithwate & Drahos, 2000). Others have gone so far as to deem nation states as superfluous (Reich, 1991) in a 'borderless world' with 'footloose' operating MNEs (Ohmae, 1990; Yip, 1992). To these 'globalists' (Held, McGrew, Goldblatt, & Perraton, 1999), the liberalization of the world trade and investment represents an irreversible trend. A third group points to the evidence of more defensive and 'sub-optimal' strategies of bloc-formation through triadization and regionalism as a result of MNE strategies and Regional Integration Agreements (RIAs) (Ruigrok & Van Tulder, 1995; Rugman, 2000). Section 3.2.5 further elaborates processes of regionalism. Finally, a fourth group emphasizes the local dimension and analyzes globalization as a phenomenon that trickles-down to a *sub-national level*, suggesting that the global economy consists of a 'mosaic of sub-national regions' largely formed through MNE activity (Scott, 1998; Storper, 1997)[22]. Consequently, various rival conceptualizations of the geographical scope

[21] This section is largely based on Van Den Berghe and Van Tulder (2002).

[22] Scott (1998) refers to a new version of a social-spatial duality, which has come into being today "…one that is global

of MNE activity persist that cloud a satisfactory description of current internationalization processes – albeit it localization, globalization, regionalization or perhaps something else. The need arises in any case for a more thorough structuring and quantification of current trends in the geography of globalization of FDI. That is the aim of this section. It builds on FDI statistics in order to get a more sophisticated understanding of the direction and nature of international FDI flows related to the fifth wave of internationalization. This description complements the first outline of the fifth wave in chapter one (section 1.3.5). It is important to note that FDI statistics (as well as aggregate MNE employment data) share a number of reliability and validity problems. Annex B reveals them. The FDI trends described in this section should thus be interpreted with caution. Although, FDI data address internationalization from very broad aggregate macro level (Balance of Payment – BOP statistics) it is misleading to use them as a proxy for studying the internationalization strategies of large firms.

3.2.1 Growth in FDI and cross-border M&As over the 1990s

Since the mid-1980s both outward and inward stock of worldwide FDI have grown at a considerable pace. Between 1982 and 1994, world FDI stock increased fourfold and doubled as a percentage of world GDP to 9 percent. Its share in world output increased from 5 to 6 per cent (UNCTAD, 1997: xv). Through the midst of the 1990s FDI growth levels accelerated considerably. FDI inflows increased by 27 percent over 2000 to a new record level of $1.3 trillion in 2000 (UNCTAD, 2001: 3-4). The accelerated growth in FDI is for a large part attributable to a surge in cross-border M&As (UNCTAD, 2000). The fifth wave of internationalization has thus been characterized by a pervasive wave of (cross-border) M&As. Cross-border (majority held) M&As in the second half of the 1990s increased in number by almost 74 per cent between 1997 and 1998. In 1997 a rise of more than 45 per cent was registered (UNCTAD, 1999) and in 1999 the increase was 35 per cent, reaching – according to UNCTAD estimates - $720 billion in over 6,000 deals (UNCTAD, 2000: 10).

Many announced mergers have *de facto* been acquisitions by stronger partners. Only less than 3 per cent of all M&As can be considered pure mergers (cf. UNCTAD, 2000: 99)[23]. M&As, as opposed to internal growth by means of greenfield investments, can be seen as "the desire of companies to short-circuit the process of gradually building-up activities in foreign markets" (Welch & Luostarinen, 1988: 43). M&As are considered a fast way for companies to build up a locational portfolio and get access not only foreign markets, but also to international networks of production, subsidiaries, subcontractors, intermediate

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in its reach and meaning, yet is also expressed as a patchwork of highly individualized localities or places" (Scott, 1998: 1). The locus of the modern world economy centers on this mosaic of sub-national regions, they are the motors of the new capitalist economy. Which leads to a break up of national economies, into loose confederations of regional economies of exchange and production. Examples of such regional economies are Silicon Valley in California and Cyberjaya in Malaysia. "This new socio-spatial duality assumes in its most general form the contours of a mosaic of regions scattered across the globe. This mosaic can be mapped out in terms of a network of local economies forming an integrated or quasi-integrated world-wide system of production and trade." (Scott, 1998: 1-2). The interconnectedness of the globalization process is supposed to lead to a strong relationship between a region's fortune and developments in other regions in the world economy.

[23] For example the takeover of Chrysler by DaimlerBenz was portrayed as a merger between two equal partners, but in practice quickly turned out to be an acquisition after most of the US top managers left the board.

product markets and customers and tap into human capital and other forms of 'created assets' (Dunning, 1998). In the light of greater global competition, M&As provide speed and flexibility. *"Quick is beautiful"* best characterizes the preference of many MNEs for international expansion through M&As.

According to data of Thomson Financial Securities, the value of mergers and acquisitions worldwide boomed from around $200-300 billion in the early 1990s, to $3.5 trillion in 2000 (The Economist, January 27th 2001). This process was accompanied by booming stock markets, which prompted many observers to consider the M&A boom as nothing more than the representation of increased expectations and booming market capitalization of firms. But the M&A boom is not only reflected in value, but also in absolute number of deals: the total number of all M&As between 1980 and 1999 grew annually at a rate of 42 percent, whereas the value of M&As as a share of world GDP rose from 0.3 percent in 1980 to eight percent in 1999 (UNCTAD, 2000: xix). The M&A wave can thus not only be explained by market capitalization. Most of the M&A wave takes place within national economies: around 75 percent of all M&As are national, whereas (on average) a stable 25 percent both in value and in number of completed transactions over the 1980-1999 period were cross-border. That large firms enter foreign markets through M&As is not a new phenomenon, but the scale in the present period is unprecedented. Before 1947 almost one quarter of foreign market entries of the 187 largest US corporations was through the acquisition of a domestic locally controlled firm. Between 1958 and 1967 this number had risen to more than 41 percent. M&As were in particular the preferred mode of entry in neighboring and/or other developed market economies (Vaupel & Curhan, 1969; UNCTC, 1973).

Because FDI largely takes place in the form of cross-border mergers and acquisitions (or brownfield investments – cf. Meyer & Estrin, 2001[24]), most FDI at the moment also reflects a change of ownership. Additionally FDI initially leaves the domestic competitive environment unaltered. The number of competitors does not change after entry.

It remains difficult to establish the exact M&A content of FDI. It depends on how cross-border M&As are financed (UNCTAD, 2000). Three-quarters of global FDI flows have taken the form of M&As, with the remaining 25% being accounted for by new greenfield investments (UNCTAD, 2000). Schenk (1999) showed that 90 percent of FDI flows from and to the United States are in the form of M&As.[25] Schenk (1999) also demonstrated the country-of-origin predisposition of MNEs to cross-border M&As. Most Japanese foreign direct investments by MNEs in the fourth wave of internationalization have been mostly greenfield investments, whereas European and American MNEs in the 1990s typically enter foreign markets by means of cross-border mergers & acquisitions (cf. also Ruigrok & Van Tulder, 1995).

Non-OECD countries have increased their share of cross-border M&As as well, but this process is largely dominated by firms from OECD countries (UNCTAD, 2000; OECD,

[24] Meyer and Estrin (2001) describe a brownfield foreign market entry as follows: "a brownfield is a foreign acquisition undertaken as part of the establishment of a local operation. From the outset, its resources and capabilities are primarily provided by the investor, replacing most resources and capabilities of the acquired firm" (p. 577).

[25] The US Department of Commerce, Bureau of Economic Analysis (BEA) is the only national statistical agency documenting whether inward and outward FDI is in the form of greenfield investments or in the form of M&AS. The BEA calculated that over the period 1991-1998 on average 86 percent of inward FDI into the US was in the form of acquisitions. In 1991 the share was 70 percent, while in 1998 it was almost 90 percent (US Department of Commerce, 1999).

2000: 5). In 1999 the top five countries for both inward and outward cross-border M&As were: the United States, the United Kingdom, Germany, France and Canada (OECD, 2000: 11-13). Conversely, the downturn in global FDI flows by more than half over 2001 can be attributed to the collapsing wave of cross-border M&As, in particular between firms from developed countries (UNCTAD, 2002). In case Mergers and Acquisitions become less attractive – also due to an under capitalization of capital markets which makes M&A difficult to finance – the fifth wave of internationalization might have reached its peak. The volume of FDI in any case collapsed in the first years of the 21st century – as did all stock exchanges.

3.2.2 The prevalence of horizontal M&As

UNCTAD (2000) and others generally distinguish between three forms of Mergers and Acquisitions (M&As):

- Horizontal M&As: between competing companies in the same industry;
- Vertical M&As: between companies in client-supplier or buyer-seller relationships;
- Conglomerate M&As: between companies in unrelated activities.

The prevalence of each of these three forms has shifted over time. While the M&A boom in the 1990s, during the fourth wave of internationalization was dominated by conglomerate M&As, most of the M&As in the 1990s have been horizontal: 70 percent in 1999 against 59 percent in 1990 (cf. UNCTAD, 2000: 101). Large horizontal M&As have been especially salient in the resource-based industries and car manufacturers – the so called 'old economy' industries. Only a limited number of firms in the petroleum and refining industries survived the 1990s shakeout. The acceleration in the M&A wave since the mid-1990s shows unique characteristics. In particular it is more cross-border in nature, both inter-regional (between the US and EU) and intra-regional (within the EU). The consolidation and market concentration as a result of mega horizontal M&As has given rise to global oligopolies in certain industries. The (feared) negative impact of these global oligopolies, especially on consumer prices and the diversity of supply, has led to a closer monitoring process of an increasing number of cross-border M&As by the European Commission and the Federal Trade Commission in the US. Increasingly, the approval of both authorities is necessary to finalize the merger or acquisition. Even for pure domestic M&As the repercussions, due to the sheer size of the firms involved combined with the magnitude of their international activities, increasingly transcends national boundaries. The Competition Directorate of the European Commission for the first time in history for instance ruled against a purely 'American' merger of Boeing and McDonnell Douglas because of its (perceived) negative effects on the competitive environment in Europe. More recently, European regulators again blocked a 'purely US' deal between GE and Honeywell in 2001, initially approved by the antitrust division of the U.S. Justice Department. After an in-depth investigation, on July 3, 2001, the European Commission, represented by Competition Policy Commissioner Mario Monti, declared the proposed $42 billion acquisition of US Honeywell International Inc. by US General Electric Co., incompatible with the common market. The Commission blocked what would have been the largest industrial acquisition ever (Giotakos, Petit, Garnier & De Luyck, 2001).

3.2.3 The home and host nature of FDI

During the fourth wave of internationalization (section 1.3), the economy of the United States experienced a remarkable shift in its net FDI position.. From being the largest source of FDI during the entire post war period, the US had become the largest recipient of FDI. In contrast, the ratio of outward to inward FDI for Western Europe and Japan grew by about 20 percent between 1975 and 1983. This trend continued during the fifth wave of internationalization. Table 3.1 provides a detailed overview of the balance between outward and inward FDI for a number of countries, regions and groups of countries (see also chapter two)

Table 3.1: The balance between outward to inward FDI, 1980-2001

	FDI RATIOS*									
YEAR	**1980**	**1985**	**1990**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
COUNTRY/GROUP										
TOTAL WORLD	0.82	0.76	0.92	0.98	0.98	0.98	0.97	0.96	0.97	0.96
Developed countries	1.28	1.15	1.18	1.28	1.30	1.34	1.31	1.32	1.29	1.28
Western Europe	1.02	1.13	1.12	1.22	1.24	1.30	1.25	1.38	1.37	1.34
European Union	0.99	1.11	1.09	1.16	1.18	1.23	1.19	1.33	1.32	1.30
Austria	0.17	0.36	0.43	0.67	0.70	0.76	0.74	0.81	0.82	0.76
Belgium and Luxembourg	0.83	0.52	0.70	0.69	0.66	0.66	0.66	0.75	0.89	0.93
Denmark	0.49	0.50	0.80	1.04	1.24	1.26	1.12	1.09	0.99	0.99
Finland	1.36	1.37	2.19	1.77	2.01	2.13	1.79	1.85	2.15	2.13
France	0.43	0.56	1.20	1.07	1.16	1.21	1.17	1.37	1.68	1.66
Germany	1.18	1.62	1.24	1.34	1.39	1.49	1.38	1.33	1.05	1.07
Greece	0.65	0.35	0.37	0.23	0.21	0.21	0.22	0.25	0.46	0.37
Ireland	n.a.	0.00	0.80	0.48	0.44	0.42	0.39	0.35	0.28	0.32
Italy	0.82	0.87	0.99	1.53	1.43	1.54	1.54	1.67	1.59	1.69
Netherlands	2.20	1.92	1.56	1.49	1.53	1.62	1.39	1.37	1.27	1.16
Portugal	0.14	0.13	0.09	0.17	0.20	0.28	0.39	0.44	0.63	0.76
Spain	0.38	0.50	0.24	0.33	0.38	0.50	0.59	0.97	1.15	1.17
Sweden	1.25	2.48	4.01	2.35	2.08	1.88	1.83	1.45	1.49	1.51
United Kingdom	1.28	1.57	1.12	1.53	1.45	1.43	1.45	1.78	2.07	1.90
Other Western Europe	1.45	1.46	1.62	2.14	2.18	2.30	2.16	2.14	2.35	2.19
North America	1.74	1.13	1.01	1.24	1.27	1.25	1.27	1.21	1.07	1.07
Canada	0.44	0.67	0.75	0.96	1.00	1.13	1.20	1.14	1.13	1.21
United States	2.59	1.29	1.09	1.31	1.33	1.28	1.29	1.23	1.07	1.05
Other developed countries	1.11	1.56	2.54	1.78	1.80	2.08	2.04	1.40	1.78	1.97
Japan	6.00	9.28	20.45	7.12	8.64	10.04	10.36	5.39	5.53	5.96
Least developed countries (LDCs)	0.02	0.07	0.07	0.10	0.09	0.11	0.08	0.08	0.09	0.09
Oil-exporting countries	0.15	0.05	0.15	0.14	0.15	0.14	0.11	0.12	0.13	0.13
Developing countries	0.09	0.10	0.19	0.32	0.32	0.32	0.35	0.36	0.38	0.36
Africa	0.20	0.31	0.46	0.46	0.45	0.41	0.41	0.33	0.33	0.28
Latin America and the Caribbean	0.18	0.16	0.17	0.25	0.23	0.23	0.20	0.20	0.20	0.18
Asia and the Pacific	0.04	0.05	0.15	0.33	0.34	0.35	0.42	0.44	0.47	0.45
China	n.a.	0.01	0.10	0.11	0.10	0.09	0.09	0.08	0.07	0.07
Central and Eastern Europe	n.a.	n.a.	0.17	0.16	0.14	0.15	0.14	0.14	0.14	0.15
All developing countries minus China	0.09	0.11	0.19	0.36	0.37	0.38	0.41	0.42	0.44	0.42

*Note: * FDI ratio = Outward Stock/Inward Stock. n.a. = not available*
Source: based on data from the UNCTAD, FDI/TNC database (www.unctad.org. Consulted January 9, 2003).)

Since 1995, the balance between outward and inward FDI stock of the United States declined to almost 1 in 2001. In contrast, the European Union as a whole became a large outward investor. Countries like France, the United Kingdom, Portugal and Spain showed strong growth in their FDI ratios over the entire 1980-2001 period. The outward FDI stock grew much faster than inward FDI stock. While Germany's FDI ratio shows a more volatile pattern, the trend of the FDI ratios for the Netherlands is similar to that of the United States. In 2001 the Netherlands hosts almost more FDI stock than it sends. So, for

many countries the balance between outward and inward FDI have changed considerably over the late 1980 and 1990s.

3.2.3 The geography of FDI: vertical and horizontal FDI

Considering the *source* and *destination* of FDI, Dunning (2000) distinguishes four *directions* of FDI that can be helpful in further specifying trends in the geography of FDI over the 1990s:

1. FDI by developed-country firms in developing countries;
2. FDI by developed-country firms in other developed countries;
3. FDI by developing-country firms in developed countries;
4. FDI by developing-country firms in other developing countries.

Direction (1) and (3) can be qualified as *vertical FDI (both downward and upward)*. Direction (2) and (4) can be qualified as *horizontal FDI*.[26]

FDI by Developed Country MNEs (direction 1 and 2)

In the early 1970s, the United Nations concluded "although the network of multinational corporations is worldwide, the bulk of their activities is located in the developed market economies. Over two-thirds of the estimated book value of foreign direct investment is located in this area where the advanced economic level and similarities in institutional and social structures have facilitated the spread of the multinational corporate system" (UNCTC, 1973: 7). The growth of FDI flows accelerated considerably over the 1990s, but in 2000 developed countries still made up for 67 percent of global inward FDI stock and 88 percent of outward FDI stock. Compared to 74 percent and 95 percent, respectively, in 1990, this represents a slight deterioration of the position of developed countries in FDI flows, but is still better than in the 1970s. A large share of developed country FDI originates *and* ends up in the European Union and the United States. Europe increased its share of global inward FDI stock from 30 percent in 1980 to 38 percent in 2000. The European Union's share in global outward stock increased rapidly from 41 percent in 1990 to more than 52 percent in 2000. The EU now accounts for more than half the world's outward stock of FDI. Over the whole 1990-2000 period the US share in inward stock circled around 20 percent (in 1980 this share was still 42 percent), while its outward stock declined from 25 percent in 1990 to 21 percent in 2000 (with a share of 42 percent in 1980). In contrast to the 1970s and 1980, when global FDI flows were largely dominated by US firms, European MNEs have started to become core players in the international economy.

In the same period Japan's role and contribution to global FDI stocks and flows rebounded to its original modest position (especially when compared to the size of its economy). Japanese firms are still large outward investors in absolute terms, but Japan's share in the global FDI stock has declined markedly during the 1990s. While its share in global outward stock grew from 4 percent in 1980 to 11 percent in 1990, a period of economic boom for Japan, it rebounded again to 5 percent in 2000. Since 1980, Japan's inward FDI

[26] FDI flows are highly volatile from year to year therefore FDI stock data are used. The figures used to calculate the percentages of global outward and inward stocks of FDI are taken from subsequent World Investment Reports (1997-2001) and can be obtained upon request from the author.

stock has remained very modest and stable at around 0.6 percent. Only in 1995 did it just exceed the one percent level. Apart from the prolonged slump in Japan's economy, its declining share of outward FDI can also be attributed to the fact that Japanese MNEs generally favor greenfield investment strategies over cross-border M&As (cf. Ford & Strange, 1999). Greenfield FDI has clearly not prevailed over the 1990-2000 period (section 3.2.3). Japan's low share in inward FDI global stock can largely be attributed to its relatively closed economy.

Similar to the 1970s, developed countries' MNEs, in particular those from Europe and the United States, remain responsible for a large share of inward and outward FDI stock. UNCTAD assessed in 1997 that around fifty companies in almost all major OECD countries account for more than sixty percent of the outward FDI stock (UNCTAD, 1999; Van Tulder, Van Den Berghe & Muller, 2001). This relatively small group of MNEs determined the geographical scope of FDI of a country. Considering the prime destination of the world's largest foreign investors - the United States, the United Kingdom, France, Germany and the Netherlands (an example of a small EU member state, but large recipient and source to FDI relative to the size of its economy) – over the 1990-1998 period the following picture emerges.[27]

[27] The 1990-1998 period is the most recent for combining source and destination of FDI data. It is an important period, since it covers the years leading up to the completion of the EU's single market as well as the years immediately following it.

Table 3.2: Intra and inter regional outward FDI stocks by five leading foreign investing nations, 1990-1998 (shares of global FDI stock, in percent)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
United Kingdom									
Intra-regional	28.8	30.0	30.1	34.5	37.9	38.9	45.0	45.5	40.4
o/w intra-EU	26.6	27.7	27.7	32.5	35.1	37.0	43.1	42.2	33.3
o/w rest of Europe	2.3	2.3	2.4	2.0	2.8	1.8	1.9	3.3	7.1
Extra-regional	71.2	70.0	69.9	65.5	62.1	61.1	55.0	54.5	59.6
o/w NAFTA	43.9	41.9	42.3	39.2	34.1	34.5	28.1	30.6	43.2
o/w Latin America-Caribbean	8.6	8.8	8.8	7.0	8.4	7.5	6.6	6.2	4.2
o/w Asian Countries	5.4	5.8	6.5	6.8	7.0	7.4	8.5	7.7	4.7
o/w Rest of the World	13.3	13.5	12.4	12.5	12.6	11.7	11.7	10.0	7.4
France									
Intra-regional	66.5	70.0	64.8	62.3	63.5	62.1	54.5	53.8	56.4
o/w intra-EU	59.3	63.7	59.3	56.3	56.5	54.8	49.1	49.6	52.0
o/w rest of Europe	7.3	6.3	5.5	6.0	7.0	7.4	5.4	4.1	4.4
Extra-regional	33.5	30.0	35.2	37.7	36.5	37.9	45.5	46.2	43.6
o/w NAFTA	24.1	21.9	19.4	21.3	21.1	21.0	20.8	25.9	23.7
o/w Latin America-Caribbean	2.3	2.5	2.9	2.5	2.6	3.8	8.6	4.4	…
o/w Asian Countries	2.3	1.5	1.7	2.0	2.0	1.7	2.2	2.1	…
o/w Rest of the World	4.8	4.1	11.2	12.0	10.8	11.4	13.9	13.9	19.8
Germany									
Intra-regional	60.7	63.0	63.3	61.6	63.5	65.6	63.1	61.2	59.9
o/w intra-EU	53.2	55.9	56.2	54.0	55.6	56.8	54.3	51.7	49.8
o/w rest of Europe	7.4	7.1	7.1	7.6	8.0	8.8	8.8	9.5	10.1
Extra-regional	39.3	37.0	36.7	38.4	36.5	34.4	36.9	38.8	40.1
o/w NAFTA	28.6	26.0	25.4	26.4	23.6	21.9	23.8	26.0	28.1
o/w Latin America-Caribbean	3.9	4.2	4.4	4.7	5.6	5.3	5.2	5.4	4.7
o/w Asian Countries	1.9	1.9	2.1	2.3	2.5	2.8	3.3	3.4	3.3
o/w Rest of the World	5.0	4.8	4.8	5.0	4.8	4.5	4.6	4.0	3.9
The Netherlands									
Intra-regional	54.4	55.0	53.0	52.1	56.9	57.7	57.0	55.4	59.9
o/w intra-EU	45.7	46.3	43.2	44.7	48.5	48.7	47.4	45.8	49.4
o/w rest of Europe	8.7	8.7	9.8	7.4	8.4	9.0	9.7	9.5	10.5
Extra-regional	45.6	45.0	47.0	47.9	43.1	42.3	43.0	44.6	40.1
o/w NAFTA	29.3	28.0	29.9	33.2	28.1	26.6	27.1	28.7	25.8
o/w Latin America-Caribbean	6.6	6.9	6.8	7.1	6.9	6.8	6.9	7.1	6.4
o/w Asian Countries	3.0	3.4	3.7	3.9	4.7	4.9	5.5	4.9	3.8
o/w Rest of the World	6.8	6.7	6.7	3.6	3.4	4.0	3.6	3.9	4.0
United States									
Intra-regional (NAFTA)	18.5	17.8	16.4	15.1	14.9	14.4	13.7	13.8	12.8
o/w Canada	16.1	15.1	13.7	12.4	12.1	11.9	11.3	11.1	10.0
o/w Mexico	2.4	2.7	2.7	2.7	2.8	2.4	2.4	2.8	2.8
Extra-regional	81.5	82.2	83.6	84.9	85.1	85.6	86.3	86.2	87.2
o/w EU	42.7	43.5	42.6	43.3	42.1	43.1	43.3	43.4	46.4
o/w rest of Europe	6.9	6.5	6.5	6.5	6.4	6.2	5.7	5.4	5.7

Note: Intra-regional is intra-EU plus rest of Europe for the UK, France, Germany and the Netherlands; and NAFTA for the US. "Rest of Europe" is EFTA plus other countries (including Eastern Europe).
Extra-regional is outside EU and rest of Europe (EFTA, Eastern Europe and other Europe) for the UK, France, Germany and the Netherlands; and EU and rest of Europe for the US.
Source: OECD, Foreign Direct Investment Yearbook, 1999 & 2000 and Van Den Berghe & Van Tulder (2002).

Table 3.2 classifies the outward FDI from five developed countries into *intra-regional FDI and extra-regional FDI* and various sub-categories. The first category is most prevalent among MNEs originating in the EU member states and to a lesser extent between US MNEs and other NAFTA member states (US, Canada and Mexico). Extra-regional FDI is for a large part aimed at the two blocs on both sides of the Atlantic; NAFTA and the European Union.

A number of additional geographical characteristics of outward FDI – generalized for each individual country, but probably representing the outcome of the strategic decisions of a limited number of firms - developed over the 1990-1998 period:

- A marked shift in the destination of UK outward FDI. In 1990, 71 percent of the UK's outward FDI stock was outside Western Europe, compared to 29 percent inside. In 1997, the gap that existed between extra-regional and intra-regional FDI had almost disappeared, with 54 percent outside Europe and 46 percent inside Europe. This shift in fact implies that the value of FDI flows towards the continent started to outweigh extra-regional investment flows in the 1990s. In 1998, the share of intra-regional outward FDI fell slightly back to 40 percent. As FDI flows are heavily influenced by the strategic actions of a limited number of firms, it should not come as a surprise that this drop in the European orientation of the UK did not reflect a major macro-economic change, but largely reflected an exceptionally big transatlantic cross-border takeover - the acquisition of the US oil company, Amoco, by British petroleum.
- French MNEs started from a very different position to the UK. In the early 1990s two-thirds of France's outward FDI stock was intra-regional. The high point was reached in 1991, when 70 percent of French outward FDI stock was in Europe and 64 percent in the EU. After 1991, the share of extra-regional FDI grew substantially, from 30 percent in 1991 to 44 percent in 1998. For French MNEs, therefore, the period following the completion of the EU's single market was marked by an increase in direct investments outside the region, in particular towards the United States. The establishment of the single market provided a platform for the extra-regional expansion of French MNEs, precisely the opposite path taken by British MNEs.
- The case of Germany is divergent again. Between 1990 and 1992, Germany's intra- and extra-regional shares of outward FDI stock followed a similar pattern to France's, with the share of intra-EU FDI rising from 53 percent in 1990 to 56 percent in 1992 (still 44 percent in 1987). As with French companies, FDI by German firms seems to have been partly driven by anticipation of the completion of the Single Market – which institutional setting the French and German government heavily influenced. After 1991, however, the destination of German outward FDI followed a different path. The share accounted for by extra-regional outward FDI dropped from 39 percent in 1990 to 34 percent in 1995, before rising back to 40 percent in 1998. As a result, between 1990 and 1998, the shares accounted for by extra and intra-regional outward FDI by German MNEs hardly changed. The only discernible trend was a slight change in the distribution of intra-regional outward FDI, with German FDI in Eastern European countries rising slightly at the expense of German FDI in EU countries.
- Dutch MNEs exhibit only limited volatility, with little evidence of a radical shift in the destination of outward FDI before or after the completion of the Single European Market. Whereas German intra-EU investment lowered after 1995, the Dutch sustained a relative growth in intra-regional outward FDI. Similar to

Germany, the shares accounted for by intra and extra-regional Dutch outward FDI stayed relatively stable and high after 1991, with the share accounted for by intra-regional outward FDI increasing slightly to reach 60 percent in 1998.

- Finally, firms from the US, the world's single largest exporter of direct investment capital, do not appear to have been much influenced by the completion of the single market. Although the US's stock of intra-regional outward FDI fell in favor of FDI outside the region, the share of outward US FDI to the EU remained very constant for most of the 1990-1997 period (before edging up to 46 percent in 1998). The fact that US firms already had a significant presence in the EU well before the completion of the single market may explain why the share of US outward FDI in the EU did not increase significantly in the wake of its completion. The formation of the NAFTA was accompanied by a declining importance of intra-regional FDI flows in North America, whereas US firms apparently substituted Canadian for Mexican investment. At the same time US MNEs increased their share of outward FDI in Latin America.

For all countries surveyed extra-regional outward stock to developing countries grew only marginally. South East Asia, China and Latin America took the bulk of inward FDI from the developed countries. This was the case in the late 1980s to mid-1990s. In this period the relocation debate gained momentum (section 1.3.4). Outward FDI from most EU countries is still largely intra-regional, accounting for a rapidly growing share of outward FDI in the late 1980s and early 1990s. In 1990 between 27-60 percent of outward FDI was located in the EU. Since then, divergent national trends have, owing to different starting positions of firms from each country, resulted in a relative convergence of their geographic investment profiles. In 1998 between 45-52 percent was intra-regional. The share accounted for by extra-regional outward FDI can be regarded as a reasonable proxy for European and US MNEs' degree of globalization. MNEs from the United States can therefore be considered to be the most global firms, while it is more accurate to speak of the growth of most European outward FDI in the 1990s primarily as a process of regionalization rather than of globalization.

Table 3.1 also shows that the main destination of EU FDI outside the region is to the three members of the NAFTA, in particular to the United States. Similarly, the EU is also the largest destination of US FDI outside its home region. In addition to intra-regional FDI, since the mid 1990s, extra-regional global FDI stocks can therefore be characterized "…by an intensification of TNC-led link between the United States and the European Union, *each of them being the largest source of FDI for the other*" (UNCTAD, 1999: xxi). The Transatlantic investment link is by far the largest inter-regional investment relationship in the world in which leading inward investing nations into the United States are also the largest recipients of FDI from the United States: e.g. the United Kingdom, France, Germany and the Netherlands (Buckley & Clegg, 1998). Rather than referring to the 1990s as a period of globalization it would be equally appropriate to reclassify the 1990s period as one of *bi- (or dyadic) regionalism* in which the North American and the European economies became increasingly linked through FDI ties (Van Tulder, Van Den Berghe & Muller, 2001). The increasing links between the US and Europe, however, have also resulted in a larger number of conflict between the two regions following the start of the 21st century: within the World Trade Organization conflicts have appeared on the tax policies of Europe and the United States towards multinationals; the US initiated governance requirements after a number of accounting scandals (Enron, Worldcom)

that might also be considered as an effort to control foreign owned firms – predominantly European firms - in the United States; under the Bush government, the USA has adopted a relatively unilateral position, which is bound to affect the investment position of many of the European firms that had invested in the USA.

FDI by Developing Country MNEs (direction 3 and 4)

The share of developing countries in the global inward FDI stock showed a remarkable decline during the fifth wave of internationalization. While it was still around 39 percent in the early to mid 1980s, it declined substantially in the early 1990s to mid 1990s to 26 percent, after which it increased to 34 percent. In 2000, the developing countries' share in inward FDI fell back again to 31 percent.

At the same time, however, the 1990s marked the growth of outward FDI from developing countries. The share of developing countries in global outward stock rose from 5 percent in 1990 to almost 12 percent in 2000. The balance between developing countries' share in inward and outward FDI stock remains largely unequal, especially compared with the share of firms from developed countries. Developing countries remain overwhelmingly and largely recipients rather than sources of FDI.

At a micro level the rise of outward FDI by developing countries is evidenced by the lists of Top 50 TNCs from developing countries and Top 25 TNCs from transition economies – partly collected by the SCOPE team - that are annually published in UNCTAD's World Investment Report. Although, many of these Top 50 TNCs are still in an early phase of internationalization, some have already grown to become established MNEs and even feature among the list of the world's largest Top 100 TNCs and among the Fortune Global 500.

FDI data on the destination of developing country's outward FDI stock are difficult to accumulate, though. Table 3.3 shows an assessment of the division of outward FDI stock from the largest two developing countries' regions (South East Asia or ASEAN and Latin America). The amount of outward FDI originating in Africa and the Middle East is negligible.

Table 3.3: Geographical scope of outward FDI stocks for South, East, South-East Asia and Latin America (shares of global FDI stock in 1987 and 1997, in percent)

SOUTH-EAST ASIA (A)	1987	1997	LATIN AMERICA (B)	1986	1992
To other developing countries	79.0	91.0	To other developing countries	31.9	49.7
o/w intra-regional	77.1	88.9	*o/w intra-regional*	30.3	48.8
o/w extra-regional	1.9	2.1	*o/w extra-regional*	1.6	0.9
To developed countries	21.0	9.0	To developed countries	68.1	50.3
Total	100	100	Total	100	100

Notes: (a) Includes: China, Hong Kong, (China), India, Malaysia, Pakistan, Philippines, Republic of Korea, Singapore, Taiwan Province of China and Thailand. (b) Includes: Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.
Based on UNCTAD 1999 (p. 24-26).

For both South East Asia and Latin America the largest share of outward FDI stock is to other developing countries. A large, and rapidly increasing, share of this 'South-South FDI' is intra-regional aimed at neighboring developing countries. Outward FDI from the two regions to developed countries substantially declined over the 1987-1997 period. It

became even more marginal for South East Asian countries while the outward FDI stock in developed countries for Latin American firms represents around 50 % of total outward FDI.
According to UNCTAD (1997), FDI among developing countries is growing faster than either between developed countries or among developed and developing countries. A major factor is the large growth in MNE activity between Mainland China, Taiwan, Singapore and Hong Kong. The share of inbound FDI stock of South East Asia originating in that same region rose from 25 percent of total inward FDI stock in 1980, to nearly 40 percent in 1995 (UNCTAD, 1997: 82).
The increased share of developing outward stock illustrates that many emerging markets (in especially South East Asia) have started to progress *from (only) host to (also) home countries of FDI* and MNEs. Similarly, an increasing number of Latin American MNEs have been responsible for large outflows of FDI (Chudnovsky & López, 2000). While FDI from developing countries as such is by no means a new phenomenon (Wells, 1983; Lall, 1983; Yeung, 2000), it is the increased presence of latecomer and newcomer MNEs from emerging markets in developed markets over the 1990s, which has called the attention of international business scholars (Mathews, 2002).

3.2.4 Regionalism and the fifth wave of internationalization

The previous sections show that the prevalent form of contemporary outward FDI from developed as well as developing economies is largely directed to neighboring regional markets. The fifth wave of internationalization is therefore closely intertwined with the rise of 'regionalism'. Although, firm strategies are triggered and shape this process, they also strongly influence regionalism by lobbying and restructuring strategies (cf. Ruigrok & Van Tulder, 1995). Following its decline in theory and practice in the 1970s, regionalism revived and changed substantially over the 1980s and gained considerable strength over the 1990s. Mittelman (2000) argued that regionalism can a potent force of globalization processes. Current regionalism differs significantly from what it was in the 1930s, when it was considered a movement towards territorially based autarchies, qualified as "auto centric regionalism", with declining trade flows and protectionist policies. Over the 1990s regionalism became more and more associated with enhancing the competitiveness of leading firms in open economies, countries and regions, by facilitating the mobility of labor and capital, while increasing labor market flexibility. Whether regionalism hinders or facilitates globalization and multilateralism, however, is still open for debate (Mittelman, 2000: 231).
The "second wave of regionalism" (Dent, 1996) in the 1990s, represents "a concentration of political and economic power competing in the global economy, with multiple interregional and intra regional flows" (Mittelman, 2000: 112). Dent (1996) defined regionalism as a strategy at the policy level, referring to the growing number of integrational links of varying intensity between individual nation-states, while (Ethier, 1998) refers more strictly to the proliferation of macro Regional Integration Agreements (RIAs). In terms of the latter the "second wave of regionalism" is evidenced by the emergence of these macro RIAs. Increasingly RIAs in the 1990s joined countries with diverging levels of development. Examples are the more prominent forms of RIAs such as the European Union and NAFTA (North American Free Trade Area), but also Mercosur

(Mercado Común del Sur) in Latin America or ASEAN (Association of Southeast Asian Nations) in South-East Asia.

The EU is one of the clearest manifestations of a politically driven RIA aimed not only at increasing inward FDI and trade stocks, but also at enhancing the competitiveness of the region as a whole through the creation of a favorable business climate. The formal completion of the Single European Market (SEM) in 1992 initiated a boom in FDI inflows, a peak of 50 percent share in world FDI inflows (UNCTAD, 1993; Dunning, 1997; Clegg & Greene, 1998). Since 1995, the share of intra-EU flows in total EU inflows has risen sharply (UNCTAD, 1999: 40-41). Intra regional FDI in relatively labor intensive and standardized manufacturing appeared to be at least as important as FDI in human capital and technology intensive industries. Surprisingly the share of financial intermediation related intra-regional FDI appeared to be slightly larger than manufacturing intra-regional FDI (UNCTAD, 1999). The prospect of the launching of a single currency in 1999 has had effect in particular on firms that had invested in countries that were not planning to become part of the 'Eurozone'. In particular in the United Kingdom many foreign investors have lobbied for British accession to the EMU. Long-term effects are not yet very clear, as the European Monetary Union (EMU) for the civilians was only implemented in 2002.

Studies of the impact of European economic integration on FDI flows are surprisingly scarce. Franko (1976) focused on the effects on FDI in an early European integration phase (1950s and 1960s) by considering changes in the number of foreign manufacturing subsidiaries of EC firms established in other community countries. They found that European integration coincided with clear shifts in the location of production of EC-based multinationals. Molle and Morsink (1991) considered a later phase of European integration, the 1975-1983 period and come to comparable conclusions. Their study suggests that intra-EC trade and intra-EC investment are complementary to each other, albeit only above a certain level of trade intensity. Morsink (1997) in a later study reaches similar conclusions as Molle and Morsink (1991). Van Tulder, Van Den Berghe and Muller (2001) conclude that the European integration has functioned as a 'spring-board' to invest in the United States for a considerable number of European firms.

Table 3.4 characterizes the main differences between the fourth and fifth wave of internationalization.

Table 3.4: Changes in multinational strategy between the fourth and fifth wave of internationalization

DIMENSIONS	1970S AND 1980S	1990S
Level of FDI	Stable increase	Accelerated growth
Drivers	US and Japanese MNEs and relaively limited European MNEs	Increasingly European FDI(especially transatlantic FDI) and US F98DI: dyadic
Main direction	Classical internationalization: to low-wage countries, downward FDI	Competitive internationalization (intra- and inter-regional: EU and US.
Predominant entry mode	Greenfield investments	Mergers and acquisitions
Result	Intra-regional, and limited inter-regional (some located in developing countries – NICs)	Outward FDI increasingly shows a strong dyadic locational portfolio of FDI; both intra- as well as inter-regional
Location variables	Access to markets combined with low skilled and cheap labor	Complex location strategies. High skilled, well educated and well trained workers.

3.3 COMTEMPORARY MISSING LINKS IN INTERNATIONALIZATION-EMPLOYMENT RESEARCH

Most of the pioneering studies, exploring the employment effects of international production emerged during the third and fourth wave of internationalization (chapter two). The results of these studies therefore had a strong focus and bias towards the initial phases of international strategy of many MNEs. In the 1990s most large firms had made considerable progress in their internationalization strategies – both in terms of experience gained as in countries covered. The next sections discuss the missing links from the existing research, that are partly attributable to research gaps, but particularly due to the changed context of international business in the fifth wave of internationalization: the counterfactual argument needs restatement; the maturing multinational has to be taken into account; the construct of relocation needs conceptualization; regionalism and de-internationalization under a 'new international division of labor' are equally important characteristics to be included in new studies on the relationship between internationalization and employment.

3.3.1 Restating the importance of the counterfactual in research on FDI and employment

In commemorating the work of Raymond Vernon, Rangan (2000) stated that it was Vernon who first stressed, and continued to do so, the importance attached to the challenge of the "counterfactual", which tries to determine the effects of internationalization processes by contrasting these developments with the hypothetical situation of no direct investment abroad. Any analysis on the impact of international production on home or host economies should assess the counterfactual situation. "How would outcomes be different (i.e., what values would the dependent variables have taken) had the (independent) variable under study not entered the picture or taken a value different from the one it actually took?" (Rangan: 330-31). Vernon (1999) argued that empirical research on the overall impact of FDI on economies often approaches data from a "before and after perspective", while it is often the "with and without" approach that is more relevant (Vernon, 1998).

A number of studies, discussed in chapter two, tried to develop a counterfactual approach (section 2.4.1). But Dunning (1993) noted that remarkably few studies have used the counterfactual approach to analyze the employment effects of MNE activity in home and host countries. MNEs have various reasons to go abroad rather than to invest in the domestic market (ibid). Whether the consequences of international production on employment can be considered to gains or losses depends on the interpretation of the motive(s) underlying the foreign investment decision. By revealing the underlying motive(s) and rationale for internationalization of MNEs it should be better possible to assess what would have happened in the absence of international production (Hood & Young, 1979; Chaudhuri, 1983).

But studies dealing with the counterfactual argument remain 'hijacked' by two diametrically counterpoised claims regarding the motive for international production: a 100 percent aggressive assumption (Ruttenberg, 1971; Arthuis, 1993) and a 100 percent defensive assumption (Stobaugh, 1976; Jordan & Vahlne, 1981). While the former assume that any investment could have taken place in the domestic economy, the latter argues that

- in order to remain competitive - firms have to expand (or relocate) abroad. If no foreign expansion had taken place, more jobs would have been lost. Moreover, for many firms there is no alternative. These two claims in practice reflect two political-economic extremes in the relocation debate: a 'labor-interest (or trade-union) perspective' and a 'business-interest perspective'. Their usage depended on the occasion of the studies issued (chapter two). Already in 1972, Hawkins provided a more realistic and balanced assessment of the counterfactual argument. He calculated the employment effects of different scenarios of investment strategies by MNEs (section 2.4.1). But his work has not been replicated and extended over time.

3.3.2 The changed relationship between FDI and intra-firm trade

There are two missing links in studies analyzing the relationship between international production and employment through international intra-firm trade that deserve further attention.

Firstly, most of the "FDI and home country export" studies (section 2.5.1) argued that international production complements domestic exports and hence generated employment through intra-firm trade of intermediate goods and services from the home country to foreign subsidiaries. These studies assume a traditional center-periphery structure of MNEs. Foreign subsidiaries are dependent upon the parent corporation's input of semi-manufactured goods and technological competence. It explains the complementary results of a large share of the domestic export literature. However, MNEs that are in a more advanced stage of internationalization often have multiple bases from which production takes place. Forsgren *et. al*. (1992) referred to this stage of the internationalization trajectory of an MNE as "second degree of internationalization" which for many MNEs is largely concentrated in the fifth wave of internationalization.. Multiple production subsidiaries of the established MNE may be producing the inputs for other subsidiaries of the MNE, triggering intra-firm trade among different constituent parts of the MNE network. Svensson (1996) therefore argued, that the extent to which FDI complements domestic exports of intermediate goods through intra-firm trade and complements domestic employment hinges on the *duration and evolution* of the subsidiary abroad. As the internationalization strategy of a firm 'matures' the nature of the relationship between FDI and intra-firm trade may vary between different geographically located subsidiaries. For instance trough increased exports by the foreign subsidiaries to third markets, domestic exports and employment or exports and employment from other foreign subsidiaries may be substituted. The employment effects of a MNE's production strategy may therefore take place within the whole network of established MNEs instead of between the "center" (home) and "periphery" (foreign) of the MNE.

Secondly, the mode and extent to which international intra-firm trade can take place hinges in particular on the cross-border vertical integration of MNEs and the way MNEs have organized their worldwide production network (see also Andersson & Frederiksson, 1996). Both processes are influenced by the industry in which the MNE operates and the country of origin of the MNE (cf. Bartlett & Ghoshal, 1989). Most of the domestic export-FDI studies (section 2.) implicitly assumed that there is a high degree of cross-border integration of productive activities within MNEs through which intra-firm trade can take place and that, as MNEs mature, this integration has increased over time. The argument

put forward is that employment within MNEs is geographically linked and interdependent, which creates the complementarity effects between FDI and domestic employment. However, the extent to which MNEs have vertically integrated their international production is still debated empirically, while the nature of the trade-FDI linkage is still part of a lively academic debate among economists (cf. Casson, 1985; Graham, 1996; Graham, 1997; Blonigen, 1999; Fontagné, 1999).

It is estimated that between 30 to 60 percent of world trade in the 1990s took place in the form of intra-firm trade (OECD, 1991; UNCTAD, 1993; Markusen & Venables, 1999). But this assessment does not imply that these levels are historically unprecedented nor fixed. Even for large established American manufacturing MNEs, Rangan (2001) found a remarkably stable pattern in intra-firm exports (30 percent of total sales) over the 1966-1997 period, indicating limited evidence of a growing global integrated network of production among MNEs. Markusen (1995) argued that only vertical FDI tends to generate intra-firm trade as opposed to horizontal FDI (see section 3.2.4). International trade and international production financed through FDI cannot be seen as independent from one another. While trade can be a substitute for direct investment and vice versa, the two can also move together. Direct investment can generate additional trade between locations (Cantwell, 1994). The causation may run from investment to trade, when a foreign project gives rise to new exports from the home economy, or from trade to investment, when exports require the establishment of related facilities abroad. The sign of the trade-investment relationship thus varies with the objective motivating the investment. Similarly, Enderwick (1994) argued that the intermediary between FDI and intra-firm trade is the multinational enterprise and the link between FDI and export sales is complex and relates to the motives for FDI (ibid: 6). It is therefore very questionable whether this link can be adequately analyzed using only macro-level data and trade-investment models that depart from a world consisting of two countries, two factors and two products (OECD, 2002). The link between FDI and intra-firm trade, and consequently employment can only be adequately analyzed at a firm level and with due reference to the motivation behind internationalization (Fontagné, 1999; Goedegebuure, 2000: OECD, 2002). The organization of a worldwide network of affiliates and the degree of vertical cross-border integration deserves more attention in research on international production-employment linkages.

3.3.3 Grasping the contemporary dynamics of international relocation

> *"Although crucial for the analysis of the relationship between international production and employment, to date, a proper definition of relocation is missing" (OECD working party of statistics meeting, Paris, March 6, 2001).*

The concept of relocation has been used in a variety of ways and in a number of contexts (section 2.4.4). It has had a large number of meanings, some broader than others and often related to political occasions. As a result, discussions have been clouded by ideological biases and hampered measurements of the phenomenon (Arthuis, 1993; Maduef, 1995). This lack of precision and consensus is complemented by the absence of any full-scale economic analysis of the phenomenon (Maduef, 1995). So, the remarkable situation exists in which specific relocation processes of MNEs – or their announcement - are surrounded

by highly emotional and vigorous debates, but that there is no clear understanding nor consensus of the concept, nor the context in which relocation takes place. In order to analyze the exact magnitude of the employment effects, it is crucial to define and conceptualize relocation correctly and differentiated between international expansion and relocation decisions by MNEs (Pennings & Sleuwaegen, 2000). The leading question hereby is: what to measure?

In the 1970s the concept of relocation was often used to simple describe the foreign expansion of MNEs. These broad descriptions of relocation face the problem of qualifying every foreign expansion of a firm, despite its rationale, as a relocation strategy (Van Liemt, 1992). The concept of relocation became a 'catch-all' category, and international business itself became synonymous with relocation. To empirically assess broad forms of relocation one simple had to document the growth of foreign employment levels within MNEs. Other studies on international relocation have included non-FDI modes of international business as subcontracting and joint ventures (cf. Madeuf, 1995: Horman, 1996; European Commission).

More narrow descriptions of processes of relocation refer to the closing down of a facility at home while at the same time opening one abroad. From an analytical point of view this type of relocation implies that internationalization takes place without firm growth (i.e. a divestment in one location is coupled with an expansion in another). This relocation strategy is often captured by the phrase 'restructuring at home, expansion abroad'; a zero-sum game (section 1.2). Some have focused on even more narrower forms of relocation: when after a strict relocation process the domestic market is served through re-imports from the foreign relocated manufacturing unit of goods previously manufactured in the home country. This is what Madeuf (1995) identifies as "relocation in the strict sense", Mucchielli and Saucier (1997) label as "most extreme cases of relocation" and Fröbel, Heinrichs and Kreye (1980) define as "pure relocation".

Jungnickel (1995) and Ferner (1998) emphasized different directions of relocation. Jungnickel (1995) mentioned a process called "return-relocation" or "return of runaway plants". The "return hypothesis" was based on the assumption that new technologies would bring about large reductions in the direct labor costs and increase productivity in industrialized countries, inducing MNEs to return their labor-intensive activities to the home economy. While a number of such return relocations took place, the return hypothesis is both theoretically inconclusive as well as it is not supported by statistical evidence (Jungnickel, 1995). Additionally, Ferner (1998) provided some recent examples of narrow forms of relocations, stressing the importance of relocations taking place between two foreign host locations of MNEs, instead of between the home country of a MNE and a host country[28]. Examples of these foreign relocations are listed in Table 3.4

[28] Barff (1995: 59) provides some examples of home-host relocations: GM closing its production plant in Michigan with new investments in Mexico. The shifting of production of Levi's Dockers from San Antonio (Texas) to Costa Rica and the mode of Smith Corona Typewriters from New York State to Northern Mexico. Expanding the argument to subcontracting: Nike, which presently subcontracts 100 percent of its production to suppliers in South and East Asia (*ibid.*).

Table 3.5: Foreign relocations of multinational operations in host countries during the 5th wave of internationalization

YEAR	COMPANY	RELOCATION PLAN	MNE'S RATIONALE
1993	**Hoover**	Relocation of production of vacuum cleaners from Dijon to Scotland with 600 job losses in France	Lower labor costs and willingness of Scottish unions to make concessions on pay and working practices
1995	**Sabena**	Proposal to 'delocalise' to 450 Sabena pilots to Luxembourg through a cooperation agreement with Luxair	Employers' social security contributions were 12 per cent of salary in Luxembourg compared with 34 per cent in Belgium
1996	**TNT**	TNT moves its European distribution hub from Cologne to Liège, with 600 job losses in Germany	The campaign of the Social-Democratic–Green coalition government of North Rhine-Westphalia for a night fly ban; & differences in wage costs and social security contributions
1996	**Moulinex**	Plan to relocate production from Normandy plants to Mexico, with the loss of several hundred jobs	Lower wage costs
1996	**Semperit**	Plan by the German-owned company, the biggest tire manufacturer in Austria to relocate half of car-tire production to the Czech Republic, with the loss of 'a considerable proportion of the 2,400 strong workforce'	Loss of export markets to Japan after Austria's accession to the EU, requiring major cost-cutting
1997	**Renault**	Decision to close Vilvoorde plant with the loss of 3000 jobs and relocate work in France and Spain	Excessive levels of non-wage labor costs in Belgium
1997	**ABB**	Five-year plan to shed 20-30,000 jobs in western Europe and to create a similar number of posts in India, China and Eastern Europe	Drive to increase efficiency, reduce labor costs, and get closer to expanding new markets in emerging economies

Source: Ferner (1998)

The examples in Table 3.5 show that relocation is not just a phenomenon taking place between the country of origin of the MNE and a foreign host country in which the MNE plans to open up a subsidiary. Relocation also takes place between two third foreign countries in which a MNE has productive activities. Hence, Ferner (1998) argued that relocation does not only take place between Europe, or broadly developed countries, and developing countries, but also within Europe itself. Most of the examples in Table 3.4 are in fact relocations that have taken place between different EU member states, and are therefore largely intra-regional. Similarly, Madeuf (1995) argued that there is a shift in terms of regions for relocation. As living standards have risen in the South East Asian countries (the "four dragon NICs"), MNEs begin to relocate to neighboring countries. They form the so-called "second generation NICs" and China. A parallel process can be observed with the opening up of Central and Eastern European countries providing "fresh areas for relocation" (*ibid.*; Van Tulder, 1998.

Some researchers have related relocation to a specific motive. Cordella and Grillo (1998a and 1998b) argue that relocation can be driven by 'push factors' as stringent (environmental) regulation ("the industrial flight hypothesis"), while Ferner's (1998) definition of relocation stresses the importance of low-wages in developing countries as a 'pull factor' for relocation to developing countries.

The broader the definition the more of a 'catch-all' category the concept of relocation

becomes, and the more internationalization of firms itself becomes *conflated* with international relocation. Therefore, a narrow conceptualization of relocation is often suggested that relates the expansion in a foreign location with the *termination* of parts of the production process or closing down of a wholly owned subsidiary or affiliate in another location. For established MNEs this implies that relocation can take place within the value chain of MNEs (cf. Porter, 1986) and that there is no predetermined description of which parts of the value chain of the MNE will be relocated nor whether the relocated production unit or process complements existing production in another location. This process can be qualified as "incremental relocation" (Bruinsma *et. al.*, 1998).

The extent to which firms can relocate existing plants and production processes is largely determined by the 'footlooseness' of their operations (Ohmae, 1990; Reich, 1991). In the literature the multinational enterprise and its network of foreign subsidiaries is often portrayed as: 'easy-come easy-go', 'runaway', 'tourists or immigrants', 'stickers or 'snatchers' or 'footloose' (McAleese & Counahan, 1979). In this school of thought the "fly-by-night operations" of MNEs are likely to switch from location to location at the merest whim (Dicken, 1992: 400). The mobility of capital is, however, constrained by high physical sunk costs (Van Liemt, 1992; Held *et. al.*, 1999) as well as through the social embedded ness of MNEs in host economies (Grabher, 1993). Production is seldom footloose and an MNE will have to make a careful analysis before it divests and relocates production – although there are many examples that the decision-making process has been rather intuitive and ad-hoc. Both the sunk costs and local embedded ness counter-claim the 'footloose' view of the MNE. Nevertheless, "the perception of more mobile production may be more important than the actual behavior of business (Held *et. al.*, 1999), especially in bargaining negotiations with (national or local) governments. Sunk costs and footloose capital are often lowest in the case of subcontracting, rather than with wholly owned subsidiaries. This explains why relocation often takes place through subcontracting especially in the textile and clothing industry (cf. Horman, 1998; Held *et. al.*, 1999).

In relation to narrow forms of relocation, Bruinsma, Gorter and Nijkamp (1998) argued that, "the existence and order of magnitude of nomadic behavior cannot properly be identified and investigated by means of macro-economic indicators. One needs to investigate more thoroughly the determinants of firms' relocation behavior from a micro perspective. For meaningful relocation research on nomadic firms both the country of origin of the firm and its country of destination have to be considered" (p. 9). Similarly, Madeuf (1995) notes that it is not possible to infer narrow relocation decisions from the information available on FDI flows and stocks. Narrow forms of relocation are empirically only observable on a case-by-case basis (Pennings & Sleuwaegen, 2000) and/or within the value chain of MNEs. The employment impact of the narrow relocation decision can be determined by the number of employees lost due to the closing down of a plant or the termination of a production process in a location.

The drawback of the narrow definition is that it perceives relocation to an *exceptional* form of international business. The limited evidence found on this 'spectacular' form of relocation indicates that it is less important, as compared to other forms. It is also *incompatible* with many types of production processes, such as those with high sunk costs or those essentially supplying local markets (Van Liemt, 1992:5). Cases of narrow relocation should be treated as *an exception rather than a rule*. Although, often headline news they are the 'tip of the iceberg', and as such reveal only a small part of the internationalization strategies of MNEs.

3.3.4 Beyond parochialism: host employment effects and de-internationalization

In analyzing the perceived impact of 'globalization' on the competitiveness of the US economy, Robert Reich (1990) asked the question *"Who is US?"* Borrowing the title form Reich, the late Susan Strange analyzed the impact of globalization on Europe in an article titled *"Who are EU?"* Answering these questions was much easier thirty years earlier. But in the present international economy in which globalization and regionalism appear at the same time, defining *"US"* or *"EU"* is much more difficult. Both Robert Reich and Susan Strange emphasized that a nation's or region's economy, competitiveness and employment not only depends on domestically owned multinational corporations - as was the case in the 1960s and 1970s - but also, increasingly on the activities of foreign affiliates of non-American (Reich) and non-European (Strange) multinational corporations.

Over the 1950-1970 period many MNEs conducted their initial foreign expansions. The associated employment effects were thus often perceived as related to the home country and the domestic MNE. Consequently research often focused on home country MNEs and outward employment effects (section 2.6). This view preserves according to Campbell (1994) an inherently 'national' focus, which seems very parochial as it explains only part of the picture.

Since the mid-1980s, many MNEs increasingly consist of a network of international operations in a portfolio of locations. Internationalization strategies are increasingly characterized by a dynamic process of expansion in existing plants and subsidiaries, expansion in new or new acquired plants, retreat from foreign markets, (narrow) relocation or production shifts between different affiliates abroad or at home in response to locational opportunities and restructuring (Van Tulder, 1998). Hence the magnitude and impact of relocating and international productive activity is an issue, which not only affects domestic employment, but also the host country employment. The two dimensions are increasingly interrelated in the decision-making process of firm decisions to expand their foreign operations, retreat from foreign locations, divest or relocate their foreign activities.

Countries, not only small and open industrialized, countries, are increasingly both home (source) as host (destination) to FDI by MNEs. The assessment whether - on balance - FDI contributes to a country's aggregate employment level should not only focus on the outward employment effects of MNEs (as exemplified by most prior research), but also take account of the employment effects of inward FDI by host MNEs and their possible exit and divestment strategies.

Divestments constitute an integral part of the strategic repertoire of firms. De-internationalization can therefore also be an incremental part of the internationalization process. Empirical evidence for the importance of this dimension in the fifth wave of internationalization exists.

The growth of FDI over the 1990s coincided with a rise in Foreign Direct Divestments (FDD). The share of FDD in world wide gross FDI (net FDI flows plus divestments) figures for France, the United Kingdom and the United States in 1996 was assessed at 73 percent, 40 percent and 17 percent respectively (UNCTAD, 1998: 143-145).

The magnitude and nature of host employment effects of international production strategies of MNEs are largely determined by the mode through which firms enter foreign markets (Ietto-Gillies, Meschi & Simonetti, 2000). Entry modes of MNEs in foreign markets (organic growth in the form of greenfield investments, external growth in the form of cross-border acquisitions, or through exports, licensing and franchising) also determine

the barriers to exit (Caves & Porter, 1976; Shapiro & Khemani, 1987; Shapiro, 1983; Benito, 1997; Siegfried & Evans, 1994). The prevalence of cross-border M&As in internationalization strategies of MNEs, however, lowered sunk and exit costs from foreign market. Previous studies on cross-border M&As largely explored the impact of M&As on either the competitive structure of the sector in which MNEs operate (UNCTAD 1997) or on the competitiveness and financial performance of firms after the M&A process (Schenk, 1999). But they rarely dealt with the employment impact of cross-border M&As. This can largely be attributed to the fact that the full employment effects of M&As take between three and five years to materialize.

3.3.5 The complexity of location strategies of MNEs under the NIDL thesis

MNEs play a central role in the theoretical explanations of the New International Division of Labor (NIDL, section 2.4.2), but its main authors have paid limited attention to concrete strategies. "The NIDL theories have thrown valuable light on aspects of the internationalization process. But the view of the TNC and its strategies put forward in the NIDL theories is excessively narrow. More generally, the NIDL approach oversimplifies the variety of strategic options available to business organizations in general and to TNCs in particular." (Dicken, 1998: 124-125). The location strategies of MNEs have increasingly become complex over the fifth wave of internationalization, which have increased the problems associated with the arguments put forth by the NIDL thesis.

Firstly, the NIDL approach assigns a major role to the MNE as an 'orchestrator' of the international relocation of production away from core industrial developed market economies to peripheral low-wage countries (Schoenberger, 1988). But FDI from developed countries has been largely intra-regional, with extra-regional FDI largely taking place between the EU and the United States (transatlantic FDI), revealing *a bi/dyadic regional dynamism* (section 3.2.4) In contrast to the claims of the NIDL thesis, 'downward' FDI from developed countries towards developing countries constitutes only a marginal proportion of the global outward stock of most developed countries. The share of outward FDI to developing countries over the 1990s is small and largely directed to emerging markets in South East Asia and Latin America. "The NIDL theorists tend to overstate the extent to which industrial production has been relocated to the global periphery" (Dicken, 1998: 124-125).

Secondly, FDI in low wage countries does not per definition imply that MNEs are motivated by low wages alone. Only in case firms use these countries in their international value chain, i.e. for exports, as is the case in strict forms of relocation, the argument holds. FDI into low wage regions or countries can also be induced by market-seeking motives. In the NIDL thesis it is often stated that low-wages are the single determinant of location choice of MNEs. Shifting production in order to reap the benefits of low wage production has been particular evident in industries like clothing, textiles, footwear and sporting goods, but less so in other industries (Held *et. al.*, 1999). NIDL theories and labor demand studies tend to exclusively focus on labor, hereby overstating the significance of cheap labor in location strategies of MNEs (Dicken, 1999; Mittelman, 2000: 30). Approximately 80 percent of global FDI from developed countries is located in other industrialized countries where labor costs are more or less comparable (cf. Alcacer, 1998) (section 3.2). "Clearly the cost of labor is but one among the factors in the matrix of competitiveness and in the

calculations of global firms that bear directly on job gains and losses" (Mittelman, 2000: 39). In reality firms hardly ever choose the countries with the lowest labor costs. Low labor costs also often imply low productivity and higher coordination costs. Firms rather seek to balance the lowest cost per unit with quality levels needed. This explains why most countries in Africa, where labor cost per hour are the lowest in the world, hardly receive any efficiency-seeking FDI (Alcacer, 1999). The bulk of FDI into Africa relates to resources-seeking motives.

Thirdly, high wage costs can be seen as a trigger to relocation of production or internationalization. Labor costs include not only wages, but also 'employment costs' including employer's social security contributions. Relative labor costs are an important determinant both of the probability of FDI and the amount of FDI. But in their efficiency driven investment decisions it is more plausible that MNEs are guided by a more general profile of the labor market and the state of human capital than the price of labor alone. "Human capital refers not only to skills but also employers' policies and to labor market institutions that promote commitment, flexibility, and cooperation. A more appropriate term would be social capital" (Jacoby, 1995: xi).)[29]. Beside traditional indicators of labor (e.g. labor costs and productivity levels) the whole labor market context is increasingly taken into account in foreign investment decisions. Fourthly, the existing 'site selection literature' has often focused primarily on the location choices of *new* first-time investments by MNEs. They often neglected the role of changing locational condition reflected in sequential investments (cf. Kogut, 1983). As MNEs expand in foreign markets, the initial FDI decisions functions as a platform for within and across country growth options in the form of sequential FDI (Kogut, 1997). For established MNE's initial investments create the opportunity to learn about opportunities. But also about constraints in foreign locations, often referred to as contraction (or divestments – FDD) and adjust their location strategies accordingly. Frost and Zhou (2000) distinguish a third category upon which MNEs make sequential investments – next to expansion and contraction - i.e. the *adaptation* of existing facilities and activities in response to locational changes, in particular in the context of FDI in R&D. "Whereas prior work focused primarily on issues of scale, that is, on the breadth and depth of operations within a host country, we propose that firms may also respond by making adaptive moves independent of scale. That is, firms may learn about new market and technological opportunities in a host country and respond by shifting their focus to these opportunities and away from existing ones. Although the overall level of activity and investment may stay roughly constant, the composition of the activity profile may evolve significantly over time in response to stimuli" (Frost and Zhou, 2000: 17). Instead of treating FDI as a one-time choice about which activities to locate where, established MNEs

[29] The importance of labor and flexibility is emphasized by a number of location experts from leading consultancy firms. "The main criteria remains labor. "But, there are equally important issues regarding flexibility."(Jean Claude Goldenstein director of JCG International); "Although cultural and linguistic factors play a role into where to locate business (and many other factors), business looks at operating costs and at the bottom line" (Dirk Hudig secretary general of UNICE);. This means that business evaluates and balances different factors of operation "You must look beyond the headlines and numerical statistics, and closely examine each specific situation. Generalities about labor availability can be very misleading." (Jan Scheers of Plant Location International – PWC); "While labor definitely is expensive, its productivity is also extremely high and that productivity is a key reason we can operate with just 45 people. While it's true labor would be cheaper in Spain or Portugal, the fact that management can easily work with them, and have a great deal of flexibility in terms of job duration and roles, is much more important. Wages alone are hardly the only important factor "(An operations manager of a subsidiary of a large MNE in Switzerland understates).

often undertake sequential FDI in the form of expansion, contraction and adaptation, revealing changing locational preferences.

Finally, location decision of MNEs are increasingly influenced by two complicating factors: (1) cross-border M&As and, (2) regional integration

(1) As MNEs increasingly expand through cross-border M&As specific locational variables in investment decisions in general decline in importance. In a study on inward FDI in US states, Friedman, Gerlowski and Silberman (1992), demonstrated that locational attractiveness is a key feature for greenfield investments (where a careful analysis of various alternative site locations is central). But they also concluded that location characteristics are less important where cross-border M&As and strategic alliances are concerned. The reason is obvious: M&As depend mainly upon the availability of an existing and suitable partner or takeover target, rather than on the regulatory, fiscal and other location characteristics of the market where the target is located. The acquiree, not the location, is the prime motivating factor in the FDI decision (Young & Hood, 1995). Other things being equal, therefore, one would expect the influence of locational factors for MNEs' investment decisions to diminish as M&As continue to account for a large and even rising share of FDI.

(2)

Additionally, the completion of the EU's Single Market encouraged FDI by widening the choices of locations for MNEs. Policies aimed at boosting regional integration allowed MNEs to locate each activity in the value added chain and most cost-efficient location. They also redefined such determinants as national market size and market growth, because the creation of a vast regional market gave MNEs the opportunity to reap the benefits of economies of scale and scope. The abolishment of internal tariffs and barriers throughout the EU made the exact location decision in terms of serving markets less dependent upon proximity to markets and largely abolished tariff-jumping FDI within the EU. Added to this is the launch of the single currency since January 1, 2000, 'irons out' differences in amongst others, wage and productivity differentials among the different member states, facilitating the quantification of (quantifiable) location differences and hence creating more transparency. So on the one hand the availability of a suitable partner or acquiree largely determines the location decisions of MNEs, while on the other hand the mix of location considerations governing greenfield investment decisions has become more complex, especially within a regional context.

As regionalism has become a powerful force during the fifth wave of internationalization, the spatial organization of production of MNEs cannot be isolated from Regional Integration Agreements (RIAs) (Dunning, 1997b and Dunning, 1997c). Many governments see RIAs as a powerful tool to attract FDI by MNEs and/or as a mechanism to influence the spatial organization of international production by MNEs, especially in developed countries (Young& Hamill, 1992). The 'deepening' of the European integration process, manifested through the Single European Market (SEM) in 1992 and more recently the Monetary Union, and the 'widening' of the EU towards Eastern Europe, is bound to significantly influence the location of international production by MNEs (Yannopoulos, 1992; Hamill, 1992). The abolishment of internal tariffs manifested in the Single European Market Program of 1992 (SEM), was largely aimed at the creation of a bigger market, change the nature of competition and increase the *scale and scope* for firms (Cf. European Commission, 1988, [Cecchini Report]). In practice European integration was also aimed at equalizing traditional location differences and improve transparency among locational

variables as wages, productivity.
As regional integration proceeded over the 1990s, in particular across Europe, it was expected that MNEs would respond. The European Commission (Cf. Cecchini studies and Delor's Whitebook) anticipated that established MNEs would change their spatial organization of production. Research exploring the anticipation of MNE strategies, in terms of their spatial organization of production, towards regional integration (Gestrin & Rugman, 1993; Muller & Van Tulder, 2002) suggests that the strategic response of core firms in Europe did not exactly follow the expectations of the European Commission. But this stream of research is still in a largely explorative stage, let alone that one can infer employment effects of these regional strategies. The impact of regional integration and associated MNE employment strategies remains largely unexplored.

3.4 ADDRESSING THE LEVEL-OF-ANALYSIS PROBLEM

> *"Economists will not have an easy time in mastering the complexities that the multinational enterprise introduces. Perversely, multinational enterprises have incorporated some of the most difficult characteristics that economic analysts can be asked to understand" (Vernon, 1998: 21)*

Many of the missing links in the literature (chapters two and three) hinge on a 'level of analysis problem'. The degree of aggregation (macro, meso, micro) creates a number of barriers for addressing the analytical problem In developing macro theories and explanations, based on micro assumptions it is explicitly or implicitly assumed that there is consistency between macro and micro elements, but the analytical connection between micro and macro economics has always been hampered by level of analysis problems (cf. Ietto-Gillies, 2002: 181). Different conclusions may emerge depending on the level of aggregation. For instance at a *country level* policy studies conclude that relocation need not be a source of concern (Van Liemt, 1992: 6) or that in the long run societies have to adapt to a process of 'Schumpeterian destruction' as part of a dynamic capitalist system (Mucchielli & Saucier, 1997). In contrast the impact of relocation may have adverse effects at a regional European level or at an industry level.
Much of the research that has been conducted on international production and employment takes place at a high (country) level of aggregation, applied macro FDI data and employment data, and adopt a macro focus. The aggregate FDI and employment data are by their very nature wider reaching in scope than firm-level data. Existing research therefore lacks a true firm perspective to the relationship between international production, relocation and employment. Notably, exceptions are by Hamill (1992 & 1993) Campbell (1994) and the dated studies by Stobaugh (1976) and Jordan and Vahlne (1981). Hamill (1992 & 1993), in a conceptual fashion, focuses on the changed internationalization strategies of MNEs over the last twenty years in relation to job displacement and job creation. His analysis goes beyond the formal macro level analyses of previous research. However, in the majority of the studies reviewed all MNEs are treated alike, preserving the anonymity of individual firms and their strategies. Hence the outcome of the FDI-employment linkage (debate i.e. leading to de-industrialization), while revealing important trends in broad economic shifts, typically adopts a macro focus. It is perhaps for this reason that the OECD concluded that: "There is no mandatory theoretical framework for

examining the influence of FDI on employment, which probably explains why the debate is conducted in less precise language than is the case for trade" (OECD, 2001: 13).

Why this lack of attention for the firm? Firstly, because of the limited availability of firm level data on FDI and employment. Annex B lists some of the practical problems in moving from macro-economic data to micro-economic – firm level data. They relate to the particular manner in which statistical bureaus reveal and collect their data, and to lacking international coordination and collaboration on the issue. In particular employment studies that take the MNE into account are still not very sophisticated. Perhaps an even bigger problem is that there is no generally accepted macro economic theory of FDI and the MNE. It makes it difficult for economics scholars to legitimately focus on MNEs. The lack of a theory can largely be explained through the recent importance of foreign direct investment and the perceived role of multinational enterprises in the economy. It can also be explained by the indifference by macro economists to direct investment in general, and the multinational firm in particular.
Krugman and Obstfeld (1994) for instance stated that: "Economists do not have a fully developed theory of multinational enterprise as they do of many other issues in international economics" (Krugman & Obstfeld, 1994: 159).[30] Others argued that economists have remarkably little to say about issues as FDI and MNEs (Gilpin, 2001; Enderwick, 1994). From an International Political Economic (IPE) perspective, Gilpin (2001) asserted that the strong belief of neo-classical economists in the primacy of markets leads them to discount the importance and role of institutions in general. A firm's operations and behavior is explained entirely through market signals. Therefore the nationality or whether the firm is operating internationally, and the strategies it pursues in doing so is of minor importance. The lack of serious attention paid to the MNE can be considered one of the major weakness of mainstream economic theory. This is aggravated when policy decisions are based on economic analysis, which do not integrate the MNE as a strategic actor. As regard the Single European Market in 1992 Panić argued: "the absence of virtually any reference to multinationals, even an implicit recognition of their existence, is a surprising omission from the official reports generated by the Single European Act. The Cecchini Report, for instance, seems to be based almost entirely on the assumption that international specialization and trade are carried out by firms whose production facilities are confined to a single country. The same is also true of a similar, though more detailed and analytical, volume produced by the European Commission" (Emerson *et. al.,* 1988). Similarly, "the view of the TNC and its strategies put forward in the NIDL theories is excessively narrow and one-dimensional. More generally, the NIDL approach *oversimplifies the variety of strategic options available to business organizations* in general and to TNCs in particular. It also tends to underestimate the important roles played by national governments in influencing the internationalization of production" (Dicken, 1992: 125, emphasis added).
For most economists, FDI is simply a macro-economic transfer of capital from one country to another (a factor movement) in which a MNE sets up an affiliate in another country, with the exception that FDI entails a degree of control between the parent and the subsidiary. As far as the multinational enterprise and FDI are integrated in macro

[30] Consequently, they, in their more than 750 pages seminal work, only dedicate five pages to the topic of multinational enterprises and FDI (Krugman & Obstfeld, 1994: 159-164)

economic models it is through the proponents of the 'new' trade theory (cf. Helpman, 1984 and 1985; Krugman, 1991 and 1993; Markusen, 1995). It is thanks to the tremendous effort of John Dunning that FDI and the multinational enterprise have started to appear on the agenda of macro economists. Nevertheless, Dunning's OLI paradigm is only briefly dealt with in courses on industrial organization and remains outside key macro economic courses in most universities. The theory of FDI therefore remains a topic largely only dealt with in business schools.[31] The lack of an accepted theoretical framework of FDI is therefore particularly due because macro economists have neglected to integrate the multinational enterprise in their models. But because the omission creates barriers in the analysis of the relationship between international production, relocation and employment, it cannot be ignored. .

The lack of a firm-level perspective in most studies is remarkable as the complexity of the FDI-employment linkage is largely due to the fact that the relationship between international production and employment hinges in particular on the motives and changing internationalization strategies of MNEs (section 3.2).

Firstly, assessing the counterfactual argument largely rests upon identifying firm level determinants and motives of internationalization. Whether the employment effects due to internationalization within MNEs in home of host economies are considered gains or losses to an economy largely boils down to the counterfactual argument: what would have happened (to employment within firms) in the absence of international production? Dicken (1992) noted: "Ultimately the key lies with the *motivations* which underlie specific investment decisions" (p. 416). This alternative assumption can be approximated by assessing the multiple motives and determinants of corporate internationalization or the single motivations underlying foreign investment decisions.

Secondly, the relationship between FDI, intra-firm trade and employment can be better addressed by analyzing the level of vertical cross-border integration of the production process and/or by focusing on the international organizational structure of the MNE.

Thirdly, it was shown that macro-aggregated data suffer from serious shortcomings and limitations. Macro FDI data primarily correspond to the external growth strategies of MNEs related for instance to their access to new markets rather than to strategies of relocation of existing productive activities. Direct investment statistics give a biased image of relocation to low-income countries. "On the one hand, relocation in the manufacturing sector is often conducted in the form of sub-contracting without any capital input between the principal company and the sub-contractor. Direct investments statistics do not have any trace of these capital links" (Horman, 1996: 47). Hence research on the relationship between international production and employment is at the outset handicapped by the existence of appropriate data that purport to shed light on the foreign involvement of MNEs as well as the limited national and international sources on the geographical spread of the number of direct employees within multinational enterprises. Data that cover the activities of individual MNEs are collected but not revealed by governments (or only in broad categories) in order to preserve the anonymity of individual firms. Broadly clustered macro-data are often sufficient for testing hypotheses about the behavior of a national market, but rarely adequate for testing hypotheses about the behavior of firms (Vernon,

[31] Recently, Dunning (2002) argued that one of his frustrations and disappointments throughout his scholarly journeys was the reluctance of most mainstream international economists to embrace the activities of MNEs within their ambit of interest. Notably exceptions according to John Dunning are: Peter Gray, James Markusen, Teretumo Ozawa, Tony Venables, Robert Lipsey and Paul Krugman.

1994: 88). Already in 1980, in a study on US FDI in the EC, Lunn argued that "FDI is concerned with the decisions made by the managers of multinational firms (MNEs) and the best way to study FDI is to study MNEs" (Lunn, 1980 p. 5, in Collie & Van Den Bussche, 1999). Olle (1985) cites a study of the ILO that defines its purpose as follows: "… it would ideally be necessary to determine how many jobs have been created by MNEs, directly and indirectly, how many persons displaced, or how many workplaces preserved as a results of intra-company trade and increased co-operation with developing countries; and last but not least, how many jobs have been exported through the switching of production facilities to low-wage manufacturing areas." Olle (1985) notes that: "but only enterprise specific data and not the available secondary statistics can provide answers to this" (p. 2). Despite the shortcomings in both aggregate FDI and employment data, many policy-recommendations and models are based on these data and tend to adopt this macro focus. Policy-recommendations thus tend to use higher levels of aggregation to understand overall international economic shifts in MNE activity, without taking the firm level of analysis into account.

3.5 CONCLUSION

This chapter addressed the nature of the fifth wave of internationalization and outlined a research agenda for more contemporary research on the relationship between internationalization and employment. The missing links elaborated in this chapter (sections 3.3-3.4) complement the established and emerging links that were identified in chapter two. Table 3.6 provides an overview.

Table 3.6: Missing links in FDI-employment research

MISSING LINKS	NATURE
Research on the employment effects of the fifth wave of internationalization	Research focused on the fifth wave of internationalization associated with regional integration is only just emerging. Regional division of labor within MNEs; relative dominance of European MNEs
Limited research on the counterfactual argument	Motive and determinants for internationalization at firm level
Export stimulus effects	Intra-firm trade, degree of vertical cross-border organization of the MNE and motive for internationalization
Grasping international relocation	Strict relocation of affiliates or within the value chain (vertical integration) of MNEs: can best be analyzed on a case by case basis at firm level
Host employment effects and determinants of de-internationalization	Motives for de-internationalization and foreign divestments: firm level
Complexity of location decisions and NIDL thesis	Four problems: (1) FDI in developing countries limited, (2) FDI in low-wage countries is not per definition efficiency related, (3) wage costs are only one factor in location decisions (4) location choice in sequential FDI. Location choices influenced by cross-border M&As and RIAs
Employment effects of regionalism	Similarity in location conditions determines nature of effects
FDI and employment data problems	Firm level data on international production and employment within MNEs
Level of analysis	Firm level of analysis

The primary problem in the literature on FDI and employment is that, with only a few conceptual studies, most previous studies have not integrated the multinational enterprise

as a strategic actor. This is remarkable as the determination of the employment effects of international production by MNEs, and the wider relationship between international production, relocation and employment, hinges in particular on the strategic motivations and behavior of managers in these firms, often operating in oligopolistic industries, as regards the nature and the size of the relocation process. But there is no single best method for analyzing this relationship. Adopting a more *firm level of analysis* is bound to further enhance the understanding of the relationship between international production and direct employment, and therefore address many of the missing links specified in chapter two. The more specific – next - challenge of this study should therefore be to integrate the MNE as a strategic actor into the analysis, focus on the dynamic and evolutionary aspects of internationalization and how this affects employment levels within MNEs. Chapter four will take up this challenge.

PART III: A FIRM LEVEL PERSPECTIVE

4. MULTIPLE PERSPECTIVES ON INTERNATIONALIZATION: ADDRESSING THE FIRM

4.1 INTRODUCTION

A contemporary research agenda on the relation between internationalization and employment contains a number of missing links, and one black box: the firm. Research on the nature of the internationalization-employment linkage has a strong macro economic emphasis (section 3.5). Most of the missing links trickle down to a lacking actor perspective in general and an underrepresented firm specific strategic angle on internationalization in particular. Integrating (multinational) firms in the analysis of international production, relocation and employment, however, is not an easy task because of the relative heterogeneous nature of research in the area. Three perspectives and academic disciplines on internationalization processes of large firms (MNEs) are discussed here[32]:

1. International Business (IB) perspective;
2. International (Strategic) Management (IM) perspective.
3. International Political Economy (IPE) perspective;

Contrary to macro economists, business and strategy-oriented researchers have rarely shown a particular interest in the impact of international production by MNEs on their own employment levels – let alone on the impact of these strategies on national aggregate employment levels. Research in the field of *International Business* often focuses on the question why firms become international and why international production takes place. *International Management* research in contrast, largely addresses the issue of how MNEs organize their multinational activities - managerial coordination for instance as part of International Human Resource Management - and relate that to the competitive advantage of multinationality. Both alternate strands on internationalization look at the internationalization of firms primarily in the micro context - IM more than IB - without evaluating the broader (inter)national societal repercussions of internationalization on, for instance, employment. On the other hand *International Political Economists* offer tools to conceptualize the relationship between the multinational enterprise, governments and society, but - similar to macro economists – tend to downplay the role of non-state actors and rarely integrate the specific strategies of MNEs in their (policy) models. In contrast to macro economists their assumptions and theories, however, often lack solid empirical underpinnings. Both macro economists and political economists tend to neglect the role of the firm in internationalization processes. Therefore, independently none of the approaches are sufficient to tackle the internationalization-employment link completely. Taken together the three perspectives on internationalization, however, provide an eclectic view on the determinants and motives of internationalization, the way MNEs organize their

[32] The focus of this chapter is on the internationalization of large firms (often MNEs) and not on theories that address the internationalization of Small and Medium Sized Enterprises (SMEs). Although, this field of research, largely in the field of international marketing provides very useful insights, it is beyond the scope and focus of this study (for an overview of theories see Axinn and Matthyssens, 2001).

multinational activities and the advantages associated with multinationality. This eclectic view is more instrumental in explaining and understanding the trends behind internationalization of MNEs and its associated employment effects in the fifth wave of internationalization. But the boundaries of the three perspectives are not always clear, nor are they exhaustive. Besides, the three perspectives often developed in relative isolation – 'victim of the specialization disease' that has also struck in this relatively new area of scientific interest. So this chapter evaluates approaches and theories developed within these three academic disciplines. The discussion of theories and insights from these three perspectives relates to the wider ambition of this study, which is to understand the broader macro-economic context of the relationship between international production, relocation and employment by taking a micro-level (firm) approach. A firm level of analysis should enable us to *extend and complement* macro-economic reasoning and adequately address the level-of-analysis problem (section 3.4). Chapter three identified a number of missing links in research on internationalization and employment. It stressed two important dimensions: (1) motives and determinants for internationalization; (2) vertical integration and organizational structure of the MNE. In particular various insights on the motivations and determinants for internationalization are bound to give diverging insights on the link with employment both within an MNE and with the national (host/home) economy. This chapter's aim is to come to a list of possible and complementary motivations of internationalization at the firm level of analysis that can be derived from the three approaches.

This chapter proceeds as follows. The first section (4.2) introduces and describes International Business approaches that focus on the determinants and motives for internationalization that are relevant for a study on employment. Section 4.3 discusses International Management approaches on the managerial coordination of MNE activity across borders and claims on the competitive advantage of multinationality. Section 4.4 focuses on International Political Economic approaches on internationalization. Finally, section 4.5, the conclusion of this chapter, categorizes and positions the discussed approaches within an evolutionary, historic and geographic context.

4.2 INTERNATIONAL BUSINESS AND THE DETERMINANTS FOR INTERNATIONAL MNE ACTIVITY

Most International Business (IB) approaches and models grew out of dissatisfaction with the limited explanatory power of neo-classical theories- in particular Ricardo's Heckscher-Ohlin-Samuelson (HOS) theories on international trade - in analyzing and explaining the growth in post-war international production by multinational firms. Although, previous approaches tried to explain the international movement of capital, they did not distinguish between portfolio investments and direct investments. International business theory largely consists of theories that explain international production by MNEs.
Dunning (1993) identifies two extremes within the eclectic IB discipline. At one end of the spectrum are the more political economic oriented researchers who view "the internationalization of firms as an inevitable outcome of the capitalist system, and as a means of increasing the monopoly power of the investing firms " (Dunning, 1993: 67). At the other end are the business analysts and organizational theorists who analyze the foreign

investment decision process (e.g. Aharoni, 1966). In between these two extremes are three classic strands in IB that co-exist and explain the motives for internationalization in particular and the determinants of MNE activity and growth of the MNE in general. Three schools of thought originated in the 1960s at three locations: Harvard University and MIT, Reading University and Uppsala University. They are also referred to as: the *Cambridge Axis, the Reading Terminal* (Kogut, 1989) and the Nordic school of thought. Firstly, the Cambridge axis centered around the work of Raymond Vernon complemented with an industrial organization tradition (Stephen Hymer), and a first generation of students of Raymond Vernon (Charles Knickerbocker, Edward Graham and Edward Flowers), emphasizing strategic dimensions in internationalization processes. Over the 1970s, IB scholars focused their attention to a more economic conception of the MNE, as opposed to the industrial organization perception of the Cambridge axis that was largely addressed by the Reading Terminal. This second school of thought centered on the work of John Dunning and transaction cost economists like Mark Casson, Peter Buckley, Alan Rugman and more recently Jean-Francois Hennart. The Reading terminal can be perceived as the more static approach to International Business (IB) focusing on FDI (Forsgren, 1989). The third IB school consists of the more process-oriented models of internationalization, often qualified as the Nordic or Scandinavian school of thought, emphasizing more dynamic aspects and focusing on the early stages of a firm's internationalization process. This section explores the most relevant findings from each of these traditions on the motivations for internationalization and international production. The section shows that a large number of, often complementary, concepts have been coined to document motives for internationalization.

4.2.1 A behavioral approach to internationalization

Aharoni's (1966) behavioral approach towards internationalization examined the management decision process underlying a firm's international investment process, using a sample of 38 US MNEs. What drove managers and what was their role in the foreign investment decision process? What factors were consistently important in the decision to internationalize or expand existing foreign activities? As Aharoni argued the initial decision for a domestic firm to go abroad is not due to a single reason but the result of a chain of events (Aharoni, 1966). "A foreign investment decision process is a very complicated social process, involving an intricate structure of attitudes and opinions, social relationships both in and outside the firm, and the way such attitudes, opinions and social relations are changing. It contains various elements of individual and organisational behaviour, influenced by the past and the perception of the future as well as by the present." (Aharoni, 1966: 13). Rational economic reasoning is important, but Aharoni also argued that a large share of foreign investment decisions were frequently made out of coincidence, hazard, or chance encounters. Furthermore, Aharoni (*ibid.*) pointed out that each single foreign investment decision created intangible sunk costs in the form of amount of time, resources and effort invested prior to the foreign investment decision. The decision process underlying a subsequent foreign investment by an established MNE is different than the first foreign activities of a uni-national firm and as such should be treated differently (Aharoni, 1966).
Even when MNEs increase their international operations, and FDI becomes increasingly

sequential in nature, each foreign investment of expansion decision is taken very carefully. Taking this into account a MNE will not decide overnight to relocate a production plant and relocate the activities to another country.

4.2.2 Hymer's market power theory

The Canadian born economist Stephen Hymer was the first scholar to investigate, in his doctoral dissertation the nature, characteristics and driving forces of the expansion of US MNEs abroad. To do so he used industrial organization theory. In his dissertation (completed in 1960 but belatedly published in 1976) Hymer challenged neoclassical economic theory (perhaps one of the reasons it was only published in the mi 1970s), in particular the interest differential theory, as it could not explain (1) why national firms have foreign operations at all, (2) why firms invest abroad by borrowing money at higher interest rates, and (3) explain the specific industry distribution among FDI, which is similar in most countries. Before analyzing the determinants of FDI, Hymer (*ibid.*) distinguished portfolio investments from direct investments and argued that the most important shortcoming of the interest differential theory had not been able to explain the *control* dimension inherent in FDI decisions of MNEs. If movements of capital associated with FDI were not a response to higher interest rates in host countries, but were undertaken to finance international operations of national firms, there must be - according to Hymer - another explanation why firms found it profitable to control firms abroad. This control abroad was motivated through (1) the possession of specific firm advantages and (2) the removal of conflict. Hence counter to orthodox economic theory Hymer noted that in contrast to the theory that capital moves in response to interest rates, "large oligopolistic firms invest capital in order to obtain and retain advantages over their competitors" (Cohen, *et. al.,* 1979: 276). In analyzing the determinants of FDI Hymer (*ibid.*) thus associated FDI with *market failure* or *market imperfections*.

In Hymer's "market power theory" or monopolistic competition theory - as it later began to be known - firms act as agents of market power and collusion, leading to increased concentration patterns in markets and competitive advantages among MNEs. "MNEs are believed to invest in foreign operations to reduce competition and increase barriers to entry in their industry" (Cantwell, 1991: 21). In this view market imperfections are *a result* of the growth of the firm abroad[33]. In Hymer's view the MNE is a 'creature' of market imperfections and a "practical institutional device which substitutes for the market" (Hymer, 1976: 25). "The MNE has the ability to use its international operations to separate markets and remove competition, or to exploit an advantage" (Dunning & Rugman, 1985: 229). International production is thus undertaken to increase market power, which, according to Hymer, is the main motive for firms to move abroad. The basic line of argument in Hymers' approach is that due to the large risks involved in finding profitable foreign production, the benefits of international production must be larger than the costs of international production, that are usually higher due to the "liability of foreignness". Costs include transportation and communication, costs of operating in a local market (linked to a different cultural, linguistic, legal, economic and political background of the host country),

[33] Therefore there is no clear reference in this school of thought to the Transaction Cost Economic (TCE) theories of Ronald Coase and Oliver Williamson.

costs due to less favorable treatment given by host countries' governments and costs due to exchange rate risks (Ietto-Gillies, 1992; 86). MNEs must thus possess specific ownership specific assets (i.e. specific product or process developments, technological know how and managerial skills). They must be unique to the firm, can be relatively costless transferred within the firm, but are not easily acquired by outside (local) firms, (a countervailing advantage) because markets do not work properly (imperfect). Often these ownership specific assets at the same time represent barriers to entry for other firms (Caves, 1971) and allow firms not only to exercise monopoly power at home, but also exploit this particular competitive advantage abroad. In Hymer's view, the motivation for FDI is therefore closely associated with "collusion and the general weakening of competition in the expectation that this will lead to larger profits" (Ietto-Gillies, 1992: 88). The control dimension and the imperfect market context of FDI, largely explains the geographical organization and industry patterns of MNE activity.

The importance of Hymer's work lies in the fact that at the time of his writing there was no existing theory of FDI, only a theory of portfolio investments. This made him a pioneer, but also an unwelcome guest among orthodox scholars. In his work Hymer focused the attention from countries to industries in the analysis of financial capital flows between countries, anticipated by higher returns in the form of interests.[34]. With the exception of Charles Kindleberger, few in the United States gave Hymer's work the recognition it undoubtedly deserved (Cohen, 1979). Kindleberger supervised his thesis on the "international operations of national firms" at MIT[35] and later enriched the theory of Hymer by providing a taxonomy of market imperfections giving rise to the countervailing advantages of MNEs.

The major shortcoming of Hymer's theory is that he was primarily concerned with the *initial act* of international operations of national firms, rather than with the *growth* of the MNE (Yamin, 1991). Hymer's theory could not predict the *extent* nor the *form* of international operations of MNEs.

Hymer's views on the international division of labor within MNEs are highlighted in his publications of the late 1970s on the NIDL thesis (see section 2.3.3). In his view on the NIDL Hymer implicitly, assumed a strong vertical integration of MNEs while acknowledging that MNEs face certain challenges in balancing the demand for adaptation to local circumstances in each country of operation through decentralized decision-making and the coordination of their worldwide activities.

4.2.3 Strategic rivalry as a driver behind internationalization processes

Further expansion and refinement of the work of Hymer started in the 1960s with research in IB that, similar to Hymer, argued that in order to understand international business strategies among firm in oligopolistic industries one must look beyond classical economic analysis, and adopt game theoretical models. Similar to Hymer's market power theory,

[34] In his later works Hymer dealt with broader systemic issues and the workings of the world economy in which MNEs operated, rather than with the MNE as an institution. His later work, which was more radical has been picked up by Marxist political economists like Baran and Sweezy (1966) and non-Marxists Cowling and Sugden (1987). For an interesting account of the life and work of Stephen Hymer and how he became a radical economist see Cohen *et. al.* (in particular p. 273-283)

[35] The MIT Economics department refused to sponsor the publication of his doctoral dissertation. Kindleberger arranged a posthumous publication sixteen years after the thesis was completed (Cohen, 1979: 276).

'strategic rivalry theories' are rooted in industrial organization approaches.
Through extensive analyses of firm level data on the internationalization of US MNEs of the Harvard Multinational Enterprise Project (HMEP see annex A) a group of Harvard students of Raymond Vernon, stressed that it was not just locational variables that determined the spatial distribution and organization of economic activity of US MNEs, but also the strategic responses to these variables and to the anticipated behavior of their competitors: "the oligopolistic reaction of MNEs" (Dunning & Rugman, 1985: 231). Authors in this field emphasized the competitive interaction among internationalizing MNEs, explained through "oligopolistic reaction" (Knickerbocker, 1973) and the "exchange of threats" (Graham, 1975 and 1978 and 1990; Flowers, 1976), resulting in "follow the leader" and "bandwagon" patterns in internationalization processes within oligopolistic industries.
Knickerbocker (1973) stated that MNEs, as risk minimizing oligopolists, wish to avoid a situation of competitive destruction and follow each other's internationalization strategies to defend their commercial interests. He supported this hypothesis by an analysis of the timing of FDI of US manufacturing MNEs between World War II and 1971. Knickerbocker (*ibid.*) based his theory on an analysis of twelve US industries. He showed that after the second world war US firms have tended to become more international; that firms in a number of US industries tended to locate their FDI in similar countries; and that US firms involved in international expansion belong to industries characterized by oligopolistic structures.

The theory of Knickerbocker is dynamic as it relates to moves and countermoves. It is concerned with risk avoidance of MNEs through the clustering of FDI in oligopolistic industries. "In an oligopolistic structure the interdependence of firms means that their behavior leads to a pattern of action and reaction, move and countermove, as in a game of chess" (Ietto-Gillies, 1992: 129).[36] Knickerbocker (1973) explicitly distinguished "aggressive investments", as the first time establishment of a subsidiary in a country, from "defensive investments", relating to the establishment of subsequent subsidiaries on completion of the first one. In his early work, Knickerbocker focused primarily on defensive investments, thereby not explaining the first move of international expansion: why choose FDI as an aggressive international expansion tool? Hence, he later explains the first aggressive investments by MNEs through the PLC model and the following "defensive investments" by his oligopolistic reaction theory (Knickerbocker, 1979).
Similar to Knickerbocker, Flowers (1976) found identical results for Canadian and European investments in the US as well as for US investments in Europe, while Graham (1975) demonstrated that European investments in the US were a strategic response to US investments in Europe. An example of the strategic rivalry hypothesis is Royal Dutch Shell's move into the US market in the 1900s as a response to Standard's oil expansion in Sumatra (Indonesia), which Shell previously dominated. Similarly, the entry of British Petroleum, French Campagnie Française de Petroles (currently Total Fina Elf) and Pechiney into the US market in the early 1970s probably also can be looked on in part as a belated countermove to the penetration of US MNEs in Europe (Vernon, 1974). In later studies Graham (1990 and 1998) refined his theory and showed the implications of the 'exchange of threat way of conductive business'. Through a non-cooperative game

[36] In traditional economic theory oligopoly refers to the state of a market

theoretical model, monopolies turn into oligopolistic imperfect markets in which MNEs operate. Operating in non-competitive oligopolistic markets MNEs must take account of the likely reactions of their competitors to these decisions. They must make their decisions *strategically*. "A best response to the new entry into a national market by a firm already established in some other market can indeed be counter-entry into that firm's established market by its rival. ... this counter-action may account for the very marked propensity for large firms from most of the industrialized countries to cross-penetrate each others' home markets" (Graham, 1990: 165). MNEs which find their home territory invaded by a foreign MNE will retaliate by penetrating the invader's home turf (Dunning, 1993).
The internationalization strategies related oligopolistic rivalry across borders within specific industries, bear close resemblance to strategies of dumping in international trade (Vernon, 1974). Kogut (1989) noted that the IB studies centered around the Cambridge axis laid the unacknowledged foundations to "recent theoretical treatments of cross border dumping, strategic trade theory, and foreign investment as signaling commitment" (p. 384). In addition, strategic rivalry theories laid the foundations of strategic management concepts as 'entry barriers', 'competitive signaling' and 'preemptive investments'. It is with this stream of research that strategic (international) management scholars – largely unknowingly - seem to line up.
One of the major questions in the strategic rivalry literature has focused on the *extent* of strategic FDI. Vernon stressed that much of the international spread of US-based MNEs can be accounted for by firms "mimicking the international moves of their domestic rivals" (Graham, 1997: 230). In addition Graham (*ibid.*) argued that the recent international expansion of Japanese firms is conform Knickerbockers' "follow the leader" thesis. Jacquemin (1989) even went so far as to qualify all FDI as strategic and driven by inter-firm rivalry.

4.2.4 Transaction cost theory and internalization

Another stream of research in International Business departs from the Transaction Cost Economics (TCE) approaches of Coase (1937), Alchain and Demsetz (1972) and Williamson (1975 and 1979). They application of transaction cost economics in IB studies lead to *internalization theories* (Rugman, 1980; Buckley and Casson, 1976). In the internalization approach the question "Why firms?" has been replaced by why MNEs? The question why MNEs own and control operations abroad has been addressed by using a TCE approach. Transaction costs determine whether (inter)national production activities are internalized or obtained through the (external) market. The growth of the firm is ascribed to the displacement of imperfect markets. Therefore the answer to the question why there are MNEs is simple answered by: "whenever markets are internalized across borders" (Buckley & Casson, 1976: 45). The core prediction of the internalization theory is that, given a particular international distribution of factor endowments, MNE activity will be positively related to the costs of organizing cross-border markets in intermediate products (Dunning, 1993: 75). Whilst Penrose (1958) tried to explain the growth of domestic national firms, internalization IB scholars apply TCE to the growth of the MNE through international horizontal and vertical integration of value added activities.
Both Hymer's oligopoly theory and the internalization theories depart from the basic premises that the specific control of assets by firms is the basis for explaining *how* firms

expand abroad. They differ however in explaining the reasons *why* (oligopoly or internalization) firms expand abroad. Whereas, in the market power school imperfect markets are a function (or result) of the growth of the firm, in the internalization theory the growth or emergence of the firm is a function of (or caused by) imperfectly operating markets. Both Buckley (1987) and Casson (1987) have emphasized the need to supplement the internalization theory with location specific variables, to produce a holistic theory of MNE activity. This challenge was most successfully taken by Dunning in his Eclectic paradigm.
The internalization literature has so far not addressed internalization from an employment or labor market perspective. To what extent do MNEs for instance internalize employment as opposed to obtaining it on the external labor market. The answer to this question largely relaztes to the institutional framework and specfic national labor markets regulations.

4.2.5 Dunning's OLI paradigm and the traditional motives

The OLI paradigm of international production, developed by John Dunning over the 1980s, integrates the **O**wnership advantage and the **I**nternalization schools of thought, while adding the **L**ocation element (renowned in the international trade literature). Strictly speaking the eclectic OLI paradigm is not a theory of FDI *per sé* but rather a theory of international production, in which FDI serves as a proxy for the latter (Boddewyn, 1983). "The intention was to offer a holistic framework by which it was possible to identify and evaluate the significance of the factors influencing both the initial act of foreign production by enterprises and the growth of such production. The choice of the word 'eclectic' was ambitious yet deliberate. It was meant to convey the idea that a full explanation of the transnational activities of enterprises needs to draw upon several strands of economic theory." (…)"Foreign direct investment is just one of a number of possible channels of international involvement, each of which is determined by a number of common factors." (Dunning, 1988: 1). The OLI framework may be used for explaining both foreign production undertaken by a country's own enterprises and by domestic production undertaken by foreign enterprises in a host economy. In a recent article on the eclectic paradigm - as it became qualified later on - John Dunning (2002) asserts: "The eclectic paradigm is a simple, yet profound, construct. It argues that the extent, geography and industrial composition of foreign production undertaken by MNEs is determined by the interaction of three sets of interdependent variables – which, themselves, comprise the components of three sub-paradigms" (Dunning, 2002: 163). These sub-paradigms operate as conditions that have to be met in order for international production to take place. They can be referred to as the *determinants of MNE activity*[37]:

- *ownership-specific advantages (O):* take the form of the privileged possession of intangible assets and advantages which arise due to the common governance of cross-border value added activities;
- *internalization advantages (I):* arise through the internal hierarchal structure of the firm; they reflect the greater organizational efficiency of hierarchies instead of markets;

[37] For a full elaboration of the three sub-paradigms see Dunning (1981, 1988, 1993 and 2002).

- Location-specific advantages (L): relate to the locational attractiveness of a country in terms of e.g. economic system and culture.

In Dunning's list of ownership-specific advantages he specifically includes those advantages that arise out of geographical diversification or multinationality *per se* (Dunning 1981). Basing his taxonomy of previous analyses by IB scholars (in particular Kogut, 1985 see below), Dunning argued that: "Multinationality enhances operational flexibility by offering wider opportunities for arbitraging, production shifting and global sourcing of inputs. More favored access to and/or better knowledge about international markets (e.g. for information, finance and labor)" (Dunning, 1993: 81; see also Dunning, 1980). Multinationality enhances (1) the ability to take advantage of geographic differences in factor endowments, government intervention, markets and to diversify risks for instance in different currency areas and creation of options and/or political and cultural scenarios. Multinationality also enhances (2) the ability to learn from societal differences in organizational and managerial processes and systems (*ibid.*). The precise configuration of the OLI parameters facing any firm and the response of the firm to that configuration is strongly contextual (Dunning, 2002).
Based on Behrman (1972) Dunning (1993) argued that international production is *motivated* by four reasons, either isolated or in combination[38]:

a. (Natural) resource seeking (supply oriented);
b. Market seeking (import or export substituting);
c. Efficiency seeking (rationalized investment);
d. Strategic asset seeking (supply oriented).

Ad. a **(Natural) resource seeking MNEs** often invest abroad to acquire specific resources at a lower cost than would be obtained in the MNE's home market (if available at all). Resource seeking MNEs are often primary producers who want to secure physical supply sources. Most of FDI during the first wave and second wave of internationalization was motivated by US and European MNEs to secure physical resources of minerals and primary products (chapter one). Up to the second World War three fifths of the accumulated foreign direct capital stake was of this kind, while by the mid 1980 resource-seeking FDI had declined to about one third of worldwide MNE activity (Dunning, 1993).

Ad. b. The bulk of FDI is still **market oriented** to supply goods or services in the investing market or (adjacent) third markets. In most cases these markets were previously served through exports from the domestic market (Dunning, 1993). There are four different reasons for market seeking FDI. Firstly, firms may have to follow main suppliers or customers that have set up businesses overseas. Secondly, MNEs may favor a strategy of "thinking global and acting local", implying that products have to be adapted to local tastes. Thirdly, it may be cheaper to serve a foreign market or adjacent market locally than supplying it form a distance. This reason is especially country and industry specific. Some third markets cannot be served through exports from the domestic market, due to local content requirements, tariff barriers or import-substituting trade regimes. Not investing in the foreign market would harm the competitive position of the firm. The fourth and

[38] The explanation of the four motives of international production draws heavily upon Dunning (1993, p. 56-62).

increasingly important reason for market led FDI is "that an MNE may consider it necessary, as part of its global production and marketing strategy, to have a physical presence in the leading markets served by its competitors" (Dunning, 1993: 58-59). This type of strategic market seeking FDI is largely motivated by a defensive or aggressive strategic rationale (section 4.2.3).

Ad. c. The key motivation of **efficiency seeking** investments is to rationalize the structure of established resource based or market-seeking investments (Dunning, 1993). Efficiency-seeking FDI takes place among MNEs seeking plentiful supplies of cheap and well motivated unskilled or semi-skilled labor (manufacturing and service MNEs from countries with high wage costs). This type of FDI is often located in more advanced industrializing countries, emerging markets, such as Mexico and Taiwan (often in the form of export processing zones – EPZs), but also to a lesser extent in European countries such as Spain and Portugal. More recently, efficiency seeking FDI largely takes place among experienced and large MNEs. In order for efficiency FDI to take place, markets must be well developed and open. This is why efficiency seeking flourishes in regionally integrated markets. There are two kinds of efficiency seeking FDI. The first is designed to take advantage of differences in the availability and cost of traditional factor endowments in different countries and locations, explaining the intra-firm division of labor (see the NIDL thesis, section 2.3.2). The second type of efficiency seeking FDI takes place in countries with similar location conditions and income levels. Traditional factor endowments play a less important role "while 'created' competencies and capabilities, the availability and quality of supporting industries, the characteristics of the local competition, the nature of consumer demand and the macro- and micro- policies of governments play a more important role (Dunning, 1993: 60).

Ad. d. The fourth motive, **asset-seeking FDI**, relates to FDI aimed at acquiring assets of foreign firms to promote their long-term strategic objectives, sustaining and advancing the firms international competitiveness. It is driven by the need of firms to acquire specific technological capabilities, management or marketing expertise. The latest angle in the OLI paradigm for explaining internationalization are linked to the phenomenon of "created assets" (cf. Dunning, 1997; UNCTAD, 1998), which also implies that high-skilled work is a reason for firms to internationalize. This type of strategic asset FDI makes use of local competence levels that are very often *created* by local or national governments. " The motive for strategic asset seeking investment is less to exploit specific cost or marketing advantages over their competitors (although these may sometimes be important) than to add to the acquiring firm's existing portfolio of assets, others which the perceive will either sustain of strengthen their own overall competitive position *or* weaken that of their competitors." (Dunning, 1993: 60)

The four motivations have been the basis for many International Business scholars to explain FDI and are often primarily related to the interaction between the host country environment and the MNE (UNCTAD, 1998). The traditional view in international business approaches is that MNEs are attracted by raw materials and cheap labor in specific countries or regions. "An emerging argument is that country advantages may also be understood as generating trajectories which pull foreign direct investment (FDI)" (Kogut, 1997: 485). In most IB research, characteristics of the host countries provide the most important explanatory variable causing the internationalization process. FDI of all

types has employment consequences in host countries, but some FDI is motivated specifically by considerations directly related to the employment of skilled or unskilled labor. Among these are resource and efficiency seeking investments. Labor costs and a skilled educated workforce play a major role in both forms of FDI. For market-seeking FDI, on the other hand, the availability and cost of labor or skilled human resources is not the main consideration in the choice of location, although it is likely to be one of several secondary factors that determine the investment location decision." (UNCTAD, 1999: 259). Besides, buying power of the population – and thus the size of the market - is often related to the number of people working in relatively high-wage sectors. Location decisions indirectly influence these factors as well (see chapter two, indirect studies).

In the early 1990s many large MNEs pursued pluralistic objectives when conducting international production (Dunning, 1993: 56). It is very difficult to separate the four motives for international production. Especially statistical data on efficiency and strategic asset related FDI are missing (Dunning, 1993). However, it is likely that these forms of FDI account for an increasing share of the international activity of MNEs, particularly within major markets (*ibid*.) and considering the characteristics of the fifth wave of internationalization (chapter three).

Dunning also stresses that the motives for foreign production may change as MNEs become established and experienced foreign investors. “Initially, most enterprises invest outside their home countries to acquire natural resources or gain (or retain) access to markets. As they increase their degree of multinationality, however, they may use their overseas activities as a means by which they can improve their global market position by raising their efficiency or acquiring new sources of competitive advantage” (Dunning, 1993: 57). The location decisions of MNEs have under gone profound changes in the 1990s and 1970s (4th wave of internationalization) and 1990s (5th wave of internationalization) (cf. Dunning, 1998). The location factor for MNEs has changed considerably in the 1990s. The knowledge-based factor of production in the form of skilled labor predominates, whereas low-wage labor as a location factor prevailed in the 1970s. Locational advantages arise out of a highly skilled, educated and well-trained labor force, determining the competitive edge for many industries.

4.2.6 Vernon's PLC model

The international product lifecycle approach developed by Raymond Vernon (1966) was one of the first theories on the dynamic determinants of FDI. It was not only concerned with the process by which firms widened and deepened their foreign market activities, but also how locational needs change as firms move along the product life cycle. Vernon (1966) applied a micro economic concept, the product life cycle hypothesis, to explain a macro economic development the internationalization of US based MNEs after World War II. The PLC model identified several stages in the life cycle of a product, each stage having consequences for the internationalization of the innovative firm and the product. The introductory stage of the product develops purely domestic. In the growth stage, exports and FDI in manufacturing units take place. The maturity stage of the product is characterized by a standardized product and relocation to low-wage countries, while in the declining stage production often leaves the home country in which the product was innovated (Vernon, 1966). "Its main contribution is the developmental view on relocalization of production activities; such change is related to various national characteristics such as technological know-how, demand and labor costs." (Melin, 1992: 103). Vernon's model of internationalization, rather than accentuating why internationalization takes place, focuses on *when* a firm in its product-life-cycle undertakes international production and in what form. It emphasizes the moment in the production process or value chain at which a firm decides to internationalize its production process or part of its production process[39].

In the product cycle model the level of job creation or destruction is detrimental to the product development stage of the MNE. "The implications of that model, applied without any reservations, for labour is that overseas investment is always export substituting and that jobs created overseas are at the direct expense of displaced domestic labour." (Enderwick, 1994: 4). Chaudhuri (1983) and Ietto-Gillies (1992) relate the different stages of the PLC model to employment levels in MNEs. At stage IV of the PLC model firms start to build plants abroad. Local production replaces former exports from the home country of the firm. The controversy about international production and domestic export and employment substitution is often focused on this stage of the PLC model. Labor unions tend to state that this type of export- and employment substitution is unnecessary, while from a firm's point of view the move is necessary in order to be able to produce the declining product at competitive prices. In stage V re-importations may occur and some products will even entirely cease to be produced in the home country. Chaudhuri (1983) distinguished between the employment effects of international production within the PLC model for technical, white-collar and blue-collar employment and argued that the worst effects are felt by blue-collar employment. But this negative effect is moderated by an "export stimulus effect" in which the loss of employment is compensated by increased exports to the subsidiaries abroad (Chaudhuri, 1983: 268).

[39] Vernon (1979) himself in fact criticizes the PLC model for being too rigid.

4.2.7 The Scandinavian School: experiental models of internationalization

Scandinavian scholars developed dynamic process approaches towards internationalization. "Among Nordic scholars the question of *why* FDI is often replaced by the issue of *how* FDI, that is how investments abroad are actually carried out by the firm." (Bjorkman & Forsgren, 1997: 17). Renowned is the Uppsala Internationalization Process model, based on a behavioral theory of the firm (Cyert & March, 1963) by Johanson and Vahlne (1975).[40] It asserts that the internationalization process is characterized by a gradual, sequential development, departing from the initial export decision of a firm to an increased commitment in foreign markets. The 'psychic distance' (language, culture and education) is overcome by learning experiences in foreign markets (Johanson & Vahlne, 1975 & 1977). "The model is based on empirical observations from four studies in international business at the University of Uppsala that show that Swedish firms often develop their international operations in small steps rather than by making large foreign production investments at single points in time. Typically firms start exporting to a country via an agent, later establish a sales subsidiary, and eventually, in some cases begin production in the host country" (Johanson & Vahlne, 1975 and 1977).
The Uppsala model offers considerable explanatory power in the analysis of 'beginners' in the internationalization process, but the model is less applicable to established MNEs (Forsgren, 1989). Conversely, one may argue that, excepting the PLC model of Vernon (section 4.2.6) traditional FDI theories (sections 4.2.1 to 4.2.5) are less appropriate for the analysis of 'beginners' in the internationalization process. Acknowledging this criticism, Johanson and Vahlne (1990) stated that the model predominantly applies to small and medium-sized enterprises (SMEs). "When firms have large resources the consequences of commitments are small. Thus big firms or firms with surplus resources can be expected to make larger internationalization steps" (Johanson & Vahlne, 1990: 12). Moreover, the Uppsala internationalization model has been criticized for being too deterministic (Turnbul, 1987) and based on a limited number of case studies in a specific national context: i.e. the initial research into the international expansion of four Swedish companies (Johanson & Wiedersheim-Paul, 1975).

4.2.8 De-internationalization theories

Most of the IB approaches explaining internationalization, tended to use a push and stages concept, emphasizing that internationalization entails a process of increased foreign involvement in more or less sequential steps of ever increasing internationalization. Mainstream approaches generally excluded "cases where firms actually cut back on their international exposure or follow and oscillatory trajectory of increasing then diminishing international involvement" (Mathews, 2002: 41). When firms retreat from foreign locations, this often leads to negative employments effects in host countries, where the firm previously operated.
Section 3.3 suggested that internationalization in the fifth wave (as in other waves by the way) is not predetermined in its direction nor a uni-linear sequential process.

[40] Similar, process models of internationalization within the Nordic School of thought, departing from identical assumptions, are offered by Welch and Luostarinen (1988) and Johanson and Mattsson (1988).

Internationalization and de-internationalization processes are often two sides of the same coin. Tactical retreat from foreign markets, often for very sound reasons, is far more common than the existing literature suggests (Mathews, 2002: 211). So tactical and strategic entry strategies (section 4.2.3) can be complemented with tactical and strategic retreat. The motives for either strategy resemble each other.

De-internationalization is commonly referred to as reverse FDI or Foreign Direct Divestment (FDD). Benito (1997) referred to foreign divestment as: "the dismantling of an ownership relation across national borders". Benito (*ibid.*) distinguished between *forced* and *deliberate* divestments. A forced divestment is related to the "seizure of foreign-owned property, i.e. actions referred to as nationalisation, socialisation, expropriation, and confiscation, in which change of ownership is forced upon the investor" (Benito, 1997). The relatively high number of nationalizations during the 1970s initiated studies on forced investments (cf. Kobrin, 1982). Forced foreign divestments or retreat of MNEs amidst consumer pressures has recently attracted some scholarly attention and relates to social corporate responsible behavior of MNEs (cf. Van Tulder, 1999; Kolk *et. al*., *forthcoming*). Due to tight WTO regulation on expropriation and nationalizations, forced divestments are increasingly becoming an exception rather than a rule. Nevertheless, deliberate corporate foreign divestments occur frequently. A deliberate divestment "is based on strategic considerations leading to the voluntary liquidation or sale of all or a major part of an active operation in another country" (Boddewyn, 1979: 21).

While most of the IB literature largely focuses on the determinants and motives for FDI and its empirical underpinnings, it hardly focuses on the managerial decision process underlying the internationalization strategy of a firm (an exception is Aharoni, 1966). In contrast, literature on foreign divestments tends to focus on the decision making process (cf. Boddewyn, 1983). There are only relatively limited theoretical and empirical studies on the motives of foreign direct divestment (FDD). From a strategy perspective Pauwels and Matthyssens (1999) and Van Everdingen, Matthyssens and Pauwels (1997) have analyzed the export withdrawal of MNEs in foreign markets. Using four case studies, they identified three 'motors' underlying the strategic decisions to remove a product/market combination from a firm's international portfolio: (1) an inhibition motor of escalating market commitment, (2) an acceleration motor of increasing strategic flexibility, and (3) and arbitration motor that leads to the conversion of the first two (Pauwels & Matthyssens, 1999: 30). Few attempts have been made to provide a linkage between existing theories on FDI and "reverse foreign direct investment" (Kim and Lyn, 1987). An exception is Boddewyn (1979) who not only empirically paid attention to foreign divestments, but also addressed FDD using Dunning's OLI paradigm.

Boddewyn (1979) showed that between 1967 and 1975 the 180 largest US MNEs divested 2400 affiliates, while adding some 4700 subsidiaries to their network. More recent studies by Benito (1997) and Barkema, Bell and Pennings (1996) also addressed FDD empirically. Barkema *et. al.* (*ibid.*) showed that of 255 FDIs made by large Dutch MNEs between 1966-1988, only half of them were still in existence in 1988. By taking Dunning's eclectic paradigm as point of departure, Boddewyn (1983 & 1985) attempted to develop a 'theory of foreign divestment'. "However, the qualifications presented in this article make it evident that the development of a theory of foreign direct divestment will require more than a reversal of the conditions posited for investment in Dunning's eclectic theory. Other economic factors have to be considered besides managerial variables not examined here" (Boddewyn, 1983: 351). Boddewyn (1979 & 1985) distinguished four motives for foreign

divestments:

1. ***Low-financial performance*** of the subsidiary. The explanation of poor financial performance of a subsidiary or division seems to be the most important reason to divest. Although strategic dimensions are becoming more important as firms divest subsidiaries which do not "fit". In this case the subsidiary could still be profitable, but future profits are not guaranteed if the firm stays in the same line of business. "Thus other factors and processes were important, too, so that a poor financial situation is only a necessary condition but not a sufficient one to generate divestment" (Boddewyn, 1979: 23)[41].
2. ***Poor pre-investment analysis*** leading to unfortunate investments. In the 1976 Business International Study where Boddewyn (1979) refers to most companies (34 percent) mentioned bad or overoptimistic acquisition as a motive to divest. Divestment was seen as a mode through which they could get rid of their 'misfits' and 'problem children'.
3. ***Adverse environmental conditions.*** Future economic, political, social and cultural developments both at home or abroad could trigger divestments. Boddewyn (1979) mentions growing worker participation in firm decision-making processes as a threatening development in some countries. This can also include cases where firms retreat from foreign locations due to excess trade union influence, as the retreat of Renault from Vilvoorde (Belgium) showed.
4. ***Lack of fit and resources.*** This factor is closely related to the first and second factor and relates to the rationalization and restructuring of big conglomerates triggering selective divestments by firms.

All four factors relate to not achieving certain objectives in the foreign investment project, with performance playing an important role.
Boddewyn (1979) also showed that cross-cultural differences existed in the means and methods through which European an US firms undertook foreign divestments and that foreign divestment decisions, especially during recessions (cf. McAleese & Counahan, 1979), were easier to make than domestic divestments (Boddewym, 1979 and 1983; Shapiro, 1983; Tsetsekos & Gombola, 1992)[42]. More recently Hennart, Roehl and Zeng (2002) have explored whether exits in host markets are driven by a "liability of foreignness" and whether these exits can serve as a proxy for this liability.

[41] Vice versa Gestrin (*forthcoming*) stresses the importance of performance in *FDI decisions* as an important lacuna in the existing FDI literature. He argues that before FDI takes place managers base their FDI decisions on the expected performance of FDI. After the FDI decisions the actual performance information related to the FDI decisions become available, it becomes a determinant itself of subsequent FDI decisions.
Especially, when FDI takes place in the form of cross-border M&As the performance of target firms plays a key role in the decision to invest. Additionally, poor performance often leads to changes in the international spatial configuration of leading MNEs, indicating that performance of FDI strongly influences further internationalization strategies of MNEs.

[42] The 'foreign divestment literature' therefore contains numerous references to MNEs as: 'footloose', 'easy-come easy-go', 'runaway', 'tourists or immigrants', 'stickers or 'snatchers'.

4.3 INTERNATIONAL MANAGEMENT AND THE COORDINATION OF INTERNATIONAL STRATEGIES

The distinction between international business and international (strategic) management is often rather arbitrary. The heritage of international strategic management approaches dates back to the mid 1980s. While the roots of international business theory are in Macroeconomics, International Management has its roots in Strategic Management and General Management - which in its turn based its theories on the administrative and business policy literature. In 1986 Michael Porter argued "we know more about the problems of becoming a multinational than about strategies for managing an established multinational" (Porter, 1986: 17). Rather than focusing on the general determinants of FDI, most of international management studies have focused on (1) the managerial coordination of the changing organizational structure of the internationalizing enterprise, and (2) how best to exploit the competitive advantage of multinationality and develop global strategies. A large share of the modern strategic management literature has focused on how vertical integration can be used as "a competitive weapon against nonintegrated firms" (Dunning & Rugman, 1985: 230).

The appeal of IM has always been organizational theory, business history and research in economics. Contrary to the more empirical theories of traditional FDI theories are the more strategy and behavioral related theories of strategic management, characterized with an emphasis on case-studies of managerial practice, originating in the mid to late 1980s, which Kogut (1997) labels the *Atlantic Alliance.* It consists of two interrelated streams. On the one hand are the researchers analyzing how MNEs coordinate the country-by-country organization of their business. On the other hand studies focus on how MNEs tailor their strategies to particular national or regional markets. The *Alliance* includes the work of scholars like Yves Doz, C.K. Prahalad, Chris Bartlett, Sumantra Ghoshal and Gary Hamel on "global integration" and "national adaptation" or "localization" and 'local responsiveness'. These concepts became the dominant frameworks for analyzing global strategies over the 1990s. This 'Transatlantic' group represents the organizational side of the field. It has recently been enlarged by scholars like Wiliam Egelhoff, Gunar Hedlund and Eleanor Westney, while at the same time recent statistical work tried to validate some of the claims of this school of thought. The work of Michael Porter can be seen as bridging this school of through with the industrial organization tradition of the Cambridge Axis in international business (Kogut, 1997).

In search for more rigorous and robust theory, IM, in contrast to international business, has become narrower and more statistical in its approach. It therefore risks loosing some of its richness that it once had (Bartlett & Ghoshal, 1991). A large share of the IM literature in the 1980 and early 1990s has focused on the concept of global strategy and "has been linked almost exclusively with how the firm structures the flow of tasks within its world-wide value-adding system" (Ghoshal, 1987: 426). How to manage and structure the global firm has therefore become an important area of research of the global strategy literature, which largely centers around two questions:

(1) How can MNEs strategically disperse their value chain geographically with a country-to-country focus in both marketing and production?
(2) How can MNEs coordinate their entire international value chain as an overall economic system?

The balance between these two diametrically opposed strategies – *configuration and coordination* -, and the way the MNE manages to adapt this configuration en response to sub-national, national or regional locational stimuli determines the competitive position of MNEs. The organizational structure of the MNE for a large extent determines the vertical international integration of the MNE across borders, and hence determines the intra-firm division of labor and the links between various parts of the MNE.

4.3.1 Managerial coordination of the multinational enterprise

Following landmark studies of Chandler (1962), in which he emphasized that *structure follows strategy*, Perlmutter (1969), Fayerweather (1969) and Stopford and Wells (1972), many organizational typologies of MNE strategies have been identified. Until the mid 1980s the most widely recognized study on the organizational structure of MNEs was the "stages model" of international organization by Stopford and Wells (1972). More recent organizational studies like Porter's (1986) "configuration-coordination matrix", Prahalad and Doz' (1987) "global integration and local responsiveness matrix/grid" (tailoring strategy) and, the "transnational solution" (organizational strategy) or Bartlett and Ghoshal (1989) are largely based on these studies (for an overview of other studies see Harzing, 2000).

Michael Porter is perhaps best known for his five competitive forces model affecting firms in global industries (cf. Porter, 1985). He later expanded this model to a higher level of aggregation from an industry to a national level – his famous Diamond Model (Porter, 1990)[43]. Porter's work in the 1980s addressed the organization of global strategy of industries (cf. Porter, 1980 and 1986). According to Hout *et. al.* (1982) a global strategy is appropriate for global industries which are defined as industries in which a firm's competitive position depends and is significantly affected by its competitive position in other national markets. This interdependence of competitive advantage typically demands a global strategy.

In direct interaction with the PhD work of his contemporary colleagues at Harvard Business School in the late 1970s (Christopher Bartlett, Sumantra Ghoshal and C.K. Prahalad), Porter (1986) developed a conceptual framework on global strategies by taking the value chain of the firm as a point of departure. The main tenets of the framework are that international strategy consists of two dimensions: *configuration and coordination.* The first dimension relates to the location in the world where each activity in the value chain (consisting of both downstream and upstream activities) of the MNE is performed, the worldwide *configuration* of a firm's activities. The second dimension refers to how linked activities, performed in different countries and locations, are coordinated (Porter, 1986: 24-25). Every firm faces an array of options in both configuration and coordination for each activity in the value chain.

[43] The competitive five forces model is a systematic framework for understanding the structure of industries and how they change and consists of the following five factors (Porter, 1985: 35): (1) rivalry among existing competitors with the industry, (2) the bargaining power of suppliers, (3) the bargaining power of buyers, (4) the threat of substitute products or services, and (5) the threat of new entrants. The strength of the five forces model varies form industry to industry and determines the profitability of each industry. The Diamond model distinguished four factors that determine the conditions for firms to compete, based on the national environment, that determines the *competitive advantage of nations* they are: (1) factor conditions, (2) demand conditions, (3) related and supporting industries, and (4) firm, strategy, structure and rivalry [with change and governmental action as two additional factors that were however, situated in the periphery of the Diamond – more as intervening variables than as constituting parts of the model.

Configuration options facing MNEs range from concentrated to dispersed (performing each activity in each location). Coordination options range from none to many (with every activity tightly coordinated). The balance between concentrating and dispersing an activity across borders differs for each activity and each industry. The optimal configuration for R&D is different from that of fabrication, assembly or marketing. Similarly, the configuration for the retail industry is different from the pharmaceuticals or car industries. Porter's configuration – coordination options are listed in figure 4.1 which shows that there is no such thing as *one* global strategy.

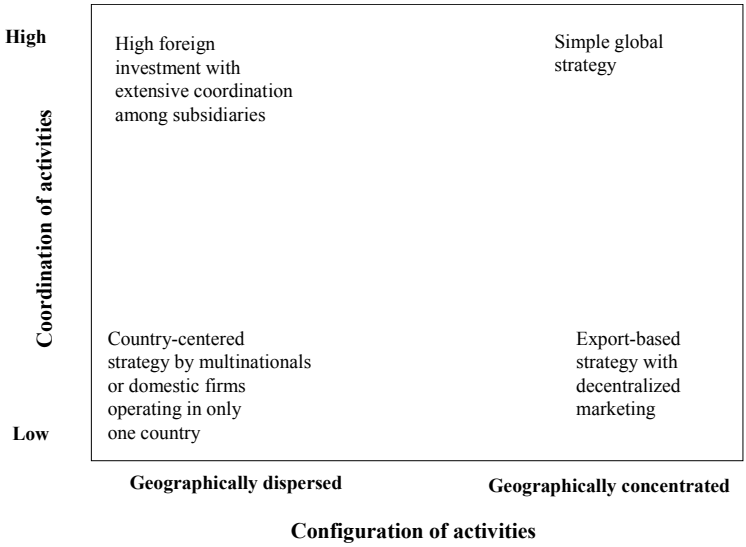


Figure 4.1 A 'Porterian' typology of internationalization strategies
(Source Porter, 1986: 28).

Porter identified two extremes (Figure 4.1): (1) a simple global strategy (upper-right corner), characterized by high foreign investment through geographically concentrated activities; (2) a country-centered strategy (lower left corner) characterized by lower foreign investment, but geographically dispersed activities and autonomously operating foreign subsidiaries. By definition, domestic firms fall in this group as well. The other two strategies fall in between the two extremes.

According to Porter (1986) industries globalize when the benefits of configuring and/or coordinating exceed the costs. "Configuration/coordination determines the ongoing competitive advantages of a global strategy, growing out of firm's overall international position. These are additive to competitive advantages a firm derives/possesses from its domestic market positions. An initial transfer of knowledge from the home base to subsidiaries, is thus one, but by no means the most important, advantage of a global competitor" (Porter, 1986: 33). Porter in addition argued that there are great organization challenges involved in achieving cooperation among subsidiaries, and aligning different interest among their managers. Country subsidiaries often view each other more as company

internal competitors than as collaborators - a process deliberately nurtured and sustained by headquarters in an effort to increase overall performance and productivity.
In the "Multinational Mission" Prahalad and Doz (1987) give an extensive account of what increased multinationality implies for global firms. Prahald and Doz (*ibid.*) approach the topic from the perspective of the marketing of a product or a business rather than the entire organization of the MNE or industry (Ruigrok & Van Tulder, 1995). The "Global integration and local responsiveness matrix/grid", in which there is a wider interdependence (network) among subsidiaries as opposed to the dyadic relationships between headquarters and subsidiaries (Kogut, 1989). The 2x2 matrix has become influential for its simplicity, but also for its relevance. Businesses that are qualified as global are those that have realized worldwide integration and economies of scale. Firms that are local responsive have adapted their business line and products to the local market.
Most renowned has been the organizational typology developed by Bartlett and Ghoshal (1989/1998). Bartlett and Ghoshal (*ibid.*) actually went to look for MNEs, which did not fit the traditional Wells and Stopford organizational structure and model. In the 1970s largely two models were used to characterise MNEs: on the one hand the decentralized or multi-domestic MNE and on the other hand the centralized global strategy to organize the value-adding activities of the MNE. Lateron, this view had to be refined as the MNE grew to be a complex phenomenon, with real life situations clearly being somewhere in between the two extremes. Following Perlmutter's (1969) original concepts of "ethnocentric, polycentric and geocentric", Bartlett and Ghoshal (1989) distinguished three MNE organizational models or TNC structures based on nine case studies: *multinational, international* and *global* Additionally, they explored the organizational attributes of an idealized organization type - "the transnational solution"/ [44] The three organization types are described as follows:

- *The multinational organizational model.* A decentralized federation of activities characterizes this model by foreign subsidiaries, sharing a large degree of autonomy with local orientation. "This decentralization is based on serving different local markets. The company's worldwide operations are organized as a portfolio of national businesses." (Bartlett & Ghoshal, 1989: 49). Expanding European companies often used this model.
- *The international organizational model.* In contrast to the portfolio of quasi-independent subsidiaries of the multinational organizational model, the international organizational model involved far more formal coordination from the parent firm over its foreign subsidiaries. These subsidiaries were more dependent on the center for the transfer of knowledge and information. (Bartlett & Ghoshal, 50-51; Dicken, Forsgren & Malmberg, 1995, 26). Particularly expanding US

[44] Bartlett and Ghoshal stress that the idealized concept of a 'transnational' presented in their work has been highlighted by other authors. Perlmutter's different multinational mentalities or cognitive orientations toward international business and his typology, as valid today as it was when proposed in the late 1960s (Bartlett & Ghoshal, 1998), formed the starting point of the Bartlett and Ghoshal typology. "Ethnocentric" refers to their *global strategy*, "polycentric" refers to the *multinational model*, while the "geocentric" typology refers to companies that "developed a cosmopolitan and integrative style" – an approach that is similar to the *transnational organizational form* (Bartlett and Ghoshal, 1998: 355). Similarly, a 'multinational' strategy model refers to Porter's (1986) definition of a 'multi-domestic' or 'country-centered' industry, while the global strategy/model is Porter's definition of a pure global strategy and the idealized transnational strategy corresponds largely with many of the characteristics Porter classified as a 'complex global strategy' or a 'foreign investment-based global strategy' (Bartlett, 1986: 371).

corporations have used this model.

- *The global organizational model.* "This model is based on a centralization of assets and responsibilities. The role of the local units is to assemble and sell products and to implement plans and policies developed at headquarters. Thus overseas subsidiaries have far less freedom to create new products or strategies or even to modify existing ones. The global organizational model was first applied by Rockefeller and Ford and later in the 1970s and 1980s by internationalizing Japanese firms. (Dicken, 1994: 27 based on Bartlett & Ghoshal, 1989: 51).

The typologies refer to the *real* organizational structure of the MNE as well as to cognitive concepts as mentalities and mindsets of managers towards global integration within the MNE. The non-existent and hypothetical transnational model[45] is characterized "by a dispersed, interdependent and specialized configuration of assets and capabilities in which overseas subsidiaries provide differentiated contributions to the integrated worldwide operations. Knowledge is developed jointly and shared on a worldwide basis" (Bartlett & Ghoshal, 1998: 75). In the transnational firm "headquarters does not a priori play a dominant role. Its value-adding activities are no longer replicated across different locations, but rationalized and consolidated so as to reap efficiency and scale advantages. Subsidiaries can also act as strategic centers for a particular product or process and can have specialized roles" (Harzing, 2000 110).

UNCTAD (1994) - largely based on Whyte and Poynter (1984) and Hamill (1993) - distinguished three international production strategies: a stand-alone strategy, a simple-integration strategy and a complex integration strategy (Figure 4.2). These three strategies largely overlap with the three organizational models distinguished by Bartlett and Ghoshal (*ibid.*)

[45] Confusingly the term "transnational firm" is used by Bartlett and Ghoshal to describe the organizational solution to the complexities faced by many modern MNEs. The United Nations (e.g. UNCTAD) applies the term 'transnational corporations' (TNCs) to describe firms operating across borders (see also Dicken, Forsgren & Malmberg, 1994: 42).

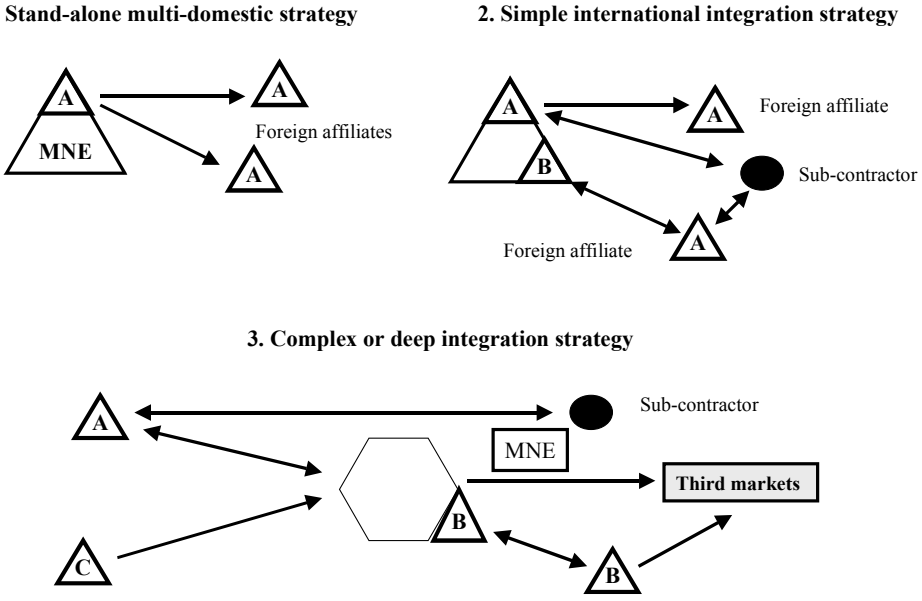


Figure 4.2: Diagram of three organizational MNE strategies (Source: UNCTAD: 1994).

A feature of both a 'stand-alone' and 'simple-integration' strategy is that international production remains fragmented and the internationalization of the value chain limited. Therefore, it can be expected that the majority of subsidiaries of the multi-domestically organized MNE to be relatively independent from both headquarters and other subsidiaries (Harzing, 2000: 109). This is less the case with a 'complex' or 'deep-integration' strategy. "More specifically, as part of complex integration strategies, TNCs are turning their geographically dispersed affiliates and fragmented production systems into regionally or globally integrated production and distribution networks" (UNCTAD, 1994: 138). The international firm is located between the multi-domestic and global firm. Subsequently, MNEs, which have adopted a complex integration strategy, will have vertically integrated parts or the complete production chain across borders.
Dicken, Forsgren and Malmberg (1995) and UNCTAD (1994) suggested an evolutionary perspective of the three strategies. Each of the three strategies developed during a specific historical period. Nevertheles, there is no suggestion that one form is sequentially replaced by another. "Each form has tended to persist, to a greater or lesser extent, producing a diverse population of transnational corporations in the world economy." (Dicken, Forsgren & Malmberg.,1995). Finally, UNCTAD (1994) and Hamill (1993) related the three strategies to specific motives and locational aspects. Table 4.2 summarizes the different aspects and characteristics of the three strategies.

Table 4.2: Evolution and characteristics of organizational strategy of MNEs

PERIOD	ORGANIZATIONAL STRATEGY AND FIRM TYPOLOGY	CHARACTERISTICS	MACRO ECONOMIC CONTEXT	LOCATION AND DOMINANT MOTIVE FOR INTERNATIONALIZATION	DEGREE OF INTEGRATION OF THE VALUE CHAIN AND INTERDPENDENCE WITHIN MNE
(1870-1913) 1950s-1970s	*Stand-alone strategy*	Miniature replica of the parent firm. This strategy entails that the entire value chain of the parent firm is replicated in foreign subsidiaries (with the exception of firms operating in the natural resources industry). Resulting in independent subsidiaries which produce and market all or part of the parent's product line mainly for the local market. Finance and technology are, however, imported from the parent firm.	Miniature replica subsidiaries may be "new" operations established as part of a shift from export to FDI strategies or "mature" subsidiaries associated with multi-domestic strategies.	Since the objective is primarily local market serving, the geographical dispersion of firm activities (and employment) will be within major market areas, and thus more concentrated. A country's trade-tariff policies may be one factor encouraging inward foreign direct investment in place of trade.	Weak
1970s-1980s	*Simple-integration international strategy*	Rationalized producer of one or a few elements in the value chain. Subsidiaries which produce parts or components as part of a vertically integrated global strategy; alternatively the plant may be a final assembly operation. Similar as in the multi-domestic strategy, technology is also obtained from the parent firm, but affiliates supply the parent with a limited number of inputs, which they are able to produce at more competitive prices. In contrast to the multi-domestic strategy there is a more two-way flow of information, technology and inputs.	This strategy was more dominant as technological progress increased and markets were liberated.	Since the objective is primarily resource - or efficiency - (e.g. low-cost labor) seeking, location decision may be more dispersed than with a stand-alone strategy.	Strong at some points of value chain, weak in others
1990s	*Complex or deep integration strategy*	Product or process specialist; functional specialization. Subsidiaries, which develop, manufacture and market a limited product line for global or regional markets; associated with horizontally integrated global strategies.	This strategy is often associated with Regional Integration Agreements (RIAs), the liberalization of economic transactions and the rapid rise of information technology over the 1990s.	The integrated producer may separate more fully the location of production from consumption of the final product. This is not to say that proximity to final markets is no longer an important location criterion, but it does imply that there is no longer any need to perform all value-adding activities close to the final market. Integrated production is more strategic asset-seeking and, given that the quality and cost of human resources are important considerations, it may imply a broader range of location choices than the other two strategies.	Potentially strong throughout value chain

Based on: Harzing, 2000; Dicken, 1998; UNCTAD, 1994; Hamill, 1993; Porter, 1986; Whyte and Poynter, 1984.

The literature on the organizational strategies of MNEs has been criticized for being too prescriptive, too much geared to the US MNE and at the same time assuming that MNEs can move freely - without taking into account its production organization nor its domestic bargaining relations. In addition Porter regarded internationalization primarily in terms of expansion (Ruigrok & Van Tulder, 1995: 178). Although, most of these organizational theories were developed as descriptive models, they were soon applied in a very prescriptive manner. "A substantial portion of the management literature on internationalization strategies has a markedly prescriptive bias, focusing on such issues as the firm's 'strategic fit' or the 'best' organization to compete successfully at a global level" (Ruigrok & Van Tulder, 1995: 175). As a result, in practice the organizational form of the MNE was often reduced to a simplistic choice between centralization and decentralization (Bartlett, 1986).

Over the years the prior work of Bartlett and Ghoshal and Prahalad and Doz has recently been enriched by the explorative work of Julian Birkinshaw and George Yip on subsidiary structures of MNEs. It has also been tested empirically. Kobrin, (1991) analyzed the existence and degree of global integration through intra firm sales as proxy of global integration. Leong and Tan (1993) and Harzing (2000) conducted surveys on executives of international corporations. Leong and Tan (1993) tested (1) the prevalence of the transnational corporation relative to the other three organizational forms and, (2) explored whether the characteristics to differentiate the three organizational forms from the "transnational solution" were also the demarcations employed by executives managing such enterprises. The results of their study only partially supported the typology of Bartlett and Ghoshal. More importantly, however, the transnational form, was found to be the least evident structure. In addition the demarcations between the "multinational" and "global" organized corporation relative to the other forms were more evident than those expected between "international" and "transnational" corporations. Bartlett and Ghoshal, had found that none of the companies they surveyed had (yet) reached the ideal type "transnational solution", but Leong and Tan found that 18% of the respondents qualified their enterprise as "transnational". Similarly, a survey conducted by the United Nations on the world's largest MNEs, suggested that they are increasingly adopting Integrated International Production (IIP) strategies, replacing their horizontal international structures with vertically integrated international production networks - dividing value added activities across various geographic location and creating a world-wide integrated division of labor.

As the preferred option – at least in the perception of managers - in international competition, the 'transnational' structure is likely to be the one most companies are trying to adopt or replicate. But the path towards transnationalism is clearly a difficult one, not in the least because not many have objective criteria for measuring the organization strategy of MNEs.

4.3.2 Operational flexibility, arbitrage and leverage opportunities of MNEs

Bruce Kogut, rather than focusing on the concepts of organizational strategy and structure, addressed the benefits of multinationality as a specific ownership advantage of MNEs. In Kogut's dynamic and evolutionary approach he elaborated how the multinational network could function as a basis of competition. The primary advantage of the MNE is derived from multinationality *perse* and leads to operational flexibility through a globally maximizing network (Kogut, 1983, 1989). "The value of such flexibility rests not only on exploiting differentials in factor, product, and capital markets, but also on the transfer of learning and innovations throughout the firm, as well as the enhanced leverage to respond to competitors' and governments threats" (Kogut, 1989: 384). Kogut focused on operational flexibility which stems from the benefits of coordinating the flows within a multinational network.

Kogut's main argument was that as MNEs invest in foreign countries, this creates two options for the MNE: (1) a "within country" growth option (as discussed extensively in traditional IB theories); (2) an "across country switching option", which creates the possibility to switch production across countries through the network of the MNE. The initial investment in a country creates a large "option value" for the MNE as further expansion in the foreign market is now facilitated. Most IB scholars have traditionally focused on this initial phase of FDI. But, as the firms grows in the foreign market it will increasingly have the option to launch new products or diversify further in that particular market. The MNEs' strategies start to resemble those of pure domestic firms. "The primary advantage of the multinational firm, as differentiated from a national corporation, lies in its flexibility to transfer resources across borders through a globally maximizing network" (Kogut, 1983: 38). Later Kogut noted that: "The advantage of operating across borders relative to a purely domestic firm lies, then, not only in being international, but in the ownership of options to coordinate flexibility multinational activities within a network. The option value of multinationality is different from that of the benefits of geographic diversification" (Kogut & Kulatilaka, 1994: 125).

The principal dilemma for the MNE coming forth out of the opportunities of successful arbitrage processes across countries through *operational flexibility,* is the possibility to coordinate the network (i.e. the foreign operations of its subsidiaries) through *structural configuration.* Flexibility is costly and organizationally very complex and must not be taken for granted. But it is one of the central elements of controlling the MNE. Centralized control entails substantial costs in communication between headquarters and subsidiaries that are associated with controlling the MNE network across cultural and political boundaries (Kogut & Kulatilaka, 1988). The changes in locational conditions, to which the MNE must effectively respond and adapt are mostly posed by the subsidiary itself (Kogut, 1985). This creates a conflict between being centralized or decentralized management tasks. The main challenge for MNEs therefore is to organize and manage "operational flexibility" effectively, from a dyadic relationship between headquarters and subsidiaries to a network structure.

Nevertheless, Kogut noted that: "Despite the wide currency of the idea of the multinational firm as a network, the evidence for its benefits has been rather thin" (Kogut, 1997: 483). "There are formal models of production shifting across borders, but the empirical evidence is lacking" (Kogut, 1997: 486).

FDI related theories have stressed the motivational behavior of MNEs in their initial stages of internationalization out of national factors: imperfect markets, proprietary knowledge and ownership advantages and industrial structure (see section *) "The neglect of the advantages of multinationality obscures, though, an important distinction between the original motivations to establish plants in foreign countries and the subsequent investment decisions" (Kogut, 1983:38). Kogut (*ibid.*) therefore argued that initial investment decisions should be differentiated from *subsequent incremental investment decisions.* Similarly, Forsgren (1989:25) subdivided a firm's investment process in two sub-groups:

- Re-investments
  - Pure replacement investments; and
  - Minor expansion investments.
- New investments
  - New establishment of subsidiaries;
  - Acquisitions.

In an empirical analysis for 25 of Sweden's largest foreign investors over the period 1975 to 1982 he then demonstrated that the bulk of the investments abroad for these MNEs consists of re-investments (Forsgren, 1989). Similarly, most of FDI flows are predominantly incremental investment flows in already established subsidiaries of the MNE (UNCTAD, 2002). The operational flexibility thesis and multinationality as source for competitive advantage of MNEs has increased in importance.

4.4 INTERNATIONAL POLITICAL ECONOMY: ESCAPE INVESTMENTS AND BARGAINING WITH MNEs

Mainstream international business and international management literature often relates causes of internationalization to host country conditions, that (try to) attract MNEs or to the strategies of competitors (sections 4.2 and 4.3). Both therefore focus almost exclusively on "pull factors" of internationalization. The home country of the MNE is primarily addressed as the origin of specific competitive advantages. According to many IB studies, one of the main motives for firms to internationalize is to exploit the latter competitive advantage in a host country or region (Knickerbocker, 1973; Graham, 1974; Hymer, 1976).[46] International political economists often argue that other causes of internationalization can be related to the home country. The home country factor for processes of internationalization is important in terms of the size of the home country market. Small economies trigger internationalization at an early stage of a firm's development process (cf. UNCTAD, 1998). "Push factors" of internationalization play a role when national policies create a stringent business environment. The firm will try to avoid a particular regulatory regime in the home country, leading to "escape investments" (Dunning, 1993: 61). In particular when regulation is strict or uncertain, firms have further incentives to try to "escape' from this particular business environment (cf. Cameron, 1978; Dunning, 1993: 61; Ruigrok & Van Tulder,

[46] Whether the country of origin continues to play a significant role even when MNEs have reached a certain level of internationalization (or is instead only confined to the early stages of a firm's internationalization process) is still an issue of considerable academic debate (cf. Hu, 1992: Ruigrok & Van Tulder, 1995; Doremus, Keller, Pauly & Reich, 1998). Many of these authors argue that the patterns and mode of internationalization continue to be shaped by the specific national context in which MNEs originally operated.

1995).
In addition MNEs, may want to nurture the threat to expand abroad or relocate (part of) production abroad as a way to influence domestic labor market regulation – without even having the real intention to go abroad. This may result in a "bargaining pendulum" in which MNEs and home governments are in a continuous process of political bargaining aimed at improving their competitive position (cf. Ruigrok & van Tulder, 1995; Dicken, 1998). Gomes-Casseres (1990) summarized this difference as the tension between *what the firm 'wants' and what the firm 'can get'*. What the firm can get is largely determined by the bargaining position of the firm and by the framework within which, the MNE negotiates with host and home governments. The threat to relocate may thus function as a political bargaining instrument.
Finally, as already emphasized by Kogut (1989), the nature of the MNE, through its wide network of worldwide operations creates the possibility of "global scanning" (Ietto-Gillies, 1992: 161) for efficient low-cost production sites, creating the opportunity to spread risks connected with the social political and economic environment of countries. In addition, through the global dispersion of international production, as opposed to consolidation of production in a single country within the region, companies can enhance their bargaining power relative to other actors within and beyond the value chain (Ruigrok & Van Tulder, 1995). Hence the spread of a MNE's activities increases its bargaining power vis-à-vis governments and labor in particular. The multinational enterprise is able to diversify its production over an entire network using "co-production arrangements"; making the same product in different plants in different countries simultaneously (Glickman & Woodward, 1989: 165-166). A production disruption, due to a strike in one location, may be avoided by stepping up production in another location. In addition, later exponents of the market power theory (Cowling and Sugden, 1987) asserted that by creating and controlling a network of dependent subcontractors MNEs are able to weaken trade union's bargaining position. (cf. Ruigrok & van Tulder, 1995; Sugden, 1991) a strategy denoted as 'divide and (Sugden in Pitelis & Sugden, 1991: 179; Cowling & Sugden, 1987: 62). The literature on International-Business society Management has further explored this area from the perspective of managers in firms. This has become known as 'international stakeholder management' (Wartick & Wood, 1999). Pressure on firms to adopt codes of conduct and other forms of sustainable management has mounted due to action of stakeholders such as consumer organizations, other single-issue interest groups (NGOs) and trade unions. The issues often relate to the position of the firm in developing countries, the stakeholders generally organize themselves in the homeland of the firm or in any of the other developed countries (cf. Van Tulder & Kolk, 2001).

4.5 CATEGORIZING THE APPROACHES

The motives and determinants of MNE internationalization discussed in the previous sections can be positioned in a historical and geographical context. Approaches to internationalization have largely been developed in the post world war II period between the 1950s and the late 1980s. The thinking on determinants of internationalization as well as the managerial coordination of the MNE coincided with the evolution of internationalization of firms and the rise of the MNE as economic actor. The three analytical angles - International Business (IB), International (Strategic) Management (IM) and International Political Economy (IPE) - described, overlap to a certain extent. They can be categorized in two groups: (1) *organizational theories of the MNE* and, (2) theories addressing the *motives for internationalization*. The latter group can be further split into *internal (intrinsic)* and *external (extrinsic)* motivations. In order to select the most relevant approaches for the present study (as was done in chapter three), it will be asked which seem most appropriate to explain international expansion of firms during the fifth wave of internationalization, and for what specific geographical context are they particularly relevant.

4.5.1 Evolution and categorization of approaches towards internationalization

Most of the approaches, in particular those in the field of FDI, have been developed out of a dissatisfaction with traditional (trade) economics. A 1960 graduate student interested in the existence of MNEs would be directed to macro economic trade textbooks, in which the MNE would be listed as one of the components of a country's balance of payment statistics. This peculiarity largely explains why early IB scholars were largely focused on explaining why MNEs existed - as an extension of the theory of the firm - rather than focused on e.g. their motives for internationalization, organizational structure, or entry modes in foreign markets.
Stephen Hymer brought the focus from countries to industries in his market power theory, while Raymond Vernon related the stages of a firm's internationalization process and its spatial configuration to the product life cycle. During the early 1970s a group of Harvard doctoral students of Raymond Vernon emphasized the strategic rivalry between firms, as a driver behind international expansion of US MNEs. In the mid to late 1970s the focus shifted from the international extension of oligopolistic competition to theories of internalization and the motives for internationalization, combined with more general determinants of MNE activity. By the late 1970s the field, separate from economics, of International Business and International Political Economy had evolved.
Over the mid to late 1980s, a fundamental shift occurred in the theories and models on internationalization. This coincided with the mature international stage of some established MNEs. It resulted in theories on sequential foreign investments and the strategic value of operating in multiple markets. As the multinationality of firms itself increased over the 1980s scholarly attention, heralding the growing attention for International Management, increasingly focused on the competitive advantages of multinationality (as a specific ownership advantage) and the organizational structure and managerial coordination of the value chain of MNEs, global strategy. "The fundamental shift in thinking about global competition in the 1980s has been the shift in interest over the decision to invest overseas

to the strategic value of operating assets in multiple countries" (Kogut, 1989: 385). Kolk and Van Tulder (*forthcoming*) describe this evolution by distinguishing "first generation MNE studies" (1960/1970s) from "second-generation MNE studies" (1980s). "First generation MNE studies prioritized game-theoretical approaches and bargaining in particular in relationship with host governments and studied effects on host economies. Second generation MNE studies adopted a transaction cost approach, focusing on minimizing costs, maximizing efficiency and/or competitiveness, while internalizing markets" (p. 4). Table 4.3 summarizes and categorizes the approaches and views discussed in sections 4.2 to 4.4.

Table 4.3: Different approaches and views on internationalization

THEORY	ACADEMIC DISCIPLINE	AUTHORS	PERIOD & SCHOOL	VIEW ON INTERNATIONALIZATION OR MOTIVES FOR INTERNATIONALIZATION	LEVEL OF ANALYSIS
ORGANIZATIONAL THEORIES OF THE MNE					
Configuration/coordination Managerial coordination	IM	Porter, Bartlett, Ghoshal, Prahald & Doz and Hamel Whyte and Poynter, Hamill, UNCTAD	1980s (Harvard, INSEAD)	Balancing global dispersion with coordination throughout the value chain within global industries (Porter). Organization of the MNE's international operations	Industry/Firm
THEORIES ON MOTIVES FOR INTERNATIONALIZATION					
SUB-CATEGORY: THEORY ON THE FOREIGN INVESTMENT DECISION PROCESS					
Behavioral theory on FDI	IB	Aharoni	1960s (Harvard)	Foreign investment decision process is a chain of events influenced by social relations within the firm and often the result of coincidence, hazard, or chance encounters	Firm
SUB-CATEGORY: TRADITIONAL FDI THEORIES AND THEORIES ON DETERMINANTS OF MNE ACTIVITY					
Oligopolistic behavior	IB (IO)	Hymer, Kindleberger and Caves	1960s (M.I.T.)	MNEs acts as agents of market power and collusion, in order to reduce competition firms internationalize. A necessary precondition for this strategy is that firms have specific ownership advantages	Industry, country
Strategic rivalry	IB (IO)	Graham, Knickerbocker and Flowers	1970s (Harvard)	Internationalization is explained through oligopolistic interaction of MNEs and exchange of threats creating bandwagon (or follow the leader) patterns in internationalization	Industry
Transaction cost theory (TCE) and internalization	IB	Buckley & Casson; Rugman and Hennart	1970s/1980s (Reading)	Due to imperfect markets transaction costs determine whether international production is obtained through the market or internalized	Firm
OLI paradigm	IB	Dunning	1980s (Reading)	Determinants (or pre-conditions) of FDI and international production: ownership, location and internalization).	Country
Traditional four motives	IB	Behrman, Dunning	1970s/1980s (Reading)	Resource, market, efficiency and strategic asset seeking	Firm
FDD theories	IB	Boddewyn, Benito, Pauwels & Matthyssens	1980s/1990 (Various)	Four motives of FDD: low-financial performance, poor pre- investment analysis, adverse environmental conditions and, lack of fit and resources. Strategic considerations of export withdrawal.	Firm
SUB-CATEGORY: PROCESS MODELS OF INTERNATIONALIZATION AND INITIAL STAGES OF INTERNATIONALIZATION					
The PLC model	IB	Vernon	1960-1990s (Harvard)	Internationalization is explained through product evolution	Firm/product
Scandinavian School	IB	Johansson & Vahlne, Welch & Luostarinen	1960 and 1970s (Upssala)	Internationalization is a sequential learning process towards greater commitment in foreign markets: theory is applicable to beginners in the internationalization process	Firm
SUB-CATEGORY: THEORIES ON THE MORE ADVANCED STAGES OF INTERNATIONALIZATION					
Network	IM/IB	Kogut	mid 1980s-1990s (Wharton)	Operational flexibility through multinational network. Emphasizes sequential FDI among established MNEs	Firm
Bargaining	IPE	Baran & Sweezy, Cowling & Sugden, Ruigrok & Van Tulder	1990s (Various)	Stringent regulatory environment at home may lead to "escape investments". Multinationality enhances the bargaining position of MNEs vis-à-vis labor and governments	Country

The approaches can be divided into two groups (Table 4.3): *organizational theories of the MNE* and, theories addressing the *motives for internationalization*. Approaches that largely focus on the managerial organization of the MNE (see chapter three) consider the extent to which employment is interdependent within firms to be dependent upon to the degree of vertical integration of the international production within MNEs. Whether the employment effects of internationalization within MNEs can be considered gains or losses to an economy, however, again boils down to the counterfactual argument: what would have happened (to employment within firms) in the absence of international production? On this counterfactual argument Dicken (1992) noted that: "ultimately the key lies with the *motivations* which underlie specific investment decisions" (p. 416). The approaches that tried to cover motivations underlying foreign investment decisions were largely developed over the late 1960s-late 1970s period. It consists of four sub-categories: (1) Aharoni (1966) unraveled the foreign investment decision process underlying *initial* foreign investments of MNEs and emphasized the sunk costs made in the decision to invest abroad as well as the chance and hazard element in FDI decisions. (2) The next sub-group of studies in particular addresses the motives for internationalization. (3) The third sub-group consists of process models of internationalization of Vernon (1966) and the Scandinavian School, analyzing the sequential stages of a firm's internationalization and location process. (4) The last sub-group consists of the studies that focus on MNEs that are in a more advanced stage of internationalization. These approaches addressed the ownership advantages of multinationality (in the form of operational flexibility) and stressed the importance of sequential foreign investments by established MNEs.

Most of the second group (on motives) can be further categorized on the basis of the 'origin of FDI determinants': (a) motives that are *internal (intrinsic)* to the firm and those that are *external (extrinsic)* to the firm. Other comparable dichotomous qualifications of motives have been between 'aggressive' and 'defensive', and between 'proactive' and 'reactive' (Chaudhuri, 1983; Dicken, 1992). For instance Chaudhuri (1983), similar to Knickerbocker (1973), distinguished between defensive and aggressive motives for international production. Defensive motives include reactions to for instance: anti-import policies of the host country; entry of host country firms in the production of the good previously exported by US firms; foreign subsidiaries set up by MNEs from other home countries in the LDCs to take advantage of lower wage rates (in order to remain competitive). Aggressive investment decisions are based on all other motives., for example US oligopolist investments abroad in order to set up entry barriers and keep out other firms.

Table 4.4. categorizes the various approaches towards motives and determinants of internationalization.

Table 4.4: Clustering of approaches on motives of internationalization

INTERNAL		EXTERNAL	
Approach	**Motive**	**Approach**	**Motive**
Behavioral theory on FDI	Chain of events, hazard and coincidence	*Oligopolistic Behavior*	Market power, reduce competition
TCE and internalization	Imperfect markets, transaction costs	*Strategic rivalry*	Competitor moves
OLI paradigm and four traditional motives	Market, efficiency, resource and strategic asset seeking	*Bargaining*	Enhance bargaining position and escape investments
FDD theories	Performance		
PLC model	Product evolution		
Scandinavian School	Evolutionary process		
Network	Operational flexibility, sequential FDI		

4.5.2 Internationalization approaches in a historical context

Traditional FDI theory starts from the basic premise that firms control specific assets (ownership advantages or firm specific advantages) as the basis for explaining why and how firms expand abroad (cf. Dunning 2000). The possession of specific ownership advantages is a prerequisite (or determinant) for operating abroad and allows MNEs to have a competitive advantage over local firms in host markets (Hymer 1976). "The assumption of a specific advantage is derived from a corresponding assumption concerning a crucial disadvantage in comparison with local companies with regard to knowledge of the specific market in which the intention is to invest" (Forsgren, 1989: 24). In Hymer's (1976) and Knickerbocker's (1973) market power theory the exploitation of this ownership advantage in a host country or region is one of the main motives for firms to internationalize. In Dunning, s OLI paradigm, ownership advantages take a less prominent position in the explanation of FDI (Dunning, 1988). Rather they are seen more as preconditions (or determinants) for MNE activity in general.

Contrary to the market power school of thought, in which imperfect markets are often the *result* of the growth of the firm, internalization theory (Buckley & Casson, 1976; Rugman, 1980) states that the growth or emergence of the firm is *caused* by imperfect operating markets. In both approaches the motives why firms expand abroad (exploit an ownership advantage or internalize markets) as well as the outcomes differ substantially. This has important social-economic implications for the market context in which MNEs operate (Forsgren, 1989). Common in internalization theory, largely due to its foundations in economics and industrial organization, is that firms are seen as substitutes for imperfect markets rather than as organizational models. One of the main questions that has preoccupied many IB scholars over the years, is whether market failure is a sufficient condition for the existence of the MNE?

In Buckley and Casson's (1976) analysis, but also in Dunning's eclectic paradigm, internationalization is simple a by-product of the internalization of markets by firms and the search for locational advantages (Kogut, 1983). "The internalisation theory of the multinational enterprise considers decisions to internationalise as part and parcel of decision to internalise" (Ietto-Gillies, 2002: 133). Graham (1990) argued that much of the internalization literature on MNEs, largely ignores the effects of rivalry on MNE decision

making. Instead they focus on factors "internal to the firm in analyzing why MNEs make decisions they do" (Graham, 1990: 155, see also table 4.2). Nevertheless, Vernon (1974:104) stressed that it would be wrong to assume that the location behavior of the MNE is to be explained entirely in terms of oligopoly theory straightforward classical considerations also play a role.

Many of the theories and models were developed and described in a time when the integration of the world economy and the international expansion of MNEs had less progressed than presently. Classical internationalization theories often focused on the initial internationalization of, in particular US, MNEs (cf. Vernon, 1966; Knickerbocker, 1973; Hymer, 1976) and are therefore less applicable to studying the internationalization process of MNEs that are in a more advanced stage of internationalization. Knickerbocker (1973) for example showed that the first time establishment of a subsidiary in a country (an "aggressive investment") can largely be explained through Vernon's PLC model, while the establishment of subsequent subsidiaries on completion or in addition to the first one ("defensive investments") can be explained through oligopolistic behavior of the firm vis-à-vis its competitors in the same market. "Prevailing knowledge on internationalization as a process focuses on firms in the early phases of internationalization. But most MNCs are internationally very experienced: What characterizes ongoing globalizing processes of mature MNCs?" (Melin, 1992: 113). For instance the market power theory in particular explained the initial outward expansion of many (US) MNEs after the World War II and was largely based on aggregate US FDI data of the 1950s. Similarly, the ownership advantages concept is perhaps relevant in the initial stage of internationalization, but less so for advanced MNEs that have built up a portfolio of locations where they undertake international production. Hence, "how illuminating is it to say that a company that has invested abroad for 20-30 years must have a specific advantage in order to do so yet again? (Forsgren, 1989, p. 24). Additionally, there are renowned cases of firms that invest abroad in order to *acquire* a specific competitive advantage rather than to *exploit* one (Moon & Roehl, 2001; Mathews, 2002).

In their effort to explain the existence of the multinational enterprise and define a research field separate of macro economics, traditional IB theory has focused too much on the structural elements of ownership advantage, plant location and the elimination of transactional costs. "Their primary focus was on the location of investment rather than the operating management of these investments" (Kogut, 1989: 384). Hence many theories have neglected "the value of the operational flexibility and externalities of a multinational system" (Kogut, 1983: 42). For established and advanced MNEs *multinationality* is itself one of the main competitive ownership advantages (Ietto-Gillies, 2002). Rather it is thus more important to depart from the analysis of the current strength of the MNE and its basis in international expansion.

Furthermore, an integral part of the growth of established MNEs is that it not only takes place abroad, but also in existing locations and that they can scan location sites for either expanding production or locate new production facilities in new markets (through takeovers or greenfield investments). Hence the main type of investments made by established MNEs are sequential investments in existing facilities (Kogut, 1997; Dunning, 1993) while, investments in new locations are often in the form of cross-border M&As (Schenk, 1999; see also section 3.2). These sequential foreign investments are often aimed at increasing the efficiency of the MNE, through the integration of assets, production and markets (Dunning 1994; Yannopoulos, 1990). While the first time internationalization of a

firm as well as the internationalization strategy of a firm in particular country is a well-studied phenomenon, the sequential entry is an underrepresented field of research.
Similarly, many MNEs operate in 'global' industries characterized by 'global' competition where rivals within one sector compete against one another on a worldwide basis (Porter, 1986). Most of these international industries "are interlaced through widespread collaborative arrangements between competitors in different overlapping constellations. The internationalization process of MNCs, or rather of strategic business units within MNCs must be understood in a dynamic and global sector perspective, where collaborative forces with 'win-win' relationships and competitive forces of zero-sum character act simultaneously across borders (Melin, 1992: 114). Many large established MNEs therefore operate in oligopolistic industries.
Finally as many established MNEs have the disposition of a large number of foreign production locations, through which they can switch production in response to locational stimuli (Kogut, 1983), increases the bargaining position of MNEs vis-à-vis stakeholders.
The focus of traditional FDI approaches on the initial expansion of MNEs and the explanation of the existence of the MNE, makes some of them less applicable for explaining current internationalization or attributable to the current context in which MNEs internationalize.

4.5.3 Internationalization approaches in a geographical context

In addition to positioning the theories in a historical context, Dunning (2000) and Moon and Roehl (2001) argued that the scope and location of FDI determines the geographical context in which theories and models of international business can be set. The four directions of FDI that were distinguished in section 3.2 (vertical and horizontal FDI) also relate to different motives for internationalization.
Vertical FDI by developed country-firms in developing countries is often motivated by asset exploiting, natural) resource seeking FDI and efficiency seeking FDI (see the theories on relocation discussed in section 3.3.3). A large share of FDI by developed countries is located in other developed countries and often takes place in the form of cross-border M&As (see section 3.2). This implies that MNE from developed markets are likely to encounter each other on their home markets "removal of conflict may become a highly relevant framework of analysis" (Yamin, 1991: 73). This direction is thus largely characterized by strategic motives such as oligopolistic reaction and exchange of threats in order to secure market shares rather than by factors internal to the firm (Table 4.2). The concept of defensive FDI, often in the form of sequential investments, proposed by Knickerbocker (1973) motivated through exchange of threats and rivalry among firms in oligopolistic industries, may form a better explanation of current FDI by established MNEs from developed countries in other developed markets. The literature on the motives for emerging FDI (FDI from developing countries to developed countries) is still limited. But it challenges the explanatory power of conventional FDI theories (Hymer, 1976, Buckley and Casson 1976, Rugman 1980, Dunning 1988) that depart from the assumption that ownership advantages are a prerequisite for international expansion in the emergence of FDI from developing countries to in particular the United States and Europe. Moon and Roehl (2001) therefore qualified FDI of developing countries in developed countries as *unconventional FDI*, thereby emphasizing that a new framework of analyses is needed to

explain this form of internationalization. This direction of FDI is characterized by the search of developing countries' MNEs for complementary assets or technology and management know-how (Moon & Roehl, 2001). This form of FDI is therefore more associated with "strategic or created asset seeking" (e.g. human capital) motives, than with traditional "asset exploiting" (e.g. low-wages) motives.[47] Finally, investments of firms from developing countries in other developing countries is largely in the form of market-seeking investments.

4.5 CONCLUSION

This chapter discussed insights on the determinants of internationalization at the firm level of analysis from three different perspectives: International Business, International Management and International Political Economy. Approaches were clustered in those (1) addressing the managerial organization of the MNE and those (2) addressing the motives of internationalization. While the former are instrumental in analyzing the organizational structure of MNEs and the cross-border vertical integration of production and employment within MNEs, the latter approaches are instrumental in 'proximating' the counterfactual argument and relating the employment effects of internationalization to the motives underlying foreign investment. This reinforces the conclusions of chapter two that related to the national and historical 'embedded ness" of the scientific debate on the issue.
This creates a number of challenges. First the selection of relevant and representative firms, that could facilitate a link between micro-level developments and macro-level outcomes. Apart from collecting the appropriate firm level data over a longer period of time (Vernon, 1994:89), it is equally necessary to better understand the determinants and motives of internationalization at the firm level. In particular covering the strategies of European MNEs that do not originate in smaller countries represents a leading challenge. As chapter three showed, they have shaped a large part of the fifth wave of internationalization.

[47] It is important to note that both Lall (1983) and Mathews (2002), in contrast, point to the specific competencies (ownership advantages) MNEs from developing countries have, increasing their competitiveness vis-à-vis established MNE from developed countries.

5. RESEARCH APPROACH AND OPERATIONALIZATION

5.1 INTRODUCTION

Micro level and organizational theories focusing on the motives and determinants of internationalization (chapter 4) are instrumental in (1) relating the direct employment effects of internationalization to its motives, (2) developing different typologies of the organizational structure of the MNE based on the level of cross-border vertical integration of production and employment within MNEs.
This chapter aims at designing a research approach that sufficiently takes into account the strengths of previous approaches to internationalization motives (chapter 4), but also addresses some of the main weaknesses and missing links in the internationalization-employment debate at the level of individual firms (chapters 2 and 3). This ambition requires empirical specifications of the research questions and a well-chosen firm sample. Before specific research questions and hypotheses can be presented, it is necessary to further conceptualize the construct of corporate multinationality in order to measure its most important dimensions (section 5.2). Section 5.3, then, presents a 3-dimensional model that should enable a more sophisticated coverage of multinationality and the relevant indicators. This model leads to a number of questions and hypotheses on general and specific relationships between international production and employment in section 5.4. The hypotheses try to link various groups of firms that can be considered to share specific motives of internationalization with patterns of multinationality and likely employment effects. Section 5.5, finally, specifies the firm sample and the research period used to assess the various hypotheses.

5.2 MEASURING CORPORATE MULTINATIONALITY[48]

Consider a hypothetical world of one single country/nation state, in which all national barriers and frontiers have disappeared. In this world the theory of International Business and International Management as an academic discipline would be obsolete. Moreover, the whole concept of multinationality as well as its assessment would become obsolete.
In contrast to this hypothetical world, the practice of MNE activity is diverse and the whole concept of corporate multinationality has increasingly become multi-dimensional, triggering much firm-level research in the area of corporate multinationality. Much of academic research on this issue materialized in relative isolation. Research has often resulted in large firm level databanks to explore the foreign involvement of MNEs. In appendix C, leading research projects are described. This section will unravel the multi-dimensional concept of corporate multinationality, discuss its indicators and introduce a three-legged framework for analyzing corporate operational multinationality.

[48] Earlier versions of section 5.2 have been presented at the Academy of Management (AOM) Washington D.C. 2001 conference and at an Academy of Management Review (AMR) writer's theory development workshop at the same conference. In addition the literature review and related discussion has been presented at a workshop on "Indicators on Measuring Internationalization" at the WZB in Berlin (May, 2000). The useful comments of participants in these workshops are gratefully acknowledged.

5.2.1 Definitions of corporate multinationality

The terms 'multinational enterprise', 'transnational', 'global' 'international' or 'supranational corporations' are often used interchangeably. One of the first definitions of a multinational enterprise can be traced back to David Lilienthal (1960), who suggested the term "multinational corporations" (Aharoni, 1971) as "corporations who have their home in one country but operate and live under the laws and customs of other countries" (p. 117). Since Lilienthal (1960) first defined the term 'multinational corporation', many definitions have been used to operationalize it. In describing the concept of multinationalism, Maisonrouge (1974:8) argued that "for a company to be truly multinational, (a) it must operate in many countries at different levels of economic development, (b) its local subsidiaries must be managed by nationals, (c) it must carry out manufacturing and R&D activities in several countries, (d) it must have a multinational central management, and (e) it must have multinational stock ownership". In contrast, Dunning (1981) adopted a narrow definition, ruling out international involvement other than via direct i.e. through non-equity direct investment forms, as strategic alliances (cf. Gomes-Casserres, 1990). Others referred to the MNE as a company that is linked by ties of common ownership, drawing on a pool of common resources, responding to a common strategy (Vernon & Wells, 1991), while Benvignati (1987) referred to the MNE as "networks of affiliates centrally coordinated by a domestic headquarter". The United Nations, applies the term Transnational Corporations (TNCs), adopting International Integrated Production (IIP) strategies (UNCTAD, 1995). Dunning (1971) and Hood and Young (1979) emphasized the control dimension of multinationality and MNEs, similar to that of FDI. Most researchers, however, referred to the operational aspects of a firm when defining and describing the MNE and corporate multinationality (Brook & Remmers, 1970; Dunning, 1971; Miller & Pras, 1980). Box 5.1 provides a chronological overview of leading definitions and empirical specifications of multinationality and MNEs.

Box 5.1: Antecedents of the concept of multinational enterprise and multinationality

Researcher(s)	Definition
Lilienthal, 1960	Corporations that have their home in one country but operate and live under the laws and customs of other countries, as well (p. 117).
Behrman, 1969	An international company is a closely controlled single enterprise, located in markets separated by national boundaries, and operating under several national governments (p.62).
Kindleberger, 1969	The international corporation has no country to which it owes more loyalty than any other, nor any country where it feels completely at home. It equalizes the returns on its invested capital in every country, after adjustment for risk (p. 182).
Perlmutter, 1969	A [multinational] enterprise could be conceptualized in terms of its attitudes or orientations: ethnocentric (or home-country oriented), polycentric (or host-country oriented), or geocentric (world orientation) (p. 11).
Brook & Remmers, 1970	An MNC is any firm that performs its main operations, either manufacture or the provision of service, in at least two countries (p. 5).
Rolfe, 1970	An international company may be defined as a company with a proportion of foreign sales, investment, production, or employment of at least 25 percent (p. 17).
Aharoni, 1971	A multinational corporation is one that controls a group of corporations, each created in the country of operation but all controlled by one headquarters (p. 35) .
Dunning, 1971	A multinational enterprise is one that owns or controls facilities (such as factories, mines, oil refineries, distribution outlets, offices, etc.) in more than one country (p. 16).
Knickerbocker, 1973	"the capital flow resulting from investments by an enterprise in assets outside its home country in order to control, partially or fully, the operation of these assets" (Knickerbocker, 1973: 2).
Maisonrouge, 1974	For a company to be truly multinational, (a) it must operate in many countries at different levels of economic development, (b) its local subsidiaries must be managed by nationals, (c) it must carry out manufacturing and R&D activities in several countries, (d) it must have a multinational central management, and (e) it must have multinational stock ownership (p. 8).
Hood & Young, 1979	A corporation which owns (in whole or in part), controls and manages income-generating assets in more than one country. In so doing it engages in international production, namely production across national boundaries (p. 3).
Miller & Pras, 1980	Multinational diversification describes foreign investment by the firm in two or more countries (p. 794).
Dunning, 1981	Firms that engage in foreign direct investment (p. 3)
Vernon & Wells, 1991	Multinational enterprises are companies that are linked by ties of common ownership, drawing on a common pool of resources, and they respond to some common strategy (p. 4).
Caves, 1982 (and 1996)	An enterprise that controls and manages production establishments – plants – located in at least two countries (p. 1)
Michel & Shaked, 1986	Multinational corporations are those in which (a) foreign sales account for at least 20 percent of revenues, and (b) direct capital investment exists in at least six countries outside the United States (p. 92).
Benvignati, 1987	Multinationality is "ownership and control of income-generating assets" in two or more foreign locations … having a worldwide network of affiliates centrally coordinated by a domestic headquarters and supported by a global communications system (p. 449).
Cantwell & Sanna-Randaccio, 1992	[The degree of] multinationality is the value of international production carried out by affiliates in other countries relative to the value of domestic production of the parent company in its home country (p. 276).
UNCTAD, 1995	Multinational is one that competes in regional and global markets using internationally integrated production methods.

Source: largely based on Annavarjula & Beldona, 2001.

Over the years many studies refer to a variety of dimensions of corporate multinationality. But, the fundamental question seems to boil down to what we mean by corporate

internationalization and what we eventually want to know about its interaction with broader social-economic phenomena. This ambition ultimately determines the choice of measurement tools.

Most of the research on corporate multinationality, although departing from various backgrounds, focuses on the *operational* aspects of the internationalization process of a MNE. Hence some researchers have analyzed the internationalization of research and development (R&D) as a specific operational aspect of the MNE (Cantwell 1998, Cantwell 1999, Kuemmerle 1999). The objective of most research is to link the operational dimension of corporate multinationality to another dimension of corporate multinationality (e.g. performance). Other research emphasized *ownership* aspects of corporate multinationality in relation to its *operational* dimension. Sanders and Carpenter (1998) for example addressed the 'foreigness' of directory boards, while Saudagaran (1988) and Saudaragan and Biddle (1995), on the other hand, dealt with ownership issues through analyzing a company's listing on foreign stock exchanges. Finally, while the previous dimensions of corporate multinationality largely reflect the material character of a firm's internationalization process, Howard Perlmutter and David Heenan (cf. Perlmutter, 1969; Perlmutter and Heenan,1974;Heenan and Perlmutter,1979) were pioneers in exploring the *behavioral* dimensions of corporate multinationality. Perlmutter (1969) referred to the managerial mindset towards internationalization and argued that *objective quantitative measures* which measure the operational dimension are not sufficient to define multinationality. "The more one penetrates in the living reality of an international firm, the more one finds it is necessary to give serious weight to the way executives think about doing business around the world (Perlmutter, 1969, p. 11). Perlmutter and Heenan both emphasized concepts as *attitude* and *orientation* and spoke of the multinationality of MNE as 'a state of mind'. They developed an "EPG profile" to assess the orientation or attitudinal dimension of corporate multinationality: *Ethnocentric* (or home-country-oriented), *Polycentric* (or host-country oriented), or *Geo-centric* (world oriented) (Heenan & Perlmutter 1979). Recently, researchers have linked the mentalities and mindsets of managers and headquarter orientation of the MNE (*orientation*) to the *operational* multinationality of a firm (Harveston, 2000; Kedia & Harveston, 2001; Harzing, 2000; Athanassiou & Nigh, 2002). Interesting are the results by Kobrin (1994) who linked the orientation dimension to the operational *and* performance dimension of corporate multinationality and found a positive association between the three dimensions.

Based on the above areas of research on corporate multinationality and on previous approaches to identify different dimensions on corporate multinationality (Heenan & Perlmutter, 1979; Sullivan, 1994a; Annavarjula & Beldona, 2000) at least four dimensions of corporate multinationality can be distinguished: *ownership, operations, orientation and performance*. Many scholars have attempted to develop sound and objective firm-level measures and indices of corporate internationalization. This resulted in a wide array of indicators and measurement tools. Figure 5.1 schematically categorizes the indicators and indices used to assess the four dimensions of corporate multinationality throughout the literature.[49]

[49] Although, the performance dimension of corporate multinationality is not mentioned separately by Annavarjula and Beldona (2000), this neglects the fact that performance in itself can be internationalized hereby influencing the other dimensions of corporate multinationality. A satisfactory level of performance abroad may on the other hand induce MNEs to remain operating in certain foreign markets, which in turn influences the multinationality of operations.

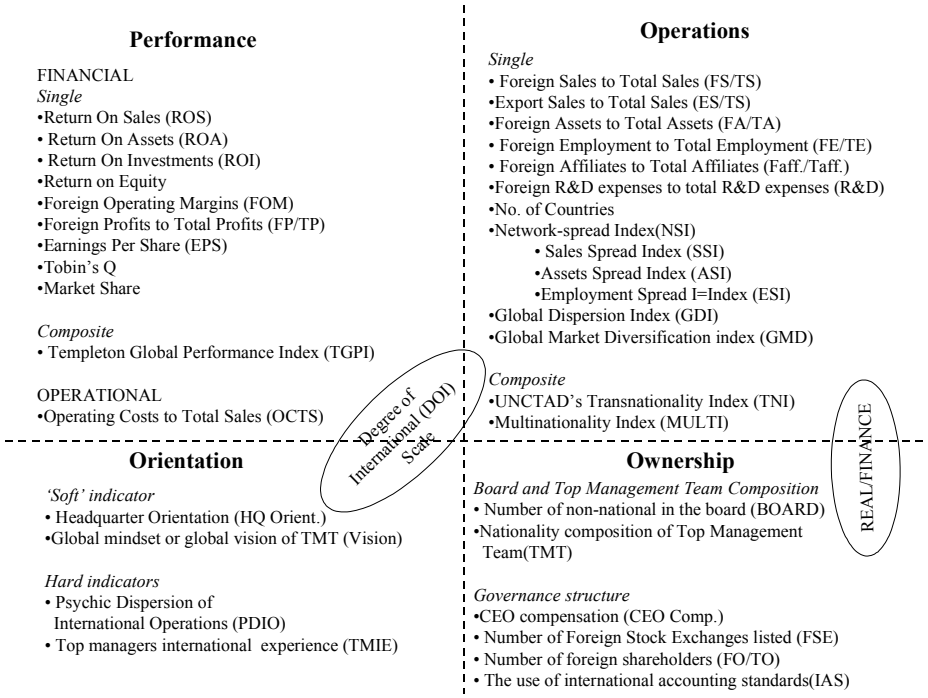


Figure 5.1: Different dimensions of corporate multinationality and various indicators

5.2.2 Indicators of performance, orientation, ownership and multinationality

Since the 1970s, the multi-dimensionality of corporate internationalization has been operationalized from various angles, leading to a laundry list of indicators and measurements (Figure 5.1). A description of each indicator is provided in appendix D.

- *Performance*

  One of the central questions in business research is whether a higher degree of internationalization (DOI) leads to a better firm performance or (further) enhances the competitiveness of MNEs. In other words why would firms otherwise engage in an, often cumbersome, process of managing across borders?

  In testing the relationship between the internationalization of a firm's operations and performance most researchers have applied financial performance ratios rather than measurements of operational performance (i.e. those specifically related to the value chain of a firm), while both financial and operational performance are equally important (Venkatraman & Ramanujam, 1986). A few noteworthy exceptions are by Gomes and Ramaswamy (1999) and Ruigrok and Wagner (2003), who operationalize performance through cost of sales/total sales (OCTS) for operational performance and

Return on Assets (ROA) for financial performance. In addition, Ruigrok and Wagner (2003) argue that financial performance may be further categorized into measures which are based on accounting data (with their focus on past performance) and those based on capital market values (focusing on investor expectations towards future performance).The empirical results of the internationalization-performance linkage are of a diverse nature and not related to the indicators used. Some have found a positive linear relationship (Daniels & Bracker, 1989; Kim, Hwang & Burgers, 1989), others found a negative linear relationship (Chang, 1989) while some did not reach any conclusions; (Rugman, LeCraw & Booth, 1985). Recently empirical research has found a more non-linear relationship between corporate internationalization and performance. Lu and Beamish (2000) Ruigrok and Wagner (2003) found a U-shaped relationship, while Geringer (1989) and Hitt, Hoskisson and Kim (1997) found a so-called inverted U-shaped relationship. The U-shaped relationship is largely explained by the 'learning effect' in internationalization. In the initial stages of a firm's internationalization trajectory, MNEs have little experiental knowledge of foreign markets, negatively influencing its performance. In later stages, the performance of MNEs increases simultaneous with their international presence and experiental knowledge. Others showed that there is a 'diminishing returns' relationship between corporate multinationality and performance (Gomes, 1999) or identified a considerable "profitability gap" associated with increased levels of internationalization of Fortune Global 500 companies (Gestrin, Rugman & Knight, 2001). The inverted U relationship departs from the assumption that established MNEs experience a certain level of saturation in their degree of internationalization or are "over-internationalized", leading to 'decreasing marginal returns of international strategy'. Recently, Contractor, Kundu and Hsu (2003) for the first time, integrated the U-shaped and inverted-U-shaped theories into a unified three-stage theory for analyzing the international expansion – performance nexus for eleven service industries[50]. They found that *knowledge-based* service sub-sectors do conform to all three stages of the theory. In contrast, *capital-intensive* service sub-sectors exhibit only stages one and two, while significant net benefits of internationalization were not seen until much later in the internationalization process. The difference is explained by the fact that capital-intensive service sub-sectors (e.g. aircraft, construction, shipping, hotels etc.) require a larger global scale of operations before net benefits are realized. "By the same token, knowledge-based sub-sector firms, having less of a tangible capital assets burden, and moreover enjoying a 'follow the client' advantage, can reap the benefits of international expansion faster than capital-intensive sub-sectors can" (*ibid*: 15).

Nevertheless, most internationalization-performance research has failed to reflect that for more established MNEs, that have reached a certain level of internationalization, multinationality itself is a competitive advantage and driver behind performance.

[50] Stage one reflects a negative slope through costs and barriers to initial international expansion; stage 2 reflects a positive slope in which the benefits of international expansion are now realized; and stage three reflects a negative slope in which international expansion beyond an optimal threshold may take place.

- *Orientation*
  Measurements emphasizing the 'orientation' dimension of corporate multinationality can be subdivided in 'soft' indicators and 'hard' measurements (Dörrenbächer, 2000). 'Soft indicators' of the geographic orientation of the firm (i.e. headquarter orientation and the global mindset of the top management team) are often researched through variables of organizational design (Perlmuttter, 1969; Perlmutter & Heenan, 1974; Heenan & Perlmutter, 1979) and demographic factors as age and education of the top management team (Kobrin, 1994; Harzing, 2000; Kedia & Harveston, 2001), complemented with surveys and interviews with managers and members of the board. In contrast, 'hard indicators' of the geographic orientation of the firms have been developed through more quantitative criteria as the number of years a member of the management team spent abroad (Sullivan 1994a).

- *Ownership*
  The ownership dimension of corporate multinationality has recently triggered the attention of international management and international business scholars. Measurements used to assess the ownership dimension are: the nationality composition of the Top Management Team (TMT) or board of directors; the application of International Accounting Standards by the firm; the proportion of foreign owned stocks as a share of total and the number of foreign stock exchanges the firm has listings (Hassel *et. al.,* 2000).

5.2.3 Indicators of corporate operational multinationality

As this study focuses on international production and employment within MNEs, the indicators of operational multinationality will be discussed in greater detail. Operational measurements of corporate multinationality are often related to the latest FDI stage of the internationalization process of firms (Johansson & Vahlne, 1977) as opposed to the previous licensing and franchising stages of corporate internationalization. Licensing/franchising can in a sequential fashion be seen as an "alternative residual strategy" to exporting and FDI (Lewis & Minchev, 2001).

- *Foreign Sales to Total Sales ratio (FS/TS)*
  The uni-dimensional single-variable indicator foreign to total sales,, has been the most common and widely used measure of multinationality (cf. Dunning, 1981), especially in studies analyzing the relationship between multinationality and performance. Out of seventeen studies on the relationship between internationalization and firm performance analyzed by Sullivan (1994), all use foreign sales as percentage of total sales as the "sole estimator of DOI" (Sullivan, 1994; 330). Most national accounting regulatory institutions oblige companies with more than 10 percent of their sales abroad to provide geographic segment sales data in their annual accounts. Therefore sales is the most common indicator of corporate multinationality and widely applied in empirical research, leading to the observation that research on corporate multinationality is often based on *data availability* rather than on *conceptual reasoning* (Ramaswamy *et. al.,* 1996). Sales are a measure of a firm's output and relative participation in an economy. The foreign sales to total sales (FS/TS) ratio can

be viewed as a proxy for a firm's dependence on overseas markets for revenues as well as production. In general it can be viewed as a surrogate for the value of production in the foreign subsidiaries of the MNE and a measure of the geographic scale of international production (Ietto-Gillies, 1998; UNCTAD, 1998). However, the concept of foreign sales is arbitrary. Methodological difficulties center around how researchers deal with export sales *and* intra-firm sales in the calculation of the FS/TS ratio.

Firstly, if foreign sales include exports from the parent country of the MNE (i.e. sales are reported in the country or region where they are sold) it is commonly referred to as *foreign sales by destination* (Rugman, 1976; Michel & Shaked, 1986; Daniels & Bracker, 1989) or the *foreign content of a firm* (Stopford, Dunning & Haberich, 1980 and 1992). This style of reporting refers to the MNE's dependence on foreign markets for marketing purposes. If sales are reported in the country or region where the goods are produced. In this case exports are reported in the country of *production*, moreover in the country or region of *origin*. This definition of foreign sales is commonly referred to as *sales by origin*. In the case the FS/TS ratio is calculated on the basis of sales by origin, it can be regarded as a proxy for the *value* of international production (Ietto-Gillies, 1998). Nevertheless, it is important to note that foreign sales by origin by excluding exports from the parent country underestimate a firm's dependence on foreign markets for revenues. Sullivan and Bauerschmidt (1989), by focusing on smaller firms, use the ratio of export sales as a share of total sales as a specific indicator of the DOI of a firm.

Secondly, it is estimated that at least 30 per cent of world trade are intra-firm trade (Markusen & Venables, 1999). Intra-firm trade is largely generated in companies and industries characterized by vertical FDI (i.e. electronics, automotives and petroleum refining). Usually the rule of thumb applies that if foreign sales are reported in terms of sales by origin it has an *internal* and *external* component. Consequently, many firms specifically sub-divide their sales volume in *intra-company sales and extra-firm sales* (i.e. sales to external customers). Sales to external customers is often referred to as "textbook arm's length trade". So where possible, intra-firm sales should be separated from the total sales figures of a MNE. Total sales of a MNE can thus be subdivided into a domestic and foreign component (either sales by origin or destination) as well as into an intra-firm and external firm sales component. In the studies surveyed none of the authors specifically dealt with these two issue in calculating the FS/TS ratio.

- *Foreign Assets to Total Assets ratio (FA/TA)*

  Another more common indicator is the ratio of foreign assets to total assets (FA/TA). It measures the value of foreign assets, held by foreign subsidiaries as percentage of total assets. Assets give an indication of a firm's productive capacity or the extent to which it controls economic resources. The share of a firm's assets in a given location provides an indicator of the importance of that location in the firm's overall strategy. "The ratio of foreign assets to total assets provides a measure of a firm's dependence on overseas production" (Gomes & Ramaswamy, 1999: 180-181). According to UNCTAD (1997:25) "the value of capital that TNCs mobilize and control abroad annually in direct investment projects can be approximated by looking at year-to-year changes in total assets of foreign affiliates. The value of these assets reflects funds

from sources other than the TNC itself, and as such gives a more accurate picture of the size of annual investments abroad by TNCs". Asset valuation may differ depending on the accounting practices in host countries (Lewis & Minchev, 2001). Many companies report the geographic segmentation of fixed assets or some sort of equivalent in their annual reports.

- *Foreign Employment to Total Employment ratio (FE/TE)*
  The geographic spread of employment is a similar measure to assets, but it is a dependent variable to other factors. It provides insight into a MNE's dependence on foreign labor markets and, additionally, captures a firm's socio-economic significance in a way assets do not. Ramstetter (1998) argued that the number of employees in foreign affiliates provides a sound proxy's of the MNEs foreign involvement in an economy. The advantage of employment data is that they are not influenced by stock prices, inflation and exchange rates and other fluctuations in the financial sphere. Employment changes in MNEs reflect 'real' output changes not captured by changes in sales or assets (Dunning & Pearce, 1985). Nevertheless, the employment ratio is less common in research on operational multinationality. Exceptions are Kim, Hwang and Burger (1989), UNCTAD (various years) and a ILO study by Bailey, Parisotto and Renshaw (1993). In addition, firms that are large employers also seem to be responsible for having a large share of their employment abroad. They also have a large spread of employment across many countries. "There appears, therefore to be some evidence that their employment is more internationalized (foreign-based) as well as more fragmented in foreign countries than their assets and sales" (Ietto-Gillies, 1998: 36). The increased level of outsourcing would be reflected in a change in indirect employment. To date there are no systematic and international comparative studies on the amount of indirect foreign employment generated by MNE.

- *Foreign affiliates to Total affiliates (Faff./Taff.) and Number of Countries*
  The number of foreign affiliates (with more than 50 percent ownership), has since long been the basis of a proxy for foreign involvement of MNEs (Stopford & Wells, 1972, Vernon 1971). Closely related to this indicator is the number of countries MNE has affiliates (No. of Countries).
  Based on Vernon (1979) Ietto-Gillies (1998) developed a Network Spread Index (NSI), measuring the number of countries a firm has affiliates (with at least 10% ownership), divided by the number of countries it potentially could have located affiliates. Vernon (1979) used the data of the Harvard Multinational Enterprise Project (HMEP) to analyze how American and European MNEs spread their activities across more and more countries over time (1900-1970). Similar, Sanders and Carpenter (1998) developed a Geographic Dispersion Index (GDI) representing the number of countries a firm has affiliates expressed as a percentage of the highest number of countries with subsidiaries in their sample. Finally, Ramírez-Alesón and Espitia-Escuer (2001) constructed a Global Market Diversification Index by dividing the total number of countries in which the firm is involved by the total number of geographic areas in which the firm is active. The Network Spread Index, the Geographic Dispersion Index , as well as the Global Market Diversification Index assess whether MNE activities are concentrated in only a few countries or spread among most nation states of the world. They therefore focus specifically on regional

diversification and dispersion.
The biggest analytical problem with these spread indicators is that they can not take account of the volume, amount and/or nature of activities taking place in geographically dispersed locations.

- *Composite indicators of operational multinationality*
  Figure 5.1 also shows two *composite* measures of operational multinationality: UNCTAD's Transnationality Index (the average of three ratios: FS/TS, FA/TA and FE/TE) and the MULTI Index developed by Gomes and Ramaswamy (1999) (combining three ratios: FS/TS, FA/TA and No. of countries). Both composite indices capture different facets of the operational foreign involvement of a MNE. The three indicators of the TNI can be criticized because e.g. their firm-specific nature arguably creates difficulties in cross-firm comparison. That they do not provide accurate representations of true value added. But they do share characteristics of revealing geographic significance for firms and have been shown to be correlated and effective measures of internationalization (Ietto-Gilles, 1998; Rugman, 1976). This is confirmed by the strong correlation between foreign assets and foreign sales (0.79) as well as the high correlation between total assets and total sales (0.89) of the Top 100 TNCs annually collected by the Erasmus University and UNCTAD and reported in UNCTAD's World Investment Reports (cf. UNCTAD 1998; Ietto-Gillies, 1998). Athanassiou and Nigh (2002) showed that the three ratios of FS/TS, FA/TA and FE/TE applied by UNCTAD in its annual Transnationality Index (TNI) were highly and significantly correlated. This indicates that there is some association between the variables. It can therefore be argued that "an internationalization index that incorporates sales, employees and assets captures a richer picture of the firm's activities away from its home market relative to its worldwide activities than that which would be captured by sales, employees or assets separately" (Athanassiou & Nigh 2002, p. 166). At the same time the three indicators differ in important ways and as such complement each other well in providing a well-rounded overall picture of the spatial organization of a firm's activities.

5.2.4 Dimensions of multinationality: Uni-dimensionality versus cross-dimensionality

Annavarjula and Beldona (2001) differentiated between "single-item measures of single dimensions" (e.g. foreign sales to total sales), "multiple-item measures of a single dimension" (composite indicators), "single-index measures of multiple dimensions" and "multiple-item measures of multiple dimensions". Most research on corporate multinationality has been relatively uni-dimensional in approaching internationalization, either assessing the extent of corporate multinationality through single-item or multiple-item (composite) measures. However, as figure 5.1 shows there are two indicators of corporate multinationality that combine one or more dimensions into a single composite index (the DOI scale and the REAL/FINANCE indicator). Through a cross-dimensional approach both Sullivan (1994) and Hassel *et. al.,* (2000) developed a general indicator encompassing the whole phenomenon of corporate internationalization. Their argument is that uni-dimensional approaches fail to reflect the *multiplicity* of a firm's internationalization process. While Sullivan (1994a, and 1996) hence constructed a three

dimensional index of corporate multinationality (operations, orientation and performance), Hassel *et. al.* (2000) constructed a two dimensional (ownership and operations) index. However, this cross-dimensional approach is subject to major shortcomings as Ramaswamy *et al.* (1996) showed in their methodological critique on Sullivan's DOI index. Furthermore, Ramaswamy *et. al.* (1996) proposed to conceptualize the construct of internationalization and its constituent parts or components and to unravel the relationships among these components, before further developing general indices encompassing the 'complete' internationalization process of a firm. "Collectively the findings of such studies could provide the foundations for building an index that incorporates all dimensions of the concept directly related to firm outcomes. In essence, this would signify a shift in conceptualizing the construct itself" (Ramaswamy, Kroeck & Renforth, 1996: 175).
Apart from their methodological shortcomings, 'multi-dimensional approaches' hinder the *comparison* of a corporation's degree of multinationality across various dimensions. Most research discussed above aimed to establish a specific link between various dimensions of corporate multinationality, in which the operational dimension is often the point of departure and the independent variable. The debate on internationalization and performance centers specifically on the link between the operational and performance dimension of corporate multinationality. Moreover, the multi-dimensionality of the concept of corporate multinationality implies that MNEs may reach various stages of internationalization, depending upon the dimension that is researched. For instance, a company may be considered truly global in orientation (in terms of a global mindset of its top management team), but its *operations* may be confined to only a few foreign countries and largely concentrated in neighboring countries. Similarly, a deliberately created 'global' or 'footloose' perception of a corporation by its management team can be instrumental in bargaining processes between MNEs and its stakeholders. In these cases "the perception of more mobile production may be more important than the actual behavior of business" (Held, McGrew, Goldblatt & Perraton, 1999: 269). In this context 'globalization' is best interpreted as a *strategic objective* rather than as an accomplished reality. Put differently a firm may hope to realize globalization yet fail (Ruigrok & Van Tulder, 1995; Van Tulder & Van Den Berghe, 1998). Therefore there can be a considerable gap between the *strategic intent* and the *strategic reality* of the firm (Hamel, 1989).[51] A single multi-dimensional index of corporate internationalization would fail to reflect the contradiction between on the one hand the global orientation of the MNE (or strategic intent) and the 'real' global operations of the MNE (strategic reality).

[51] Sklair (2001) argued that global visions and imageries of MNEs (*orientation*) can be deducted from statements of CEOs of MNEs (i.e. managerial mindset) in annual reports or in the press (p. 276-282). These typologies of global visions can be set of against the '*real'* operational multinationality of the MNE. For instance the statement by BP Amoco CEO in the annual report of 1998: "Our pledge is to build a truly global enterprise" (in Sklair, 2001: 276). Despite this in 1999 BP Amoco had more than 80 percent of its employees located in Europe and the United States.

5.3 REDEFINING MULTINATIONALITY: A THREE-DIMENSIONAL CHANDLERIAN FRAMEWORK

The dichotomy between foreign versus total activities is the prime conceptual framework underlying most indicators and indices of corporate (operational) multinationality (section 5.2.3; figure 5.1). Apart from a few recent studies (notably: Kim, Hwang & Burgers, 1989 and 1993; Vachani, 1991; Qian & li, 1998; Ietto-Gillies, 1998; Van Tulder, Van Den Berghe & Muller, 2001; Goerzen & Beamish, 2002) most research conceives corporate multinationality as a degree of foreign activity. The disadvantage of this approach is that it is not possible to explore the geographic expansion of MNEs into different world regions, nor is it possible to identify MNEs whose foreign activities are concentrated in a few foreign countries, and MNEs whose activities are spread across numerous host countries.
The previous section further discussed a number of shortcomings of the existing indicators of corporate operational multinationality. In order to test the relationship between various dimensions of corporate multinationality, a necessary pre-condition is that uni-dimensionality must be maintained above cross-dimensional indexes on multinationality.
Mc Grew (1992) and Kobrin (1994) argued that what makes 'globalization' new and unique, as compared to earlier periods, is the *quantitative* and *qualitative* transformation of the world economy which is reflected in the intensity, stretching and interconnectedness of economies. To enable a more sophisticated measurement of the strategic dimensions of MNE activity three geographical dimensions can be distinguished that combine Chandler's (1962) famous 'scale-scope' dichotomy and the resulting managerial choice for internal integration:
(1) *geographic scale* (reflecting intensity),
(2) *geographic scope* (reflecting stretching),*and*
(3) *geographic integration* (reflecting interconnectedness).

Alfred Chandler's (1962) study of the relationship between a firm's *strategy* for growth and its administrative *structure* offered insight into the linkages between a firm's objectives and its observed behavior.[52] Geographic scale and scope can be referred to as the *international strategy* parameters of the multinationality of a MNE, while the parameter of geographical integration refers to the *international structure* of a MNE (its administrative structure). The first two parameters of multinational production i.e. *the international strategy* parameters of geographic scale and scope – refer to the *geography* of international production of MNEs, while geographic integration (the *international structure* of the MNE) determines to what extent this international production is *integrated* across borders.

[52] Although, Chandler's thesis is that administrative structure is ultimately determined by strategic objectives, his case studies convincingly demonstrate that "in the short run at least structural relationships impinge upon a firm's behavior" (Horst, 1974: 40).

5.3.1 Geographic scale

Geographic scale refers to the depth of foreign involvement of a firm (Qian, 1996) and can best be equated with the intensity and magnitude of a MNEs' *international operations as a share of its total* activities. It reflects the activity of firms beyond their national frontiers. Most of the indicators in section 5.2 highlight the geographic scale of multinationality, reflecting the foreign-home dichotomy of international operations. However, it was argued that this approach does not allow to distinguish between firms whose activities are located in one or a few foreign countries or regions or firms whose activities are spread across the globe. One of the ambitions of this study is to reveal the geographic scale firm level activity, i.e. the foreign domestic component of production *and* employment.
As geographic asset data reporting in corporate annual reports is largely confined to US MNEs, the data which underlie the indicators developed in this study to measure corporate international production are sales by country of origin. Since sales by origin can in theory be seen as proxies for a firm's productive activity (Gomes & Ramaswamy, 1999; Ietto-Gillies, 1998; Sullivan ,1994), a change in the relative importance of a geographic location should be reflected in a change in relative sales shares. Additionally, relative investment and divestment in a given location should be reflected in changes in the relative value of sales over time. Obviously, the change in the relative share of employment in a given location reflects the MNEs international division of labor.
There is no consensus about the optimal scale – or threshold - of international production or multinationality. Various thresholds of multinationality have been used ranging from 10 percent (Geringer, Beamish & DaCosta, 1989), 20 percent (Michel & Shaked, 1986), 25 percent Stich, 1971), and 35 percent (Geyikdagi & Geyikdagi, 1996). Others propose a 15 percent threshold for Domestic Firms (DMFs), between 15-30 percent intermediate firms (IMFs), and 30 percent or more for MNEs (Qian & Li, 1998). If the threshold of multinationality is set too low, the classification becomes difficult and consequently most firms can be qualified as MNEs. At the same time if the threshold is set too high a large number of "real" MNEs are eliminated and the sample is unnecessarily reduced (Qian & Li, 1998).
As in most countries firms are obliged to report geographic segments (i.e. foreign) in which more than 10 percent of their external revenues are realized, this study will use the 10 percent threshold of multinationality of foreign sales (by origin) as a minimum level to differentiate MNEs from domestic oriented firms (Geringer, Beamish & DaCosta, 1989).
By examining the foreign sales/total sales (by origin) ratio (FS/TS) over a particular period firms can be categorized in four clusters of firms (cf. also Van Tulder, Van Den Berghe & Muller, 2001):

1. If the firm's international activities, measured through foreign sales, remained below the 10 percent threshold over the period under observation, it can be clustered as a *Domestic Firm – DMFs* (cluster 1);
2. If the firm's international activities, measured through foreign sales, started below the 10 percent threshold, but increased to more than 10 percent at the end of the period under observation, the firm can be neither considered domestic nor an established MNE. The recent nature of their internationalization trajectory

clusters these firms as *New Generation MNE - NGMs* (cluster 2)[53];

3. If the firm's international activities started between 10 percent and 30 percent at the beginning of a particular period, it can be considered as an 'intermediate' case. They can be clustered as *Intermediate MNEs* (cluster 3) and it will be interesting to see in what direction their internationalization develops.
4. In case a firm's internationalization activities started above the 30 percent threshold in 1990 it belongs to the group of *'Genuine' Multinational Enterprises – or simple (established) MNEs* (cluster 4).

To measure the geographic scale of employment of firms, the foreign employment to total employment ratio - FE/TE - ratio will be applied.

5.3.2 Geographic scope

Geographic scope reflects a firm's expansion into different world regions or national markets (Hitt, Hoskisson & Kim, 1997). Scope emphasizes the geographical diversification and dispersion of foreign activities and the magnitude of concentration of these activities in different locations. It emphasizes the breadth of foreign involvement of a firm. The focus on primarily geographic scale indicators in the multinationality of MNEs operations fails to reflect the foreign spatial changes in the value chain of MNEs. For instance in case of narrow relocation - when a firm closes a plant in one of its foreign markets and opens a new one in another foreign market - strictly speaking there is no change in the geographic scale. The volume of foreign activities remains largely unchanged, but the geographic scope of the firm has changed.

Chapter three distinguished three strategic ideal types of internationalization (cf. Van Den Berghe & Van Tulder, 2002) that materialized in the 1990s following the fifth wave of internationalization:

- **Classical internationalization strategies** (or traditional internationalization) from developed countries towards developing countries (both transition and emerging economies) - qualified as *downward FDI*;
- **Emerging internationalization strategies** by MN Es originating in developing, transition or emerging market economies towards developed countries - qualified as *upward FDI*;
- **Competitive internationalization strategies** takes place between countries with similar levels of development, similar location conditions and similar institutional contexts - qualified as *horizontal* FDI. Competitive internationalization can be further subdivided into (a) intra-regional and (b) extra-regional processes of internationalization. The former case relates to the most strict form of competitive internationalization, i.e. within a comparably homogenous institutional framework. In the latter case, firms internationalize beyond their own political region – such as the European Union – into other developed countries/regions.

[53] Similar typologies for New Generation MNEs are: late internationalizing firms (Van Tulder, Van Den Berghe & Muller, 2001), late starter (Johansson and Mattsson, 1988) and intermediate firms (Qian & Li, 1998).

The concept of competitive internationalization relates to Michalet's (1999) notion that each economy competes for FDI and MNE activity with other economies of similar development only.

Competitive internationalization can take place among developed, among developing countries, as well as *within* a political economic region (*intra-regional)* and *between* different political economic defined regions, as is the case in the transatlantic link between the EU and United States (*inter-regional*).

Figure 5.2 schematically summarizes the strategic ideal types of internationalization

FROM → TO	**Developed countries**	**Developing countries**
Developing Countries	Classical internationalization strategies; vertical downward FDI	Competitive internationalization; horizontal FDI
Developed countries	Competitive internationalization among developed countries; horizontal FDI	Emerging internationalization; vertical upward FDI

Figure 5.2: Directions of outward FDI and associated MNE internationalization strategy

The focus in this study is on developed country firms. From the perspective of individual firms, especially for groups three and four, eight sometimes overlapping geographic directions can be distinguished for measuring the scope of international production (denoted with a S) and employment (denoted with a E). Due to te different levels of development and institutional environments neighboring countries in the EU, US and Japan, the different directions have different implication for each block of the Triad:

I. Domestic: the country of origin or home country of the firm where the parent headquarter is located;

II. Foreign: beyond the home country of origin. Subdivided in various forms of intra- and extra-regional

a. **Intra-regional general:** non-domestic and non-extra regional. Expansion in the home region of the MNE;

i. **Intra-regional competitive:** international expansion in the home country region of the MNE. For European MNEs this is largely the EU (or broadly Europe), for US firms this is NAFTA (or broadly North America). This category refers to *competitive internationalization in the most strict sense*;

ii. **Intra-regional classical:** international expansion in the home country region of the MNE. Especially, relevant for Japanese MNEs, due to the different levels of development within the home region of Japan;

b. **Extra-regional general:** non-domestic and non-intra-regional. Expansion outside the home region of the MNE;

i. **Extra-regional competitive:** part of extra-regional internationalization that related to other developed regions (inter-regional). It is reflected in the intergrational links in the Triad: consisting of (1) the Transatlantic link between the EU and NAFTA (European MNEs investing in NAFTA and

US and Canadian firms internationalizing in the EU), as well as (2) Japanese MNEs internationalizing in the EU and NAFTA. This strategy refers to *competitive internationalization in the broadest sens**e***;

ii. **Extra-regional classical:** internationalization strategies of developed country MNEs in emerging markets and developing countries, beyond their home region. This strategy refers to *classical internationalization*;

Table 5.1 summarizes the indices and measurements used to analyze the geographic scale and scope of international production and employment among firms.

Table 5.1: Indicators of geographic scale and geographic scope of production and employment

		PRODUCTION		EMPLOYMENT	
		Absolute	*Share*	*Absolute*	*Share*
SCALE	DOMESTIC	DS	DS/TS	DE	DE/TE
	FOREIGN	FS	FS/TS	FE	FE/TE
	of which				
SCOPE	INTRA-REGIONAL GENERAL	INTRA	INTRA/TS	INTRA	INTRA/TE
	of which				
	Intra-competitive (strict)	INTRA(Comp.)	INTRA(Comp.)/TS	INTRA(Comp.)	INTRA(Comp.)/TE
	Intra-classical (Japan)	INTRA(Clas.)	INTRA(Clas.)/TS	INTRA(Clas.)	INTRA(Clas.)/TE
	EXTRA-REGIONAL GENERAL	EXTRA	EXTRA/TS	EXTRA	EXTRA/TE
	of which				
	Extra-competitive (broad)	BI	TRIAD/TS	TRIAD	TRIAD/TE
	Extra-classical	RoW	RoW/TS	RoW	RoW/TE

In cases where no distinction can be made between *intra-competitive* or *intra-classical*, it will simple be denoted with INTRA. Firm size will be denoted with total assets (TA) or total sales (TS), while the efficiency indicators of capital productivity and labor productivity are denoted with *AssetsE* (*assets per employee*) and *SalesE* (*sales per employee*) respectively. In the analysis averages, growth rates and years for the specific indicators are denoted as *(avrg.)* or *(g)*, while years are denoted by *90* (e.g. 1990).

5.3.3 Geographic integration

Geographic integration refers to the extent that the production process or value chain of the MNE is integrated across borders and relates to the increased use of "Internationally Integrated Production (IIP) methods" by MNEs (UNCTAD, 1995). The concept of geographic integration is in the international management literature often qualified as *'global integration'* (Hamel & Prahalad, 1985: Bartlett & Ghoshal, 1989). It is closely associated with the organizational strategy of the multinational enterprise.[54]

[54] This study uses the less biased term *geographical integration*.

International Management theories on the international vertical organizational structure and control configuration of MNEs were discussed in section 4.3. Combining prevalent typologies on organizational structures in MNEs from the literature it is possible to identify the following three hypothetical models of *organizational strategies of MNEs*: a stand-alone strategy (by Multi-domestic MNEs), a simple integration strategy (by international MNEs) and, a complex or deep integration strategy (implemented by global MNEs).
Table 5.2 categorizes the different organizational strategies, lists their characteristics and places them in a historical evolutionary perspective.

Table 5.2: Harvard based typology of geographic integration and organizational strategy of MNEs

Period	Organizational strategy and firm typology	Characteristics	Macro economic context	Location and dominant motive for internationalization	Degree of integration of the value chain & interdependence of employment
(1870 - 1913) 1950s - 1970s	*Stand-alone strategy by multi-domestic MNEs*	Miniature replica of the parent firm. This strategy entails that the entire value chain of the parent firm is replicated in foreign subsidiaries (with the exception of firms operating in the natural resources industry). Resulting in independent subsidiaries which produce and market all or part of the parent's product line mainly for the local market. Finance and technology are, however, imported from the parent firm.	Miniature replica subsidiaries may be "new" operations established as part of a shift from export to FDI strategies or "mature" subsidiaries associated with multi-domestic strategies.	Since the objective is primarily local market serving, the geographical dispersion of firm activities (and employment) will be within major market areas, and thus more concentrated. A country's trade-tariff policies may be one factor encouraging inward foreign direct investment in place of trade.	Weak
1970s - 1980s	*Simple-integration internatio nal strategy by internatio nal MNEs*	Rationalized producer of one or a few elements in the value chain. Subsidiaries which produce parts or components as part of a vertically integrated global strategy; alternatively the plant may be a final assembly operation. Similar as in the multi-domestic strategy, technology is also obtained from the parent firm, but affiliates supply the parent with a limited number of inputs, which they are able to produce at more competitive prices. In contrast to the multi-domestic strategy there is a more two-way flow of information, technology and inputs.	This strategy was more dominant as technological progress increased and markets were liberated.	Since the objective is primarily resource - or efficiency - (e.g. low-cost labor) seeking, location decision may be more dispersed than with a stand-alone strategy.	Strong at some points of value chain, weak in others
1990s	*Complex or deep integratio n strategy by global MNEs*	Product or process specialist; functional specialization. Subsidiaries, which develop, manufacture and market a limited product line for global or regional markets; associated with horizontally integrated global strategies.	This strategy is often associated with Regional Integration Agreements (RIAs), the liberalization of economic transactions and the rapid rise of information technology over the 1990s.	The integrated producer may separate more fully the location of production from consumption of the final product. This is not to say that proximity to final markets is no longer an important location criterion, but it does imply that there is no longer any need to perform all value-adding activities close to the final market. Integrated production is more strategic asset-seeking and, given that the quality and cost of human resources are important considerations, it may imply a broader range of location choices than the other two strategies.	Potentially strong throughout value chain

Based on: Harzing, 2000; Dicken, 1998; UNCTAD, 1994; Hamill, 1993; Porter, 1986; Whyte and Poynter, 1984.

An increased amount of intra-firm trade is an indication of the intensity of the internal linkages of various parts of the MNE (Nachum, 2000). More generally, intra-firm trade is a reflection of the international level of vertical integration of a firm. Similarly, the degree of foreign intra-firm trade provides insight to what extent this vertical integration is international or " transnational". In terms of geographic integration Kobrin (1991) argued that "Operationally, I assume that the greater the proportion of intra-firm trade of all of a MNCs international sales, the greater the degree of transnational integration. It is important to note that the validity of this construct rests on the assumption that intra-firm flows of products across industries correlate with all important flows of resources and information" (Kobrin, 1991: 20). Porter (1986) distinguished between a "hub-and-spoke configuration" when intra-firm trade takes place between the parent company and subsidiary, and a "networked configuration", when the majority of intra-firm trade takes place among subsidiaries. Porter argued that intra-industry trade is a good sign of the presence of global competition and that its growth is a good indication that the incidence of global industries and firms has increased. Additionally, he stated that high level so foreign investment or the mere presence of MNEs in a given location are not reliable measures as firms may be managing foreign subsidiaries like a portfolio of multi-domestic subsidiaries (Porter, 1986: 29). The extent of intra-firm trade within MNEs is largely influenced by the nature of activities and industry a firm operates in and how a firm has vertically organized its production process and value chain (vertical FDI as opposed to horizontal FDI) (Markusen, 1995).

Observations based on intra firm data are fraught with difficulties as data are often distorted by *transfer pricing* (Kobrin, 1991) as well as *interpretation problems* (i.e. does intra firm trade reflect shipments of primary, intermediary or finished goods). Additionally, MNEs may under price sales of domestically produced goods to foreign subsidiaries, so that profits arise in low tax or developing countries. Additionally, Wortmann (2000) argued that a large share of intra-company trade goes to sales companies, which simple distribute the products of their parents in local markets. He argued that one third of US intra-firm imports (1996) and about one third of US intra-firm exports (1997) go to trading affiliates.

Nevertheless, based on prior research, intra-firm sales can be treated as a proxy for the degree of vertical integration of the value added activities of a MNE and the organizational structure of the MNE (cf. Kobrin, 1991; Harzing, 2000). Certainly when the measure is used to compare companies, i.e. leading to a comparable methodological bias. If subdivided in a domestic and foreign component (or regional component), intra-firm sales can be used to calculate to what extent this vertical integration takes place abroad. Harzing (2000) for instance measured interdependence as the percentage of intra-company sales and purchases in relation to total sales and purchases. If these intra-firm sales are geographically specified across specific regions, it can be regarded as a proxy for a regional production structure. The share of if intra-firm sales in a specific region can be regarded as a proxy for the specific export orientation (export platform) of that location within the MNEs internationalization strategy. Based on Harzing (2000) and Kobrin (1991) the following vertical integration index is constructed for this study:

Vertical Integration index (VI index) = intra-firm sales to total sales (IfS/TS)

Based on UNCTAD (1993) an integrated international production index is also constructed.

Integrated International Production index (IIP index) = foreign intra-firm sales to total foreign sales FifS/FS)

The IIP index can used to differentiate between the three organizational typologies of MNEs:

1. Multi-domestic = low degree of geographic integration: below 10 percent
2. simple integration = low to medium degree of integration: 10- 25 percent
3. complex integration = medium degree of integration: 25-50 percent
4. deep integration = high degree of integration, greater than 50% percent

5.3.4 Synthesis: a three-legged framework of international production and employment

Figure 5.2 graphically combines the three parameters in one 3D framework of multinationality of production and employment.

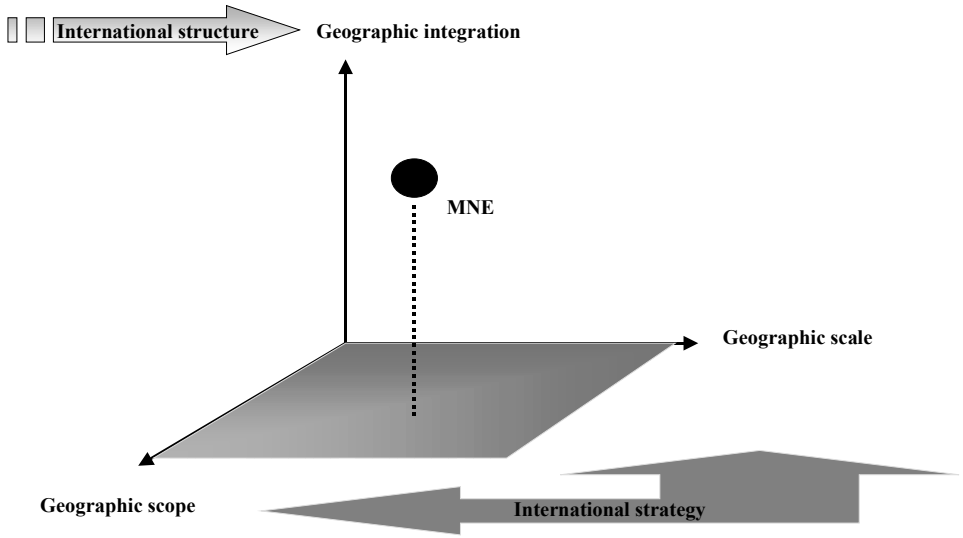


Figure 5.2: Three parameters of the three dimensional Chandlerian framework of multinationality

The internationalization of firms *over time* - captured through geographic scale and geographic scope - can be referred to as a deepening or widening pattern. "A deepening pattern is here considered to be one in which companies increase their international

production by becoming increasingly involved in, approximately, the same foreign countries and areas. A widening pattern is one in which companies increase their degree of internationalisation by spreading across more and more countries" (Ietto-Gillies, 1993: 181).
The three parameters of multinationality assert that:

1. The changing geographic spatial organization of production and employment can be assessed through a change of geographic scale and geographic scope.

2. The extent to which production and employment is integrated across borders, and whether there exists an integrated division of labor within MNEs, can be assessed through a change in geographic integration.

3. The three parameters of geographic scale, geographic scope and geographic integration combined determine the multinationality of production and employment by multinational enterprises.

The three parameters of the framework do not work in isolation, but can move together and probably reinforce each other. The scholarly literature is relatively straightforward on this process. MNEs that are highly international in terms of geographic scale tend to have a high degree of international scope or spread (Ietto-Gillies, 1998). Additionally, the degree of geographic scale and scope and the degree of geographic integration of MNEs interact. Bartlett and Ghoshal (2000) and Hamill (1993) showed that MNEs, which are in an advanced stage of internationalization (i.e. a high degree of geographical scale and/or a high degree of geographical scope), generally have higher levels of geographic integration and hence tend to adopt global organizational strategies. But – as stated in chapter 4 – in particular International Management authors have mixed up prescriptive with descriptive statements, thereby mixing strategic intent with strategic reality. It goes without discussion for instance that the more a firm internationalizes, the higher its need for international coordination becomes. But in practice this does not mean that the degree of international integration increases likewise. So various combinations of the three parameters are conceivable and deserve descriptive research. The combination of the three parameters into one coherent framework (Figure 5.2), ultimately documents the stage and nature of the internationalization process a firm is in. The three parameters are influenced by variables that are internal to the firm (firm size, industry and country of origin) as well as by variables that are external to the firm (in particular regional integration).

The three-legged framework should be more instrumental in analyzing the spatial re-organization of MNEs' production structure and thus assess employment effects, than previous largely one-legged studies. A firm may for instance have a considerable amount of its activities located abroad as percentage of its total activities (a high degree of geographic scale), but these activities may be located in only a limited number of physically nearby countries/regions (low degree of geographic scope), while it at the same time may have integrated its value chain across the countries/regions where it operates (high degree of geographic integration).
The three parameters of the 'Chandlerian framework' are not only influenced by variables that are internal to the firm, but also by external developments. The macro-economic and

political environment in which MNEs operate plays an important role in shaping the geographic scale, scope and integration of production and employment (Dunning, 2002; Vernon, 1998). In chapter two and three it was argued that regional economic integration, through RIAs in particular the EU and NAFTA, have influenced the spatial organization of production and employment within MNEs.

The three different groups of firms – i.e. DMFs, NGM and MNEs – can be positioned in the three-legged framework of multinationality. The cluster of DMFs, with limited international activities, would per definition be positioned around the cross point of the x,-y and z axis. Most NGM would be positioned along the scale and, to a lesser extent, scope axis (marked in gray), while some MNEs can also be positioned within the integration axis (the bullet point in figure 5.2).

5.4 RESEARCH FRAMEWORK AND RESEARCH QUESTIONS

The challenge of the empirical part of this particular study is to relate the three-legged framework to major missing and established links (Tables 2.4 and 3.4) as well as to strategic motivations (Table 4.4) within the particular characteristics of the fifth wave of internationalization. The following general propositions can be made: (1) the scope dimension in the three-legged framework should greatly facilitate grasping the nature and extent of internationalization and relocation; (2) by including a group of firms that did not internationalize over the 1990s, a benchmark for the counterfactual argument should be feasible; (3) export stimulus effects can be better measured by applying the 'integration' dimension to processes of internationalization; (4) strict or broader processes of internationalization and relocation can be documented by analyzing the effects of (intra- and extra) expansion over time; (5) intrinsic strategic motives of firms can be related to scale and scope patterns of international sales and employment in comparable groups of multinationals; (6) extrinsic strategic motives of firms to internationalize can be linked with timing decisions to go abroad within the same sectors of firms (oligopolistic competition; herding behavior), within firms from the same countries (home country effects) and/or firms to move towards the same countries or regions (host country/home region effects). Different research questions will be phrased per cluster of firm.

5.4.1 General model and intervening variables

The three parameters of the framework of operational multinationality - geographic scale, scope and integration – do not work in isolation but can be interrelated (see section 5.3.4). This interrelationship is schematically presented in figure 5.3 by the dotted arrow lines I, II and III.

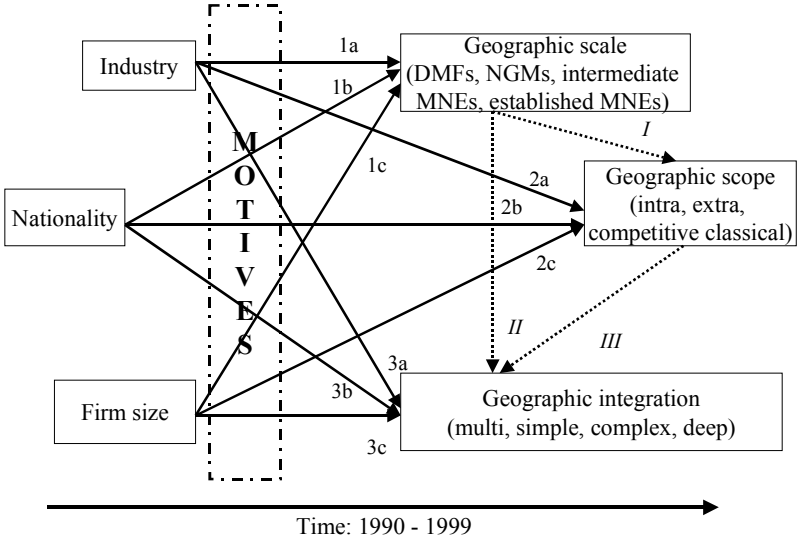


Figure 5.3: Geographic scale, scope and integration of multinationality and firm internal variables

In the literature, it is often assumed that MNEs that have a high degree of geographic scale of production and employment, in general also tend to have a high degree of geographic scope, as MNEs become international (increase their levels of geographic scale and scope) they increasingly adopt international integrated production (IIP) strategies; i.e. geographic integration (II). But the research has some deficiencies (chapter three). The relationship between scope and integration (III) is not yet extensively addressed. The first question, therefore, still remains to what extent this interrelationship indeed holds in practice and what total and domestic employment patterns are coupled with these interrelationships:

A. *What patterns of scale and scope exist: does a high degree of geographic scale of production and employment result in more or less intra-regional or extra-regional production and employment?*
B. *What patterns of scale and integration exist: is there a correlation between the degree of internationalization of production and employment and the degree of vertical integration and IIP?*
C. *What patterns of scope and integration exist: do different patterns of geographic scope of production and employment relate to different degrees of vertical integration and IIP?*
D. *To what extent are these patterns related to the overall developments in total, domestic and foreign employment of firms?*

Statistically sound correlations between these general categories for unspecified groups of firms are not very likely and do hardly do justice to a search for more strategic motivations that could explain for particular correlations between internationalization and employment.

A number of variables that can be supposed to influence each parameter, as well as influence the inter-relationship between the three parameters should thus be included in the three-legged framework (figure 5.3).
Three of the existing links (chapter two) in the literature that analyze the impact of MNE strategies on employment emphasize:

(1) The *industry/sector* in which the MNE operates, highlighted through differentiating between horizontal and vertical FDI (cf. Braconier & Eckholm, 1999; Konings & Murphy, 2001). Johansson and Mattson (1988) demonstrated that certain industries are associated with higher degrees of multinationality (both in terms of geographic scale and scope) (arrow 1a and 2a). Although, research is still very limited UNCTAD (2001) reported that the degree of IIP is influenced by the industry in which the MNE operates, i.e. MNEs in the electronics and automotive industries have a higher degree of IIP than those operating in retail or trading (cf. UNCTAD, 2001: 101) (arrow 3a).In answering the research question this study will examine whether the relationship between international production and employment for various industries differs;

(2) The *country* of incorporation of the MNE (nationality or country of origin of the MNE) (Blomström, Fors & Lipsey, 1997). The country of origin (Ruigrok & Van Tulder, 1995; UNCTAD, 1998 and Van Tulder, Van Den Berghe & Muller, 2001; Whitley**,** 1992 and 1999) or the history of a firm, involving both its administrative 'heritage' and national culture has a considerable influence when firms internationalize (arrow 1b and 2b). Slightly different than the country of origin thesis it is also argued firms from small market economies (measured by their GDP; UNCTAD, 1998) start internationalizing in a much earlier phase than firms from large domestic markets. This corroborates with Hymer's market dominance and Vernon's PLC thesis that implies that firms that reach the boundaries of a domestic market share a bigger inclination towards foreign expansion – largely independent of performance considerations generally attached to internationalization. Firms from smaller economies or home markets will therefore have a higher degree of geographical scale as opposed to MNEs originating in large economies (cf. UNCTAD, 1998, 1999, 2000 and 2001). In his seminal work Chandler presented extensive evidence on the developmental history of MNEs and showed how differences in the national origin of MNEs and developmental patterns influenced the management process and the organizational structures of these MNEs. Bartlett speaks of the administrative heritage of MNEs. Perlmutter (1969), Heenan and Perlmutter (1979) and Bartlett and Ghoshal (1989), argued that, although there has been some correlation between the nationality of the parent firm and the chosen strategy, it is better to speak of a 'predisposition' of a parent firm's nationality towards a particular organizational strategy (cf. Perlmutter, 1969; Heenan & Perlmutter, 1979) (arrow 3b). Bartlett and Ghoshal (1989), for instance argued that European MNEs seem to have a clear preference for the multinational organizational model (in table 5.2 the stand-alone strategy). US MNEs prefer the international organization model (simple-integration strategy). Japanese MNEs in the 1970 and 1980s preferred the global organizational model (complex-integration strategy), which was,, by the way, first applied by Rockefeller and Ford in the 1920s and 1930s (Ruigrok & Van Tulder, 1995; Bartlett & Ghoshal, 1989: 51).

Although, this study focuses on the employment effects of international production of developed country firms, the country of origin is taken into account.

(3) In addition, *firm size* is sometimes stressed as an important contextual variable when analyzing internationalization patterns of firms in general (arrow 1c and 2c). While it is not obvious why firm size itself should be related to the degree of internationalization (cf. Dunning, 1996), "the literature (Dunning, 1993, chap. 6) suggests that large firms are more likely to engage in FDI than small firms, and that transnationality itself may help to preserve (or increase) its share of global markets (Dunning, 1996: 15)[55]. Vice versa internationalization itself leads to firm growth. Firm size can be operationalized by total assets and total sales (Dewenter & Malatesta, 2001), as well as by the total number of employees (Ietto-Gillies, 1998). Ramaswamy (1998) and Dunning (1993) argued that large firms (as measured by for instance total assets or total sales; Dewenter & Malatesta, 2001 or total employment, Ietto-Gillies, 1998) tend to be more multinational (arrow 1c). Although, it seems logical to assume that firm size influences the organizational strategy of MNE (arrow 3c), there is no literature supporting this argument.

As figure 5.3 shows these three links and intervening variables result in different combinations of geographic scale, scope and integration of international production and employment. Furthermore, the *timing* dimension should be emphasized when studying the employment effects of international production within large firms, since it makes it possible to check whether particular relationships change over time – for instance under the influence of institutional change as measured for different generations of multinationals. Finally, the *motive* behind the internationalization of firms was identified as a missing link (section 3.3.1). It was argued that assessing the motives behind specific internationalization patterns provides insight into the counterfactual argument of the employment effects of internationalization. These motives can and must be placed in a historical and geographical context (section 4.5.1). It was argued that some approaches and models are particularly applicable to starting MNEs, while others are more focused on established MNEs. Well-established MNEs are often engaged in sequential investments in countries where they already operate. MNEs which are in their early stage of internationalization, undertake primarily initial first time investments. Additionally, the geographic context in which MNE internationalize plays an important role. In section 4.5.2 it was argued that FDI by developed country MNEs in other developed countries, in particular transatlantic FDI, is largely driven by strategic motivations – which include exchanges of threats and oligopolistic reactions. FDI by developed country MNEs in developing countries still remains largely of a market seeking and efficiency seeking nature. The extent to which a realized (rather than an intended) strategy is market seeking, efficiency seeking or asset seeking is best approached by considering the employment effects (a) in total, (b) throughout the whole firm, and (c) over time. The motives behind internationalization also result in a specific pattern of geographic scale, scope and integration.

[55] However, Dunning (1996), found an insignificant Pearson correlation coefficient between firm size and transnationality (measured on the basis of foreign assets to total assets and foreign employment to total employment) close to zero.

5.4.2 Geographic scale of production and employment

One of the arguments of internalization theory is that internationalization is a result or a by-product of internalization (chapter 3). This should therefore be evidenced in an increase of the size of firms, measured through total assets, total sales and total employment. One of the main propositions in the relocation debate and in the macro-economic debate on the relationship between international production (FDI) and employment (chapter two) is that foreign production and foreign employment have grown at a faster rate than domestic production and hence domestic employment (cf. chapter two). The geographic scale of production and employment must therefore show an increase over time. Furthermore, when firms divest in foreign markets foreign employment would decline. In analyzing the geographic scale of production and employment the following guiding questions are relevant:

- *Are increases in internationalization associated with increases or decreases of total employment?*
- *Are increase in internationalization associated with increases or decreases in domestic and foreign employment?*

In order to analyze these questions, based on the dimension of geographic scale, four strategic groups of generations of MNEs have been distinguished (section 5.3.1):

1. Domestic firms (DMFs);
2. New Generation MNEs (NGMs);
3. Intermediate MNEs;
4. Established MNEs.

As shown in figure 5.3 the intervening variables for analyzing geographic scale are: industry (arrow 1a), country (arrow 1b) and firm size (arrow 1c)

Ad. 1. Domestic firms (DMFs): a base line for total employment development
Per definition the internationalization of production and employment of large firms that have not (yet) internationalized cannot be analyzed. The development of total employment with largely domestic firms forms a base line for the counterfactual argument for other firms in the same sector or from the same country that have internationalized: *What happens with domestic (i.e. total) employment if a firm does not internationalize? How have these DMFs grown in terms of total employment, and does this pattern reveal a specific industry, country of origin and firm size pattern (see arrows 1a to 1c)?*
According to market power theory and most internal motivation theories, large DMFs have strong incentives to go abroad. Nevertheless a considerable number of large firms – that indeed have considerable market power at home – have not surpassed the 10% threshold in the 1990s. Why would big firms (largely) stay in the home market? Partly, this could be due to external (domestic) reasons: late privatization and deregulation of a sector. In case governments put restrictions on the firm's investment opportunities, internationalization is difficult to achieve. Partly this could also be due to external host-based factors: limited opening-up of foreign markets in a specific sector. In case the foreign market is opened up,

and the sector is privatized, intrinsic factors could help explain why a firm stays at home: for instance the performance (in terms of profitability) is so high that there are no incentives to move abroad. In case of relatively low domestic efficiency (sustained high labor ratios combined with low profitability) the firm would have major problems to go abroad and would lack the ownership advantages.

Hypothesized and anticipated internationalization and employment (domestic) effects:

- *Positive: in case of sufficient domestic sales: growth of total (domestic) sales is larger or equal to the growth of total (domestic) employment (this can be defined as the employment baseline).*
- *Negative: in case expansion can no longer be achieved at home: growth of total (domestic) sales is smaller than the growth of total (domestic) employment.*

Ad. 2 New-generation Multinationals and total employment

Relative 'late internationalizers' have rapidly surpassed the 10 percent threshold of internationalization in the 1990s.The internationalization of these big New Generation Multinationals (NGMs) can first be motivated by external incentives and extrinsic motivations: liberalization and/or privatization at home and abroad. Firms – in particular state-owned firms - that had a relatively dominant position in the home market, have relatively strong 'escape' incentives when confronted with liberalization and privatization initiatives by the home government. But this ambition remains generally barred by barriers to entry in other markets in case of lacking privatization in host markets. The scale and speed of internationalization under these circumstances largely depends on market changes abroad. The mode of internationalization will generally be through cross-border M&As, because there are important 'first-comer' advantages to be won in previous state-owned sectors, which implies that in some industries bandwagon effects abound. Sectors that are candidates for this category are: former state-owned firms primarily in public utilities (water, electricity, telecommunications). A more traditional motivation for late internationalization can be internal and intrinsic: a (private) firm only recently acquired a dominant domestic market position in its industry. From this position, the firm may try to enter into other markets, to, as in some industries, follow its competitors. This can be done on the basis of greenfield or through cross-border M&As.

Hypothesized and anticipated internationalization and employment effects:

- *In case of largely extrinsic motivations (bandwagon effects e.g. through M&As): initially domestic employment will not be affected; the internationalization process is largely market-seeking; efficiency gains are likely to be reaped first abroad; the lower the comparative efficiency abroad is (measured by foreign employment/foreign sales compared to domestic efficiency) the higher the incentive is to first start restructuring the just acquired firms.*
  Growth of TS and TE; growth of DE and DS;FS growth greater than DS growth; FE growth decreases.
- *In case of largely intrinsic motivations (efficiency, market domination): because of the market-seeking nature of this internationalization process the domestic employment will hardly be affected or will even be positive (due to increased competitiveness and scale), but partly also efficiency gains to be won by*

international company-internal supplies: i.e. increasing employment at home, decreasing employment abroad. The latter will be more in case of classical and extra-regional internationalization, because of higher efficiency gains possibilities in developing countries markets.
Growth of TS and TE; DE growth smaller than DS growth, but DE growth greater than FE; FS growth greater than DS.

Ad. 3. Intermediate Multinationals
Intermediate MNEs are those firms that can qualified as MNEs, but have not reached an 'optimal level' of internationalization in comparison to their competing established MNE in the same industry or from the same country and of the same size. Most intermediate MNEs are bound to adopt cross-border M&A market-entry strategies for developed markets if they want to catch up with their more established rivals, with different effects on international sales, production and employment distributions than greenfield investments.

Hypothesized and anticipated internationalization and employment effects:

- *TS and FS growth will increase substantially; TE growth will increase more modestly; DE largely stagnates (or grows moderately due to supporting activities for foreign expansion), but FE grows fast. The foreign employment growth is largely associated with market-seeking investments and the interrelationship with domestic employment developments is limited. In case the firm expands through M&As, the foreign employment growth is largely realized through a change in ownership.*

Ad. 4. Established or genuine MNEs
The fourth group of study are the more established MNEs, that have already reached an 'optimal' scale or 'mature' scale of internationalization in the past. The roots of the first steps abroad for these firms go back to the late 19th century or even well before. Most of them do not operate in (former) state-owned industries. Hence internationalization of established MNEs is in general not triggered by domestic-external push motivations (as is the case for NGMs), but rather by the competitive nature of the oligopolistic industry in which they operate. Therefore, it is very likely that patterns of internationalization as well as de-internationalization will appear most in this category of firms. Both patterns are largely triggered by external motivations. For instance increased liberalization of national investment policies over the 1990s have enhanced the possibilities of *market seeking* FDI and first-comer advantages, often leading to bandwagon effects in internationalization patterns. Additionally, in case firms are primarily motivated by *efficiency* considerations, substantial first-comer advantages can be reaped as well. In case of primarily efficiency considerations, a wait-and-see strategy might also be feasible, whereas this is much less the case when firms enter because of marketing reasons. In emerging economies, entry strategies through the acquisitions of former state-owned firms, has often been triggered by the aim of taking over the local distribution structure.
An external trigger for de-internationalization could be provided by pull factors as well: after the initial 'logic' of moving into transition markets – partly as a result of oligopolistic competition and bandwagon effects – the instability and the low profitability of the new

investment prompted firms to move out again as well. For emerging markets, the logic of moving into these countries has not really altered in the 1990s, although over the whole range, the investment climate for multinationals has improved. On the other hand, the number of financial crises in developing countries increased substantially over the same period, which has prompted a number of particularly affected sectors to retreat in particular production from these countries and lower their dependence on supplies from these countries.
In case of sectors like oil and mining, the intrinsic motivation will large remain *resources based*. In case of other sectors, the motivation for internationalization and/or de-internationalization is largely related to market and efficiency seeking. Almost all of the established MNEs operate in oligopolistic industries, in which internationalization is triggered and anticipated by rivals operating in the same industry. So considerable industry effects can be observed in particular for this cluster of firms.

Hypothesized and anticipated internationalization and employment effects:

- *In case total sales grow parallel to internationalization, and in case mergers and acquisitions explain for the bulk in foreign sales growth, the negative effects on domestic employment will probably remain limited;*
- *In case of low total sales growth, considerable job effects can be anticipated because of efficiency operations; employment/sales ratios will decrease; the effect on domestic employment needs to be established;*
- *In case total sales growth changes are considerably lower than changes in internationalization, bigger and more negative effects on domestic employment can be anticipated;*
- *In case a firm engages in de-internationalization, the total and domestic employment effects depend on the motivation of the de-internationalization process and the development of total sales: (a) when total sales still increase – or decrease at a lower pace than the de-internationalization process - domestic employment effects will probably be positive; (b) when total sales decrease parallel to – or at a higher pace than the de-internationalization process – domestic employment effects will probably be negative. But (c) when the de-internationalization would imply a retreat from a country that extracts profits from the mother company, the effect could – even when sales temporarily decrease – be positive. The general effects of de-internationalization on the total employment/sales ratio need to be established separately.*

5.4.3 Geographic scope of production and employment

The employment effects of internationalization have been largely addressed in the context of classical internationalization strategies, i.e. the employment effects of a move of production to low wage countries and the concomitant – supposed – New International Division of Labor (NIDL). Hence, NIDL theorists particularly focused on the employment effects of classical (downward-vertical) internationalization strategies. The analysis of FDI data in chapter three showed, however, that most developed-country FDI stock is concentrated in other developed countries, while firms from developing countries remain primarily oriented towards investment in other developing countries (horizontal FDI

strategies).
In the relocation literature it is argued that the closer the similarity in locational conditions of regions and countries in which the MNE operates, the greater the employment substitution effects between the subsidiaries tend to be. Vice versa, the greater the difference in locational conditions the greater the complementary employment and production effects tend to be. Therefore, the degree of competition between workers employed in different localities is to a large extent determined by the similarity (*homogeneity*) in location conditions. Competition among workers in industrialized countries and among low wage countries or regions is greater than between high and low wage countries (e.g. a European worker may not be competing with an Asian worker but rather with other European or American workers). Intra-regional substitution effects are over time also probably moderated by industry, nationality and size (Arrows 2a to 2c in Figure 5.3). Industry plays a role because established labor and capital productivity per industry have an important impact on the maximum number of people employed that create sufficient economies of scale in relation to the whole regional market. The petroleum industry for instance has much higher sales/employment ratios than the consumer electronics industry, but also higher capital investments per unit of product. The nature of competitive internationalization for the petrochemical industry thus probably differs from that of the car industry. So does the impact on domestic employment. A comparable reasoning applies to the size of the firm: the bigger the initial sales of a firm – taken the degree of diversification as a given – the bigger efficiency gains can be made within the region. The nationality of a firm will be of diminishing importance in case of deep integration within a relatively homogeneous region. However, since even the European Union has not achieved real institutional homogenization, national and institutional differences might still proof important.

Research exploring the anticipation of MNE strategies towards regional integration is still in a very explorative stage (Gestrin & Rugman, 1993; Muller & Van Tulder, 2002). Early phases of European integration were associated with market-seeking or tariff-jumping FDI (Glegg & Greene, 1998; Chesnais & Sailleau, 2000). In the light of increased investment and trade liberalization policies of many countries, tariff-jumping FDI has in general decreased in importance as opposed to efficiency related FDI (UNCTAD, 1998). Hence, as European integration proceeds it can be argued that market-seeking investments, through truncated miniature replica subsidiaries, will give way to more rationalized efficiency related investments and more complex organizational structures of MNEs within the particular region (Campbell 1994). The removal of internal trade barriers and deeper economic integration over the 1990s reduced the need for a market-to-market and country-to-country plant location strategy for MNEs operating across Europe. It favored a more integrated form of regional production associated with regional divisions of labor (UNCTAD 1996; OECD, 2002). There is evidence of MNEs that have already started to rationalize their production networks across Europe into fewer and larger plants producing for multi-country markets (Chesnais & Ietto-Gillies, 2000). For instance Ford, Renault and Philips have restructured their European operations significantly. They aimed at reducing the number of plants and consolidating their production in larger units to benefit from economies of scale in response to Europe '1992' (Hamill, 1992). The evidence, however, remains largely anecdotal and often – as in the relocation debate referred to in chapter three – based on questionnaires which measure intended rather than realized strategies.

The trends in geographic scale, scope and integration of production and employment among large firms are thus partly a reflection of a MNEs' (anticipated) strategies towards politically driven regional economic integration.

Guiding questions are:

- *General patterns of internationalization: What is the geographical spatial organization of production and employment of MNEs over the 1990s?*
- *What is the main form of internationalization over the 1990s: classical or competitive internationalization, and is this largely intra-regional or extra-regional?*
- *Do all categories of established MNEs identified in section 5.3.2 (Intermediate MNEs and Established MNEs) show comparable patterns of geographic scope?*
- *Can we speak of regionalization, triadization or globalization; are there perhaps other rival internationalization strategies at work?*
- *To what extent does the NIDL thesis hold: has the location of production and employment of core firms over the 1990s in developing countries relatively grown?*
- *Are changes in intra-and extra-regional sales related to increases or decreases of total, regional and domestic employment?*

Based on data on geographic scope four 'geographic scope clusters' of MNEs can be distinguished that can be applied to particular to the groups of intermediate and established MNEs.

1. intra-regional competitive internationalizers;
2. intra-regional classical internationalizers;
3. extra-regional competitive internationalizers;
4. extra-regional classical internationalizers.

As many of the theories and determinants of internationalization can be positioned in a geographical context, the internationalization of MNEs within each cluster tends to be motivated by specific factors.

Ad. 1 Intra-regional competitive internationalizers
In case firms have reduced the regional number of plants to benefit from economies of scale and increase efficiency – as the major intrinsic driver of intra-regional FDI supposes (Chesnais and Sailleau, 2000), this should be evidenced in higher sales per employee growth (as proxy for firm efficiency). Otherwise, scale and efficiency effects will not have materialized. In case of intermediate MNEs, intra-regional competitive internationalization initially represents primarily market-seeking motives, but probably with higher degrees of efficiency. In practice this is likely to take two steps: relatively parallel sales and employee growth, followed by relatively higher sales to employee growth of the firm.

Hypothesized and anticipated internationalization and employment effects:

- *Intra-regional competitive internationalizers: strategy aimed at serving the same market more efficiently: intra regional sales growth increases (INTRA/TS: +); TS higher than TE, with DE and FE diverging, not necessarily effects on extra-regional sales; productivity increases.*
- *Intra-regional competitive internationalization strategies create stronger domestic substitutive employment effects than intra-regional classical internationalization strategies.*

Ad. 2 Intra-regional classical internationalizers

For intra-regional classical internationalization strategies market seeking and efficiency seeking motives compete. Following the NIDL thesis efficiency motives prompted firms to move abroad. The market is the home market and efficiency gains could be established through a regional division of labor and substantial increases in re-imports. Others have elaborated the idea that in particular Japanese vertical Keiretsu did only move into the region to evade tariffs and hardly to establish a regional division of labor (Ruigrok & Van Tulder, 1995). The latter was not in the last place due to the fear of Japan to become too dependent upon a relatively inimical region. In the course of the 1990s, however, the original hesitation of many Japanese companies towards the vulnerabilities of a regional division of labor has withered away, whereas the necessity to search for more international efficiency due to serious economic problems in the home market. This process was further reinforced by the partial retreat strategies of many Japanese firms from the European and American market into the Asia region (cf. Van Tulder, 1998). So, in the course of the 1990s, increasing intra-regional efficiency has become a priority for Japanese companies as well, but in this case in a division of labor between the developed home country and a relatively underdeveloped region.

Hypothesized and anticipated internationalization and employment effects:

- *Intra-regional classical internationalization: efficiency seeking, intra regional sales growth increases (INTRA/TS: +); not necessarily effects on extra-regional sales; total sales go up; increases in productivity.*
- *Intra-regional classical internationalization strategies create stronger domestic substitutive employment effects than extra-regional classical internationalization strategies.*

Ad. 3 Extra-regional competitive internationalizers

Extra-regional competitive internationalization is largely market seeking and strategic in nature. In practice this is likely to boil down to higher sales and higher employees – in which the relative growth depends on the relative sales/employee ratio in the two regions.

Hypothesized and anticipated internationalization and employment effects:

- *Extra-regional competitive internationalization: strategy aimed at entering into other player's home turf or gaining access to strategic assets: gaining market share, not necessarily gaining efficiency*
- *Extra-regional sales in the Triad as a percentage of total sales go up (Triad/TS),*

total sales remain stable and/or total assets increase; productivity remains stable or declines due to competition.

- *Extra-regional competitive internationalization strategies are characterized by foreign employment growth – largely through change of ownership - with neutral domestic employment effects.*

Ad. 4 Extra-regional classical internationalizers
In case of extra-regional classical internationalization strategies, the prime location motive according to the NIDL theorists has been efficiency seeking (low wages in developing or emerging economies) and/or driven by escape motives (evading high wages in developed countries). For the fifth wave of internationalization efficiency-seeking motives seem less important, it is often combined with market seeking motives. In addition, the labor productivity on average remains considerably lower in developing countries than in developed countries, which negatively affects the employment/sales ratios in these countries. The number of people working for the firm therefore could increase, whilst the cost of employment decreases, implying higher levels of efficiency.

Hypothesized and anticipated internationalization and employment effects:

- *Extra-regional classical internationalization strategies: strategies aimed at entering into other markets and gaining some efficiency*
- *Extra-regional sales go up (RoW/TS); primarily efficiency related in case total sales do not go up (TSg = 0), productivity must thus increase; primarily market-seeking in case extra-regional sales (RoW/TS) and TS increase substantially.*
- *extra-regional classical internationalization strategies create stronger domestic substitutive employment effects than extra-regional competitive internationalization strategies*

5.4.4 Geographic (vertical) integration and organizational strategies

Most empirical studies indirectly analyzing the relationship between international production and employment found that negative employment effects due to increased international production are complemented with increased exports of intermediate products to the foreign (third) market through intra-firm trade (chapters two and three). The underlying assumptions of this line of reasoning were (1) that FDI is conducted by MNEs that are increasingly pursuing integrated international production (IIP) strategies and (2) that horizontal market seeking FDI is increasingly replaced by vertically efficiency seeking FDI in which replicated multi-domestic production structures are replaced by 'globally' integrated production structures. Moreover, the general assumption is that MNEs are increasingly highly geographically vertically integrated and that the production process or value chain of the MNE is well integrated across borders. The extent to which export complementary takes place is largely determined by the organizational structure of the MNE across borders and the interdependence of employment between different locations of production.
Instead of producing independently for each market, with activities in one location being *substitutive* to other locations, different activities of the production process will be

performed in different locations. The activities in one location are therefore more or less *complementary* to the activities in the other location. Different countries and regions would thus be located in different stages of the international vertically integrated production process of MNEs, determining a countries' export orientation (UNCTAD, 2002).

Guiding questions on geographic integration are:

- *Has the level of international vertical integration of MNEs increased substantially over the 1990s?*
- *Have deeper and more complex forms of integration materialized within the group of intermediate and genuine multinationals over the 1990s?*
- *To what extent is the degree of geographic integration associated with different levels of geographic scale and scope?*
- *Is there a 'natural' sequence of integration steps in which firms move from lower levels of integration to increasingly higher levels of integration?*
- *Under what circumstances is it possible that firms move from high levels of integration to lower levels of integration?*
- *Are different levels of geographic integration associated with different ratios of total, domestic and foreign employment (relatively and as compared to sales)?*

The geographic integration of MNEs is by no means universal and as previous research has shown, influenced by the two of the intervening variables: (1) industry and (2) nationality (see section 5.4.1).

(1) Industry:
Previous findings suggest (see section 5.4.1) that an industry that has a higher degree of IIP also has (a) higher degrees of labor productivity, (b) higher degrees of value added (vertical integration in the supply chain), (c) higher levels of capital productivity, and (d) are more industrial and less service oriented. In case this correlation exists, it can be anticipated that the distribution of employment will be differently affected as well.

Hypothesized and anticipated internationalization and employment effects:

- *Higher degrees of labor and capital productivity combined with a high degree of company-internal value added, increases the potential for gains through greater IIP. Depending on the scope of internationalization, the IIP of specific firms will substantially increase. This implies that the IIP of firms in these sectors that engage in competitive intra-regional internationalization will increase more than in case of classical extra-regional internationalization. With an increasing IIP, the TE/TS will deteriorate.*
- *Lower degrees of labor and capital productivity, often combined with much lower degrees of company-internal value added imply that efficiency gains are least likely to be attained, like increases in the degree of IIP. This implies that the degree of IPP in these industries will be relatively independent of the nature of internationalization strategies.*

(2) Country of origin:
As previous studies suggest (see section 5.4.1) different IIP trajectories can be expected for firms coming from different national backgrounds:

Hypothesized and anticipated internationalization and employment effects:

- US intermediate and genuine MNEs tend to move from deep forms of integration to slightly more shallow forms of integration, in order to move from globalization to regionalism; the effect on total employment will probably be positive, because lower degrees of international labor divisions can be achieved;
  what the effect on domestic employment is, remains to be determined, it depends on the overall change in competitiveness of each firm; in case total sales of the company increase, but employment levels increase faster, this might be an indication of better competitive position, with however lower degrees of internal integration (and thus of efficiency);
- European intermediate MNEs tend to move from a multi-domestic to a deep integration strategy, in order to reap the benefit of deep regional integration in particular in Europe;
  the effect on total employment of a deeper integration strategy is bound to be negative, but it depends on the competitive position of the company: in case total sales increase faster than internationalization – a sign of improved competitiveness – total and domestic employment might still increase;
- European established MNEs are less likely to engage in a multi-domestic strategy, but will probably move directly to a higher forms of international integration;
  the effect of this strategy on total employment is more direct: late internationalization with former state-owned firms is almost always associated with entering new markets and thus accompanied initially with relatively little efficiency enhancement; in case of restructuring the foreign branches will first suffer; so even with increased IIP, the level of domestic employment will hardly be affected.
- Japanese MNEs over the 1990s have tended to become less internationally integrated. These strategies represent relatively shallow forms of integration. The integration was searched in the whole supply chain, and the transfer of complete subcontracting networks to the Triad markets – that had barred Japanese Keiretsu from entering through exports – aimed at local production networks for regional markets. The internationalization of Japanese companies, thus in many examples got associated with a lower degrees of internal integration, which has also contributed to some of their competitiveness problems throughout the 1990s. But the Japanese genuine multinationals did not have to change their integration abroad in the course of the 1990s; most of their localization strategies represented a anticipation in particular to Europe 1992 – from the fear of a 'fortress Europe' - and had therefore been aimed at the regional market already. In the 1990s, their degree of IIP probably did not change that much or – due to their spread over the Asia region – might even decline slightly.
  The effect on total and domestic employment is probably more diffuse; the 1990s signal a period in which Japanese companies have over the whole lost competitive position – with some notable exceptions like Toyota for instance; the

deterioration of competitive position has negatively affected domestic employment levels; but the move from relatively high productive labor areas to lower productive labor areas (in the own periphery) might have compensated for this effect; the exact outcome of the process on total employment needs to be further determined.

5.4.5 Synthesis: getting the sign right?

Scale, scope and integration are not independent factors. To an extent they represent different angles of the same phenomenon. The previous sections identified the different dimensions and possible correlations for each axis of multinationality. It was clear that in particular timing, sector and country characteristics are likely to influence the effects of internationalization processes on the geographical employment distribution and total levels of employment. Related to various (combinations of) motives of internationalization, scale, scope and integration can be linked to substitutive or complementary effects on domestic employment. Table 5.3 lists the various combinations. Two clusters of firms or generations of multinationals came to the fore, on the one hand Domestic Firms (DMFs) and New Generation MNEs (NGMs), on the other hand Intermediate MNEs and Established MNEs. These two clusters will be separately analyzed in chapters 7 and 8 respectively. In those chapters it will be tried to establish the most meaningful relationships. The interaction between all three dimensions of multinationality decides upon the ultimate effect on total, domestic and foreign employment. This will be the leading question for chapter 9. The most likely combinations of multinationality that have developed in the 1990s will be clustered. They form dominant combinations of realized – as opposed to intended, postulated or prescribed - strategies of core firms in reaction to the fifth wave of internationalization. The three guiding questions for the synthesis of this study are:

(a) Strategic groups: Is it possible to identify specific strategic groups that result in either substitutive or complementary effects on domestic employment?
(b) Correlations: to what extent are complementary or substitution effects influenced by industry, country of origin and firm size?
(c) Combinations: what prevailing combinations of scale/scope/integration exist and which (1) total, domestic and foreign employment effects and (2) the distribution of employment are associated with these combinations?

The empirical sections of this study aims to fill in the following table.

Table 5.3: Combinations of strategic groups and effects on employment

		DOMESTIC EMPLOYMENT	FOREIGN EMPLOYMENT	TOTAL EMPLOYMENT
I. SCALE	a. DMFs			
	b. NGMs			
	c. Intermediate MNEs			
	d. Established MNEs			
II. SCOPE	a. Intra-Comp.			
	b. Intra-Class.			
	c. Extra-Comp.			
	d. Extra-Class.			
III. INTEGRATION	a. Multi-domestic			
	b. Simple integration			
	c. Complex integration			
	d. Deep integration			
	Prevalent combinations of three parameters			
	1b + 2a + 3b			
	1c + 2b + 3c			
	1d + 2a + 3d			

5.5 SAMPLE SELECTION AND PERIOD OF ANALYSIS

"The prevailing wisdom has been that small companies are fast, entrepreneurial, responsive and effective. Large companies are slow, bureaucratic, unresponsive and ineffective. This is pure nonsense."
Louis V. Gerstner Jr. former CEO IBM
(Financial Times, November12, 2002: 10)

Employment effects of international production strategies can best be analyzed among a group of large firms instead of solely among a group of MNEs. This approach is instrumental in assessing a firm's internationalization strategy over time as well as distinguishing between various generations and types of MNEs: firms taking their first steps abroad, 'intermediate' MNEs that are in the process of internationalization and more established MNEs consisting of a world wide network of subsidiaries, integrated across borders, that are in an advanced stage of internationalization. (cf. Van Tulder, Van Den Berghe & Muller, 2001). The last group obviously forms a desirable group from an analytical and empirical point of view, as they are usually the topic of IB and IM theory. Nevertheless, the firms that are in the process of internationalization provide evidence of the dynamic interplay between the spatial configuration of production and employment distribution. This final section explains the firm selection process (5.5.1), benchmark year of selection and period of analysis (5.5.2) and the resulting number of observations per cluster of firms (5.5.3).

5.5.1 Sample selection: core firms

Thinking of large firms is becoming increasingly popular in the International Business literature. Dunning (1993: 445ff) for instance, confirms the importance of linkages and spillover effects and multinationals considered in their network configuration. Other definitions of "leading firms" in combination with network configurations exist such as *flagship firms* (Rugman & D'Cruz, 2000) in which multinational firms are characterized by global competitiveness and international benchmarks, and *core companies* (Ruigrok & van Tulder, 1995). A "core firm" can be characterized by its large production and technological activities and its ability to "position itself in the core of networks of supply and distribution, and by doing this play a leading role in the creation of added value and in restructuring" (Ruigrok & van Tulder 1995; 65-66). Core firms are spiders in an industrial web. A comparable analytical angle is chosen by the introduction of the idea of m*eta-national corporations* (Doz, Asakawa, Santos & Williamson, 1997) and *networked firms* (Kogut & Kulatilaka, 1994). Small core firms, like Nike and Benetton, are relatively hollow corporations and have relatively small employment volumes. Large core firms, on the other hand, matured in previous phases of industrial development (see also section 5.5.2) and therefore couple high sales volumes with sizeable workforces. Large core firms are therefore almost always amongst the biggest employers in a country and in the sector. This makes large core firms particularly useful for studying employment effects at both micro and macro-level. Because many of the core firms also dominate patterns of Foreign Direct Investment (see chapter 2), these firms are equally well positioned to take internationalization effects into account.

How to select a representative group of large core firms? The selection of a final sample of firms was distilled in a multi-step process. Due to its long existence (the list is published since 1955), the Fortune Global 500 classification is well known and widely applied in academic research (Sullivan, 1994). One of the first projects on internationalization of large firms in the 1960s and 1970s, The Harvard Multinational Enterprise Project (see appendix A) already used Fortune Magazine to select its sample of firms (cf. Vernon, 1971). The Fortune list not only mentions revenues, but also profits, assets, stockholders equity and the total number of employees. Fortune also ranks companies by industry group and by country. Taking the Fortune Global 500 listing as point of departure therefore is a logical first selection step.

In the first 38 years of its ranking up until 1994, Fortune kept a rather rigid definition of "industrial corporations". It excluded the listing of some of the world's largest combined industrial/services conglomerates, such as American Telegraph and Telephone (AT&T), Nippon Telegraph and Telephone (NTT) or British Telecom (BT). Since 1994 (see the list of Fortune Global 500 published in Fortune Magazine August 7, 1995) the basis of selection changed, including combined conglomerates as well as specialized services companies. The more recent Fortune lists therefore include a larger number of the largest core companies in the world. The year 1995 was chosen as basic benchmark for comparison to enable longitudinal overviews over a longer period of time.

As the research focuses specifically on international production, it was decided to select the 200 world's largest *manufacturing* firms from the Fortune Global 500 list of 1995. This implied that the following sectors were excluded from the analysis: brokerages, commercial banks, diversified financials, insurance companies (life & health; prop. & casualty), and savings institutions. Generally, the sectors selected for the study thus relate

to non-financial firms. In order to reach a number of 200 core manufacturing companies, we had to select the first 279 firms in the Fortune Global 500 of 1995. Of these 279, 79 were financial services firms, which were consequently excluded. .

The 200 manufacturing firms represent a substantial group, in terms of sales and employment, within the Fortune Global 500, 1995. Together they employ 22.761.170 employees (which is 64.8 percent of the Global 500) and their revenues reached up to over 6.918 billion US dollars over 1995 (which is 60.8 percent of the Global 500).[56] The total assets of the group of 200 firms represents 21.5 percent of the Global 500, but this relatively low figure is largely due to the fact that financial services firms in terms of assets represent a large – but incomparable group vis-à-vis the manufacturing sector.

The sample of the world' largest 200 core firms received the predicate of *SCOPE core 200*. They form the heart of a wider research project, based on the SCOPE[57] Database developed at Erasmus University since 1997 (cf. Van Tulder & Van den Berghe, 1998 and appendix B of this study). In the following sections and chapters, the sample of 200 Fortune Global 500 firms will be referred to as the *'SCOPE Core200'* or simply the *'Core200'*.

This study thus monitors a predetermined sample of large firms over a longer period of time, instead of selecting a sample each year. As the Harvard Multinational Enterprise Project (HMEP) demonstrated, following a predetermined set of firms is an accepted methodology in studies exploring the historical trajectories of internationalization of large firms (cf. Vernon, 1971). Table 5.3 provides an overview of the country and industry distribution of the SCOPE Core200 firms. A complete list of the SCOPE core200 can be found in appendix D. Table 5.3 also shows that the sample size for a few sectors (Electronics, Food and Retail, Automotives, Petroleum refining, Chemicals and Pharmaceuticals, Telecommunication and Trading) and for a few countries (USA, Japan, France, Germany) could be acceptable for statistical correlations. As will be explained in the next chapter, there still remain major deficiencies in the data gathering even of relatively small samples. So, even when the sample of the Core200 represent a very interesting group of firms, it remains difficult to come to statistically sound measurement of interactions. For some groups of firms the analysis therefore remains still largely qualitative and relatively exploratory.

[56] Figures are calculated on the basis of data presented in Fortune Magazine August 6, 1996.

[57] The Studies and Competence Center for Organizational and Policy Research in European Business (SCOPE) is attached to the department of Business-Society Management at the Faculty of Business, Rotterdam School of Management (RSM)

Table 5.3: Country and industry division of the SCOPE Core200

	Fortune code #	Brazil	Canada	France	Germany	Italy	Japan	Mexico	Netherlands*	South Korea	Spain	Sweden	Switzerland	United Kingdom	United States	Venezuela	Total
Aerospace	1														5		**5**
Airlines	2				1		1								2		**4**
Beverages	3														1		**1**
Building Materials	5			1													**1**
Chemicals	6			1	3		1						1	1	2		**9**
Computers & Office Equip.	8						2								3		**5**
Electric & Gas Utilities	10			1	1	1	5										**8**
Electronics Equip.	11		1	2	1		8		1	2		1	1		3		**20**
Energy	12										1						**1**
Engineering, Construction	13			3			5										**8**
Food	15			1		1			1				1		3		**7**
Food and Drug Stores	16			2	1		2		1					2	3		**11**
Food services	17														1		**1**
Forest and Paper Products	18														2		**2**
General Merchandisers	19			1	1		2								6		**10**
Industrial & Farm Equip.	21				1		1							1	1		**4**
Mail, Package, Freight Delivery	26			1	1		2								2		**6**
Metal Products	27			1													**1**
Metals	28			1	2		4										**7**
Mining Crude Oil Prod.	29				1			1									**2**
Motor Vehicles and Parts	30			2	4	1	8					1			3		**19**
Petroleum Refining	31	1		2		1	3		1	2	1			1	7	1	**20**
Pharmaceuticals	32														2		**2**
Railroads	34				1		1										**2**
Rubber and Plastic Prod.	35						1										**1**
Scientific & Photo Equip.	37														3		**3**
Soaps, Cosmetics	39														1		**1**
Specialist Retailers	40														2		**2**
Telecommunications	41			1	1	1	1				1	1		1	4		**11**
Tobacco	42						1							1	1		**3**
Trading	43				3		11		1	2					1		**18**
Wholesalers	44				1										2		**3**
Miscellaneous	45						1								1		**2**
Total		**1**	**1**	**20**	**23**	**5**	**60**	**1**	**5**	**6**	**3**	**3**	**3**	**7**	**61**	**1**	**200**

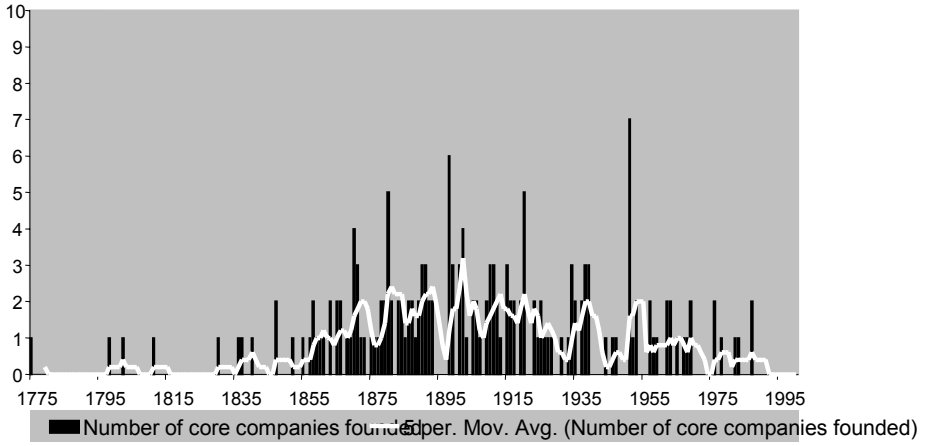
Note: the industry categorization is constructed on the basis of the original Fortune Global 500, 1995 industry specification (Fortune Magazine August 5, 1996). Metro was originally listed as a Swiss company, but in subsequent Fortune rakings listed as German, hence it is here listed as a German core company.
** Includes British-Dutch Unilever and Shell as well as SHV Holdings officially incorporated in the Netherlands Antilles.*

5.5.2 period of analysis

Mainstream literature on the relationship between international production and employment largely focused on the 1970-1980 period of the "new international division of labor" (chapter two). The 1990s were characterized by a more complex wave of relocation. The end of 1989 marked the opening-up of a large number of transition economies. Not only were the 1990s the period of alleged 'globalization' of FDI, and competition from Newly Industrialized Countries (NICs), it was also a period in which international relocation was very much a phenomenon intertwined with processes of regional integration (chapter one). The perceived threats of relocation and 'social dumping' within regional trade blocks (as the EU and NAFTA) culminated with the start of the Single European Market in 1992 and the signing of NAFTA in 1994. The 1990-1999 period can thus be regarded as an important period of European and North American integration as it covers a period of several years preceding the establishment of the Single European Market (SEM) in 1992 and NAFTA in 1994 and a large period after 'Europe 1992' and ' NAFTA 1994'. The European integration received a further impulse by the membership of three additional developed countries in 1995 (Austria, Sweden, Finland). The effects of both developments are covered by the 1990-1999 period. Firms developed strategies both in anticipation and as a result of these institutional changes. Both effects fall into the observed period. In the same period, regions including developing countries like Mercosur in South-America and ASEAN in South-East Asia took also a number of measures to deepen their level of integration (cf. Muller, forthcoming). The effects of these processes (both anticipated as well as realized) also fall in the observed period. All countries also experienced rapidly rising unemployment ratios (as percentage of the workforce) at the beginning of the 1990s (chapter one and two). This followed a relatively calm period of employment development in the second half of the 1980s. The 1990 period thus starts with comparable unemployment problems in most countries, but with varying developments over the remainder of the period.

5.5.3 Generations of core companies and clusters of multinational enterprises

The group of two hundred core companies in the mid-1990s represents a remarkable historical continuity. Figure 5.5 reveals the founding dates of 181 of the Core200 firms (the remainder of the firms are likely to be spread evenly across the period, but where more difficult to establish). There are clear periods in which the majority of the present core companies were created. Their foundation accompanied economic booms and the introduction of new technologies. The appearance of economic success thus was linked to the launch of new core companies, while of course many preexisting core companies were unable to restructure quickly enough in response to the new economic conditions and disappeared. A sizable number of the present generation of core firms, however, have gone through a series of economic boom and bust periods, illustrating the success of their own particular survival skills (see also De Geus, 1997).



Source: Van Tulder,Van Den Berghe and Muller (2001).
Figure 5.5: Foundation years of SCOPE Core200 companies

Around eighty percent of the Core200 companies date back to before the Second World War. More than 25 percent were even founded before 1870, while some companies (Deutsche Post/Telekom; Sumitomo, Saint-Gobain, Merck) can even be traced back to the 17th, the 16th and even the 15th century. More than 45 percent of the present generation of core companies were founded in the 1870-1913 period. Nearly seventeen percent were founded in the Interbellum (1919-1939). The Interbellum in many countries – although not all – also included a period of Great Depression (1929-1939). The economic boom of the 1950-1973 period produced another fourteen percent of the present SCOPE core200 companies. By 1973 around seventy five percent of the 181 SCOPE core companies were founded. With each consecutive economic "boom" (1870-1913; part of the Interbellum; 1950s-1973, 1985-2000) the number of core companies founded has thus decreased. This provides further evidence of the importance of historical foundations and the importance of a core position in national economies, leaving less and less room for newcomers. War proves to be the most stabilizing factor for core companies. During World Wars I and II virtually no core companies were founded – except for a few in countries that were neutral (i.e. not directly involved in the war). Since 1973, the number of large core companies is limited and mainly linked to protected markets either in developing countries (Hyundai) or as the consequence of changes in regulation (BellSouth; East Japan Railway). Only Compaq computers (founded in 1982) can be considered a completely new start-up in the last fifteen years that has acceded to the ranks of modern-day large core companies.

Accompanying this remarkable historical continuity and stability is the limited change of the firm's – although rapidly changing in specific end products – core competencies. Although, for instance, electricity producers moved into electronics and steel producers into specialty steels and aluminum, the core competencies of core companies have remained essentially the same over a long historical period (Chandler, 1990).

Due to the selection criteria of sales volume of 1995, the group of Core200 firms is relatively heterogeneous in terms of country of origin and industry, but also in terms of stages in the internationalization process. Although, the historical foundations of the

Core200 date back to the early 1900s and even before, not all have been international throughout the 20th century. While some firms are in the process of internationalization, others are well-established MNEs, with substantial foreign operation located in many countries and regions. Nevertheless, a number of Core 200 firms remain bound to their country of origin and have no (or negligible) international activities.
The following sub samples of the CORE200 exist:

- 1 + 2: In 1990 of the number of Core200 firms 52 firms can be classified as largely domestic (with FS/TS ratios below 10 percent). Over the 1990-1999 period 29 domestic firms internationalized and 'migrated' to become New Generation MNEs (NGMs). 23 of the Core200 firms remained largely bound to their domestic markets and can be classified as domestic firms (DMFs). The general strategies of these firms and the impact on total and, per definition, domestic employment will be studied in chapter 7.
- 3 + 4: The remaining, relatively heterogeneous, 148 Core200 firms had already more than 10 percent of their sales abroad by the year 1990. For reasons related to geographic employment segment data reporting (see next chapter six) only 87 of these 148 core firms could be researched. Of this sub-sample the number of intermediate multinationals (i.e. with international sales between 10 and 29 percent) by the year 1990 was 19, while the number of 'genuine' or established multinationals (with foreign a foreign sales ratio of 30 or more percent) by the year 1990 amounted to 68. These clusters show varying internationalization trajectories over the 1990s. Of the established multinationals, 19 firms for instance showed a process of de-internationalization (FDD). Only one established MNE migrated from an established status into an intermediate status. Another cluster of companies adopted very aggressive internationalization strategies throughout the 1990s and migrated (jumped), for instance, from an intermediate status to one of 'genuine' multinationality. The sub-clusters of de-internationalizers and rapid internationalizers form a dynamic groups and will also be researched.

As data of three clusters of domestic firms , new generation MNEs and intermediate MNEs are limited, a more case study approach is used to test the hypotheses for these firms (cf. Eisenhardt, 1989).

5.6 CONCLUSION

This chapter has set out the research framework adopted in this study. It has highlighted the multi-disciplinary research on corporate multinationality and has identified a number of key debates. Based on the extensive literature survey of the previous three chapters, four dimensions of corporate multinationality were distinguished: operation, performance, orientation and ownership. The review of the indicators developed to measure corporate multinationality showed a number of serious shortcomings. This chapter therefore introduced a new three-legged framework on corporate multinationality. It consists of three parameters: *geographic scale, geographic scope and geographic integration.*
Based on this three-legged framework of corporate internationalization a number of hypotheses were designed. Finally, the last section described the sample selection process and operationalized the measurement tools applied for the empirical testing of the

hypotheses. Part IV of this study will analyze the internationalization of four generations of MNEs and their effects of employment. As internationalization is an evolutionary process I will start with the analysis of domestic firms and new generation MNEs (chapter 7), and conclude with the clusters of intermediate and established MNEs (chapter 8).

PART IV: GENERATIONS OF MULTINATIONALS, INTERNATIONALIZATIONON & EMPLOYMENT

6. FIRM LEVEL GEOGRAPHIC SEGMENT REPORTING

6.1 INTRODUCTION

The third part of this study empirically analyses the relationship between internationalization and employment of a substantial sample of the world's 200 largest core firms. This study uses primary firm level geographic segment data for sales (as proxy for the spatial configuration of international production) and direct employment. These data can largely be collected from annual reports, complemented with SEC fillings (largely 10-K forms).[58] In the late 1990s, three developments affected the transparency of geographic segment disclosures by companies and thus the primary firm level data collection process. Firstly, major changes took place in international accounting regulations governing corporate geographic segment disclosures for, in particular, MNEs with US listings. Secondly, greater compliance towards and convergence of international accounting principles among MNEs headquartered in different countries materialized. Finally, the growth of information provided by MNEs on their company websites, considerably lowered the transaction costs of data collection processes. Nowadays many of the SCOPE core200 firms have their annual reports and SEC forms (downloadable) online.[59] The web-supported EDGAR databanks of the SEC has, in addition, provided many researchers worldwide with low-cost data on firms listed on US stock exchanges. Nevertheless, the collection of relevant data from these sources still contains a considerable number of caveats – in particular with regard to the very sensitive disclosure of international employment data. The disclosure of data has become part of the competitive process in the fifth wave of internationalization. Data gathering issues thus have to be addressed first before we can turn to the more detailed debate on the relationship between internationalization and employment.

Therefore the ambition of this chapter is twofold: (1) to show the results of the primary firm level data collection effort using the methodology and guidelines to process data introduced in appendix C, and (2) to show how MNEs report geographic segment sales and direct employment in their annual reports.

This chapter is structured as follows. Section 6.2 highlights the differences in national accounting systems and, in particular differences in national regulations governing the geographic segment reporting in corporate annual reports. Section 6.3 shows how MNEs report geographic sales segment in their annual report, while section 6.4 does the same for geographic direct employment segment data.

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[58] Data collection on the geographic segmentation of the two indicators forms an integral part of research conducted since 1998 at the Erasmus University of Rotterdam, partly in conjunction with UNCTAD, to document the internationalization patterns and behavior of the world's 200 largest (non-financial) companies over the 1990s, measured by value of total sales in US dollars in 1995 (see Van Tulder, Van Den Berghe & Muller, 2001). The data collection results obtained for the geographic sales segment data, discussed in this chapter can largely also be applied to geographic asset data.

[59] Recently, the SEC proposed new and stricter corporate disclosure rules governing of corporate SEC fillings. Among them are: accelerate filing by companies of their quarterly and annual reports (from 90 to 60 days after the end of the fiscal year), publish the SEC fillings at corporate websites as soon as they are filed to the SEC, expand the list of significant events requiring current disclosure on existing Form 8-K (in particular restructuring). For information: http://www.sec.gov/news/press/2002-22.txt

6.2 NATIONAL ACCOUNTING SYSTEMS AND GEOGRAPHIC SEGMENT DISCLOSURES

This section positions the geographic segment reporting of MNEs in a national context and discusses different national accounting systems and requirements for geographic segment reporting of MNEs. It also addresses recent regulatory changes in the requirements for geographic segment reporting. Finally, it is demonstrated that the geographic segment reporting of MNEs provides a proxy for the geographic strategic orientation of the MNE (the orientation dimension of corporate multinationality, as identified in section 5.2.1).

6.2.1 Macro and micro based national accounting systems

Worldwide there are many national accounting standards and practices referred to as General Accepted Accounting Principles – GAAP. This hinders cross-country comparisons of financial (annual) reports of MNEs and depends on the level of governmental influence on accounting standards. Nobes (1983) differentiates between two accounting systems: macro-uniform and micro-based systems. Macro-uniform systems can be subdivided in law-based (Germany and Japan) and tax-based (France, Italy, Spain and Belgium) systems. Micro-based systems are largely influenced by US accounting practices. Countries belonging to this group are Canada, the United Kingdom and most commonwealth countries, and the Netherlands, mentioned as a separate micro-based sub-class (due to its resemblance with both systems). Micro-based systems are often aimed at filling the needs of the shareholders and financial analysts focusing on valuing companies and are very pragmatic in their approach. They have a strong investor orientation and are largely aimed at raising capital in (international) capital markets. The macro-based systems of most continental European countries and Japan aim for a broader audience and are largely focused on governments, institutions and other stakeholders of firms. In general, macro-uniform systems are characterized by a greater secrecy in disclosure, while the more micro-based Anglo-Saxon systems are characterized by greater transparency or openness (Daniels & Radebaugh, 2001).
No single set of high quality international accounting standards exists that is accepted in all countries and capital markets. Based on the previous two identified systems there are, however, two international standards aiming for the harmonization of national accounting standards. Firstly, the International Accounting Standards Committee (IASC)[60] (Daniels & Radebaugh, 2001: 674).[61] The major challenge to the world-wide acceptance of the IASC GAAP are the US GAAP set up by the Securities and Exchange Committee (SEC) and the US Financial Accounting Standards Board (FASB). The United States hosts the largest stock market (the New York Stock Exchange: NYSE). Many non-US MNEs have also US listings and have to adhere to US GAAP, which therefore tends to dominate (Daniels &

[60] The IASC was set up in 1973 by professional accounting bodies of Australia, Canada, France, Germany, Japan, Mexico, the Netherlands, the United Kingdom, Ireland and the United States (Daniels & Radebaugh, 2001). In January 2001 the IASC changed its name to the International Accounting Standards Board (IASB) (source: www.fasb.org).
[61] At a regional level the European Commission also issues financial accounting directives to its member countries and EU companies. The EU's influence is spreading beyond its member states to, in particular other future EU member countries.

Radebaugh, 2001). Over the 1990s, in particular European MNEs have attempted to get a US listing, an example is Daimler-Benz' NYSE listing in 1993 (Hill, 1997). European firms coming from macro-based systems experienced considerable difficulties in adhering to the bigger transparency requirements involved in a US listing. Some – e.g. Swiss companies - chose not to get enter the NYSE because of these requirements. Foreign firms filing with the SEC can use U.S. GAAP, their home country GAAP, or international standards—although if they use their home country GAAP or international standards, foreign issuers must provide reconciliation to U.S. GAAP (source: www.fasb.org consulted June 15, 2002). Despite the efforts to come up with a worldwide GAAP and many MNEs adhering to US GAAP, still considerable national differences persist. Of particular importance for this study are the national accounting regulations governing the disclosure of geographic segments.

6.2.2 National geographic segment disclosure requirements

Divergent national accounting principles are reflected in the regulations governing geographic segment reporting in corporate financial reports.
For MNEs listed in the United States the rules governing the enterprise-wide geographic segment disclosures have been most extensive and subject to recent regulatory changes. The SEC required line-of-business segmental disclosures since 1969. The FASB in 1976 introduced more comprehensive requirements in Statement of Financial Accounting Standards - SFAS 14 "*Financial Reporting for Segments of a Business Enterprise*" (FASB, 1976). The segment requirements covered not only line-of-business segments but also geographical segments. According to SFAS 14, firms whose foreign revenues, assets or profits are material that is at least 10 percent of corporate total, and are listed on US stock exchanges are required to segment exports sales from domestic segment, revenues from unaffiliated customers, intra group transfers, identifiable assets, operating profit or loss and net income, or other profitability measures in their annual financial reports, statements and 10-K forms (Qian & Li, 1998: 159; FASB, 1976: 304). Identifiable segments were defined as follows: "Foreign geographical areas are individual countries or groups of countries as may be determined to be appropriate in an enterprise's particular circumstances. Factors to be considered include proximity, economic affinity, similarity in business environments and the nature, scale and degree of interrelationship of the enterprise's operations in the various countries" (SFAS 14, paragraph 34). In 1997 the FASB issued SFAS no. 131 ("*Disclosures about Segments of an Enterprise and Related Information*") governing geographic and line-of-business (LOB) segments of a firm and related information, SFAS 131 superseded the geographic segment reporting requirements of SFAS no. 14. and applied to all US listed companies and governed all fiscal years commencing after December 15, 1997 (FASB, 1997).
There are major differences between SFAS 14 and SFAS 131. Firstly, whereas SFAS 14 required disclosure of profits or loss, in addition to revenues and identifiable assets, SFAS 131 only required the disclosure of revenues (from external customers) and (long-lived) assets (Doupnik & Seese, 2001). So unless companies voluntarily disclose geographic profit segments this item of information will not be available to analysts. Secondly, in addition to revenues from external customers, under SFAS 131 regulation, information on inter-segment revenues is to be reported separately. Thirdly, under SFAS 14 there was no

specific link with the segments reported and the internal organization of the firm, resulting in highly aggregated geographic disclosures, which were of limited use to decision makers and corporate (financial) analysts. Hence, SFAS 131 required MNEs to adopt a "management approach" in determining reportable operating segments (Herrmann & Thomas, 2000). The "management approach" involves that firms report geographic segments along the same lines as used by management for purposes of internal organizational performance evaluation (Street, Nichols & Gray, 2000). Finally, in contrast to SFAS 14, which allowed the grouping of countries into geographic areas (i.e. Europe), under SFAS 131 regulation disclosures must be provided on a domestic and foreign basis as well as for each country in which a material amount of revenues or (long-lived) assets are located. The latter was an answer to a long heard complaint by analysts focusing on (exchange rate and political) risks of a company's operations in specific countries. However, SFAS 131 does not provide any threshold about the materiality of revenues and assets in a country. The determination of this materiality criterion with regard to individual countries is left to 'management judgment'. Doupnik and Seese (2001) therefore concluded that "depending on the quantitative thresholds used by companies and management judgment to determine whether an individual country is material, the application of SFAS 131 could result in less (or more) aggregated, and therefore potentially more (or less) useful, geographic area information being reported than under SFAS 14" (p. 120, emphasis added). Box 6.1 assesses the impact of the regulatory change from SFAS 14 to SFAS 131 between 1997 and 1998 for US listed companies.

Box: 6.1 the impact of regulatory change in geographic segment requirements in the US

In an empirical study Doupnik and Seese (2001) compared company geographic segment disclosures between 1998 (the year of adopting SFAS 131) and 1997 (the last year of applying SFAS 14) for 254 Fortune 500 US companies disclosing revenues by geographic area. The study's objective was twofold. Firstly, to provide insight into the management judgment issue regarding the materiality criterion under SFAS 131 for the determination when an individual country is reportable. The second objective was to determine whether company geographic segment disclosures under SFAS 131 result in a finer set of information than was provided under SFAS 14. For this purpose Doupnik and Seese (2001) developed a "hierarchy of fineness as follows (from finest to least fine): individual country (e.g., France), subcontinent (e.g., Western Europe), continent (e.g., Europe), multi-continent (e.g., Europe, Middle East, and Africa), hemisphere (e.g., Eastern Hemisphere), and non-domestic (i.e., Foreign). Doupnik and Seese (2001) conclude that there is considerable diversity among firms in the way materiality is defined, with a majority of companies applying country level disclosures with thresholds below 10 percent and that geographic segment information under SFAS 131 is finer than the information provided under SFAS 14. Similar results were reached by Street, Nichols and Gray (2000) and Herrmann and Thomas (2000), although the latter emphasize that the number of firms reporting earning by geographic area has decreased substantially among Fortune 500 US firms, as this item is no longer required to be disclosed under SFAS 131. Nichols, Street and Gray (2000) also found that the percentage of US companies providing country specific disclosures increased from 4 percent in 1997 to 28 percent in 1998. Contrary, to expectations they found no significant relationship between the reporting of country specific disclosures and the degree of multinationality (defined as FS/TS). Of a more negative nature Nichols, Street, Gray (2000) found an increase in the number of companies providing disclosures using a "US, Other" classification. Similarly, Doupnik and Seese (2001) list a number of striking examples of MNEs providing no dis-aggregation of foreign revenues in 1998 under new SFAS 131 regulation, but did so the year before. PepsiCo is in this respect striking as it reported six geographic areas in 1997, but only reported two (US and foreign) in 1998.

The impact of new regulation upon geographic segment disclosures by US MNEs has been large; nevertheless many issues remain to be solved. Many problems center on the materiality criterion (cf. Doupnik & Seese, 2001; Nichols, Street & Gray, 2000) and on earnings reporting (Hermann & Thomas, 2000).

Accounting regulations and practices in the UK are similar to United States. Although, line-of-business segment disclosure (of sales and profits) requirements date back to 1967,

it was not until 1985 that UK companies were required to report geographic segments of sales and profits before tax (Radebaugh & Gray, 1997: 306). In 1990 the geographic segment requirements were broadened to also include net assets. In addition, the geographic segment disclosure of sales should be reported both by source (or origin) that is, location of production or service affiliates, and destination. This new regulation has brought the UK requirements close to the US system.
Having the most extensive disclosure requirements, the UK is definitely the exception across Europe. Other EU countries mainly follow the EU Fourth and Seventh Directive which has been implemented in national legislation in all countries. These Directives imply that geographic sales segments have to be reported in company accounts. In 1998 Germany adopted extensive additional geographic segment disclosure regulation for listed companies (Nobes & Parker, 2000: 379).
In Japan, segmental reporting requirements were introduced in 1990 and covered only Line of Business (LoB) segments : sales, assets and profits. With regard to geographic segments, geographic sales and profits are to be disclosed as of 1997 (Nobes & Parker, 2000: 379). Full industrial and geographic segment disclosure is now required for fiscal years beginning on and after April 1, 1999. Table 6.1 summarizes the geographic disclosure requirements in different countries.

Table 6.1: National geographic segment disclosure requirements

	Sales	**Employment**	**Assets**	**Profits**
USA	Yes	No	Yes	Yes
Europe				
- France	Yes	No	No	No
- Germany	Yes	No	No	No
- Italy	Yes	No	No	No
- Netherlands	Yes	No	No	No
- Spain	Yes	No	No	No
- Sweden	Yes	No	No	No
- Switzerland	No	No	No	No
- United Kingdom	Yes	No	Yes	Yes
Japan	Yes*	No	Yes	Yes*
Remaining				
- Canada	Yes	No	Yes	Yes
- Brazil	No	No	No	No
- Australia	Yes	No	Yes	Yes

Source: based on Radebaugh & Gray (1997: 308). Taking account of the recent changes in the national accounting regulations, the requirements for Japan have been modified.
Note: total overseas only and as off 1997 ** total overseas only and as off 1999.*

There are no requirements for the disclosure of geographic employment data. As most requirements cover only the sales variable, most MNEs disclose only the geographic spread of their annual sales volume.

6.2.3 Geographic segment disclosures and the geographic orientation of MNEs

Studying the style and disclosure level of geographical segment data of MNEs in annual reports is in itself a research project. It reveals how firms themselves perceive the geography of international production. Moreover, the presentation of geographic segments reveals information on the strategic perception of the top management team of the MNE. It reflects the way executives and managers think about doing business around the world and how they perceive the geographical spread of their firm's worldwide activities. This is comparable to what Sklair (2001) calls the 'global imagery'. Additionally, geographic segmentation reveals the risk perception of management towards a certain geographic segment and thus provides a risk profile of the MNE. In short, the style of geographic segment reporting of MNEs provides a proxy of the strategic geo-political orientation of the MNE (i.e. the orientation dimension of corporate multinationality, identified in section 5.2.1). This geographic orientation and perception of MNEs can be important in processes of relocation and bargaining relations between the MNE and its stakeholders. The perception of more mobile production in bargaining constellations may sometimes be more important than the actual behavior or real geographic spread of business (Held, McGrew, Goldblatt & Perraton, 1998: 269).

The number of geographic areas identified by firms as well as the disclosure level of aggregation (i.e. fineness) shows many variations among firms, across industries and countries, but also within firms over time. These variations can be related to regulatory changes (as identified in section 5.2.2.). Meek, Roberts and Gray (1995) conclude, however, that internationally listed MNEs have a greater tendency to disclose information voluntarily (Meek, Roberts & Gray, 1995).[62]

The firm-wide geographic disclosure levels range from companies providing a breakdown of their 'domestic' versus 'foreign' activities, to those providing multi-continent breakdowns (e.g. 'Eastern Hemisphere' and 'Western Hemisphere') or continent level breakdowns (e.g. 'Asia', 'Europe' and 'North America' to country-level disclosures (e.g. 'France', 'Germany'). In particular German and Scandinavian MNEs provide country (major subsidiary)-level disclosures on sales/revenues, number of employees and the share of ownership by the parent company in the subsidiary. Furthermore, a number of European (especially German) MNEs explicitly make the distinction between their 'Domestic', 'European Union' (or 'European Community') and 'Eastern Europe' (or 'Rest of Europe') operations. US MNEs do not often make this distinction and often simple refer to 'Europe' in their geographic segment reporting. Similarly, European MNEs do not differentiate between 'United States' and 'Rest of North America' operations in their annual reports. Instead they simply refer to 'North America' as a geographic area. Only in a number of cases do the regions identified by companies in their geographical segment reporting comply with macro political regions (like the European Union and NAFTA).[63] Following

[62] Meek, Roberts and Gray (1995) compared the factors influencing the voluntary disclosures of 226 MNEs from the United States, United Kingdom and Continental Europe by giving 'scores' for domestic *and* international listed companies. The exact meaning of 'voluntary' in their treaties deserves further substantiation, though.

[63] The political regions identified by the United Nations (see: http://unstats.un.org/unsd/methods.htm) differ substantially from those identified by Fortune Global 500 companies. The United Nations (1996)classifies all countries in ten regions. EU, Other Western Europe, North America, Other Developed Countries, Latin America and the Caribbean, Africa (excluding South Africa), Asia (excluding Japan), the Pacific, Central and Eastern

the EU integration process, Fiat, for instance changed its geographic 'EEC' segment into 'EU' in its annual report of 1992. Another example is the German trading multinational Veba that, in anticipation of the European Monetary Union (EMU), identified 'Euroland' as a separate geographic segment in its annual report of 1999. Besides this handful of cases, there is a tendency of MNEs changing their regional segments to include different RIAs as separate geographical classifications. Nevertheless, and despite SFAS 131 some MNEs remain reluctant to provide information through their geographic segment disclosures. They report segment data at a very high level of aggregation e.g. 'Domestic' and 'Abroad', 'Eastern Hemisphere' and 'Western hemisphere'. Similarly, a limited number of firms have actually increased the level of aggregation in their geographic segment reporting over time from - for instance - country-level disclosures to continent-level disclosures.

In chapter five the geographic segment ratios ratio's applied in this study were identified intra-regional (Rest of Europe for European MNEs and Rest of North America for US MNEs), extra-regional, inter-regional (North America for European MNEs and Europe for US MNEs and both for Japanese MNEs), and rest of the World (RoW) [64] were identified. Table 6.2. shows how companies refer to these geographic segments in the geographic segment reporting sections of their annual reports.

Europe and other developing Europe. Another classification is along lines of regions and countries involved in FDI, identified in UNCTAD's annual World Investment Report.

[64] Rest of the World (ROW) is a residual category. It largely includes emerging markets and developing countries and Japan for non-Japanese firms. There are many ways companies refer to this category. Therefore the ROW segment is not listed in table 6.2.

Table 6.2: Conceptual geographic segment disclosure versus 'real' geographic segment disclosure of SCOPE Core200 MNEs in 1999

Conceptual Geographic segment areas	Foreign	Europe	Rest of Europe	North America	Rest of North America
'Real' geographic segment areas as defined by MNEs in annual reports	International	Europe, Middle East & Africa	Other Europe, Middle East & Africa	(The) Americas	Other Americas
	Abroad	Greater Europe	Other European Countries	America-Pacific	Other American Countries
	Overseas	Europe	Other Europe	America	Other North America
	Other nations	Continental Europe	Other Western Europe	North and South America	Canada* &Latin America
	Outside…	Western Europe	Rest of Europe	North America	Canada & Mexico
		European Union (EU)	Central and Eastern Europe	NAFTA	Canada
		EU countries	Eastern Central Europe	U.S.A. &Canada	Mexico
		Countries of the European Union	Eastern Europe	U.S./U.S.A./ United States	
		Euroland	Non-EU Countries		
			Other EU Countries		
			Other European Union Countries		
			Other Euro-Bloc Countries		

Source: SCOPE database (year 1999) consulted June 4, 2002

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As table 6.2 shows there is much variation in the geographic segment disclosure fineness of MNEs referring to the 'Rest of Europe' and 'rest of North America' - the home region for European MNEs and home region for US MNEs respectively. Through, a detailed analysis of a large number of annual reports evidence was found that, if firms do not distinguish between, for instance, the 'EU' and 'Rest of Europe' the company has almost all activities located in the EU. In many cases, therefore, 'Europe' or 'Western Europe' can in practice be used as a proxy for the European Union or the Single European Market (cf. Dunning, 1997; Muller & van Tulder, 2002). This is consistent with the SFAS no. 131 regulation on the materiality of foreign operations in various countries. Only, in a very few cases did firms reveal strategic information of relocated activities in their geographic segment disclosures.

6.3 FIRM LEVEL GEOGRAPHIC SEGMENT DISCLOSURE OF SALES

Chapter five introduced and operationalized three parameters of a 'Chandlerian' framework of operational multinationality. A firm's geographic scale, scope and integration of international production can be measured by the geographic spread of its sales, where sales by origin provides a proxy for the geographic scale and scope of production and intra-firm sales a proxy for the level of geographic integration. The following sections show the result of the methodological interventions (as outlined in appendix D) and how SCOPE core200 companies report the geographic spread of their sales volume.

6.3.1 Sales by origin and sales by destination reporting

Most national accounting standards require their companies to report their geographic spread of *external revenues and intersegment transfers* if the foreign amount is more than 10 % (see Table 6.1). Therefore the geographic segment disclosure of sales (or revenues) is compared to other accounting variables (e.g. assets and employment) relatively well documented in annual reports. Companies have three possibilities of reporting their annual geographic sales segments: Sales by Origin (SO), Sales by Destination (SD) or Both - sales by origin and sales by destination (BOTH) (see Table 6.3).

Table 6.3: Sales reporting, 1990-99 Core200

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total N	112	114	121	130	136	145	147	149	140	136
% BOTH	7.1	7.0	9.1	11.5	15.4	18.6	20.4	18.1	17.9	15.4
% SO	79.5	78.9	78.5	78.5	75.0	72.4	71.4	69.8	67.1	69.1
% SD	13.4	14.0	12.4	10.0	9.6	9.0	8.2	12.1	15.0	15.4

Of the three options, SO is by far the most frequently reported, outscoring SD by a ratio of about five to one. There is also an increased tendency to report BOTH over the decade, rising from only 7 percent of those firms reporting geographically segmented sales in 1990 to a high of over 20 percent in 1996 before tapering off again in the late 1990s. Since firms are only required to report both if 'materially different', the rise in BOTH may reflect an increasing geographic diversification in production and marketing structures. This increased transparency is also enhanced by the new regulation initiated in 1997 and 1998. Table 6.4 shows the difference in reporting rate for the company's country of origin.

Table 6.4: Country/region of origin and sales reporting, 1990-99 Core200

	1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Total N	112		114		121		130		136		145		147		149		140		136	
	Abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%
USA (61)	44	39%	42	37%	43	36%	43	33%	44	32%	46	32%	46	31%	45	30%	40	29%	37	27%
Eur. (69)	51	46%	51	45%	54	45%	54	42%	56	41%	59	41%	59	40%	61	41%	63	45%	61	45%
Japan (60)	16	14%	20	18%	23	19%	31	24%	34	25%	38	26%	39	27%	39	26%	35	25%	36	26%
Other (10)	1	1%	1	1%	1	1%	2	2%	2	1%	2	1%	3	2%	4	3%	2	1%	2	1%

Striking in table 6.4 is the drop in US Core200 companies reporting sales (by origin or destination) in the last two years of the ten-year period. Remaining relatively stable over the 1990-1997 period, the number of firms drops down to 37 in 1999. In, contrast to this declining trend, Japanese Core200 firms show a remarkable increase in the geographic sales reporting: increasing from 16 in 1990 to 36 in 1999, with peaks in the mid-1990s. This upward trend can best be explained by the introduction of new geographic (and LoB) segment reporting requirement in the late 1990s in Japan. The largest group of Core200 firms reporting their geographic sales disclosures originates in Europe. This group of firms also showed an upward trend, with 63 of the 69 European Core200 firms reporting their geographic sales spread in 1998. Over the 1990s firms originating outside the Triad, largely South-Korean firms, hardly disclosed any information on their geographic spread of activities.

6.3.2 Sales eliminations and intra-firm trade

In section 5.5.2 it was argued that intra-firm trade can be used as a proxy for the degree of geographic integration (i.e. International Integrated Production – IIP) and that, based on this measurement, different organizational typologies of MNEs can be distinguished - (i.e. multi-domestic, international and global MNEs. As addressed in appendix C, a strict procedure is necessary to process geographic sales segment data and isolate the intra-firm sales 'eliminations' component and other 'unallocables' reported along with the geographic segmentation of sales data. Table 6.5 addresses this issue.

Table 6.5: Sales eliminations reporting among the Core200, 1990-1999

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total N	104	104	104	104	104	104	104	104	104	104
Eligible n	100	100	100	101	101	102	102	102	101	102
No data	24	25	21	10	8	4	5	3	10	12
Unallocable other	3	2	4	5	6	7	5	6	7	9
No elim. nor unall.	20	17	18	17	16	14	15	18	41	39
Sub-total	*47*	*44*	*43*	*32*	*30*	*25*	*25*	*27*	*58*	*60*
Elim. By region	34	37	40	50	54	58	62	58	33	29
Elim. aggregate	20	21	19	19	18	21	17	18	13	14
Elim. plus unall.	3	2	2	3	2	0	0	1	0	1
Sub-total	*57*	*60*	*61*	*72*	*74*	*79*	*79*	*76*	*46*	*44*

The 'Total N' row refers to the number of companies in the core200 reporting eliminations and/or other geographically unspecified sales figures *at any time* during the 1990-1999 period. In general the list comprises only companies reporting SO, because SD by nature refers to sales to external customers and is thus a net (post-eliminations) figure. The 'eligible n' row reflects the number of Core200 for which geographic segment data can be expected. In order to measure the degree of vertical integration of a firm, and the extent to which this takes place abroad, sales eliminations reflecting intra-firm trade and those reflecting an unallocated sum, have to be separated from each other first from table 6.5.

The row ('No data') shows how many of the 104 firms reported no data for that particular year. This high figure in the early 1990s is largely due to a number of firms not engaged in substantial cross-border activity at that time - i.e. firms with lower than 10 percent of their of their sales volume abroad. The rise at the end of the 1990s most likely reflects the internationalization of previously domestic oriented firms and changes in national accounting regimes (see section 6.2). In fact, all figures changed considerably after 1997, largely due to regulatory changes in the late 1990s, which makes this period somewhat particular.

In some cases firms for specific years were subject to data collection problems due to annual report unavailability. Individual firms 'migrate' between rows over time, moving from 'no data' one year, to geographically specified eliminations another year and aggregate eliminations for yet another. But in general firms do exhibit a certain level of consistency over time in this respect, each changing their sales reporting style on average about 1.5 times in the course of the decade. The 'Unallocable other' row refers to the number of firms reporting a geographically unspecified item in their geographic sales data that does NOT represent eliminations or other references to intra-firm sales (e.g. 'incidental', 'miscellaneous', 'associated undertakings' – see appendix C). Until 1998, an additional 20 to 25 percent of the firms did not report any eliminations or otherwise unspecified segment data (reflected by the row 'no elim. nor unall.'). The first 'sub-total' row represents the number of firms for which the sales eliminations do not represent *intra-firm trade*. The next three rows represent sales eliminations referring to intra-firm trade.

In general, there was a trend towards increased reporting, and at a higher level of detail for sales elimination reflecting intra-firm trade. Examples of how firms refer to intra-firm trade in their annual reports are presented in box 6.2.

Box: 6.2: Firm level examples of non-geographic posts referring to intra-company trade

Japanese MNEs
Mitsubishi: 'Inter-area transactions generally are priced with reference to prices applicable to transactions with unaffiliated parties.'
Mitsui: 'Transfers between geographic areas are made at cost plus a mark-up'
Sony: 'Transfers between reportable business of geographic segments are made at arms-length prices.

US MNEs
Ford: 'Intercompany sales among Geographic areas consist primarily of vehicles, parts and components, sold within the Group. Transfer prices for these transactions are established by agreement between the affected entities.'
General Electric: 'Sales from one company component to another generally are priced at equivalent commercial selling prices.'
IBM: 'Interarea transfers consist principally of completed machines, subassemblies and parts, and software. The first two are transferred at an intracompany selling price. Software transfers represent license fees paid by non-US subsidiaries. The intra-company selling price that relates to fixed assets transfers is capitalized and depreciated by the importing area.'
Exxon: 'Transfers between business activities or areas are estimated at market prices.'

European MNEs
Siemens: 'Consolidations include items that cannot be meaningfully associated with specific geographic segments. All other intercompany eliminations have been allocated to those geographic area in which the amounts were originally incurred.'
Philips: The transfer prices charged for all intersegment (including interregional) sales are based on the arm's length principle as set forth in internationally accepted transfer pricing policies and guidelines.'
Fiat: 'Intersegment net sales and revenues include revenues between consolidated Group companies relating to different sectors. Intersegment sales are accounted for at transfer prices that are substantially in line with market conditions.'
Peugeot: 'Transfers between geographic areas concern primarily vehicles, accessories and replacement parts sold to Group subsidiaries.'

Source: SCOPE Database Erasmus University Rotterdam User Guide.

As shown in table 6.5, an increasing number of firms specified their eliminations by geographic segment ('Elim by region') over the period while the number of firms reporting eliminations only as an aggregate declined ('Elim Aggregate'). This allows for post-eliminations segment sales being taken as a share of post-eliminations total sales, thereby circumventing the 'allocability' problem (see appendix C). The last row ('elim.plus unall.') comprises a small number of firms reporting a geographically unspecified (unallocable) item *in addition to* eliminations, be they specified or not. Both 'Unallocable other' and 'elim. plus unall.', together with 'Elim Aggregate', require methodological interventions in order to prevent the eliminations and otherwise geographically unspecified value from skewing the percentages (as discussed in appendix C). These three categories taken together consist of 20 to 30 percent of the firms reporting in any given year.

6.3.3 'Fineness' in firm level geographic segment disclosures of sales

One of the ambitions of this study is to analyze the spatial organization of production by MNEs (intra- regional or home region production, extra-regional production and transatlantic production). For this purpose geographic sales segment data were collected as proxies for the location of production. Through a thorough analysis of approximately 2.000 annual reports (Core200 for ten-year period) it became evident that companies use very

different styles in reporting their geographic sales segments. The level of aggregation and 'fineness' of geographic segmentation varies from as many as 20 individual countries, to continent based (e.g. Europe, North America) to non-domestic (e.g. Foreign, overseas or 'other'). The result of the data collection process is schematically presented in Table 6.6.

Table 6.6: Level of aggregation in geographic disclosures of sales among the Core200, 1990-1999

	1990		**1991**		**1992**		**1993**		**1994**		**1995**		**1996**		**1997**		**1998**		**1999**	
Total N	112		114		121		130		136		145		147		149		140		136	
	Abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%
X	19	17%	19	17%	21	17%	27	21%	29	21%	37	26%	37	25%	18	12%	16	11%	16	12%
O	9	8%	10	9%	11	9%	11	8%	11	8%	12	8%	13	9%	12	8%	8	6%	8	6%
OK	84	75%	85	75%	89	74%	92	71%	96	71%	96	66%	97	66%	119	80%	116	83%	112	82%

X =domestic-total division; O = regional division, but no domestic-foreign division; OK = regional and domestic-foreign division

In Table 6.6 the row 'X' refers to companies that only provide a non-domestic geographical segment in their annual reports (i.e. foreign, overseas – see Table 6.2 for examples). The number of Core200 firms using this style of reporting remained stable over the early 1990s, increased over the mid 1990s and fell back substantially after 1997. The row 'O' refers to a continent based reporting style in which the firm does not explicitly distinguish the country of origin as a separate geographical segment. For instance a US MNE would use the following geographical segments: 'North America', 'Europe', 'Latin America', and 'Other'. This style of reporting hinders identifying the amount of production taking place in the country of origin (i.e. the United States). The number of Core200 firms using this geographic segment style in their annual reports declined in the late 1990s. The row 'OK' reflects the most desirable style of geographic segment reporting. It is also the largest group in Table 6.6. In this case a firm distinguishes between domestic production and foreign production, but the foreign production segment is further unraveled in various geographical segments. For instance a German MNE would report the following geographical segments: 'Germany', 'rest of Europe', 'North America', 'Latin America', and 'Other'. The number of Core200 firms adopting this style of geographic disclosure increased over the ten-year period, falling back slightly in 1998 and 1999. In 1990, 84 core firms (75 percent of the sample) used this reporting style, while in 1999 it has increased to 112 (82 percent of the sample).

Table 6.7 explores whether the style of geographic segment reporting is related to the country or region of origin of the MNE. It shows the geographic segment disclosure variation among Core200 firms form the United States, Europe, Japan, complemented with a group of 10 Core200 firms from other countries (largely emerging market economies).

Table 6.7: Country/region of origin and level of aggregation in geographic disclosure of sales among Core200 firms , 1990-99

	1990		1991		1992		1993		1994		1995		1996		1997		1998		1999	
Total N	112		114		121		130		136		145		147		149		140		136	
	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%
X	19		19		21		27		29		37		37		18		16		16	
USA	8	42%	8	42%	8	38%	6	22%	6	21%	7	19%	7	19%	6	33%	6	38%	7	44%
Europe	2	11%	1	5%	1	5%	1	4%	1	3%	1	3%	2	5%	1	6%	3	19%	2	13%
Japan	9	47%	10	53%	12	57%	20	74%	22	76%	29	78%	28	76%	10	56%	7	44%	7	44%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	6%	0	0%	0	0%
O	9		10		11		11		11		12		13		12		8		8	
USA	2	22%	2	20%	2	18%	2	18%	3	27%	4	33%	5	38%	4	33%	2	25%	2	25%
Europe	7	78%	8	80%	9	82%	9	82%	8	73%	8	67%	7	54%	7	58%	6	75%	6	75%
Japan	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	8%	1	8%	0	0%	0	0%
OK	84		85		89		92		96		96		97		119		116		112	
USA	34	40%	32	38%	33	37%	35	38%	35	36%	35	36%	34	35%	35	29%	32	28%	28	25%
Europe	42	50%	42	49%	44	49%	44	48%	47	49%	50	52%	50	52%	53	45%	54	47%	53	47%
Japan	7	8%	10	12%	11	12%	11	12%	12	13%	9	9%	11	11%	29	24%	28	24%	29	26%
Other	1	1%	1	1%	1	1%	2	2%	2	2%	2	2%	2	2%	2	2%	2	2%	2	2%

X =domestic-total division; O = regional division, but no domestic-foreign division; OK = regional and domestic-foreign division

The following conclusions can be drawn from table 6.7. The 'non-domestic only' style (row X) of reporting is adopted by largely MNEs from the United States and Japan, with European based MNEs taking a relatively small share in this cluster. Although, the US share declined over the 1990s, it increased again between 1997 and 1999. The Japanese share increased to the mid-1990, but declined after 1995 equalizing the US share in 1999. The share of the 'other' Core200 firms is negligible over the whole 1990-1999 period. The 'continent based' style (row O) of reporting is dominated by European based MNEs. Although this style of reporting shows a declining trend, the European share remains relatively large, averaging around 70 percent, with a decline in 1997 and 1998. US MNEs are responsible for the remaining share of this reporting style, as there are no Japanese MNEs adopting the 'continent based' style of reporting. The 'other' Core200 share is negligible. The most desired style of reporting is again adopted by many European based MNEs. The US share (again) drops in the late 1990s, while the increase in this style of reporting over the 1990s can be largely attributable to Japanese MNEs. The share of the remaining Core200 firms ('other') is marginal.

Apart from the country of origin variation in geographic segment reporting, there is variation within firms over time, as firms do on occasion switch between different styles of reporting. Although in general there is a trend towards greater disclosure, some firms have

concealed geographic segment information. Examples are PepsiCo and Coca-Cola, that both concealed information in the late 1990s. The nature of the (oligopolistic) competition between these two beverage MNEs has probably triggered this 'copy behavior' in geographic segment reporting. Other companies have disclosed information in line with their evolving internationalization trajectory (e.g. BT). Most Japanese firms disclosed more information about their foreign activities in line with what could be expected by new regulation in Japan regarding enterprise-wide geographic disclosures.

6.4 FIRM LEVEL GEOGRAPHIC SEGMENT DISCLOSURES OF EMPLOYEES

Similar to the measurement of international production the geographic scale and scope of direct employment within firms can be assessed through the style by which firms disclose geographic employment segment information in their financial (annual) reports. The following section shows the results of the direct employment data collection process of the SCOPE Core200 firms over the 1990-1999 period and assesses to what extent the nature and degree of employment reporting in corporate reports can be related to the country of origin of the firm.

6.4.1 Reporting rate of geographic spread of employees

Due to the limited reporting requirements for the geographic disclosure of employees (section 6.2), the number of Core200 firms providing information on the geographical spread of their workforce is relatively small (see Table 6.8 below). If MNEs provide information on the geographic spread of their employees it is thus often on a *voluntary* basis. Many MNEs remain reluctant to report their geographical employment classifications. Apart from the limited value of this information to investors and shareholders, employment data relate to the *accountability* of firms in restructuring and relocation processes, and as such may be perceived as 'social sensitive strategic information'. In contrast there are some notable examples of firms that have recently internationalized (NGMs) and that are often engaged in large scale restructuring processes after privatization, that nevertheless provided geographic employment segment data in their annual reports (e.g. France Telecom, Deutsche Telecom, Telefonica and Metro AG). Partial or wholly state ownership of these firms may explain their greater stakeholder orientation about the impact of their restructuring programs. In addition, these companies all stem from macro-based systems (section 6.2). Some MNEs *conceal* strategic employment information in their annual reports, sometimes deliberately it seems, when large restructuring operations are underway. Examples are Philips Electronics during 'operation Centurion' in the early 1990s shedding of an unprecedented large number of employees and General Motors after the spin-off of Electronic Data Systems (EDS), Hughes and Delphi in the late 1990s. In most cases the geographical employment disclosure are restated after the restructuring operations.
It is in this respect interesting to note that a large share of the *new generation MNEs*, often engaged in large scale restructuring processes after privatization, report their geographic employment segment data (e.g. France Telecom, Deutsche Telecom, Telefonica and Metro AG). These MNEs perhaps feel the responsibility to inform their stakeholders about the

impact of their restructuring programs. Other late internationalizing firms do not report on the foreign spread of employees. They are: Deutsche Bahn AG (DB), Electricite De France (EDF), Istituto Por La Ricostruzione Industriale SPA (IRI), Sociedad Estatal De Participaciones Industriales (SEPI) and Repsol S.A. MNEs like SHV Holdings, Compart and Suez Lyonnaise des Eaux, although having substantial foreign operations, are much more secretive about them.
The reporting rate of a firms' geographic spread of employees also shows many variations both within time and across industries, but the largest variation is across country of origin. Table 6.8 shows the variation among Core200 firms originating in the Triad and 'other' countries (largely emerging market economies).

Table 6.8: Country/region of origin and employee reporting, 1990-99 Core200

	1990		**1991**		**1992**		**1993**		**1994**		**1995**		**1996**		**1997**		**1998**		**1999**	
Total N	49		48		47		51		56		62		60		61		62		52	
	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%
USA	8	16%	8	17%	8	17%	6	12%	8	14%	8	13%	6	10%	7	11%	4	6%	3	6%
Europe	39	80%	38	79%	37	79%	43	84%	44	79%	49	79%	49	82%	50	82%	54	87%	46	88%
Japan	2	4%	2	4%	2	4%	2	4%	4	7%	5	8%	5	8%	4	7%	4	6%	3	6%
Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

US and Japanese core firms show a very low reporting level of their international spread of employees in their annual reports. There are no MNEs from the 'other' group of core firms reporting the geographic employment segments over the 1990-1999 period. The bulk of firms reporting their geographical employment classification are from Europe, averaging around 80% over the ten-year period. Within Europe, German and Scandinavian MNEs take a special place. German firms provide detailed overviews in the back of their annual reports on so-called "figures for the decade" in which the share of foreign employees are listed. Scandinavian, Swiss and German firms sometimes report the distribution of their direct number of employees (and their revenues and ownership share of the parent in the subsidiary) at a very detailed level i.e. employees per subsidiary and per country of operation, in the "subsidiary location section" of their annual reports. The German case is remarkably as under German company law, firms are required to provide data on geographical sales distribution only, not on assets, employee, or subsidiary dispersion between home country and host countries (cf. Ruigrok & Wagner, 2003). Examples of these MNEs are: Daimler Benz, Volkswagen, Robert Bosch, BASF, Bayer, ABB, Nestlé, Electrolux (1990-1998), Volvo and, to a lesser extent, BMW (which reported the Rover division in the UK as a separate geographic segment). Some firms report their spread of employees in separate "personnel reports" (e.g. Ericsson). Many of these reports can now be found on the Internet.

6.4.2 'Fineness' in geographic segment disclosures of employees

Similar to the geographic segment reporting of sales, there are different levels of aggregation and styles of reporting a firm's geographic spread of employees. Table 6.9 shows the different levels of aggregation over the 1990-1999 period.

Table 6.9: Level of aggregation in geographic disclosures of employees among the Core200, 1990-1999

	1990		**1991**		**1992**		**1993**		**1994**		**1995**		**1996**		**1997**		**1998**		**1999**	
Total N	49		48		47		51		56		62		60		61		62		52	
	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%
X	9	18%	7	15%	7	15%	8	16%	10	18%	12	19%	13	22%	13	21%	14	23%	10	19%
O	6	12%	8	17%	8	17%	7	14%	8	14%	8	13%	6	10%	7	11%	7	11%	6	12%
OK	34	69%	33	69%	32	68%	36	71%	38	68%	42	68%	41	68%	41	67%	41	66%	36	69%

X =domestic-total division; O = regional division, but no domestic-foreign division; OK = regional and domestic-foreign division

Table 6.9 reveals that some Core200 firms only make a distinction between the foreign and domestic component (row 'X'), while other MNEs distinguish between different regional segments, but do not identify the 'country of origin' as a separate regional classification (row 'O'). From an analytical point of view the most desirable group of MNEs is the group that differentiates between both 'domestic' and other regional segments in their geographical reporting of employees ('OK' row). The number of Core200 firms adopting this style of reporting has increased over the 1990-1997 period, after which it declined again.

In general, a large number of Core200 firms have disclosed more information about the regional spread of employees over the 1990-1999 period. Four firms diminished the transparency and openness in their employment segment reporting. In some cases the increased transparency in the geographic segment reporting coincided with 'real' internationalization strategies of MNEs. The cases where firms chose to provide less information in their geographic employment segment reporting, can be interpreted as a deliberate policy of the management to provide less information to its share- and stakeholders (see the comments on Philips and General Motors in section 6.4.1).

The level of aggregation in geographic segment reporting of employees also shows variations across countries of origins (Table 6.10).

Table 6.10: Country/region of origin and level of aggregation in geographic disclosure of employees among the Core200, 1990-99

	1990		**1991**		**1992**		**1993**		**1994**		**1995**		**1996**		**1997**		**1998**		**1999**	
Total N	49		48		47		51		56		62		60		61		62		52	
	Abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%	abs.	%
X	9		7		7		8		10		12		13		13		14		10	
USA	4	44	3	43	3	43	2	25	3	30	3	25	3	23	4	31	2	14	1	10
Europe	4	44	3	43	3	43	5	63	4	40	6	50	6	46	6	46	9	64	7	70
Japan	1	11	1	14	1	14	1	13	3	30	3	25	4	31	3	23	3	21	2	20
O	6		8		8		7		8		8		6		7		7		6	
USA	0	0	1	13	1	13	1	14	1	13	1	13	1	17	1	14	0	0	0	0
Europe	6	100	7	88	7	88	6	86	7	88	7	88	5	83	6	86	7	100	6	100
Japan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OK	34		33		32		36		38		42		41		41		41		36	
USA	4	12	4	12	4	13	3	8	4	11	4	10	2	5	2	5	2	5	2	6
Europe	29	85	28	85	27	84	32	89	33	87	36	86	38	93	38	93	38	93	33	92
Japan	1	3	1	3	1	3	1	3	1	3	2	5	1	2	1	2	1	2	1	3

X =domestic-total division; O = regional division, but no domestic-foreign division; OK = regional and domestic-foreign division

The 'other' group is left out of table 6.10 as there are no Core200 firms from these countries reporting employment segments. The group of Core200 firms adopting a 'non-domestic' style of geographic segment reporting (row 'X') consists largely of European and US firms. The equal share of both US and European firms in the early 1990s changes in favor of the latter in the late 1990s. Japanese core firms play a very small role in this group. The second style of reporting, 'continent based' (row 'O') consists primarily of US and European core firms, with US firms playing a very marginal role. Examples of US MNEs that reported their geographic spread of employees at a, relatively, detailed level (OK) over the entire 1990-1999 period are: General Motors, Ford, Mobil, Du Pont, Amoco, United Technologies, Caterpillar and Eastman Kodak. Most of these companies operate in industries characterized by vertical, FDI. The largest reporting style group (row 'OK') is dominated by European firms. This group is characterized by a declining US share and an increasing European share (93% in 1998). Again, Japanese firms play a very marginal role.

6.5 CONCLUSION

This chapter showed the first results of the data collection process of this study. It employed the operationalization explained in section 5.5 and the methodology outlined in appendix D. Over the 1990-1999 period – during the fifth wave of internationalization - most Core 200 firms increased both the frequency as well the level of detail - in terms of geographic specificity - of the indicators identified for this study. The geographic segment disclosure of NGMs provides information on the first foreign investment steps of these firms, the geographic segment disclosure of MNEs often reveals information about sequential foreign investments in existing markets.

The geographic segment disclosure of multinational firms is increasingly influenced by national as well as international regulatory changes. Despite the changes in the regulatory environment of geographic segment reporting and greater transparency in company geographic segment disclosures, it remains important to note, however, that companies can emphasize or de-emphasize geographic segment information in their public accounts to the extent they wish, including relegating it to a financial footnote near the back of the annual report. The disclosure of information becomes part of the competitive process. There have been developments in the United Kingdom where directors were of the opinion that geographic information would be "seriously prejudicial to the interests of the company" and that this information needed not to be disclosed (Nobes & Parker, 2000: 370). Similarly, managers of some Dutch firms believed that disclosing more information than their European counterparts would have possible competitive disadvantages. So they reduced their geographic disclosing requirements and removed their LoB disclosure requirements entirely (Dijksma & Hoogendoorn, 1993: 162).

Despite these caveats, the geographic segment disclosures of MNEs can provide strategic information about the volume of value added activities in each region as well as the geographic segment's importance in the internationalization strategy of the MNE. The way companies report their geographical segment information was in itself a reflection of the geographical strategic orientation of MNEs.

Furthermore, the geographic segment data reporting of MNEs showed many variations among firms, but also across firms over time. Striking is the disparity between reporting of the two indicators of this study: sales and employment. Sales are the most common indicator. It was demonstrated that among the Core200 firms there are only a limited number of firms that report their geographical spread of employees in their annual reports. Hence, the different indicators generate different numbers (N) because only rarely do companies report all variables adequately. In general it can be argued that the reluctance to report (beyond the level required by accounting standards) is related to the perceived sensitivity of the information. Many Core firms have remained reluctant to provide insight into the geographical spread of their workforce on a voluntary basis.

7. DOMESTIC CORE FIRMS AND NEW GENERATION MNEs: INTERNATIONALIZATION AND EMPLOYMENT EFFECTS

7.1 INTRODUCTION

This chapter analyzes the employment effects of the (non)internationalization of domestic firms (DMFs) and the recent internationalization of new generation multinationals (NGMs). In 1990 more than a quarter of the 200 largest industrial companies in the world 52 firms) were largely domestic oriented. Of these 52 firms, 23 firms remained largely domestic in the 1990s. The remainder 29 Core200 firms internationalized over the 1990s and were qualified as New Generation MNEs (NGMs).
This chapter will first (section 7.2) analyze the patterns of employment and sales development of DMFs as they developed throughout the 1990s. This sample sets a 'base line' – what happens to employment when large core firms do not internationalize? Section 7.3 analyzes how the fifth wave of internationalization materialized in a new sample of multinationals – the NGMs. It will analyze the context of this particular internationalization process its driving forces the effects on the geographic scale and scope of employment within these firms. Section 7.4 specifies the strategic profile of NGMs.

7.2 DOMESTIC CORE FIRMS AND EMPLOYMENT: A BASE GROUP

The sustained existence of domestic firms shows that, depending on industry, even in a period of rapid internationalization by many firms, for Fortune 'Global' 500 firms internationalization is not a prerequisite for survival. Over the 1990s, national oriented firms continued to play a key role as engines of economic growth for their domestic economies. Large does not necessarily imply more international. In the analysis of internationalization-employment linkages the cluster of domestically oriented SCOPE Core200 firms can, by definition, not be integrated in the analysis. Nevertheless, the industry and country of origin composition, the trends in employment development, restructuring and productivity can be offset against the trends in NGMs and established MNEs. The group of sustained domestic firms forms a base reference group for the other clusters and to some extent can serve as the 'counterfactual' argument. Table 7.1 shows the industry and country composition of the 23 domestic firms (DMFs).

Table 7.1: Domestic firms' frequency distribution over country of origin and industry (n=23)

	COUNTRY INDUSTRY	Fortune code	France	Italy	Japan	United States	Total	Total in Core200	Share
(Formerly) state owned	**Electric & Gas Utilities**	**10**		1	5		6	8	75%
	Mail, Package, Freight Delivery	**26**	1		1	1	3	6	50%
	Railroads	**34**			1		1	2	50%
	Sub-total						10		
Largely private owned	**Retailing**	**16,19, 40,44**			2	8	10	26	39%
	Engineering, Construction	**13**			1		1	8	13%
	Trading	**43**			1		1	18	6%
	Miscellaneous	**45**				1	1	2	50%
	Sub-total						13		
	Total		1	1	11	10	23	**200**	12%
	No. in Core200		20	5	60	61			
	Share		5%	20%	18%	16%			

A large number of the DMFs originate in the United States (43 percent) and Japan (48 percent). The larger domestic markets of the USA and Japan may partly explain why these firms remained bound to their national markets, but this is only part of the explanation (not in the last place because the Japanese market is considerably smaller than the US market, but Japanese firms nevertheless comprise the biggest sub-sample in this group). DMFs can be subdivided in two clear sector groups: (1) DMFs in the more government controlled service industries (Utilities, Postage, railroad) and (2) DMFs in the private retailing industry.

The first group, (formerly) state-owned DMFs, largely consists of Japanese power firms

(e.g. Tokyo Electric Power, Kansai Electric Power, Chubu Electric Power, Tohoku Electric Power and Kyushu Electric Power-KEPCO). These Japanese DMFs were established on May 1, 1951 as a result of a nationwide reorganization of the electric utility industry, directed at breaking up the monopolistic position into nine separate Japanese electric power companies (Derdak, 1988). Another large group of (formerly) state owned DMFs consist of national postage firms from the United States, Japan and France, and a Japanese railway company. The second sub-group of DMFs largely consists of firms operating in the retail industry of which the overwhelming majority (ten) originates in the United States (Kroger, Albertson's, Dayton Hudson, J.C. Penney, Federated Department Stores, Home Depot, Fleming and Supervalu) and two in Japan (Mycal and Daiei).
Often Domestic firms (DMFs) – even in case they have some limited internationalization activities - are not required to report their geographical segment data and consequently do not report that. In particular for Japanese firms it was even very difficult to collect consolidated total sales and employment data. This can largely be explained by the fact that most domestic operating firms are not listed on any stock exchange, decreasing the necessity for providing public financial information – through e.g. annual reports - to shareholders. For 18 of the twenty-three domestic firms data on total employment have been collected for the 1990-1999 period. Table 7.2 shows the total employment, assets, net sales and productivity time series for 18 out of 23 DMFs[65].

Table 7.2: Total employment, total assets, total (net) sales and productivity for cluster of domestic firms (DMFs), 1990-1999 (number of employees and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
TOTAL # OF EMPLOYEES										
Sum	1.061.681	1.112.597	1.042.252	1.045.444	1.141.164	1.187.188	1.214.634	1.242.018	1.295.715	1.499.985
Growth rate (*g*)		4.8	-6.3	0.3	9.2	4.0	2.3	2.3	4.3	15.8
Index	**100**	**105**	**98**	**98**	**107**	**112**	**114**	**117**	**122**	**141**
TOTAL ASSETS										
Growth rate (*g*)		19.3	8.3	15.9	18.1	15.3	-10.5	-9.8	-2.4	10.1
Index	**100**	**119**	**129**	**150**	**177**	**204**	**182**	**165**	**161**	**177**
TOTAL (NET) SALES										
Growth rate (*g*)		12.5	8.4	9.8	14.2	14.9	-9.4	-6.5	0.9	10.7
Index	**100**	**112**	**122**	**134**	**153**	**176**	**159**	**149**	**150**	**166**
SALES PER EMPLOYEE										
Growth rate (*g*)		7.3	15.7	9.5	4.6	10.5	-11.4	-8.5	-3.3	-4.4
Index	**100**	**107**	**124**	**136**	**142**	**157**	**139**	**127**	**123**	**118**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		13.8	15.6	15.5	8.2	10.8	-12.5	-11.8	-6.4	-4.9
Index	**100**	**114**	**132**	**152**	**165**	**182**	**160**	**141**	**132**	**125**

Source: company annual reports and Worldscope (for employee data) and Worldscope Database Nov. 2000 (asset and net sales data).

At an aggregate level the cluster of DMFs has increased its total (and thus domestic) number of employees from just over 1 million in 1990 to almost 1.5 million in 1999 (Table 7.2). Only in 1992 did the level of total employment for the entire group decline slightly;

[65] Excluding five domestic firms due to data inconsistencies in the time series (national postal firms, Columbia Healthcare and Dayton Hudson). Hence n is 18.

for every other year did the group experience stable positive employment growth rates. The absence of internationalization among the group of DMFs has coincided with employment growth. Employment growth was feasible because the domestic market created ample opportunities for sales growth. Sales (and assets) growth over the 1990s has been considerably bigger than employment growth. Sales' growth has been sligthly more volatile than employment growth. Sales and assets grew at consistently higher pace than employment between 1990 and 1995, but both also declined in 1996 and 1997 to be picked up again in 1998/1999. Between the mid and late 1990s DMFs started to experience problems in realizing market potential in their domestic markets. Labor and capital productivity can be measured through the sales per employee and assets per employee ratios respectively (cf. Dewenter & Malatesta, 2001; see also chapter 5.2.3), as a group DMFs increased their productivity up to 1995, after which productivity declined steadily . Vice versa labor and capital intensity, as measured by the employees-to-sales and employees-to-assets ratios (*ibid.* the inverse of productivity), have followed a contrary development.

The general trends among the cluster of DMFs diverges between two different groups of DMFs as distinguished in table 7.1: (a) formerly state-owned and (b) private firms. Table 7.3 highlights the growth in total employment, assets and sales for 7 of the 10 (formerly) state-owned DMFs.

Table 7.3: Total employment, total assets, total (net) sales and productivity for sub-group of 7 (formerly) state-owned DMFs, 1990-1999 (number of employees and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
TOTAL # OF EMPLOYEES										
Sum	304.064	413.309	300.116	300.639	299.162	295.611	292.294	287.632	294.763	284.530
Growth rate (*g*)		35.9	-27.4	0.2	-0.5	-1.2	-1.1	-1.6	2.5	-3.5
Index	**100**	**136**	**99**	**99**	**98**	**97**	**96**	**95**	**97**	**94**
TOTAL ASSETS										
Growth rate (*g*)		21.8	7.3	17.6	18.1	14.9	-13.4	-11.8	-2.6	8.0
Index	**100**	**122**	**131**	**154**	**182**	**209**	**181**	**159**	**155**	**168**
TOTAL (NET) SALES										
Growth rate (*g*)		16.5	11.5	13.2	21.7	16.4	-14.0	-12.0	-0.4	6.2
Index	**100**	**116**	**130**	**147**	**179**	**208**	**179**	**158**	**157**	**167**
SALES PER EMPLOYEE										
Growth rate (*g*)		-14.3	53.6	13.0	22.3	17.8	-13.0	-10.6	-2.8	10.0
Index	**100**	**86**	**132**	**149**	**182**	**214**	**186**	**167**	**162**	**178**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		-10.4	47.8	17.4	18.7	16.3	-12.5	-10.4	-4.9	11.9
Index	**100**	**90**	**132**	**155**	**185**	**215**	**188**	**168**	**160**	**179**

Source: company annual reports and Worldscope (for employee data) and Worldscope Database Nov. 2000 (asset and net sales data).

Apart from a major 'jump' in 1991 and a minor increase in 1998, total employment among large (formerly) state owned DMFs slightly declined over the 1990-1999 period The growth pattern in total assets and sales is comparable to the overall trend among the cluster of DMFs. The productivity among this sub group declined initially, picked up again up to

1995, after which it declined again. Contrary to the general trend among DMFs, only in 1999 did productivity (started to) grow again. Nevertheless, compared with 1990, productivity has increased over the entire 1990-1999 period. On the other hand, total sales increased considerably over the whole period as well. The domestic market in these industries over the 1990s, had clear growth possibilities for these companies, but nevertheless did not result in increased employment. However, it did lead to greater assets growth. Serving the domestic market has thus largely been realized by expanding the production base by more machines. Ten years of restructuring with (former) state-owned firms resulted in considerable gains in sales per employee over the whole period. This ambivalent development of declining employment, fluctuating sales volumes and productivity may be a reflection of governments restricting these firms or industries' investment freedom and internationalization. On the other hand these firms may have tried to establish a foreign presence, but due to limited openness in specific industries in host countries, these (formerly) state owned DMFs have performed worse hindering (domestic and total) employment growth.

The second sub-group of DMFs consists of firms in the private sector and largely consists of US and, more limitedly, Japanese retail firms. The limited foreign expansion of US and Japanese retailers can be explained by the large size and growth potential of the domestic retail market. Retailers from smaller economies (e.g. Royal Dutch Ahold) are more likely to be internationally oriented. For instance, Albertson's took over American Stores in 1999 and is still largely domestic. In 2002 it had 2421 stores scattered over the United States. Its main competitors among the Core200 are: Ahold US, Costco Wholesale, Kmart, Kroger and Wal-Mart. Most of these companies are also domestic (Kroger) but some have internationalized over the 1990s (e.g. Wal-Mart), while others are established MNEs (Costco Wholesale). Dutch Ahold is among its main foreign competitors with wide-scale operations in the United States since it took over Pathmark in 1998. Table 7.4 shows the development in employment, assets, sales and productivity among 11 of the 13 of private-owned DMFs over the 1990s.

Table 7.4: Total employment, total assets, total (net) sales and productivity for sub-group of 11 private DMFs, 1990-1999 (number of employees and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
TOTAL # OF EMPLOYEES										
Sum	757.617	699.288	742.136	744.805	842.002	891.577	922.340	954.386	1.000.952	1.215.455
Growth rate (*g*)		-7.7	6.1	0.4	13.0	5.9	3.5	3.5	4.9	21.4
Index	**100**	**92**	**98**	**98**	**111**	**118**	**122**	**126**	**132**	**160**
TOTAL ASSETS										
Growth rate (*g*)		10.8	12.1	9.8	18.1	16.6	0.5	-3.4	-1.8	16.1
Index	**100**	**111**	**124**	**136**	**161**	**188**	**189**	**182**	**179**	**208**
TOTAL (NET) SALES										
Growth rate (*g*)		10.3	6.5	7.7	9.4	13.8	-5.9	-2.7	1.7	13.4
Index	**100**	**110**	**117**	**126**	**138**	**157**	**148**	**144**	**147**	**166**
SALES PER EMPLOYEE										
Growth rate (*g*)		19.5	0.4	7.3	-3.3	7.5	-9.1	-5.9	-3.0	-6.6
Index	**100**	**119**	**120**	**129**	**124**	**134**	**122**	**114**	**111**	**104**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		20.1	5.6	9.4	4.5	10.2	-2.9	-6.7	-6.4	-4.4
Index	**100**	**120**	**127**	**139**	**145**	**160**	**155**	**145**	**136**	**130**

Source: company annual reports and Worldscope (for employee data) and Worldscope Database Nov. 2000 (asset and net sales data).

In contrast to the first sub-group of (formerly) state-owned DMFs, total (and thus domestic) employment increased for the sub group of private-owned DMFs over the 1990-1999 period. Falling back initially, total employment for this sub group increased from over 757.000 to more than 1.2 million in 1999. Among the largest employers are for instance domestic operating US retail firms. Benefiting from economic growth over the 1990s this sector has employed more and more people. Sales growth over the whole period was translated in an almost equal employment growth. The asset growth to create this, however, was substantially higher – illustrating the characteristics of this particular sector in which the domestic expansion in the 1990s could only be achieved on the basis of new greenfield investments or large takeovers of less efficient domestic competitors. The growth in assets and sales showed a similar pattern as for the entire group of DMFs, increasing up to the midst 1990s, falling back again, but increasing in the late 1990s. Initially, total employment growth was accompanied by increased productivity, but this trend reversed after 1995. Ten years of restructuring in the domestic retail sector has resulted in hardly any increase in sales-per-employee and relatively stagnant labor productivity, largely reflecting the labor intensity of this service-oriented industry.

7.3 THE INTERNATIONAL ASPIRATIONS OF NGMs AND EMPLOYMENT

Despite the heading attached to 'new generations multinationals', the group of firms consist of old and often well-established companies. Companies as Deutsche Post, Deutsche Telekom (founded 1870), France Telekom (founded 1880) and Electricité de France (founded 1884) are examples of a new generation of MNEs which have internationalized over the 1990s, but with historical foundations in the 19th century. Strong historical (and institutional) roots might have prompted these firms to stay domestic longer than some of their competitors. Other firms were founded after World War II that remained domestic for many years (e.g. Wal-Mart, founded in 1962) primarily originate in larger markets. The average foundation date of 18 of the 29 NGMs is around 1917 (source: SCOPE database based on Derdak, 1988). In table 7.5 the cluster of 29 NGMs is grouped by industry and country of origin.

Table 7.5: New Generation MNEs' (NGMs) frequency distribution over country of origin and industry (n=29)

	Country Industry	Fortune code	France	Germany	Japan	Spain	United States	United Kingdom	Total	Core 200	Share
(Formerly) state owned	**Electric & Gas Utilities**	**10**	1						1	8	13%
	Mail, Package, Freight Delivery	**26**		1	1		1		3	6	50%
	Railroads	**34**		1					1	2	50%
	Energy	**12**				1			1	1	100%
	Telecommunications	**41**	1	1	1	1	4	1	9	11	82%
	Sub-total								15		
Largely private owned	**Retailing**	**16, 19**		2	1		3	1	7	21	33%
	Aerospace	**1**					1		1	5	20%
	Engineering, Construction	**13**			1				1	8	13%
	Food	**15**					1		1	7	14%
	Forest and Paper Products	**18**					1		1	2	50%
	Petroleum Refining	**31**				1	1		2	20	10%
	Trading	**43**			1				1	18	6%
	Sub-total								14		
	Total		2	5	5	3	12	2	29	200	15%
	No. in Core200		20	23	60	3	61	7			
	Share		10%	22%	8%	100%	20%	29%			

The group of twenty-nine NGMs can also be divided in two groups. The first group of NGMs (15) largely consists of a homogeneous cluster of (formerly) state-owned service firms. The second group consists of a more diverse, group of privately owned (service)

firms. More than half the NGMs of the first group operate in recently privatized and liberalized industries such as telecommunications, postal, infrastructure and utilities. The widespread adoption of these policies by governments across continental Europe explains the over-representation of NGMs from Europe (10 out of 15) as opposed to the United States (4) and Japan (1). A large number of these firms operate in the telecommunications industry (France Télécom, Deutsche Telekom, and Telefónica, but also some of the 'Baby Bells' from the United States that were the result of the split-up of former private telecommunications monopoly AT&T). Other examples of the first group of NGMs are Electricité de France, Deutsche Post and Deutsche Bahn - all examples of early internationalizers among 'latecomers' in their industry (cf. Johanson & Mattsson, 1988). What these firms share in common is that they all have recently been exposed to large-scale privatization and liberalization programs initiated by their national governments, putting pressure on these firms to face international competition. Comparable measures by host governments prompted these firms at the same time to contemplate internationalization. Most of the first group of NGMs were established at the end of the 19th and beginning of the 20th century. They are now in a transformation process from 'national champions' to 'European leaders' (Veugelers & Sleuwaegen, 2001). Similar to the internationalization of continental European MNEs after the World War II (cf. Franko, 1975 and 1976), the fundamentals underlying the internationalization of this first group of NGM is the 'visible hand' of the state.

The second group of NGMs consists largely of private firms, founded in the post-World war II period. Their recent internationalization is less shaped by government intervention than by the competitive nature of the industry in which they operate. Similar to the cluster of DMFs a relatively large number of private NGMs operate in the retail industry (7 out of 14). Examples of these retail NGMs are: Wal-Mart from the United States, British Tesco and Metro from Germany.

Figure 7.1 depicts the rapid internationalization since the midst-1990s (measured through the FS/Ts ratio of geographic scale) of 23 NGMs subdivided in the two groups of NGM, formerly state-owned NGMs and private-owned NGMs and two representative sub-groups of NGMs within each group.

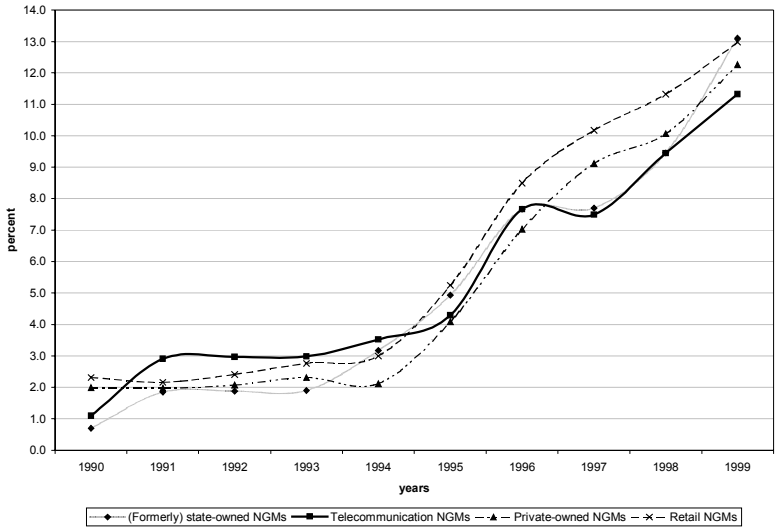


Figure 7.1: The internationalization of (formerly) state owned and private owned NGMs, 1990-1999 (avrg. FS/TS ratio, n=23)

Similar to table 7.2 for DMFs, table 7.6 shows the total employment, assets, net sales and productivity time series for 23 of the 29 NGMs.[66]

Table 7.6: Total employment, total assets, total (net) sales and productivity for cluster of NGMs, 1990-1999 (number of employees and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
TOTAL # OF EMPLOYEES										
Sum	3.297.296	3.345.826	3.404.648	3.255.703	3.596.263	3.535.781	3.452.992	3.515.799	3.602.763	3.928.138
Growth rate (*g*)		1.5	1.8	-4.4	10.5	-1.7	-2.3	1.8	2.5	9.0
Index	**100**	**101**	**103**	**99**	**109**	**107**	**105**	**107**	**109**	**119**
TOTAL ASSETS										
Growth rate (*g*)		7.4	-1.7	3.5	10.9	2.5	-5.2	-5.3	14.4	22.4
Index	**100**	**107**	**106**	**109**	**121**	**124**	**118**	**111**	**128**	**156**
TOTAL (NET) SALES										
Growth rate (*g*)		15.1	2.9	4.7	14.2	8.4	-6.7	-1.3	7.1	10.7
Index	**100**	**115**	**118**	**124**	**141**	**153**	**143**	**141**	**151**	**167**
SALES PER EMPLOYEE										
Growth rate (*g*)		13.4	1.1	9.5	3.3	10.2	-4.5	-3.0	4.6	1.5
Index	**100**	**113**	**115**	**126**	**130**	**143**	**137**	**132**	**138**	**141**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		5.8	-3.4	8.2	0.4	4.2	-2.9	-7.0	11.7	12.2
Index	**100**	**106**	**102**	**111**	**111**	**116**	**112**	**105**	**117**	**131**

Source: company annual reports and Worldscope Database Nov. 2000 (asset and net sales data).

[66] Excluding six NGMs due to data inconsistencies in the time series.

Coinciding the rapid internationalization aggregate total employment among the group of NGMs has grown from 3.3 million in 1990 to more than 3.9 million in 1999, with marginal drops in 1993, 1995 and 1996 (table 7.6). The employment growth of the whole cluster of NGMs over the 1990s is considerably lower than for the cluster of DFMs (see table 7.2). The size of sales and asset growth over the whole period are comparable. Labor and capital productivity increased in the early 1990s, but started to decline when the internationalization of these NGMs accelerated (figure 7.1), - to picked up again in 1999 – following the first phase of rapid internationalization. The initial decline in productivity or overall firm performance can probably be attributed to the learning costs associated with internationalization (see section 5.2.2).

Similar to the analysis of DMFs (section 7.2) this section will analyze two groups of NGMs: (1) NGMs operating in (former) state-owned industries, and (2) NGMs from service industries. In order to document the internationalization strategies a number of case studies are conducted of firms operating in the telecommunication industry (7.3.1), exemplifying the first group of NGMs and of firms operating in the retail sector (7.3.2), exemplifying the second group of NGMs. As most NGMs originate in the United States and Europe (Table 7.5), the focus will be on these two regions. Of the twenty-nine NGMs only a few provide geographic segment information on employment over the 1990-1999 period. The recent nature of their internationalization process hinders a longitudinal analysis over the 1990-1999 period. The geographic segment disclosure provides abundant information of the *incremental process* of their internationalization strategy, the exploration of *new markets*, and the year of entry into new markets. Where data are available the qualitative analysis will be complemented with more rigorous quantitative empirical evidence

7.3.1 Internationalization of the telecommunications industry

Long term, Deutsche Telekom will need to be in all the big markets.
(Ron SommerCEO Deutsche Telekom in Financial Times, August 30, 2000: 21).

Of the 29 NGMs nine operate in telecommunications, of which four are from the United States, four from Europe and one from Japan. The internationalization of telecommunications firms has been largely shaped by government intervention and changing national policies. Most notably have been the break-up of AT&T in the early 1980s and the privatization of British telecommunication in the mid-1980s. In the 1990s, the US 1996 Telecommunications Act and the European Commission's telecommunication policy, to be affected by January 1 1998, both opted for full liberalization of the industry. The European Commission sought to open the European telecommunication market and has been a catalyst for change in Europe. Finally, the relatively belated privatization of Europe's state owned telecommunication giants: Deutsche Telecom in 1996 and France Telecom in 1997 has been driven by national governmental policies. On top of this the industry development has been taking place against the background of the New Economy – as exemplified in particular by the rapid spread of e-mail communication and the internet.

These factors shaped the international expansion of many telecommunication companies in both the United States and Europe. Over the 1990s, the telecommunication industry has been characterized by product diversification (from operating local lines to international and mobile communication and internet related activities) and geographical diversification (through joint ventures, takeovers and strategic partnerships and alliances).

The American Telephone and Telegraph Company (AT&T) and the 'Baby Bells'

The internationalization of AT&T dates from a much earlier period than the European telecommunication companies. In the 1880s with the spread of the newly invented telephone, Western Electric, the manufacturing subsidiary of Bell Telephone (the predecessor of AT&T), expanded its sales operations overseas. By 1914 Western Electric was operating plants in Canada, Britain, Germany, France, Austria, Italy, Russia, Belgium, and Japan (Chandler, 1990: 69). With the telecommunications Act of 1934 aimed to make the telephone an affordable service for the American population. AT&T was chosen to monopolize the industry. The 'price' AT&T had to pay was that its international operations had to be brought under the auspices of a separate company – International Telephone and Telegraph (ITT). Gradually, AT&T became the most dominant telephone company in the United States, leading to complaints of abuse of monopoly power by its main domestic competitors MCI and Sprint in the late 1970s. In the 1970s AT&T controlled about 80 percent of the nation's telephones (AT&T Annual Report, 1975). On January 1, 1984 the US government broke up AT&T's 'monopoly' to increase competition in the telecommunications industry. AT&T was forced to divide into eight companies – AT&T and the seven "Baby Bells" (the Regional Bell Operating Companies - RBOCs), it also had to divest Western Electric, its manufacturing subsidiary (and competitor of GE Westinghouse and Siemens AEG in Europe). AT&T was left with most of the control in the long distance segment (inter-state and international), while the Baby Bells were concentrated in the local realm. They include: Bell Atlantic, Bell South, NYNEX, Pacific Telesis, Southwestern Bell, Ameritech and US West. In 1985 AT&T had 24 offices located abroad selling products in 90 countries. It established a regional HQ in Europe in 1986 in Brussels – as nearby the European Commission as possible which further illustrates the political nature of the international expansion in the telecommunications industry. In the 1980s, the US and the UK were the only countries that had started a process of privatization in telecommunications. The 'release' of the traditional barriers on AT&T and British Telecom to prohibit foreign expansion, was also motivated by putting pressure on foreign governments to follow suit in the pace of liberalization/privatization of telecommunications (cf . Van Tulder & Junne, 1988). Expansion was often conducted through acquisitions, JV companies, and co-marketing agreements with overseas partners (AT&T Annual Report, 1985). Due to monopsonistic markets, international expansion in telecommunications often takes the shape of a multi-domestic strategy.

The US telecommunications act of 1996 led to rapid consolidations within the US telecom industry. The original seven ' Baby Bells' were again reduced to three firms due to major acquisitions and consolidations putting these small opportunistic operators in a position to challenge giants (Financial Times October 29, 1999). At the same time, MCI and Worldcom merged to become AT&T's main competitor.

Table 7.7: The internationalization of the US & European telecom industry, 1990-1999 (FS/TS ratio)

Company name		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Telecom NGMs (n=4)	United States	2%	5%	5%	5%	6%	6%	10%	10%	10%	9%
Telecom NGMs (n=3)	EU					1%	2%	5%	4%	8%	14%

With limited international activities in the early 1990s, the 1996 telecommunication act triggered the further internationalization of the industry (table 7.7). Today companies like Bell South and Verizon Communication (formerly known as Bell Atlantic prior to its take-over of GTE in 1999) have international wireless telephone activities in Latin and South America and, to a lesser extent, in Europe.

European telecommunication NGMs and internationalization

After being shed of from competition for many years, the European Commission fully liberalized the European telecommunication market and opened it for competition on January 1, 1998. Although, the liberalization in Europe closely followed the US Telecommunications Act of 1996, the American telecom market is well ahead of the European market in terms of openness. Mr. Foster, AT&T's Europe director, observed long before that date: "A lot of people assume that the world changes on 1 January, 1998. In fact there would be an extended period of transition. It will be a matter of years before competition is developed at all fully." (Financial Times November 10, 1993: 23). In his assessment Mr. Foster drew a parallel with the position in the United States, where MCI, now the second largest long-distance carrier, took nearly two decades to establish itself as a strong competitor of AT&T. He also emphasized and reassured that AT&T's potential EU partners (notably France Télécom and Deutsche Telekom) need not worry about the likelihood of aggressive competition in their home markets before the end of the decade.

The internationalization of the three leading core companies in the European telecom industry took off at a later date than firms operating in the same industry in the US (Table 7.7). It was not until the late 1990s that the 'Europeans' surpassed the Americans in terms of multinationality.

The liberalization combined with the privatization of Deutsche Telekom in 1996 and France Télécom in 1997 triggered a restructuring and internationalization process within the European telecom market. Facing full liberalization many European telecom companies formed alliances to create multinational organizations large enough to compete with US operators.

After being blocked by European and US regulating authorities in order to persuade France and Germany to accelerate the pace of liberalization of their telecom markets, Deutsche Telekom and France Télécom formed an alliance in 1997 (codename 'Atlas') (Financial Times October 2, 1997: 21). By taking a 2 percent cross-shareholding both Deutsche Telekom and France Télécom sealed a long-standing partnership (Financial Times July 21, 1998: 29). Similarly, both Deutsche Telekom and France Télécom set up a Transatlantic alliance with US Sprint, through a 20 percent stake in Sprint, called Global One in 1995 (Financial Times October 2, 1995: 21). In 1998 the alliance with France Télécom crumbled and in 1999 the 'Global One' partnership with France Télécom, Deutsche Telekom and US Sprint broke down as MCI WorldCom acquired Sprint and announced its withdrawal from the venture (Financial Times December 29, 1999: 18).

Before its privatization in 1996 Deutsche Telekom as an almost monopolist controlled the

largest telecom market in Europe Over the 1990s it pursued a rapid internationalization strategy investing in various national markets. Since 1993 Deutsche Telekom expanded in Central and Eastern Europe by taking a stake of 30 percent in Matav, the Hungarian state-owned telecommunications group together with US Ameritech (one of the 'Baby Bells'). Since Indonesia was one of the first of the Asian markets to allow foreign competitors into its telecom market, Deutsche Telekom also bought stakes in the Indonesian telecom market in 1995. Similar strategies were conducted in the Philippines, Malaysia and Thailand. Since its privatization Deutsche Telekom has opened up representative offices in Asia, the United States, Russia and Britain and conducted many joint ventures in countries such as Russia, the Ukraine, Hungary and Kazakhstan. In its international expansion Deutsche Telekom used the comprehensive knowledge it gained in the 'Development Programme for Eastern Germany' in the setting-up of modern telecommunications infrastructures. According to Jeffrey Hedberg, head of the group's international division, Deutsche Telekom aimed to increase the share of its international activities from 10 to 15 percent over 2000 and 2001, led by an expansion of its operations across Europe, but also looking at the United States (Financial Times December 9, 1999: 32). In 2001 Deutsche Telekom acquired Voice Stream Wireless Corp. in the US for 29.4 Billion US$ (UNCTAD, 2002: 266). Combined with its rapid expansion and in order to face competition, of amongst others AT&T, Deutsche Telekom announced that it had to shed 60.000 of its 230.000 employees by 2000 (Financial Times March 31, 1995: 2). In 2000 chairman Ron Sommer announced that Deutsche Telekom's run on large acquisitions was over and that it would focus on integrating its new businesses (Financial Times August 30, 2000: 21).

Table 7.8 shows the growth of total employment (TE), total assets (TA), total (net) sales (TS) and productivity (sales per employee and sales per asset) coinciding with DTs rapid internationalization over the 1990s.

Table 7.8: The employment effects of the internationalization of Deutsche telekom, 1990-1999 (absolute and index figures)

	1990*	1991	1992	1993	1994	1995	1996	1997	1998	1999
TE (absolute)	192.800	229.000	255.519	251.237	239.585	213.500	236.812	216.006	203.374	195.788
TE	**100**	**119**	**133**	**130**	**124**	**111**	**123**	**112**	**105**	**102**
TA	**100**	**100**	**107**	**102**	**124**	**128**	**130**	**104**	**107**	**110**
TS	**100**	**100**	**107**	**109**	**127**	**148**	**131**	**121**	**134**	**115**
Sales per employee	**100**	**84**	**81**	**84**	**102**	**133**	**107**	**108**	**127**	**113**
Assets per employee	**100**	**84**	**81**	**78**	**99**	**116**	**106**	**93**	**101**	**108**

Note: as Ta and TS data for 1991 were not available 1991 data were used. Number of employees refers to annual average. Source: annual reports, SCOPE database and Worldscope

The restructuring effort, announced in 1995 (see above), was implemented in 1996 and continued over the next years as the decline in total employment shows (Table 7.8). Increasing in the early 1990s, before internationalization took off, total employment declined, with a 'jump' in 1996 related to DT's stake in Asian telecommunication firms (see above), to almost the same level as in 1990 by the end of the 1990s. Total assets and total sales of DT followed a similar path, while productivity initially declined but grew over the rest of the 1990s.

Since its birth in the early 19th century, running a telegraph service for King Louis

Philippe, France Télécom has been a department of the Telecom Ministry under close political control until the early 1990s. When the company was privatized in 1997 it controlled a large domestic market. Its international expansion has focused on national markets in Europe, Mexico and Argentina. France Télécom also expanded in Russia through a 11 percent stake in MTS a Russian mobile telephone venture (Financial Times September 20, 1994: 27). It also expanded in former colonies in Africa in 1997 (notably Ivory Coast). While France Télécom had two percent of its revenues from abroad in 1995 it aimed to have 15 percent of its revenues from international operations in 2001 and a third of its revenues from abroad in 2006 (Financial Times November 17, 1998: 32). Table 7.9 reveals the employment effects of the foreign expansion strategy of France Télécom over the 1990s.

Table 7.9: The employment effects of the internationalization of France Télécom, 1990-1999 (percent, absolute numbers and index)

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
France	156.615	168.110	155.285	154.548	173.786	171.000	162.790	161.929	154.957	152.346
		7%	-8%	0%	12%	-2%	-5%	-1%	-4%	-2%
Foreign	0	0	0	0	0	2.289	2.410	7.944	14.142	21.916
							5%	230%	78%	55%
FE/TE ratio						1%	1%	5%	9%	14%
FS/TS ratio									9%	13%
Total	156.615	168.110	155.285	154.548	173.786	173.289	165.200	169.873	169.099	174.262
Growth rate		7%	-8%	0%	12%	0%	-5%	3%	0%	3%
TE	**100**	**107**	**99**	**99**	**111**	**111**	**105**	**108**	**108**	**111**
TA	**100**	**129**	**121**	**115**	**135**	**148**	**120**	**110**	**128**	**131**
TS	**100**	**110**	**110**	**106**	**132**	**149**	**144**	**129**	**143**	**136**
Sales per employee	**100**	**103**	**111**	**108**	**119**	**135**	**137**	**119**	**132**	**122**
Assets per employee	**100**	**121**	**122**	**116**	**122**	**134**	**114**	**101**	**119**	**117**

Number of employees refers to annual average. Source: annual reports, SCOPE database and Worldscope

Table 7.9 shows that in 1995 France Télécom had just over 1 percent of its workforce outside France, in four years this share increased to 14 percent in 1999. Over the same period its domestic workforce declined from 171.000 in 1995 to just over 152.000 in 1999, while foreign employment growth was substantial, reaching an annual growth rate of 230 percent in 1997. The latter is largely due to France Télécom's aggressive acquisition strategy. The foreign expansion of France Télécom coincided with a restructuring of its domestic workforce. Table 7.9 also shows that the internationalization of France Télécom's sales (see the FS/TS ratio) took of one year later, but followed a similar pattern as employment. Accompanying the internationalization of France Télécom is the growth in total sales, while total assets under control of France Télécom follow a more volatile pattern. Employment generated abroad is thus largely associated with market seeking activities. The lack of complementarity between France Télécom's international operations and domestic operations is evidenced in the decline in domestic employment. The combination of foreign market expansion and associated employment growth in those markets and diminishing domestic employment growth – although 1999 total employment

levels are just a little over what they were in 1990 - has led to greater labor productivity growth over the late 1990s.

British Telecom (BT) was already privatized in 1985 and operates in Europe's most liberal market, facing competition from more than 40 licensed operators. Since the early 1990s BT pursued an international strategy through 'Concert' a network services joint venture with MCI (WorldCom) of the United States (Financial Times January 19, 1995: 15). The internationalization of BT is comparable with that of AT&T after it was split up in 1984. Table 7.10 shows the employment effects of BT's internationalization trajectory.

Table 7.10: The employment effects of the internationalization of British Telecom (BT), 1990-1999 (percent, absolute numbers and index)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
UK	231.000	213.000	180.000	163.000	147.000	133.000	126.000	125.000	120.000	124.000
		-8%	-15%	-9%	-10%	-10%	-5%	-1%	-4%	3%
Foreign	6.000	6.000	3.000	3.000	2.000	3.000	4.000	4.000	5.000	8.000
		0%	-50%	0%	-33%	50%	33%	0%	25%	60%
FE/TE ratio	3%	3%	2%	2%	1%	2%	3%	3%	4%	6%
FS/TS ratio					2%	3%	8%	6%	10%	18%
Total	237.000	219.000	183.000	166.000	149.000	136.000	130.000	129.000	125.000	132.000
		-8%	-16%	-9%	-10%	-9%	-4%	-1%	-3%	6%
TE	**100**	**92**	**77**	**70**	**63**	**57**	**55**	**54**	**53**	**56**
TA	**100**	**104**	**89**	**93**	**97**	**100**	**114**	**108**	**126**	**167**
TS	**100**	**101**	**87**	**88**	**98**	**96**	**106**	**114**	**119**	**130**
Sales per employee	**100**	**109**	**113**	**126**	**156**	**167**	**194**	**209**	**226**	**233**
Assets per employee	**100**	**112**	**116**	**133**	**154**	**174**	**209**	**199**	**239**	**299**

Number of employees refers to annual average. Source: annual reports, SCOPE database and Worldscope

As table 7.10 indicates, BT's international expansion commenced with declining domestic and foreign employment. However, since the mid 1990s, similar to France Télécom, BT largely restructured its domestic operations, with associated negative employment effects, while expanding rapidly abroad. The balance between foreign and domestic employment had doubled from 3 percent in 1990 to 6 percent in 1999. The internationalization of sales and production (as measured by the FS/TS ratio in table 7.10) grew at a much higher rate than the internationalization of employment. Although, initially declining BT's sales and assets grew in the late 1990s with greater productivity gains. The patterns in sales and assets are diametrical to total employment that almost halved over the 1990s. Although, productivity increased when BT was largely operating on its domestic market, it grew exponentially with BT's foreign market expansion (Table 7.10).

Spanish Telefónica is a publicly listed company but dominated by the state, which has a 32 percent holding. It is a partner of 'Unisource', a joint venture including the Dutch, Swedish and Swiss telecom operators and AT&T of the United States. Over the 1990s, Telefónica pursued a very aggressive acquisition strategy in Latin America – countries closely related to the Spanish culture and economic institutions. This strategy increased Telefónica's level

of internationalization within a few years' time from around five percent in 1995 to thirty percent in 1998. The deregulation of the Spanish telecommunication industry coincided with the start of privatization in Latin America. While Telefónica was already present in Latin America before 1995, this was mainly through minority participations (e.g. in Chile and Argentina). The Latin America strategy (including Peru in 1995 and Brazil) was largely realized through an aggressive foreign acquisition strategy through Tisa (its international arm). "Tisa entered Latin America snapping up pieces of territory as the opportunities arose, much in the manner of the conquistadors 500 years ago. Gradually an imperial view emerged as the different components were stitched together" (Financial Times October 10, 1995: 28). On April 19, 1999, celebrating its 75th birthday, Telefónica launched a new internet-mobile service in Spain called 'Movistar Net' that together with internet providers helped customers to handle e-mail by mobile phone. It then had over 36 million fixed telephone lines (of which 17.5 million are in Spain and 18.6 million in South and Central America), 10 million mobile customers and over 2.5 million pay-TV customers (Annual report, 1999). By the late 1990s Telefónica had become one of the world's largest telecom firms and was striving to be the key telecom player in the Spanish-speaking world (including Brazil). According to its 1999 annual report, Telefónica considers both Spain and Latin America as its domestic market (Telefónica Annual Report 2001). In 1998 it brought its international division Tisa, owning assets in Argentina, Chili, Peru and Puerto Rico to the stock market and planned to invest in Mexico and the United States (Financial Times March 17, 1998: 35). On December 31, 1999 the Telefónica group employed an average of almost 119.000 employees, of which more than 51.000 in Spain, more than 36.000 in its international division and over 9.000 in Brazil (Telefónica Annual Report, 1999). In contrast to the French, German and British Telecom NGMs, Spanish Telefónica showed a remarkable foreign expansion trajectory combined with an increase of its number of employees (an average growth rate of almost 6 percent).

7.3.2 The internationalization of the US and European retail industry

Over the 1990s, the developed markets from which many of the Core200 retail firms originate have increasingly become characterized by limited growth opportunities and declining margins. The maturity in their home markets has often induced many retail NGMs to explore the opportunities in emerging markets in Asia, Eastern Europe, but also each other's developed markets. In hypermarket food retailing the expansion has been driven by groups as Wal-Mart, Metro, Tesco and Karstadt, but also by more established retail MNEs as Ahold and Carrefour adopting aggressive M&A strategies in developed market economies (which will be analyzed in chapter 8).
Japanese retailers have largely stayed in their domestic markets (e.g. Jusco has for example only very recently taken modest incremental foreign 'steps' in Hong Kong and Malaysia). The cluster of retail NGMs is therefore dominated by US and European retailers (see table 7.5). Therefore, three US retail NGMs are studied: Wal-Mart, Sears Roebuck and Kmart and, three European retail NGMs: Metro, Tesco and Karstadt.

Wal-Mart

In 2001, Wal-Mart became the world's largest company in terms of sales and is now well ahead of other Fortune Global 500 players like Exxon Mobil and General Motors. Founded as recently as 1962 in Arkansas by Sam Walton, in 2002 Wal-Mart is also the world's largest private employer with more than 1.3 million employees and an annual turnover of $219.8 billion.

Wal-Mart's international expansion started in 1991, when it opened a SAM's Club discount market in a suburb of Mexico City (Financial Times June 15, 1999: 30). Against the background of a strong US economy with low unemployment, low inflation and hence high real wages leading to high levels of spending in its stores, Wal-Mart's successful expansion strategy in Europe and Asia accelerated in the late 1990s. Table 7.11 provides a timetable of the foreign markets Wal-Mart entered since the early 1990s and the stated motives behind the strategy.

Table 7.11: Timetable of Wal-Mart's internationalization trajectory over the 1990s

Country	Date	Entry mode	Motive
Mexico	November 1991	Joint venture with Cifra, which was eventually taken over in 1997. Opening of a SAM's Club discount market in a suburb of Mexico City. Greenfield.	Saturation of domestic market. Growth opportunities of large Mexican market.
Puerto Rico	August 1992	Greenfield investments	Promising market
Canada	November 1994	Acquisition, buying 122 of Woolworth Canada's 142 Woolco superstores.	Saturation of domestic market.
Japan	March 1994	Join Venture with Ito-Yokado to supply its own-brand products to the Japanese retailer	First careful step in exploring the difficult Japanese retail market.
Argentina	November 1995	Greenfield investments	Promising retail market
Brazil	November 1995	JV to open five stores with an initial investment of 100 M. US. The company planned to build two supercenters and three wholesale clubs in the suburbs of Sao Paolo	The Latin American market as a high growth market. But also Carrefour, which is rapidly expanding in Brazil.
China	August 1996	In 1994 Wal-Mart established a JV with Ek Chor Distribution System a Hong Kong company owned by Charoen Pokphand, Thailand's biggest business group. Wal-Mart entered the Chinese market with one store. Since then it has expanded rapidly and now has 15 super centers, three Sam's club wholesale stores and one smaller store.	Growth potential of Chinese market and competitors operating in Chinese market. With China joining the WTO, the retail sector will most likely expand in this region.
Brazil	October 1996	$ 100 million dollars to open four new stores by the end of 1997 in Sao Paolo state	High competitive market, but the company is also ready for further expansion.
Germany	January 1998	Acquisition of 21 Wertkauf hypermarkets and 64 Interspar stores from a private German hypermarket chain.	'Conquer' European retail market. Germany as entry point due to Biggest market and centrally located.
South Korea	July 1998	After exploring the market for four years, it entered through acquiring four stores and six undeveloped sites from a Korean businessman. Wal-Mart now operates nine super centers.	Growth opportunities in South Korea.
United Kingdom	July 1999	Acquisition of the British ASDA group, thereby adding 229 stores to its stores in the UK.	'Conquer' European retail market. British Asda provided a good takeover candidate as it spent years copying the Wal-Mart culture (including its low-price formula).
Japan	March 2002	Wal-Mart took a 6.1 stake in Seiyu, Japan fourth-ranked supermarket group, in a deal that allows it to raise its stake to 66.7 percent.	The decision of Wal-Mart to enter Japan follows the entry of French Carrefour, the world's second largest retailer, into Japan in December 2000.

Source: (FT June 15, 1999), (FT March 24, 1994), (FT August 22, 1994), (FT October 26, 1996), (FT December 23, 1997), (FT July 11, 1998), (FT July 11, 1998) (FT June 15, 1999) and www.walmart.com

The success of Wal-Mart in both the US market and the foreign market is based on a two-leg strategy, creating firm specific advantages (FSAs). The first strategy is based on a reduction of costs, through key logistics and information, to steadily generate its 'always low price' formula and 'one-stop shopping'. The second leg relies on dynamic human

resource management (Rugman & Girod, 2003).
Wal-mart's greatest foreign expansion took place in 1998 and 1999 when it entered the European market through major acquisitions in Germany and the United Kingdom (Table 7.11). According to Jay Fitzsimmons senior vice-president finance and treasurer of Wal-Mart: "In order to be big globally we have to be big in Europe" (Financial Times June 15, 1999: 30). This became the cornerstone of Wal-Mart's European expansion strategy. A similar strategy was pursued from the other side of the Atlantic by the Dutch retailer Ahold – already a large international player – through its major acquisitions in the US of Giant Food in 1998 and Pathmark in 1999. Wal-Mart spent more than two years looking for an opportunity to enter Europe – getting to know its competitors (UK Tesco, Germany's Metro and Makro of The Netherlands. It decided it would not enter Europe without a critical mass from the outset in much the same way as it entered Canada in 1994 through the acquisition of Woolworth's Woolco chain. "There is already a strong retail base in Europe and, consequently doing Greenfield start-ups is not so easy. We took the same position in Canada. It is just the view we have of the developed world, and I think it is appropriate" Bob Martin head of Wal-Mart's international operations (Financial Times December 23, 1997: 15). The deals in both Germany and the UK caused a shockwave through the European retail industry because it represents the entry of the world's most powerful retailer into a market already suffering from high competition (Financial Times December 19, 1997). The acquisitions in Europe also signaled a shift in Wal-Mart's international strategy. Previous expansion had been confined to Canada, Mexico and developing countries like Brazil, Argentina and China. In most of those markets Wal-Mart had a competitive advantage, as the only retailer with resources to invest in distribution and information technology and to offer a wide range of products at a consistent quality and low price. Tackling Europe's highly competitive retail market would be a different challenge. Competitors of Wal-Mart previously failed in Europe.[67] If Wal-Mart is to survive in Europe it had to overcome obstacles that have discouraged others: high real estate cost, labor and distribution costs and different tastes that vary widely from country to country (Financial Times December 20, 1997).
In 2002 Wal-Mart took a similar more 'timid' approach in its first foray into the difficult Japanese retail market after rapid expansion elsewhere by taking a stake in Seiyo marks. "This is the first step in a long-term partnership. It provides us with a platform for Japan. We have always known that to be a truly global retailer we must be in Japan" said CFO Charles Holley (Financial Times March 15, 2002: 5). The gradual approach in Japan was motivated by the CFO Charles Holley, who argued that Wal-Mart needs to learn more about Japan before it can take a bigger plunge" (Financial Times, March 18, 2002: 29). The careful approach allows Wal-Mart to study the Japanese market from an insider perspective. The Japanese market is highly competitive and customers are very demanding. Although, local rivals as Mycal and Daiei have balance sheet problems and Sogo collapsed in 2000 due to property speculation, Jusco and Ito-Yokado are both successful domestic Japanese retailers. French retailer Carrefour had already failed in Japan as it misjudged Japanese shopping trends. It was advised that Wal-Mart should leave the management local rather than try to impose a US approach. By early 2002 Wal-Mart had not opened its first standalone in Japan (Financial Times March 15, 2002).

[67] Woolworths sold its UK stores, Sears Roebuck pulled out of Spain, J.C. Penney sold its Sarma stores in Belgium and Safeway sold its UK supermarkets.

Today Wal-Mart operates Discount Stores, Supercenters and Sam's Clubs in Argentina (13 stores), Brazil (14), Canada (166 stores), China (6), South Korea (5), Mexico (458), Puerto Rico (15), Germany (95), UK (232) and Japan (3). The internationalization strategy of Wal-Mart is characterized by joint-ventures and greenfield investments in developing markets. In developed markets Wal-Mart is much more likely to buy existing retailers than build its own operations from 'scrap'. The internationalization of Wal-Mart has been driven by a market seeking rationale, but also by moves of competitors in the retail industry. Table 7.12 shows the internationalization of Wal-Mart, employment, assets, sales and productivity growth.

Table 7.12: The internationalization of Wal-Mart, 1990-1999 (percent, absolute numbers and index)

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
FS/TS						4%	5%	11%	14%	14%
TE	328.000	371.000	434.000	528.000	622.000	675.000	728.000	825.000	910.000	1.140.000
TE	**100**	**113**	**132**	**161**	**190**	**206**	**222**	**252**	**277**	**348**
TA	**100**	**136**	**181**	**232**	**288**	**330**	**348**	**398**	**439**	**618**
TS	**100**	**135**	**170**	**207**	**253**	**287**	**322**	**362**	**422**	**506**
Sales per employee	**100**	**119**	**129**	**128**	**133**	**140**	**145**	**144**	**152**	**146**
Assets per employee	**100**	**120**	**136**	**144**	**152**	**160**	**157**	**158**	**158**	**178**

Source: annual reports, SCOPE database and Worldscope

Over the 1990s the share of Wal-Mart's international sales grew to fourteen percent in 1998 and 1999 (table 7.12). In 2001 its international sales and assets accounted for 16.3 and 31.5 percent respectively. The internationalization of Wal-Mart has been accompanied with employment growth both at home and abroad. While Wal-Mart employed 27.000 (4 percent) of its 622.000 employees (associates) abroad in 1995, in 2001 this had risen to 282.000 (23 percent) and 1.244.000 respectively. Still a large number, 962.000, are employed in the United States (source: www.walmart.com). This shows a strong pattern of complementarity. Moreover, assets and sales also grew rapidly, compared to 1990 with fourfold and six fold figures (Table 7.12). Wal-Mart has expanded rapidly in the United States and abroad through market seeking investments. The success of its international expansion is reflected in the stable growth of its labor and capital productivity.

Sears Roebuck and Kmart's international divestment strategies

In contrast to its past, today Sears only operates in the NAFTA area. Sears started its international operations in 1942 and in the late 1970s it had subsidiaries in South and Central America and in some European countries. Most foreign subsidiaries were divested in the early 1980s due to unsatisfying results. Sears Roebuck's negative experiences in foreign markets, largely due to a lack of local responsiveness, have made the corporation hesitant in conducting new foreign expansion over the 1990s.

Kmart is also largely a NAFTA based' retailer (Rugman & Girod, 2003). In 1995 Kmart had operations (discount stores) in all 50 US states, Puerto Rico, Virgin Islands and Guam. It also had discount stores in Canada (its largest foreign market), the Czech and Slovak Republic and had joint ventures (JVs) in Mexico and Singapore (Kmart Annual Report,

1995: 27). In contrast to Wal-Mart's foreign expansion strategy Kmart retreated from most of its foreign markets over the 1990s, due to disappointing profits in particular in its domestic activities. During the first and second quarter of 1999 Kmart completed the sale of its interests in Mexico and Canada operations (Kmart Annual Report, 1999: 27).
Negative average total employment growth rates of –3% and –2% over the 1990s, reflect the divestment strategies of respectively Kmart and Sears. Table 7.13 shows to what extent K-Mart divested its foreign activities over the 1990s. The internationalization of Sears Roebuck remained relatively stable, especially when compared with other retail NGMs or the group of NGMs as a whole in (figure 7.1)

Table 7. 13The internationalization of Sears Roebuck and Kmart, 1990-1999 (FS/TS ratio)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Sears Roebuck	8%	8%	7%	7%	7%	7%	9%	9%	9%	10%
K-Mart	3%	3%	3%	3%	4%	4%	3%	1%		

Source: annual reports and SCOPE database

Metro's competition with U.S. Wal-Mart
Ranked number 72 on the Fortune Global 500 in 2002, with revenues of $44.4 billion, Germany's Metro is the world's second largest retailer after Wal-Mart and Europe's largest retailer. Metro was formed in 1996 when Metro, then a privately-owned company controlled by its three Swiss-based founders, merged with the Kaufhof and Asko retailing groups. The entity that emerged was part public and part privately held by Metro Holding a Swiss-based investment holding controlled by its founders (FT November 13, 1998). Metro restructured its businesses in November 1998 in response to threats to its competitive position, in particular triggered by Wal-Mart's 'invasion' of Metro's domestic market Germany (Wal-Mart announced it would enter the European market in December 1997 – Financial Times November 13, 1998: 15). After a large-scale restructuring and consolidation process, Metro's core business consists of four divisions: Cash-and-carry (C&C), hypermarkets and supermarkets, department stores (Kaufhof) and non-food specialist shops (*ibid.*). The C&C stores have been the most profitable and most international over the late 1990s.
While tightening its structure on the domestic market, Metro started to push ahead with expansion abroad. The Asian market was seen as offering particularly strong growth potential. Eight Metro C&C markets in the region around Shanghai in China are now profitable, according to Metro Chairman Hans-Joachim Kourber: "We are the only company to hold a license to operate chain stores in China," he stressed. This means that Metro is in a position to expand across the country without having to apply for licenses for individual regions. The group plans to open eight to ten new markets in China each year. In Eastern Europe, the group is present in all major countries. In Poland, Metro is not only market leader with sales of around 2.7 billion Euro, but it also sources 90 percent of its products locally and has a local management team. Excluding state-owned companies, Metro is the largest company in Poland. (Financial Times May 17, 2002: 6).
Similar to Wal-Mart, Metro's expansion in Japan is also through a JV with Marubeni (Japanese trading house), in which Metro holds an 80 percent stake. Other foreign competitors of Metro operating in Japan are: Carrefour and Costco. The ambition is to open bulk stores in Japan to continue expanding its C&C business into Asia, where it

already has stores in China but plans further openings in Vietnam and India. Similar to its local sourcing strategy in Eastern Europe, goods in Asia will be acquired directly from local producers and manufacturers.
Metro chairman Hans-Joachim Kourber considers its stronger international presence and expertise to be one of the main advantages it has over U.S. rival Wal-Mart (Table 7.13) : "Wal Mart is a company from the Midwest of the United States, which pays no attention to local peculiarities, and which still has to learn how to become more international" (Düsseldorf Handelsblatt June 12, 2000). In 2002 Metro AG announced to abandon its previous strategy of growth through spectacular acquisitions and instead its focus on organic expansion (Metro Annual Report 2002).

Table 7.14: The internationalization of Metro, 1990-1999 (FS/TS ratio)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
FS/TS						5%	22%	27%	35%	39%

Source: annual reports and SCOPE database

The acceleration of Metro's internationalization strategy runs almost synchronic with the entrance of Wal-Mart on Metro's home market Germany (Table 7.14). In 2000 Metro had almost 180.000 employees of which 36 percent were employed outside Germany, with 13.360 employed in Poland and 7.422 in France (SCOPE Database).

Karstadt Group

The Karstadt Quelle group operates primarily in three business segments. – over the counter retail trade, mail order trade and tourism. With the accession of Quelle AG (after the merger with Schickedanz in 1999) the presence of the group in the mail order trade has expanded considerably. The group planned to expand investments also abroad, preferably in the areas of mail-order and tourism (Karstadt Quelle Annual Report, 1999: 14). In 1999 its department stores and specialist stores were all located in Germany (largely Essen and limitedly in Berlin and Hamburg), its universal mail order stores were located in Germany (6) and across Europe: Netherlands (2), Belgium (1), France (2), Austria (1), Slovakia (1) Czech Republic (1) and Switzerland (1). Specialist mail-order was largely located in German (9) and Denmark (1). The travel services were largely in German with minor other services operations in Belgium and Switzerland (Karstadt Quelle Annual Report, 1999). Table 7.15 represents the employment effects of Karstadt's expansion into new foreign markets across Europe.

Table 7.15: The employment effects of the internationalization of the Karstadt Group, 1990-1999 (number of employees, percent and index)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Germany	64.122	67.871	71.002	69.340	96.529	95.340	92.083	86.818	80.513	100.847
		6%	5%	-2%	39%	-1%	-3%	-6%	-7%	25%
Foreign	1.002	1.156	1.390	1.478	1.865	1.959	2.160	2.341	1.616	6.575
		15%	20%	6%	26%	5%	10%	8%	-31%	307%
Of which										
Belgium	248	252	401	440	526	565	625	650		
France	191	224	246	246	227	218	225	216		
Neth.	563	680	743	792	794	837	907	930		
Austria					318	339	403	404		
Denmark								141		
FE/TE ratio	2%	2%	2%	2%	2%	2%	2%	3%	2%	7%
FS/TS ratio	4%	4%	6%	6%	6%	7%	7%	8%	4%	9%
Total	65.124	69.027	72.392	70.818	98.394	97.299	94.243	89.159	82.129	107.422
		6%	5%	-2%	39%	-1%	-3%	-5%	-8%	31%
TE	**100**	**106**	**111**	**109**	**151**	**149**	**145**	**137**	**126**	**165**
TA	**100**	**114**	**114**	**110**	**177**	**198**	**185**	**158**	**159**	**198**
TS	**100**	**112**	**114**	**107**	**155**	**167**	**155**	**132**	**109**	**149**
Sales per employee	**100**	**106**	**102**	**99**	**103**	**112**	**107**	**96**	**86**	**90**
Assets per employee	**100**	**107**	**103**	**101**	**117**	**132**	**128**	**115**	**126**	**120**

Source: annual reports, SCOPE database and Worldscope

The ratio of foreign to total employment remained stable over the 1990-1998 period, while increasing rapidly over 1999 In contrast, the FS/TS ratio of Karstadt showed a more stable growth pattern, with a setback in 1998 when it divested abroad. Domestic German employment grew in the early 1990s, with a jump in 1994 when Kartstadt took over Hertie Waren und Kaufhaus (Kartstadt Annual Report 1994) and in 1999 when Karstadt merged with Schickedanz. The M&As are also reflected in Kartstadt's total employment figures over the 1990s. Foreign employment levels have shown large positive growth rates, with an exception in 1998. This foreign employment growth is primarily in neighboring foreign markets within the European Union and associated with new greenfield investments. Table 7.15 also reveals that coinciding Karstadt's internationalization strategy, sales and assets grew rapidly, while labor productivity declined and capital productivity increased rapidly. Karstadt's market seeking investments in Eastern Europe have led to greater product markets, but this has been difficult to combine with greater overall labor productivity. The growth in foreign employment and decline in domestic employment, except when M&As take place (see above), suggests limited complementarity between Karstadt's domestic and foreign market seeking operations.

Tesco

Tesco's international expansion strategy, after a short venture in France in the mid 1990s, largely focused on Ireland, Central Europe and Asia. In 1999 Tesco operated 39 hypermarkets in Hungary, 34 in Poland, 10 in Czech Republic and 8 in Slovakia. Compared to its international competitors Tesco is the only retailer present in all these four

Eastern European countries. Ireland and Central Europe are already a large part of the Tesco Group employing 27.000 people. In Asia the company has 17 stores in Thailand, 2 in South Korea and identified three sites in Taiwan that opened in 2001. In Thailand, where Tesco was one of the first to open a store in December 1998 and another three in 1999, the company is now market leader. "Our intention is to have 34 hypermarkets by 2002, which will put us in a powerful competitive position against other international retailers" (Tesco Annual Review and Summary Financial statements, 2000: 17). In South Korea the company aimed to have over 50 hypermarkets in five years.

Tesco 'landed' in Central Europe almost by accident. In 1996 the group was invited by the Hungarian government to help out a troubled domestic retailer. Tesco sent a manager from Bristol who was Hungarian. Hecame back telling the UK board that the Hungarian market entailed a lot of potential for Tesco. Taking Hungary as a point of departure the group spread into Poland, the Czech republic and Slovakia. They started with small stores, only later to realize that hypermarkets offered the best potential for growth (Financial Times July 2, 2001: 6).

"Instead of going for big-bang acquisitions in major markets, Tesco opted for small deals in emerging markets, linking with established local operators" (Financial Times September 24, 2002: 18). Tesco is aiming for a global sourcing strategy, enabling the company to buy quality products at the lowest price. Three sourcing centers have been set up in Hong Kong, India and Thailand. These now source 30% of Tesco non-food products (excluding Health and Beauty). The ambition of Tesco is to move this percentage up to 50% in three years, with the opening of a sourcing center in Central Europe (*ibid.*). Table 7.16 shows how the internationalization strategy of Tesco has affected employment levels between 1990 and 1999.

Table 7.16: The employment effects of the internationalization of Tesco, 1990-1999 (absolute figures, percent and index)

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
UK	87.691	87.033	86.066	90.926	108.113	130.308	143.694	159.109	172.712	169.500
		-1%	-1%	6%	19%	21%	10%	11%	9%	-2%
Foreign				2.413	3.346	4.729	9.504	26.471	25.630	35.716
					39%	41%	101%	179%	-3%	39%
Of which										
Europe				2.413	3.346	4.729	9.504	26.471	19.497	24.665
Asia									6.133	11.051
FE/TE ratio				3%	3%	4%	7%	17%	15%	21%
FS/TS ratio				3%	4%	5%	6%	8%	8%	10%
Total	87.691	87.033	86.066	93.339	111.459	135.037	153.198	185.580	198.342	205.216
		-1%	-1%	8%	19%	21%	13%	21%	7%	3%
TE	**100**	**99**	**98**	**106**	**127**	**154**	**175**	**212**	**226**	**234**
TA	**100**	**104**	**92**	**105**	**133**	**135**	**154**	**174**	**196**	**220**
TS	**100**	**103**	**89**	**105**	**132**	**153**	**186**	**216**	**227**	**244**
Sales per employee	**100**	**103**	**90**	**99**	**104**	**99**	**107**	**102**	**100**	**104**
Assets per employee	**100**	**104**	**93**	**99**	**105**	**88**	**88**	**82**	**87**	**94**

Note: in 1993 Europe is primarily France, in 1997 Europe includes Ireland with 14181 employees, while in 1998 Asia is primarily Thailand. Source: annual reports. Source: annual reports, SCOPE database and Worldscope

Tesco, primarily a British oriented retailer in the early 1990s rapidly increased its foreign employment share from 3 percent in 1993 to 21 percent in 1999. Prior to Tesco's foreign expansion, total UK employment growth was marginally negative. As table 7.16 shows, domestic employment growth has developed positively and simultaneously with foreign employment, albeit not at the same levels. This indicates that Tesco's internationalization strategy in Central Europe has coincided with home employment growth. This was due to the opening up of stores in the United Kingdom, but also through employment generated by exports of products to the new stores in Europe. Overseas retailers are able to tap into the foreign market as they source their goods overseas, but also in their home country and benefit from the economies of scale generated by a worldwide network of suppliers. Only in 1999 did this trend reverse. The sourcing strategy of Tesco is reflected in Tesco's internationalization of sales as compared with employment, the latter has increased more rapidly over the 1990s. As Tesco tries to position itself more and more within the retail value chain, its foreign employment grows rapidly. Labor productivity remained stable, while capital productivity declined over the 1990s (Table 7.16). The complementary between domestic and foreign employment of Tesco is contrary to Karstadt's employment development. Nevertheless, the opening of sourcing centers in Central Europe and Asia may indicate that Tesco's stores operating abroad aim to become less dependent upon the UK market for products.

7.4 A STRATEGIC PROFILE OF NGMs AND ASSOCIATED EMPLOYMENT EFFECTS

A common feature that characterizes the cluster of big NGMs is that their internationalization trajectories are predominantly shaped by the particular circumstances of the period, which has pushed these new generation MNEs into their internationalization strategy. This internationalization strategy is on the one hand deliberately shaped by governmental policies – through privatization and liberalization (e.g. the first group of new generation (service) MNEs in the telecommunication industry) On the other hand it is shaped by the competitive pressure of rivals within the industry (e.g. the new generation MNEs in the retail industry).

Most of the NGMs present internationalization as inevitable and as a prerequisite for their survival. Hence – even when this claim proofs unsubstantiated - many NGMs are trapped in what can be qualified as an 'internationalization trap' or engaged in a process of "accelerated internationalization".[68] "Accelerated internationalization is not a luxury for the latecomer but a necessity. Its goal is catch-up – through various ingenious stratgams - but while it is seeking to catch the incumbents, they too are moving ahead. Global coverage that lends competitive advantage, through generating long production runs for example, cannot be achieved through the solid build-up of one subsidiary after another. It can however, be achieved through the kinds of innovative acquisitions and partnerships…." (Mathews, 2002: 37). Driven by the new economy hype, an accelerated internationalization strategy was adopted by many (European) telecommunication NGMs,

[68] In internationalization as in many other strategies of firms, herding or bandwagon reasoning is rather prevalent. This is not to say that the necessity is always very clear. The base-case shows that domestic firms can have good performance as well.

reflected in over-ambitious and poorly motivated acquisitions and alliances in the late 1990s. The recent turmoil in the sector can be attributed to the misjudged expectations of firms operating in a 'bubble sector' (Financial Times October 2, 2002: 13), culminating in large profit falls and an expanding debt burden in many telecommunication NGMs. Therefore many of the first group of NGMs are trapped in a downward "accelerated internationalization spiral", possibly resulting in large divestment and wide-scale restructuring processes further down the road. As these NGMs have become international since the beginning of the 1990s, employment effects have taken place in both domestic and foreign markets.
Table 7.17 shows the employment, assets, net sales and productivity development of nine leading core telecommunication NGMs over the 1990s.

Table 7.17: Total employment, total assets, total (net) sales and productivity for 9 telecommunication NGMs, 1990-1999 (number of employees and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
TOTAL # OF EMPLOYEES										
Sum	1.427.827	1.499.313	1.464.673	1.357.160	1.428.597	1.396.259	1.223.045	1.214.830	1.218.385	1.264.828
Growth rate (*g*)		5.0	-2.3	-7.3	5.3	-2.3	-12.4	-0.7	0.3	3.8
Index	**100**	**105**	**103**	**95**	**100**	**98**	**86**	**85**	**85**	**89**
TOTAL ASSETS										
Growth rate (*g*)		10.6	0.9	2.7	16.7	9.1	-7.3	-5.3	20.3	30.9
Index	**100**	**111**	**112**	**115**	**134**	**146**	**135**	**128**	**154**	**201**
TOTAL (NET) SALES										
Growth rate (*g*)		21.5	2.5	4.4	13.9	12.6	-10.8	-0.6	10.7	12.3
Index	**100**	**121**	**125**	**130**	**148**	**167**	**149**	**148**	**164**	**184**
SALES PER EMPLOYEE										
Growth rate (*g*)		15.7	4.9	12.6	8.3	15.2	1.8	0.0	10.4	8.2
Index	**100**	**116**	**121**	**137**	**148**	**171**	**174**	**174**	**192**	**208**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		5.3	3.3	10.9	10.9	11.6	5.8	-4.7	19.9	26.1
Index	**100**	**105**	**109**	**121**	**134**	**149**	**158**	**150**	**180**	**227**

Source: company annual reports and Worldscope Database (asset and net sales data).

Total employment declined considerably between 1990 to 1997, with 1991 and 1994 as exception years. After 1997 employment growth picked up again. This may be largely attributed to by cross-border M&As. Total employment in 1999 is still well below the initial level of 1990 . Especially, when compared with assets and net sales growth the decline in employment is remarkable, while the index number for assets has doubled over the 1990s employment growth is lagging behind. Internationalization of the telecommunication NGMs has largely been accompanied with wide scale restructuring (see case studies in section 7.3.1)and led to productivity increases.

Some members of the second sub-group of big retail NGMs have shown a more incremental process of internationalization. Their internationalization process is best characterized by a process of concentric circles gradually adding new foreign markets to their locational portfolio. In such a process a global perspective emerges very slowly and is combined with other strategies. Hindered by negative past experiences Sears Roebuck and Kmart have been more hesitant in their internationalization trajectories over the 1990s. Still other retailers have remained largely domestic, and have only very recently taken modest incremental 'steps' abroad (e.g. Japanese Jusco in Hong Kong and Malaysia). Individual retailers are often at different stages of maturity in developing their international presence. Examples of longer standing international players in the retail industry are: Ahold, Carrefour, Promodes, Aldi and Sainsbury, while Wal-Mart from the United States, British Tesco and German Metro are examples of NGM retailers. Nevertheless, the internationalization of some of these second group of NGMs took place at a, relatively, high pace. Table 7.18 shows the employment, assets, net sales and productivity development among 6 leading retail NGMs over the 1990s

Table 7.18: Total employment, total assets, total (net) sales and productivity for 6 retail NGMs, 1990-1999 (number of employees and percent points, 1990 =100)

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
TOTAL # OF EMPLOYEES										
Sum	1.289.975	1.301.167	1.367.805	1.337.798	1.492.171	1.490.987	1.598.044	1.704.567	1.806.378	2.063.249
Growth rate (*g*)		0.9	5.1	-2.2	11.5	-0.1	7.2	6.7	6.0	14.2
Index	**100**	**101**	**106**	**104**	**116**	**116**	**124**	**132**	**140**	**160**
TOTAL ASSETS										
Growth rate (*g*)		12.9	-9.7	9.9	8.9	-31.8	4.2	6.4	5.0	18.9
Index	**100**	**113**	**102**	**112**	**122**	**83**	**87**	**92**	**97**	**115**
TOTAL (NET) SALES										
Growth rate (*g*)		12.1	5.5	5.5	15.8	-0.6	6.8	7.2	8.1	14.0
Index	**100**	**112**	**118**	**125**	**144**	**143**	**153**	**164**	**177**	**202**
SALES PER EMPLOYEE										
Growth rate (*g*)		11.1	0.3	7.9	3.8	-0.6	-0.4	0.5	2.0	-0.2
Index	**100**	**111**	**112**	**120**	**125**	**124**	**124**	**124**	**127**	**126**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		11.9	-14.1	12.4	-2.3	-31.8	-2.8	-0.2	-0.9	4.1
Index	**100**	**112**	**96**	**108**	**106**	**72**	**70**	**70**	**69**	**72**

Source: company annual reports and Worldscope Database Nov. 2000 (asset and net sales data).

Total employment among the sub-group of retail NGMs has increased substantially from almost 1.3 million in 1990 to over 2 million in 1999, only 1993 and 1995 showed marginal declines. This employment growth is accompanied with increasing total assets and total sales levels. The internationalization of retail NGMs, driven by market seeking motives has clearly paid off. Similarly, capital productivity declines due to service nature of the retail industry, with labor productivity remaining constant over the mid to late 1990s.The rapid internationalization strategy of many retail NGMs in the second half of the 1990s got

accompanied with stagnant or even declining levels of capital and labour productivity (Wal-Mart is in this respect an exception).

As was shown in the individual case studies of the internationalization strategies of the (retail) NGMs many of these firms – both in telecommunication and retail - followed competitors into foreign markets (bandwagon effects). Especially, in Asia and Eastern Europe the competition for entry is intense. The case of Tesco in Eastern Europe showed that the chance factor is also important in internationalization. A striking difference between the two groups of NGMs is that the telecom NGMs have often opted for big costly acquisitions to capture foreign market shares, while the retail NGMs have often taken much smaller and gradual steps wile entering foreign markets (see Wal-Mart and Tesco in Asia).

Most of the firms in the group of NGMs are service-oriented firms that follow specific internationalization trajectories (Glegg, 1993; Nachum, 2000). Due to the nature of the product most of the service NGMs show a low degree of geographic vertical integration. The internationalization of the two groups of NGMs often entails that a specific business segment is internationalized. For retailers it is often the hypermarkets (Wal-Mart or the cash-and carry divisions (Kardstadt), while telecom firms often buy into national telecom companies or conduct strategic alliances or internationalize a specific division (e.g. mobile telecommunication). The retail industry is perhaps most characterized by the need for a global-local responsiveness. Successful concepts and formulas developed in home markets have to be adjusted in local foreign markets to suit local demands. In doing so these companies risk losing and undermining whatever it was what made them successful at home in the first place - and hence lose competitive advantage. Nevertheless, local responsiveness is no guarantee for success. In the case of Tesco in Thailand, the British retailer was regarded as a foreign intruder and many Thais worried about the disappearance of smaller 'mom and pop' stores, with weaker local retailers already demanding government intervention. (Financial Times September 24, 2002).

The rapid nature of the NGMs internationalization has a number of implications for the volume and location of employment within these NGMs. As most of the new-generation MNEs have only very recently internationalized this hinders a long-term employment analysis for the whole 1990-1999 period. Nevertheless, for a number of new generation MNEs data on the internationalization of employment have been collected, making it possible to infer some conclusions. Employment growth among new generation MNEs took largely place in the group of private, in particular retailing, NGMs and less so in the group of privatized NGMs (i.e. the European telecommunication industry). Coinciding foreign expansion most of the employment growth took place abroad, but as the cases of Tesco and Wal-Mart showed also with home country employment growth. In the case of the latter this was alos combined with large labor productivity growth rates. As most of the retail NGM adopt local sourcing strategies in foreign markets, indirect employment in host economies must per definition increase. Nevertheless, when profits are disappointing in foreign markets NGMs tend to divest, having negative repercussions for host employment (see the cases of Sears and K-mart).

Apart from those telecommunication corporations (i.e. Telefónica) pursuing a (foreign) M&As expansion strategy, most of these corporations have been restructuring in combination with foreign expansion. The retail industry's employment growth levels can be largely attributed to a specific growth strategy, combining M&As with JVs and

greenfield investments.
The differences between the two specific groups of NGMs and their employment effects are summarized in table 7.19 below.

Table 7.19: Strategic profile of New Generation MNEs (service sector firms)

	Telecom (public)	**Retail (private)**
Internationalization		
Motives	Push factors, liberalization of (foreign) markets, efficiency, bandwagon, political	Largely market seeking, with external motives in the form of catching up with competitors.
Geographic scale	Rapid since early 1990. Originating largely in European countries	Rapid since mid 1990s for latecomers in retail industry (originating largely in US and Japan, large domestic market)
Geographic scope	'global'	Less global, but home region, only limitedly bi-regional or in some cases triadic (Wal-Mart)
Geographic integration	Low; multi-domestic	Low, often multi-domestic
Entry mode	Acquisitions, JVs, strategic alliances	Less acquisitions (primarily in mature markets, but also greenfields
Employment effects		
Domestic	Negative, restructuring	Mixed, although often complementary
Foreign	Mixed	Positive
Productivity Efficiency	Positive, especially during downsizing	Although, there are primarily labor productivity gains this is not always clear.

7.5 CONCLUSION

As the sample of SCOPE Core200 is selected on the basis of sales volume, an indicator independent of degree of internationalization, it consists of firms with very different internationalization trajectories. This chapter focused on domestic firms (DFMs) and on New Generation Multinationals (NGMs).
The cluster of DMFs and NGMs consisted largely of 'service-oriented' firms that could be subdivided in two groups: formerly state owned firms and privately owned firms. Figure 7.2 shows how the firms were grouped together.

		Industry		
Cluster of Core200		**Previously state owned**	**Largely private**	**No.**
	Domestic	Number of firms: 10 Primarily: electric & gas utilities (from Japan); postage and railroads	Number of firms: 13 Largely retail (10 firms) from US and to a limited extent Japan	23
	NGM	Number of firms: 15 Largely telecommunication companies (9) from Europe and US ("Baby Bells")	Number of firms: 14 Largely retail firms (7) from US and Europe	29
	No.	25	27	52

Figure7.2: Matrix of two clusters – DMFs and NGMs - of SCOPE Core200 firms

The cluster of DMFs – the base case - largely consisted of Japanese electric and gas utility providers and domestically oriented retailers from the United States. The larger domestic markets of the USA and Japan may partly explain why these firms remained bound to their

national markets as retailers from smaller Economies (e.g. Royal Dutch Ahold) are more likely to be internationally oriented. However, this is only part of the explanation as the Japanese market is considerably smaller than the US market. National regulation may have hindered these Japanese DMFs to expand abroad. At an aggregate level the cluster of DMFs increased its level of total (domestic) employment over the 1990s, but the bulk of employment growth over, in particular the mid to late, 1990s was accounted for by private-owned (US retail) DMFs, not by the (formerly) state owned DMFs. Although, the domestic market in these privatized and deregulated industries over the 1990s, had clear growth possibilities for these companies, it did not result in increased employment, but rather led to an increase in assets Serving the domestic market has thus largely been realized by expanding the production base by more machines (with greater productivity levels). In contrast, the private-owned group of DMFs paid a high price for this positive employment development as productivity growth was much lower than for the state-owned group of DMFs.

The mere existence of the group of NGMs supports the premises that internationalization, industry, nationality of the firm and history are intertwined (cf. Chandler, 1990). The trend in the internationalization of both production and employment of these NGMs over the last ten years has to a considerable degree contributed to the rapid growth in FDI. These firms can be seen as the drivers of the trend in the internationalization of production. In order to analyze the internationalization of NGMs, case studies were conducted on (1) NGMs operating in the telecommunication industry and (2) NGMs operating in the retail industry. The two groups showed divergent internationalization strategies and employment effects. The employment effects of the internationalization strategies of the group of telecom DMFs were intertwined with privatization and deregulation policies of, in particular European, governments. Many of these firms combined the restructuring of their workforce (at home) with a rapid internationalization strategy characterized by high priced M&As. Their internationalization is for a large extent driven, not only by government policy but also by the (perceived) moves of their competitors. The second group of retail NGMs, increased their foreign employment levels through a combined strategy of external and internal growth. Although, also driven by the moves of competitors these NGMs explored market potential and adopted a more gradual internationalization strategy. In the case of Tesco and Wal-Mart foreign employment growth was complemented with domestic employment growth, while in the case of Karstadt domestic employment growth was primarily attributed to domestic M&As, while foreign employment growth was associated with market seeking activities in neighboring markets.

8. INTERMEDIATE AND ESTABLISHED MNEs & EMPLOYMENT

8.1 INTRODUCTION

This chapter analyzes the relationship between the multinationality of the cluster of 'Genuine MNEs', employment and productivity over the fifth wave of internationalization. 148 firms of the Core200 were qualified as 'Genuine MNEs'. But not all can be included due to the limited availability of data on the geographic spread of employment. For 86 'Genuine MNEs' longitudinal data have been collected on the geographic spread of employment and production. Therefore 62 'Genuine MNEs' (mostly from Japan) did not report geographic segment employment data in their annual reports or in any other format that could serve for longitudinal testing (see chapter 6).

In contrast to the cluster of DMFs and NGMs (chapter seven), the cluster of 'Genuine MNEs' have been international throughout the 1990s and well before. For some of these 'Genuine MNEs' the early stages of internationalization date back to the early 1900s (e.g. Ford and General Motors) (Chandler, 1990; Vaupel & Curhan, 1969), while for most the height of their international expansion dates back to the *Interbellum* (for US MNEs) and the immediate post World War II period (European MNEs) (Chandler, 1990; Franko, 1976).

As the cluster of MNEs is categorized on the basis of the *possession* of foreign production not on their *volume* of foreign production (see chapter five), the cluster of 'Genuine MNEs' is very heterogeneous. While some 'Genuine MNEs' in this cluster can be labeled as truly well-established' MNEs embodying a long tradition of internationalization and operating in numerous countries, other MNEs have only marginal foreign operations and are in a more 'intermediate' stage of multinationality. Hence this chapter analyzes two groups of MNEs: "Intermediate MNEs" and "Established MNEs".

The structure and the questions of this chapter are similar to chapter seven. The 3D framework of multinationality of international production, introduced in chapter five, and the research questions relating to Intermediate MNEs (section 8.2) and Established MNEs (section 8.3) will be addressed. This chapter should highlight the main differences and similarities between the two sub-groups of 'Genuine MNEs' (section 8.4). Specific methodological issues relating to the data collection process of Intermediate and Established MNEs are tackled in Annex G.

8.2 INTERMEDIATE MNEs & THE 3-D FRAMEWORK OF MULTINATIONALITY

Intermediate MNEs can be qualified as MNEs (i.e. they have a FS/TS sale ratio above 10 percent), that have not reached an 'optimal level' of internationalization (i.e. a FS/TS ratio above 30 percent) in comparison to other MNEs or competitors operating in the same industry (section 5.4.2). In 1990 18 of the group of 86 genuine MNEs were qualified as Intermediate MNEs. Table 8.1 provides an overview of the industry and country of origin structure of the sub-sample of intermediate MNEs.

Table 8.1: Frequency distribution of 18 Intermediate MNEs over country of origin and industry (number of firms and percent)

	Fortune code #	France	Germany	Japan	United States	Total	No. in Core 200	Share (in %)
Aerospace	1				1	1	5	20%
Electric & Gas Utilities	10		1			1	8	13%
Engineering, Construction	13	1				1	8	13%
Food	15				2	2	7	29%
Forest and Paper Products	18				1	1	2	50%
Industrial & Farm Equip.	21				1	1	4	25%
Mining Crude Oil Prod.	29		1			1	2	50%
Motor Vehicles and Parts	30	1			1	2	19	11%
Petroleum Refining	31				1	1	20	5%
Retailing	*				2	2	26	8%
Trading	43		1	3	1	5	18	28%
Totals		2	3	3	10	18	200	9%
No. in Core200		20	23	60	61	200		
Share (in %)		10%	13%	5%	16%	9%		

** includes the following industries "Food and Drug Stores"(16), General Merchandisers"(19), "Specialist Retailers"(40) and "Wholesalers"(44).*

The industry distribution of the cluster of Intermediate MNEs is much more heterogeneous than was the case for either DMGs or NGMs. Only a limited number of Intermediate MNEs operate in the (formerly) state owned industries or retail industry (Table 8.1). All Intermediate MNEs originate in large economies, with more than half in the United States. The next sections will analyze their geographic scale and scope of production and employment. As only four intermediate MNEs reported intra-firm sales data for only a few years, it is not possible to analyze the relationship between geographic vertical integration (measured by Tifs/TS), employment and productivity.

8.2.1 Geographic scale and intermediate MNEs

Over the 1990s most intermediate MNEs internationalized relatively rapidly (see figure 8.1).

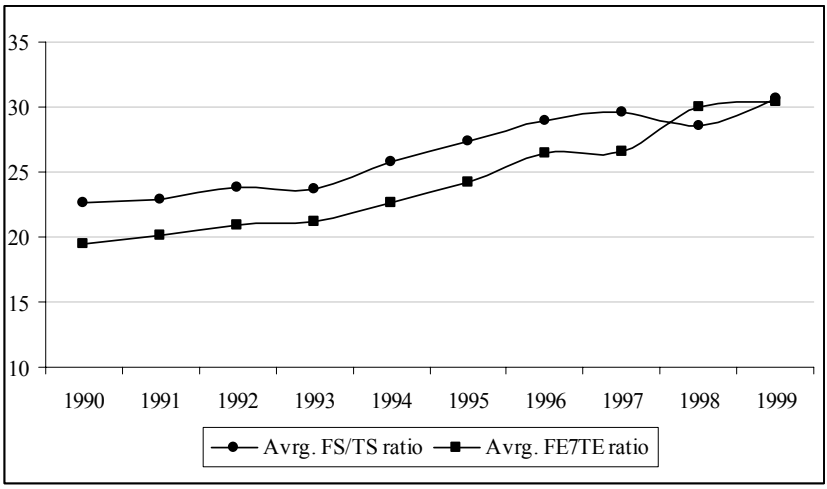


Figure 8.1: The internationalization of production and employment of Intermediate MNEs, 1990-1999 (percent)

The internationalization process, however, occurred nevertheless slower than in the case of NGMs (see figure 7.1). Both production and employment internationalized over the 1990s, on average from around 20 percent to 30 percent - an increase of 10 percent. Having around one in five employees employed abroad this level increased to almost one in three employees. In 1998 the ratio of FE/TE for the first time surpassed the FS/TS ratio. Nevertheless, on average around 70 percent of production and employment still takes place in the country of origin of the Intermediate firm. Table 8.2 reports the statistics for total, domestic and foreign employment for Intermediate MNEs over the 1990-1999 period. The number of entries declined from 18 in 1990 to 17 in 1998 and 1999 due to consolidation through (cross-border) M&As.

Table 8.2: Number of total, domestic and foreign employees of the cluster of Intermediate MNEs, 1990-1999 (absolute number of employees and percent, 1990=100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
n =	18	18	18	18	18	18	18	18	17	17
TOTAL # OF EMPLOYEES										
Sum	1.770.658	1.753.766	1.769.537	1.788.040	1.826.340	1.886.141	1.888.508	1.870.516	1.830.243	1.991.423
Growth	0.0	-1.0	0.9	1.0	2.1	3.3	0.1	-1.0	-2.2	8.8
Index	**100**	**99**	**100**	**101**	**103**	**107**	**107**	**106**	**103**	**112**
DOMESTIC # OF EMPLOYEES										
Sum	1.447.565	1.418.922	1.414.699	1.428.163	1.417.013	1.422.790	1.388.346	1.370.654	1.273.868	1.367.798
Growth	0.0	-2.0	-0.3	1.0	-0.8	0.4	-2.4	-1.3	-7.1	7.4
Index	**100**	**98**	**98**	**99**	**98**	**98**	**96**	**95**	**88**	**94**
FOREIGN # OF EMPLOYEES										
Sum	323.093	334.844	354.838	359.877	409.327	463.351	500.162	499.862	556.375	623.625
Growth	0.0	3.6	6.0	1.4	13.7	13.2	7.9	-0.1	11.3	12.1
Index	**100**	**104**	**110**	**111**	**127**	**143**	**155**	**155**	**172**	**193**

Source: company annual reports, SCOPE database and Worldscope Database (asset and net sales data).

In 1990 the cluster of all Intermediate MNEs combined employed more than 1.7 million people. Although, slightly declining in 1991 and 1997 the total number of employees increased to almost 2 million. Domestic employment declined modestly over almost the entire period, with a large drop in 1998. This growth can be attributed to supporting activities for rapid foreign expansion. Foreign employment, by contrast, showed almost continuous growth, with considerable acceleration since 1994. As a result, foreign employment almost doubled from over 323.000 in 1990 to more than 600.000 in 1999. The growth in total employment among intermediate MNEs is thus primarily attributable to foreign employment growth. The drop in total employment can largely be attributed to a drop in domestic employment (with a exception for the year 1997 in which both domestic and foreign employment dropped). In particular for this group of firms, the preference to expand through (cross-border) M&As implies that *external* firm growth, as opposed to *internal* firm growth, can be held responsible for the particular patterns of employment generation and distribution within the firm. In particular, foreign employment growth tends to be generated through foreign acquisitions. This observation is supported by Wortmann (2000) and by data of the HMEP, emphasizing the fact that there is a long-term trend of external growth gaining relative to internal growth. Wortmann and Dörrenbächer (1997) have shown that the growth of total employment of German MNEs foreign manufacturing affiliates in other industrialized countries can be completely explained by external growth through M&As.

Table 8.3 lists the descriptive statistics relating to firm size and labor intensity for the sample of intermediate MNEs.

Table 8.3: Total employment, total assets, total (net) sales and labor intensity for the 18 intermediate MNEs, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
n =	18	18	18	18	18	18	18	18	17	17
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		-1.0	0.9	1.0	2.1	3.3	0.1	-1.0	-2.2	8.8
Index	**100**	**99**	**100**	**101**	**103**	**107**	**107**	**106**	**103**	**112**
TOTAL ASSETS										
Growth rate (*g*)	0	2.6	6.4	8.5	3.3	5.6	2.1	1.5	3.6	10.8
Index	**100**	**103**	**109**	**118**	**122**	**129**	**132**	**134**	**139**	**154**
TOTAL (NET) SALES										
Growth rate (*g*)	0	1.2	6.6	1.1	14.1	-5.9	-8.5	-2.2	-4.7	6.2
Index	**100**	**101**	**108**	**109**	**124**	**117**	**107**	**105**	**100**	**106**
SALES PER EMPLOYEE										
Growth rate (*g*)		2.5	5.8	-0.7	11.7	-8.3	-7.9	-1.2	-0.8	-3.6
Index	**100**	**102**	**108**	**108**	**120**	**110**	**102**	**100**	**100**	**96**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		4.0	5.3	7.2	1.1	1.9	2.3	2.1	6.8	1.1
Index	**100**	**104**	**110**	**117**	**119**	**121**	**124**	**126**	**135**	**136**

Source: company annual reports (for employee data) and Worldscope Database Nov. 2000 (asset and sales data).

As summary statistics measuring firm size by total assets and total sales are common (Dewenter & Malatesta, 2001), the firms in the sub-sample of 87 MNEs are truly huge firms and have become larger over the 1990-1999 period (Table 8.3). Nevertheless, the sales volume of Intermediate MNEs show a more volatile pattern, increasing in the first part of the 1990s, when 'big steps' in foreign expansion took place (see Figure 8.1) and declining again between 1995 and 1998. Total employment grew primarily through foreign employment growth (Table 8.2). The limited sales growth, rapid foreign expansion and total employment growth affected the productivity of Intermediate MNEs. Capital productivity increased substantially and continuously, but labor productivity – after an initial comparable relative growth - declined again after the mid 1990s. Although, the employment pattern is similar to what was hypothesized in chapter five, the limited sales growth is contrary to earlier expectations. Many Intermediate MNEs may have experienced difficulties in realizing foreign market potential. This can be attributed to the pace of internationalization, often through large cross-border M&As..

8.3.3 Geographic scope and intermediate MNEs

One of the key assumptions in the relocation debate is that MNEs have increasingly internationalized production and hence employment. It was also argued that the geographic scope of international production and the direction of internationalization of MNEs determined the employment effects. In chapter three it was stressed that a large share of global FDI is located in developed countries (largely the United States and Europe) (UNCTAD, 2002; Van Den Berghe & Van Tulder, 2002). Table 8.4 shows the internationalization in terms of geographic scale and scope of Intermediate MNEs.

Table 8.4: The geographic scale and scope of employment and production of Intermediate MNEs, 1990-1999 (un weighted averages, percent)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
n =	18	18	18	18	18	18	18	18	18	17
	INTERNATIONAL EMPLOYMENT									
Domestic employment (DE/TE)	80.6	79.9	79.0	78.8	77.3	75.8	73.6	73.4	70.0	69.6
Foreign Employment (FE/TE)	19.4	20.1	21.0	21.2	22.7	24.2	26.4	26.6	30.0	30.4
	INTERNATIONAL PRODUCTION									
Domestic production (DS/TS)	77.4	77.1	76.2	76.3	74.3	72.7	71.1	70.4	71.5	69.4
Foreign production (FS/TS)	22.6	22.9	23.8	23.7	25.7	27.3	28.9	29.6	28.5	30.6
of which										
Intra-regional general	8.2	8.2	8.1	8.0	8.6	9.2	9.8	10.2	9.7	9.9
of which										
Intra-competitive (strict)	8.2	8.2	8.1	8.0	8.6	8.4	8.7	9.0	8.5	8.6
Intra-classical	0.0	0.0	0.0	0.0	0.0	0.7	1.0	1.2	1.2	1.3
Extra-regional general	14.4	14.7	15.7	15.7	17.2	18.2	19.1	19.4	18.8	20.7
Of which										
Extra-competitive (broad)	7.0	7.4	8.0	7.7	8.0	9.4	10.3	10.7	10.3	11.2
Extra-classical	7.4	7.3	7.7	8.0	9.1	8.8	8.9	8.7	8.5	9.5

Source: company annual reports and SCOPE Database.

Over the 1990s, the share of domestic employment for the group of Intermediate MNEs declined by 11 percent, from 81 in 1990 percent to 70 percent in 1999 (Table 8.4). Although, domestic production started from a slight lower level, 77 percent in 1990, it followed a similar pattern down to 69 percent in 1999 (see also figure 8.1). The geographic scope of international production showed a changing balance between intra regional and extra regional patterns. Intra-regional production declined slightly in the early 1990 – intermediate MNEs responded to the anticipated establishment of the SEM in 1992 – but increased rapidly from 1993 up to 1997, after which it centered around 10 percent. The majority of the intra-regional production is of competitive nature, i.e. in regions sharing similar location conditions. Since the real implementation of the SEM and the enlargement of the EU to 15 member states in 1995, however, the importance of lower wage countries in the international networks of production – and thus the importance of classical instead of competitive internationalization – is clearly increasing.

The main direction of internationalization over the 1990s is extra-regional. Starting from 14 percent in 1999, extra regional production increased steadily to 21 percent in 1999. The regional integration agreements in the early 1990s between developed countries, the EU and NAFTA, have provided many Intermediate MNEs a 'platform' or 'stepping stone' for further internationalization beyond the confines of their home region (cf. Van Tulder *et. al.*, 2001). Although, extra regional internationalization started off as equally competitive as well as classical in nature, the balance gradually shifted in favor of extra-regional competitive internationalization. In sum, over the 1990s, intermediate MNEs largely

internationalized to other developed markets, i.e. competitive internationalization. In 1990, 15 percent of international production was located in other developed markets, while 7 percent was located in developing or emerging markets. In 1999 these shares were 20 and 11 percent respectively.

What have been the employment effects of the different directions of international expansion? For this exercise the cluster of Intermediate MNEs has been divided in three sub groups based on the highest average share of the four forms of internationalization over the 1990s: (1)intra-regional competitive internationalizers; (2)extra-regional competitive internationalizers; (3)extra-regional classical internationalizers.

The empirical profiles of these subgroups are presented in the tables 8.5-8.7.

Table 8.5: Total employment, total assets, total (net) sales and labor intensity for intra regional competitive internationalizers, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
N =	8	8	8	8	8	8	8	8	7	7
DOMESTIC # OF EMPLOYEES										
Growth rate (*g*)		2.2	1.8	0.0	1.3	3.8	-3.2	-0.2	-6.8	4.9
Index	**100**	**102**	**104**	**104**	**105**	**109**	**106**	**106**	**98**	**103**
FOREIGN# OF EMPLOYEES										
Growth rate (*g*)		4.6	2.0	1.7	7.0	1.0	12.0	0.6	17.3	26.9
Index	**100**	**105**	**107**	**108**	**116**	**117**	**131**	**132**	**155**	**197**
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		2.6	1.8	0.3	2.3	3.3	-0.5	0.0	-2.0	10.2
Index	**100**	**103**	**104**	**105**	**107**	**111**	**110**	**110**	**108**	**119**
TOTAL ASSETS										
Growth rate (*g*)		3.2	3.4	-0.9	17.5	16.6	-1.4	-0.2	-9.1	16.8
Index	**100**	**103**	**107**	**106**	**124**	**145**	**143**	**143**	**130**	**151**
TOTAL (NET) SALES										
Growth rate (*g*)		4.7	5.1	-0.8	16.0	11.0	1.6	-1.7	-13.0	5.5
Index	**100**	**105**	**110**	**109**	**127**	**140**	**143**	**140**	**122**	**129**
SALES PER EMPLOYEE										
Growth rate (*g*)		2.1	3.2	-1.1	13.4	7.4	2.1	-1.7	-11.2	-4.3
Index	**100**	**102**	**105**	**104**	**118**	**127**	**130**	**127**	**113**	**108**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		0.6	1.5	-1.1	14.8	12.8	-0.9	-0.2	-7.2	5.9
Index	**100**	**101**	**102**	**101**	**116**	**131**	**130**	**129**	**120**	**127**

Source: company annual reports, SCOPE database and Worldscope Database (asset and net sales data).

(1) *Intra-regional competitive internationalization* has been accompanied with a relatively stable development in domestic employment (Table 8.5) Increasing slightly over the early to mid 1990, due to complementary domestic activities from foreign expansion it again declined in the late 1990s. Initially the growth in foreign employment was similar to domestic employment, as of the mid 1990s foreign employment increased rapidly with major 'jumps' in the late 1990s. The latter jumps are particularly related to two German Intermediate MNEs (Veba Ag and RWE Group) making 'big steps' – through major

takeovers - in foreign markets. The growth in total assets and sales showed a similar pattern, although the latter showed major drops in the mid to late 1990s. Market-seeking investments initially paid of, but as intra-regional competitive internationalization progressed the benefits grew less clear. Sales and employment growth patterns did not diverge spectacular. This has had an impact on productivity. While capital productivity showed a clear upward pattern, labor productivity lagged behind substantially and showed a very volatile pattern. Efficiency gains have clearly not materialized for competitive intra-regional internationalization. Efficiency gains were most likely also not the major motive behind competitive internationalization. Often the aim was to conquer foreign markets before rivals entered (see the competitive rivalry literature discussed in chapter four). This strategy often affects the performance of these Intermediate MNEs.

Table 8.6: Total employment, total assets, total (net) sales and labor intensity for extra regional competitive internationalizers, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
N =	6	6	6	6	6	6	6	6	6	6
DOMESTIC # OF EMPLOYEES										
Growth rate (*g*)		-7.1	-2.0	3.2	-3.8	-4.2	-0.6	-2.6	-8.9	13.9
Index	**100**	**93**	**91**	**94**	**90**	**87**	**86**	**84**	**76**	**87**
FOREIGN# OF EMPLOYEES										
Growth rate (*g*)		3.7	13.5	-0.4	23.1	27.1	4.3	0.0	5.5	0.2
Index	**100**	**104**	**118**	**117**	**144**	**183**	**191**	**191**	**202**	**202**
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		-5.1	1.1	2.4	2.1	4.1	1.0	-1.7	-4.0	8.7
Index	**100**	**95**	**96**	**98**	**100**	**105**	**106**	**104**	**100**	**108**
TOTAL ASSETS										
Growth rate (*g*)		2.8	10.2	18.5	-7.4	6.3	8.8	4.5	11.4	9.8
Index	**100**	**103**	**113**	**134**	**124**	**132**	**144**	**150**	**167**	**184**
TOTAL (NET) SALES										
Growth rate (*g*)		-0.6	7.3	6.8	12.8	-5.2	-8.9	1.3	2.1	10.2
Index	**100**	**99**	**107**	**114**	**128**	**122**	**111**	**112**	**115**	**126**
SALES PER EMPLOYEE										
Growth rate (*g*)		4.7	6.1	4.3	10.4	-9.0	-9.8	3.1	6.4	1.3
Index	**100**	**105**	**111**	**116**	**128**	**116**	**105**	**108**	**115**	**117**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		8.4	9.0	15.7	-9.4	2.1	7.7	6.3	16.0	0.9
Index	**100**	**108**	**118**	**137**	**124**	**126**	**136**	**145**	**168**	**170**

Source: company annual reports, SCOPE database and Worldscope Database (asset and net sales data).

(2) The employment, production and productivity trends of *extra-regional competitive internationalization* strategies are very different from intra-regional competitive internationalizers (Table 8.6). Domestic employment declined substantially and consistently over the 1990s, with a large increase in 1999. This upswing in domestic employment is attributable to a domestic takeover of Honeywell international by Allied Signal in 1999, almost doubling its employment levels. As Intermediate MNEs expanded to other developed markets beyond their home region this was often accompanied with a restructuring of the domestic labor force. Without the takeover of Honeywell by Allied

Signal, domestic employment would have declined further. Foreign employment, by contrast, grew exponentially and doubled over the 1990 – 1999 period. Due to the decline in domestic employment, the net result for total employment was marginally positive. The pattern in employment can be explained by the market seeking and strategic asset seeking nature of extra-regional competitive internationalization strategies. Due to the large distance there is no complementary link with domestic production of intermediate goods and products as is the case for intra regional competitive internationalization. As expected, total sales increased over the 1990s. However, this trend was not always distinct as the decline in the total sales volume in the late 1990s showed. Extra regional competitive internationalization strategies, aimed at entering the competitor's home turf, have not always lead to the market gains as expected. In contrast, the total volume of assets under control of Intermediate MNEs has increased rapidly over the entire period, with a slight fall in 1994. Buying into the competitor's home turf has been expensive (takeovers) but has only resulted in marginal labor productivity gains.

Table 8.7: Total employment, total assets, total (net) sales and labor intensity for extra regional classical internationalizers, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
N =	4	4	4	4	4	4	4	4	4	4
DOMESTIC # OF EMPLOYEES										
Growth rate (*g*)		-3.6	-7.8	-4.3	-0.8	-3.5	-5.9	-4.1	3.6	-7.7
Index	**100**	**96**	**89**	**85**	**84**	**81**	**77**	**73**	**76**	**70**
FOREIGN# OF EMPLOYEES										
Growth rate (*g*)		-0.6	-5.6	8.8	3.9	-0.3	12.4	-3.7	18.3	5.4
Index	**100**	**99**	**94**	**102**	**106**	**106**	**119**	**114**	**135**	**143**
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		-2.8	-7.2	-0.6	0.6	-2.5	0.0	-4.0	9.0	-2.5
Index	**100**	**97**	**90**	**90**	**90**	**88**	**88**	**84**	**92**	**90**
TOTAL ASSETS										
Growth rate (*g*)		1.4	2.9	-0.3	12.3	-7.9	-7.5	-3.6	2.0	5.5
Index	**100**	**101**	**104**	**104**	**117**	**108**	**99**	**96**	**98**	**103**
TOTAL (NET) SALES										
Growth rate (*g*)		0.7	6.9	-2.0	14.1	-15.9	-15.7	-5.9	-4.0	2.3
Index	**100**	**101**	**108**	**105**	**120**	**101**	**85**	**80**	**77**	**79**
SALES PER EMPLOYEE										
Growth rate (*g*)		3.5	15.2	-1.4	13.4	-13.7	-15.7	-2.0	-11.8	4.9
Index	**100**	**104**	**119**	**118**	**133**	**115**	**97**	**95**	**84**	**88**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		4.3	10.9	0.3	11.6	-5.5	-7.6	0.4	-6.4	8.2
Index	**100**	**104**	**116**	**116**	**129**	**122**	**113**	**113**	**106**	**115**

Source: company annual reports, SCOPE database and Worldscope Database (asset and net sales data).

(3) As expected the domestic employment effects of *extra-regional classical internationalization* strategies are negative - a decline of almost on third over the 1990s - as compared to the other two internationalization strategies. But they also relate to the smallest subgroup in the sample. However, it is important to note that domestic employment among the previous group analyzed, i.e. the extra-regional competitive

internationalizers, would have declined to almost a similar level without the large takeover of Honeywell by Allied Signal. Foreign employment increased, but the net effect was a substantial and almost constant decline of total employment over the 1990-1999 period (table 8.7). The growth in foreign employment in 1998 is largely attributable to the foreign expansion in that year. Extra regional classical internationalization has coincided with an initial rise in total assets and total sales of the Intermediate MNEs. However, as of the mid 1990s this trend reversed substantially during the mid to late 1990s. This negative trend in the late 1990s may be related to the Asian crisis, affecting market opportunities in many (Asian) emerging markets. As extra regional classical internationalization is largely motivated by an efficiency seeking rationale, we would expect this to increase over the 1990s. This was, however, not the case, while capital productivity increased marginally, labor productivity declined substantially. Despite restructuring in the home country of the Intermediate MNEs, efficiency gains remained absent.

8.3 ESTABLISHED MNEs & THE 3-D FRAMEWORK OF MULTINATIONALITY

Most well-established MNEs originate in small countries (as measured in terms of GDP and geographical size) (Table 8.8). The share of US and Japanese firms among the cluster of established MNEs is much smaller than in the other samples, 34 and 7 percent respectively. A number of industries are well represented in the cluster of established MNEs: chemicals, consumer electronics, Motor Vehicles and Petroleum Refining. Most of these industries are oligopolistic in nature, relatively mature, and vertically integrated conducting vertical FDI. A number of retailing MNEs from countries as France, Germany and the Netherlands are present in the cluster of established MNEs. Although, the retail industry is generally characterized by low levels of internationalization (see chapter seven) these particular retail MNEs can be qualified as “early starters” (Johansson & Mattsson, 1988). Other industries that were typical for NGMs and intermediate MNEs are not represented.

Table 8.8: Frequency distribution of 68 Established MNEs over country of origin and industry (number of firms and percent)

	Fortune code #	France	Germany	Italy	Japan	Netherlands**	Sweden	Switzerland	United Kingdom	United States	Total	No. in Core 200	Share (in %)
Aerospace	1									1	1	5	20%
Beverages	3									1	1	1	100%
Building Materials	5	1									1	1	100%
Chemicals	6	1	3					1	1	2	8	9	89%
Computers & Office Equip.	8				1					2	3	5	60%
Electronics Equip.	11	2	1		1	1	1	1		3	10	20	50%
Engineering, Construction	13	1									1	8	13%
Food	15	1				1		1			3	7	43%
Industrial & Farm Equip.	21		1						1		2	4	50%
Metal Products	27	1									1	1	100%
Metals	28	1	2								3	7	43%
Motor Vehicles and Parts	30	1	4	1			1			2	9	19	47%
Petroleum Refining	31	2		1		1			1	3	8	20	40%
Pharmaceuticals	32									2	2	2	100%
Retailing	*	3	1		1	1					6	26	23%
Scientific & Photo Equip.	37									3	3	3	100%
Soaps, Cosmetics	39									1	1	1	100%
Telecommunications	41						1				1	11	9%
Tobacco	42								1	1	2	3	67%
Trading	43		1		1						2	18	11%
Totals		14	13	2	4	4	3	3	4	21	68	200	34%
No. in Core200		20	23	5	60	5	3	3	7	61	200		
Share (in %)		70%	57%	40%	7%	80%	100%	100%	57%	34%	34%		

*Note: * includes the following industries "Food and Drug Stores"(16), General Merchandisers"(19), "Specialist Retailers"(40) and "Wholesalers"(44).*

*** includes British-Dutch Unilever and Shell as well as SHV Holdings officially incorporated in the Netherlands Antilles.*

During the late 1990s the number of established MNEs in the sample declined due to consolidation through (cross-border) mergers/acquisitions. The largest number of mega cross-border M&A deals took place in this group, which therefore represents a very important strategic characteristic of this particular group vis-à-vis the other groups (Table 8.9).

8.3.1 Established MNEs and the wave in cross-border M&As

As argued in section 3.2.2 and 3.2.3 the fifth wave of internationalization is characterized by a pervasive wave of cross-border M&As. Not only has this affected NGMs, who have often internationalized by means of foreign acquisitions, but also Established MNEs that have more often than in any other category of MNEs engaged in forms of cross-border mergers (as opposed to acquisitions) amongst each other. Table 8.9 provides an overview of major (cross-border M&As) among Established MNEs.

Table 8.9: Mergers and Acquisitions among Established MNEs, 1990-2000

Scope ID.	Acquirer	Country	Nature of Deal	Scope ID.	Target company	Country	Date	Name change
9	Exxon	United States	Acquired	21	Mobil	United State	Nov. 30 1999	Exxon Mobil
16	DaimlerBenz	Germany	Acquired	28	Chrysler	United States	Nov. 12th 1998	DaimlerChrysler
25	BP Plc.	United Kingdom	Acquired	78	Amoco	United States	Dec. 31 1998	BP Amoco
25	BP Amoco	UK	Acquired	na	Burmah Castro	United Kingdom	March 14 2000	
25	BP Amoco	UK	Acquired	151	Atlantic	United States	April 18 2000	BP Amoco
39	Veba AG	Germany	Acquired	Na	Degussa-Huls	Germany	Feb. 1 1999	
39	Veba AG	Germany	Acquired	75	Viag	Germany	June 19 2000	E.ON
45	IRI	Italy	Liquidated	na			June 28 2000	Previously
48	Du Pont	United States	Divested	na	Conoco	United States	Aug. 12 1999	
50	Renault	France	Acquired	22	Nissan Motor	Japan	Fall, 1999	
59	BBC Brown	Switzerland	Merged with	na	Asea A.B.	Sweden	Fall, 1994	Asea Brown
66	Alcatel Alsthom	France	Deconsolidation	na	Alsthom		June 22 1998	Alcatel
67	Chevron	United States	Acquired	51	Texaco Corp.	United States	Oct. 9 2001	Chevron Texaco
76	Carrefour	France	Acquired	111	Promodes S.A.	France	Oct 1 1999	
77	Thyssen AG	Germany	Acquired	155	Krupp AG/	Germany	Oct. 1 1998	Thyssen Krupp
79	Total S.A.	France	Acquired	na	Petrofina	Belgium	June 4 1999	Total Fina S.A.
79	Total Fina S.A.	France	Acquired	43	Elf Aquitaine	France	Feb 9 2000	Total Fina Elf
90	BAT Industries	United Kingdom	Divested	na	Financial		Sept. 7 1998	British American
92	Kroger	United States	Acquired	na	Fred Meyer	United States	May 27 1999	
Na	Vodafone	United Kingdom	Acquired	100	Mannesmann AG	Germany	April 12 2000	Vodafone
106	Lyonnaise des	France	Acquired	na	Cie. de Suez	France	June 19 1997	Suez Lyonnaise
Na	Bell Atlantic	United States	Acquired	112	GTE Corporation	United States	June 30 2000	Verizon
116	The Boeing	United States	Acquired	190	McDonnel	United States	Aug 1 1997	
Na	Albertson's	United States	Acquired	126	American Stores	United States	June 23 1999	
138	Ciba-Geigy	Switzerland	Merged with	na	Sandoz	Switzerland	Dec. 20 1996	Novartis
146	Rhône-Poulenc	France	Acquired	53	Hoechst	Germany	Dec. 15 1999	Aventis
173	BTR Plc.	United Kingdom	Merged with	na	Siebe	Germany	Feb. 4 1999	Invensys
177	WorldCom, Inc.	United States	Acquired	na	MCI	United States	Sept. 14 1998	Worldcom
185	Compaq	United States	Acquired	200	Digital	United States	June 11 1998	
189	Allied Signal	United States	Acquired	na	Honeywell	United States	Fall, 1999	Honeywell

Note: na is non-applicable. Unranked implies that firm is not part of the sample of 200 firms. Source: Fortune Magazines with annual Global 500 rankings published in August each year since 1996.

Established MNEs have been major actors in the current M&A wave (i.e. entering foreign markets by means of M&As). They have also been subject to takeovers by other corporations – in all but three cases at the hand of a fellow Established MNE.[69] As a result, the original sample of 68 established MNEs condensed into a group of 63 firms in 1999.[70]
Among established MNEs there were only two undisputed mergers: Ciba-Geigy/Sandoz and BTR/Siebe. Furthermore, there were also three large *de-mergers* (divestments), as Alcatel-Alstom divested Alstom, Du Pont spun-off Conoco and BAT industries divested their financial services activities. As argued in chapter three most of today's M&As are horizontal in nature i.e. between competing companies in the same industry (70 percent in 1999 against 59 percent in 1990; cf. UNCTAD, 2000: 101). All of the M&As within the sub-group of Established MNEs are horizontal especially in so-called old economy industries - the resource-based industries and car manufacturers (Table 8.9 and section 3.2.3). The consolidation and market concentration as a result of these mega horizontal M&As has given rise to global oligopolies in certain industries. For example while there were thirteen large European and US petroleum firms in 1995, in 2000 only eight were left. Similarly, car majors have also been active on the takeover market: Daimler Benz merged with Chrysler (later more aptly characterized as a take-over strategy); Renault's acquired a controlling stake in Nissan of 34 percent; Mitsubishi sold part of its share to Daimler-Chrysler; whereas Ford stepped up its stake in Mazda motor. In case of major core companies, it is not only clear whether the deal can be classified as a 'merger' or a 'take-over'. For instance in the case of Daimler-Chrysler, the deal was in particular classified as a merger, but turned out to be an acquisition when most of the American managers disappeared from the central board. The Renault-Nissan deal was considered an acquisition, but Nissan also acquired shares in Renault, whilst both shares are still minority shares. At the same time, however, the Japanese companies had to accept foreign CEOs or COOs, which is quite unique in Japanese history. Other sectors sharing firms that have been very active in M&As have been pharmaceuticals and Chemicals (e.g. Rhone-Poulenc and Hoechst). In these sectors, therefore, the nature of competition has become more oligopolistic than before.
Cross-border M&As have been the leading vehicle of competitive internationalization strategies, especially among developed countries' MNEs. The change in internationalization strategy is remarkable. In earlier periods, the number of successful pan-European and Transatlantic mergers was extremely limited. Many mergers and acquisitions were disrupted after a relatively short period (renowned examples include Renault-American Motors, Hoogovens-Hoechst, Fokker-VFW). But since the mid-1990s major transatlantic and pan-European cross-border M&A have been headline news (e.g. Daimler Benz -Chrysler, BP-Amoco, Akzo-Nobel Rhône-Poulenc-Hoechst, Hoogovens-British Steel). What is more important: these mergers seem to sustain.
M&As have become the prime mode of entry in the NAFTA and EU market. The search for

[69] The three exceptions were the takeover of American Stores Co. (SCOPE Core company #126) by Albertson's, a non-Core200 firm, in 1999, Mannesmann AG (SCOPE Core company #100) by Vodafone AirTouch in 2000, and the takeover of GTE (SCOPE Core company #112) by Bell Atlantic in 1999.
[70] The M&A wave not only affected the sub-sample of 68 established MNEs, but also the complete sample of SCOPE Core200 firms. By 1997, only 195 of the original 200 firms selected in 1995 were left. The M&A trend accelerated between 1998 and 2000, decreasing the number of core firms included in the Core200 from 200 in 1995 to 195 in 1997 to 190 in 1998. Including the most recent M&As, the number of core companies eventually left is reduced to 186.

core competencies, effective outsourcing strategies, combined with geographical diversification by many MNEs over the 1990s, has initiated divestments among redundant divisions or complete subsidiaries (often built up in the 1980s), thereby fuelling the M&A boom. Others emphasize the importance of firm size (in terms of both stocks and assets) as a defense mechanism to hostile takeovers (in this context "buy or be bought" is an often heard phrase). Size should place the firm in a position of "strategic comfort" (Schenk 1999). Therefore, competitive internationalization strategies are not just motivated by locational variables, but by the strategic responses of MNEs to the anticipated behavior of competitors. As risk-minimizers, oligopolists wish to avoid a situation of competitive destruction but prefer a situation of competitive interaction and follow each other's internationalization strategies (Knickerbocker 1973, Flowers 1976). “In an oligopolistic structure the interdependence of firms means that their behavior leads to a pattern of action and reaction, move and countermove, as in a game of chess” (Ietto-Gillies 1992, 129). Competitive internationalization also involves herd-behavior. Similarly, Graham (1978) argues that the best response to the new entry into a national market by a firm already established in some other market is a ‘counter-entry’ into that firm’s established market by its rival. An MNE which find its home territory invaded by a foreign MNE would thus retaliate by penetrating the invader’s home turf. This propensity to counter-act, ‘exchange threats’ and cross-penetrate each others’ (home) markets accounts for a very large share of FDI by firms from most of the industrialized countries (Graham 1990). A frequently cited historical example of this hypothesis is Royal Dutch Shell’s move into the US market in the 1900s as a response to Standard’s oil expansion in the Far East, which Shell previously dominated. The acquisition of Chrysler by Daimler Benz in 1998 is as much a strategic signal towards General Motors and Ford that the German firm wants to protect its own European home turf as an indication of its intrinsic motivation to enter the US market.

8.3.2 Geographic scale and established MNEs

Section 8.3.1showed that, although, the internationalization of Intermediate MNEs occurred rapidly over the 1990s, it was slower than was the case for NGMs (Figure 8.1). Both production and employment internationalized over the 1990s, form an average of around 20 percent to 30 percent, an increase of 10 percent. Figure 8.2 shows the geographic scale of international production and employment for the cluster of established MNEs, while figure 8.3 shows the growth in the share of FS/TS and FE/TE.[71]

[71] Growth in figure 8.3 is defined as the ten-year (1990-1999) average increase or decrease of the specific geographic scale indicators: FS/TS and FE/TE.

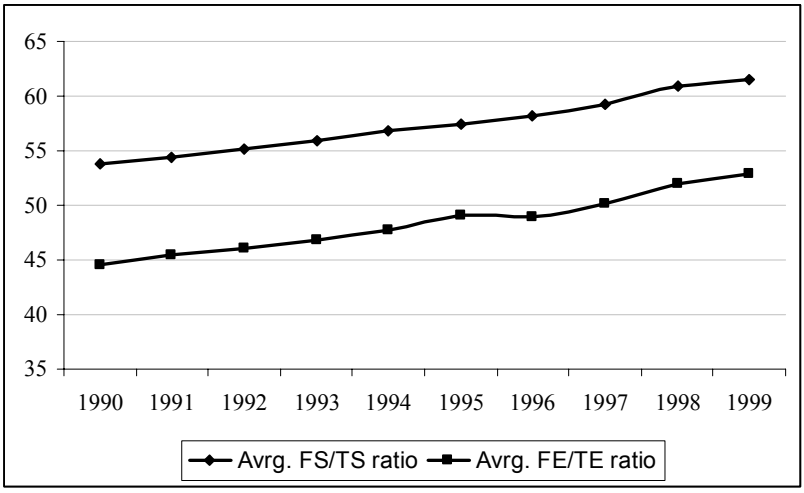


Figure 8.2: The internationalization of production and employment of Established MNEs, 1990-1999 (percent)

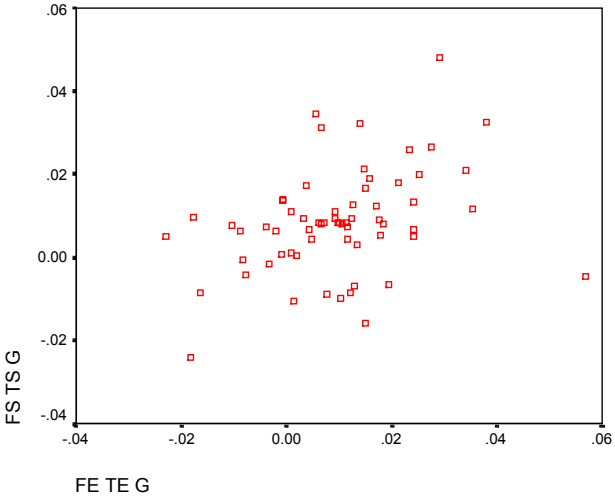


Figure 8.3: Growth in share of foreign production and foreign employment, ten-year average.

The internationalization of production and employment started, in comparison with Intermediate MNEs, at a much higher level, but showed much more divergence between the two. While the geographic scale of production was around 20 percent for intermediate MNEs in 1999, it was 54 percent for Established MNEs. Meaning that more than half of their production took place abroad. For employment, although starting at a much higher

level than was the case for Intermediate MNEs, the number was 45 percent. Both production and employment increased rapidly over the 1990s, although the increase was less rigorous than for Intermediate MNEs. The share of international production and employment increased by 8 percent between 1990 and 1999. In 1997 the share of the number of employees abroad was for the first time greater than 50 percent. Similar trends in international production for a sample of Top100 TNCs have been observed by UNCTAD (see UNCTAD, 2002 for instance). From a more historical perspective, data from UNCTC for various samples of MNEs show that the average FE/TE index in 1971 was 39 percent, for 1976 it was 36 percent, for 1980 it was 35 percent and for 1985 it increased again to 36 percent (UNCTC, 1973, 1978 and 1983). It is hence possible to conclude that while in the 1970s and 1980s MNEs had on average one-third of their employees working abroad, this number has increased substantially over the 1990s (in particular for European MNEs). Finally, as figure 8.3 shows increases and decreases of foreign production tend to correlate with increases and decreases of foreign employment. Although, this is not the case for all established MNEs, as the outliers show.
Table 8.10 reports the statistics for total, domestic and foreign employment for 68 established MNEs over the 1990-1999 period.

Table 8.10: Number of total, domestic and foreign employees of the cluster of Established MNEs, 1990-1999 (absolute number of employees and percent, 1990=100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
n =	68	68	68	68	68	68	68	68	66	63
TOTAL # OF EMPLOYEES										
Sum	9.191.888	9.102.742	8.979.256	8.658.371	8.431.547	8.415.940	8.467.565	8.519.248	8.512.730	8.297.209
Growth		-1.0	-1.4	-3.6	-2.6	-0.2	0.6	0.6	-0.1	-2.5
Index	**100**	**99**	**98**	**94**	**92**	**92**	**92**	**93**	**93**	**90**
DOMESTIC # OF EMPLOYEES										
Sum	5.027.179	4.897.613	4.791.719	4.543.715	4.298.896	4.183.676	4.186.817	4.162.208	3.999.002	3.786.458
Growth		-2.6	-2.2	-5.2	-5.4	-2.7	0.1	-0.6	-3.9	-5.3
Index	**100**	**97**	**95**	**90**	**86**	**83**	**83**	**83**	**80**	**75**
FOREIGN # OF EMPLOYEES										
Sum	4.164.709	4.205.129	4.187.537	4.114.656	4.132.651	4.232.264	4.280.748	4.357.040	4.513.728	4.510.751
Growth		1.0	-0.4	-1.7	0.4	2.4	1.1	1.8	3.6	-0.1
Index	**100**	**101**	**101**	**99**	**99**	**102**	**103**	**105**	**108**	**108**

Source: company annual reports and SCOPE database.

While Intermediate MNEs showed a relatively stable growth pattern in total employment, by contrast, total employment among established MNEs showed a stable decline over the 1990s from over 9.1 million to almost 8.3 million, a decline of 800.000 employees (Table 8.10). This decline is largely attributable to the decline in domestic employment from just over 5 million in 1990 to 3.7 million in 1999. Even when foreign employment slightly decreased, the slide in domestic employment was always greater. Although foreign employment increased, the increase was less distinct than in the case of Intermediate MNEs (see table 8.2 in section 8.2).

Table 8.11: Total employment, total assets, total (net) sales and labor intensity for the cluster of Established MNEs, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
n =	68	68	68	68	68	68	68	68	66	63
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		-1.0	-1.4	-3.6	-2.6	-0.2	0.6	0.6	-0.1	-2.5
Index	**100**	**99**	**98**	**94**	**92**	**92**	**92**	**93**	**93**	**90**
TOTAL ASSETS										
Growth rate (*g*)		3.6	-1.1	-0.1	10.0	6.9	3.2	-1.3	6.2	7.9
Index	**100**	**104**	**103**	**102**	**113**	**121**	**124**	**123**	**130**	**141**
TOTAL (NET) SALES										
Growth rate (*g*)		1.6	0.5	-1.6	13.1	7.6	2.8	0.1	-7.9	-1.6
Index	**100**	**102**	**102**	**101**	**114**	**122**	**126**	**126**	**116**	**114**
SALES PER EMPLOYEE										
Growth rate (*g*)		2.6	1.9	2.1	16.2	7.8	2.2	-0.5	-7.8	1.0
Index	**100**	**103**	**105**	**107**	**124**	**134**	**137**	**136**	**125**	**126**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		4.6	0.3	3.6	13.0	7.1	2.6	-1.9	6.3	10.7
Index	**100**	**105**	**105**	**109**	**123**	**132**	**135**	**133**	**141**	**156**

Source: company annual reports (for employee data) and Worldscope Database Nov. 2000 (asset and sales data).

In contrast to the development in total employment among established MNEs, assets and net sales increased. While both assets and sales increased moderately and congruently during the first half of the 1990s. They rapidly grew during the mid 1990s, but diverged again in the late 1990s due to a substantial drop in total (net) sales. Foreign expansion has not always resulted in a better market position among these established MNEs. Both labor and capital productivity increased steadily over the 1990s. But labor capital started to stagnate and declined even after 1997.

8.3.2 Geographic scope and established MNEs

Chapter five distinguished a number of directions of internationalization that can be applied to the sample of Established MNEs in table 8.12. The geographic scale ratios for employment and production have been added to provide an overall picture of the spatial configuration of production of Established MNEs.

Table 8.12: The geographic scope of production of Established MNEs, 1990-1999 (un weighted averages, percent)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
n =	68	68	68	68	68	68	68	68	66	63
	INTERNATIONAL EMPLOYMENT									
Domestic employment (DE/TE)	55.4	54.5	53.9	53.1	52.3	50.9	51.0	49.9	48.1	47.1
Foreign Employment (FE/TE)	44.6	45.5	46.1	46.9	47.7	49.1	49.0	50.1	51.9	52.9
	INTERNATIONAL PRODUCTION									
Domestic production (DS/TS)	46.2	45.6	44.9	44.2	43.2	42.5	41.9	40.8	39.1	38.5
Foreign production (FS/TS)	53.8	54.4	55.1	55.8	56.8	57.5	58.1	59.2	60.9	61.5
of which										
Intra-regional general	20.4	20.6	20.8	19.8	19.8	20.1	19.8	19.8	20.0	19.8
of which										
Intra-competitive (strict)	20.4	20.6	20.8	19.8	19.8	20.1	19.8	19.8	20.0	19.8
Intra-classical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extra-regional general	33.4	33.7	34.3	36.0	37.1	37.4	38.3	39.3	40.9	41.6
Of which										
Extra-competitive (broad)	19.1	18.7	19.1	19.1	20.0	20.1	20.2	20.5	23.1	24.1
Extra-classical	14.3	15.0	15.2	16.9	17.1	17.3	18.1	18.8	17.8	17.5

Source: company annual reports and SCOPE database.

The spatial organization of international production has changed considerably over the 1990s. The limited number of Japanese MNEs (four) in the sub-group of Established MNEs, caused by the non-availability of employment data (see chapter 6), probably explains why intra-regional classical internationalization is very marginal (close to zero). Intra-regional competitive internationalization of most Established MNEs remained relatively stable over the 1990s, fluctuating around the 20 percent mark (Table 8.12). In contrast to the relative stability in intra-regional production, extra-regional production increased substantially and consistently with almost one percent point each year from 33 percent in 1990 to almost 42 percent in 1999. For Established MNEs the growth of foreign production has, particularly in the second half of the 1990s, taken place beyond the home region of the MNE. The integration and institutional deepening of the home region has provided a platform for extra-regional expansion. For European and US Established MNEs regional integration, in the form of the SEM in 1992 and NAFTA in 1994, may explain this strong extra-regional expansion. What the Financial Times tentatively concluded, now can be substantiated better on the basis of a sizable sample of the largest firms (and

employers): "This highlights an extraordinary divergence between political Europe and business Europe. For while politicians were celebrating the arrival of the single currency and proposing at the Lisbon summit to turn Europe into the most competitive region on earth, business was staging an evacuation" (Financial Times, December 13, 2002: 19).
Extra-regional internationalization can be further subdivided in competitive extra-regional internationalization (inter regional and in other developed countries) and classical extra-regional internationalization (in the Rest of the World - RoW, mainly in developing countries). The former direction of internationalization remained relatively stable in the early to mid 1990s but started to increase from 20 percent in 1996 to over 24 percent in 1999 (Table 8.12). This sharp increase can be explained by the large role inter-regional cross-border M&As played during the fifth wave of internationalization (section 3.2.1 and 3.2.3). Extra-regional production in developing countries and emerging markets – qualified as *classical extra-regional internationalization* - increased from 14 percent in 1990 to almost 19 percent in 1997, after which it slightly declined to 18 percent. The latter decline can be largely attributed to the 1997/98 Asian financial crisis, which led Established MNEs to invest in more mature, stable and less risky developed markets. But these investments remained extra-regional.
Looking at the trend in *competitive internationalization* (intra plus inter-regional production) it was largely in the form of intra-regional expansion in the early 1990s, since the mid 1990s it was inter-regional expansion – in the form of cross-border M&As - that contributed most to the trend in competitive internationalization during the fifth wave of internationalization. This distinction between the early and late 1990s can be explained by the large number of European and US MNEs among the sample of 68 Established MNEs, both have anticipated the RIAs, the EU and NAFTA respectively. The trend in competitive internationalization was in the early 1990 matched with an expansion in emerging markets and developing markets i.e. classical internationalization. However, in the late 1990s expansion abroad did not result in an increase in production in developing and emerging markets.
Looking at the averages over the whole 1990-1999 period the role of developing countries and emerging markets in international production by developed country MNEs remains small (15 percent). On average, a very large share of production remains located in the home country of MNEs, with another 18 percent in the home region, and another 18 percent that is inter-regional.
Similar to the analysis of the cluster of Intermediate MNEs, the employment effects of different directions of international expansion are analyzed for the cluster of Established MNEs. The cluster of Established MNEs has been divided in three sub groups based on the highest average share of the four forms of internationalization over the 1990s. (1) intra-regional competitive; (2) extra-regional competitive; (3) extra-regional classical. The low share of Japanese Established MNEs in the sample (four MNEs) complemented with the limited data availability of their intra-regional activities hinders an analysis of intra regional competitive internationalization. Excluding these Japanese MNEs the sample comes down to 64 European and US Established MNEs.
Table 8.13 shows the correlations between the growth in the geographic scope ratios of table 8.12 for these European and US MNEs[72].

[72] Growth in table 8.13 is defined as the ten-year (1990-1999) average increase or decrease of the specific geographic scale and scope indicators.

Table 8.13: Pearson correlations between growth in different geographic scale and scope ratios for Established European and US MNEs[73]

		DE/TE (growth)	FE/TE (growth)	DS/TS (growth)	FS/TS (growth)	Intra-competitive (growth)	Extra-regional (growth)	Extra-competitive (growth)	Extra-classical (growth)
DE/TE (growth)	Pearson Correlation	1.000	-1.000**	.359**	-.359**	-.237	-.175	-.272*	.096
	Sig. (2-tailed)	.	.000	.004	.004	.060	.168	.030	.449
	N	64	64	64	64	64	64	64	64
FE/TE (growth)	Pearson Correlation		1.000	-.359**	.359**	.237	.175	.272*	-.096
	Sig. (2-tailed)		.	.004	.004	.060	.168	.030	.449
	N		64	64	64	64	64	64	64
DS/TS (growth)	Pearson Correlation			1.000	-1.000**	-.427**	-.675**	-.477**	-.272*
	Sig. (2-tailed)			.	.000	.000	.000	.000	.030
	N			64	64	64	64	64	64
FS/TS (growth)	Pearson Correlation				1.000	.427**	.675**	.477**	.272*
	Sig. (2-tailed)				.	.000	.000	.000	.030
	N				64	64	64	64	64
Intra-competitive (growth)	Pearson Correlation					1.000	-.379**	-.173	-.259*
	Sig. (2-tailed)					.	.002	.172	.039
	N					64	64	64	64
Extra-regional (growth)	Pearson Correlation						1.000	.629**	.490**
	Sig. (2-tailed)						.	.000	.000
	N						64	64	64
Extra-competitive (growth)	Pearson Correlation							1.000	-.370**
	Sig. (2-tailed)							.	.003
	N							64	64
Extra-classical (growth)	Pearson Correlation								1.000
	Sig. (2-tailed)								.
	N								64

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

As table 8.13 demonstrates there is a strong correlation between the various geographic scale and scope growth indicators. The growth in the share of domestic employment (DE/TE growth) is, not surprisingly, negatively correlated (-.359) with the growth in the share of foreign production (FS/TS growth). It also negatively correlates with most of the geographic scope indicators of international production: -.237 with intra-regional competitive international production, -.175 with extra-regional production, -.272 with extra-regional competitive production, but .096 with extra-regional classical production. International production of European and US established MNEs thus correlates slightly positive with international production in developing, largely low-wage, countries. For foreign employment the trends are opposite. The dichotomy between intra-regional and extra-regional production is highlighted in figure 8.3 and figure 8.4.

[73] To control for outliers Spearman (rank) correlations have also been conducted. These, however, showed similar results with only slight deviations from the Pearson correlations in table 8.13. The analysis is available upon request with the author.

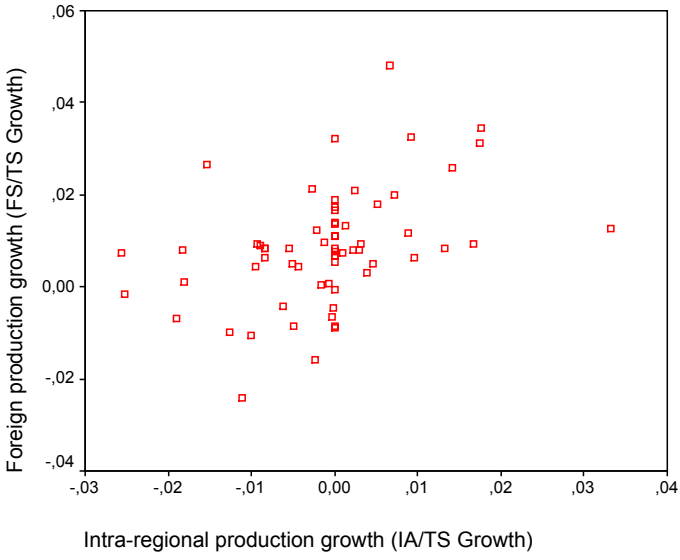


Figure 8.3: Intra-regional production growth versus international production growth (ten-year average increase/decrease, n=64)

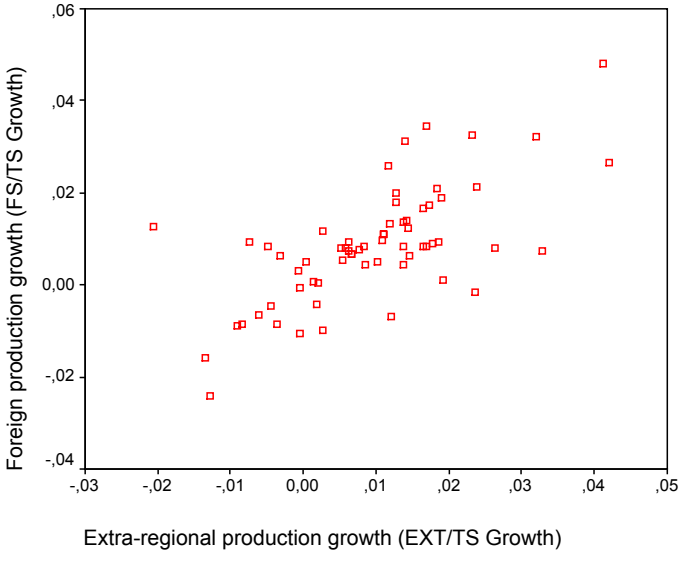


Figure 8.4: Extra-regional production growth versus international production growth (ten-year average increase/decrease, n=64)

As both figure 8.3 and figure 8.4 show, the growth in international production of European and US established MNEs over the 1990s can be better explained by extra-regional production growth, in particular inter-regional *Transatlantic* production growth. In other words higher levels of internationalization are often associted with extra-regional expansion.
The next section will discuss the three directions in internationalization, intra-regional competitive, extra-regional competitive and extra-regional classical, and its effects on employment in more detail.

Table 8.14: Total employment, total assets, total (net) sales and labor intensity for intra regional competitive internationalizers, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
N =	29	29	29	29	29	29	29	29	27	25
DOMESTIC # OF EMPLOYEES										
Growth rate (*g*)		-0.8	0.1	-5.9	-8.2	-2.1	-2.1	-2.4	-8.5	0.8
Index	**100**	**99**	**99**	**93**	**86**	**84**	**82**	**80**	**73**	**74**
FOREIGN# OF EMPLOYEES										
Growth rate (*g*)		2.7	3.4	-1.7	2.6	4.7	1.6	3.6	6.0	2.4
Index	**100**	**103**	**106**	**104**	**107**	**112**	**114**	**118**	**125**	**128**
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		0.7	1.5	-4.0	-3.3	1.2	-0.3	0.7	-0.8	1.7
Index	**100**	**101**	**102**	**98**	**95**	**96**	**96**	**96**	**96**	**97**
TOTAL ASSETS										
Growth rate (*g*)		5.6	-1.4	-3.4	13.5	10.2	1.6	-4.8	15.1	5.7
Index	**100**	**106**	**104**	**101**	**114**	**126**	**128**	**122**	**140**	**148**
TOTAL (NET) SALES										
Growth rate (*g*)		4.7	-0.3	-7.7	16.2	13.4	0.5	-2.6	-9.5	-7.6
Index	**100**	**105**	**104**	**96**	**112**	**127**	**128**	**124**	**112**	**104**
SALES PER EMPLOYEE										
Growth rate (*g*)		4.0	-1.8	-3.9	20.1	12.0	0.8	-3.2	-8.7	-9.2
Index	**100**	**104**	**102**	**98**	**118**	**132**	**133**	**129**	**118**	**107**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		4.9	-2.9	0.6	17.4	8.9	1.8	-5.4	16.1	3.9
Index	**100**	**105**	**102**	**103**	**120**	**131**	**133**	**126**	**147**	**152**

Source: company annual reports, SCOPE database and Worldscope Database (asset and net sales data).

(1) Different then from the sub group of intermediate *intra-regional competitive* internationalizers, established MNEs that have adopted a similar strategy over the 1990s, show a large decline of domestic and a small decline of total employment (Table 8.14). Although foreign employment increased in comparison with Intermediate MNEs this increase remains rather low. Established MNEs have thus often combined restructuring at home with foreign expansion. Judging from the pattern in total sales they have also found difficulties in realizing market share in particular in the late 1990s. The assets have grown moderately over the 1990s, but grew rapidly in the late 1990s when large foreign acquisitions took place among this group, as is evidenced in the decline of the number of entries from 29 in 1990 to 27 in 1998 and 25 in 1999. In response to regional integration many Established MNEs may have reduced the number of plants to create economies and

scale. However, the efficiency gains – linked to labor productivity - have not been realized. Although, capital productivity increased substantially especially in comparison with a similar group of Intermediate MNEs, labor productivity initially increased in the mid 1990s but fell back to almost the same level as 1990. Efficiency gains have been short - lived, possible due to the non-efficient mega cross-border M&As that these intra-regionalizers undertook in the late 1990s.

Table 8.15: Total employment, total assets, total (net) sales and labor intensity for extra regional competitive internationalizers, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
N =	29	29	29	29	29	29	29	29	29	29
DOMESTIC # OF EMPLOYEES										
Growth rate (*g*)		-4.5	-4.4	-5.1	-2.9	-3.7	2.5	0.5	1.0	-10.2
Index	**100**	**96**	**91**	**87**	**84**	**81**	**83**	**83**	**84**	**76**
FOREIGN# OF EMPLOYEES										
Growth rate (*g*)		-0.3	-0.1	-5.4	-3.3	-0.5	-0.5	1.4	3.1	-2.0
Index	**100**	**100**	**100**	**94**	**91**	**91**	**90**	**92**	**94**	**92**
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		-2.6	-2.4	-5.2	-3.1	-2.2	1.1	0.9	2.0	-6.3
Index	**100**	**97**	**95**	**90**	**87**	**85**	**86**	**87**	**89**	**83**
TOTAL ASSETS										
Growth rate (*g*)		2.3	-0.4	0.8	7.6	3.5	2.9	1.1	6.5	7.5
Index	**100**	**102**	**102**	**103**	**111**	**114**	**118**	**119**	**127**	**136**
TOTAL (NET) SALES										
Growth rate (*g*)		-1.3	3.0	2.4	11.5	2.9	2.8	1.6	-6.2	6.1
Index	**100**	**99**	**102**	**104**	**116**	**119**	**123**	**125**	**117**	**124**
SALES PER EMPLOYEE										
Growth rate (*g*)		1.3	5.5	8.0	15.1	5.2	1.8	0.7	-8.1	13.2
Index	**100**	**101**	**107**	**115**	**133**	**140**	**142**	**143**	**132**	**149**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		5.0	2.1	6.3	11.1	5.8	1.8	0.2	4.5	14.7
Index	**100**	**105**	**107**	**114**	**127**	**134**	**136**	**137**	**143**	**164**

Source: company annual reports, SCOPE database and Worldscope Database (asset and net sales data).

(2) Similar to the sub-group on competitive intra regional internationalizers, the second sub group of competitive extra regional internationalizers' domestic employment declined to similar levels. However, while for the former foreign employment increased for the latter it remained very stable in the early 1990s but declined substantially thereafter. As a net result total employment declined. In comparison with Intermediate MNEs this trend is different as Intermediate competitive extra-regional MNEs doubled their levels of foreign employment over the 1990s, but similarly declined their domestic levels. Total assets and sales increased over the 1990s, with a bigger and positive impact on both labor and capital productivity. The cross-border wave of M&As related to this sub-group of core firms thus resulted in substantial productivity gains, with a negative impact on total employment in general and on domestic employment in specific.

Table 8.16: Total employment, total assets, total (net) sales and labor intensity for extra regional classical internationalizers, 1990-1999 (number of employees, millions of US dollars and percent points, 1990 =100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
N =	10	10	10	10	10	10	10	10	10	9
DOMESTIC # OF EMPLOYEES										
Growth rate (*g*)		-2.2	-2.9	-2.1	-2.4	-1.1	-0.1	2.7	-5.2	-7.9
Index	**100**	**98**	**95**	**93**	**91**	**90**	**90**	**92**	**87**	**80**
FOREIGN# OF EMPLOYEES										
Growth rate (*g*)		-0.3	-12.9	11.0	5.0	3.3	4.1	-2.7	-3.2	-3.5
Index	**100**	**100**	**87**	**96**	**101**	**105**	**109**	**106**	**103**	**99**
TOTAL # OF EMPLOYEES										
Growth rate (*g*)		-1.1	-8.3	4.7	1.7	1.4	2.3	-0.5	-4.1	-5.3
Index	**100**	**99**	**91**	**95**	**96**	**98**	**100**	**100**	**96**	**91**
TOTAL ASSETS										
Growth rate (*g*)		3.5	-2.9	6.4	10.0	11.0	9.0	-0.3	-16.8	17.0
Index	**100**	**103**	**100**	**107**	**118**	**131**	**142**	**142**	**118**	**138**
TOTAL (NET) SALES										
Growth rate (*g*)		4.1	-5.9	1.0	11.4	9.7	9.4	1.8	-9.6	-13.6
Index	**100**	**104**	**98**	**99**	**110**	**121**	**132**	**135**	**122**	**105**
SALES PER EMPLOYEE										
Growth rate (*g*)		5.3	2.6	-3.6	9.6	8.2	6.9	2.3	-5.8	-8.8
Index	**100**	**105**	**108**	**104**	**114**	**124**	**132**	**135**	**127**	**116**
ASSETS PER EMPLOYEE										
Growth rate (*g*)		4.7	5.9	1.7	8.2	9.5	6.6	0.2	-13.3	23.6
Index	**100**	**105**	**111**	**113**	**122**	**133**	**142**	**142**	**124**	**153**

Source: company annual reports, SCOPE database and Worldscope Database (asset and net sales data).

(3) Extra-regional classical internationalizers declined in total employment which has been largely at the cost of domestic employment levels, while foreign employment remained relatively stable. Market potential has, apart from efficiency seeking investments, been a key driver behind these extra-regional classical internationalization strategies. This is demonstrated in the increase in total sales, although total net sales by the end of the 1990s had declined already to almost the same level of 1990.Classical extra-regional internationalization boils down to increases in labor productivity – though stagnant and decreasing since 1997 – and in particular larger and more continuous increases in capital productivity.

8.3.3 Geographic scale, geographic scope, productivity: testing for industry, size and country of origin effects

Section 5.4.1 and 5.4.2 identified three intervening factors influencing the relationship between internationalization and employment within MNEs: industry, country of origin and firm size. Hence much of the variation in the above trends can be explained by these three factors. To test this relationship SPSS Anova techniques are applied on ten year averaged data (1990-1999) for geographic scale (foreign versus domestic) and geographic scope (intra and extra regional) ratios and productivity ratios (sales per employee and

assets per employee) [74]. Although, using ten-year averaged data does not allow for a time series analysis, it does compensate for year-to-year fluctuations. Firm size was measured as the natural logarithm (LN) of the ten-year average of total assets (TA). Based on the LN of the average of TA, the MNEs were clustered in four groups, 1-4 (see annex G). Six industries were identified based on the Fortune classification of 1995 (see section 5.5.1). Several industry groups identified by Fortune were grouped together to reach a desirable number of entries (see annex G). The country of origin (COO) classification was straightforward. In addition, a region of origin (ROO) component was added to explore the variation in trends can be explained by the European origin or US origin of the MNE. The Anova test focused on the average ten-year growth rate of number of domestic, foreign and total employees and the growth in geographic scale and scope indicators of production (see table 8.13 in section 8.3.2). For the F-statistics a 90% confidence interval was chosen.

For most of the ratios *firm size* did not appear to have a significant effect. The F-statistics, based on a 90% confidence interval, ranged between 4.282 for absolute total employment growth, 2.186 for domestic and foreign production share growth, and 2.187 for intra-regional competitive production growth.

The *industry effects* were different. Most industries internationalized production over the 1990s. The largest gains in internationalization were recorded for the food and retail industry, increasing from 45 percent in 1990 to 66 percent in 1999. The motor vehicle industry and petroleum refining showed similar internationalization trajectories, with increases of more than 10 percent in ten years. Nevertheless, petroleum refining firms started at a much higher level of internationalization than the automotive industry in 1990. Electronics had chemicals, with already more than 50 percent of their production abroad increased this level substantial over the 1990s. For the average growth in number of domestic, foreign and total employees the F-statistics were respectively: 3.706, 3.799 and 5.499. The growth in domestic and foreign employment share also appeared significant with F-statistics of 2.614. Industry is thus an important determinant in domestic, foreign and total employment growth. It is also an important determinant in the growth of extra-regional competitive internationalization (F value of 2.162) and extra-regional classical internationalization (F value of 3.250).

The country of origin (COO) and region of origin (ROO) effects were more difficult to detect. In the early 1990s, France, Germany and the United Kingdom showed similar levels of multinationality of production (app. 45%). However, French MNEs rapidly expanded in the late 1990s. British MNEs showed a small decline in 1998 and increased their levels of international production in 1999, while Germany's MNEs international production levels declined slightly. In contrast, MNEs from the United States declined their levels of foreign production from the mid-1990s onwards. This declining trend can be attributed to the enormous domestic M&As taking place among US MNEs, diminishing the foreign production component by definition (see above). The level of international production by US MNEs remained below the average for the whole sample over the whole 1990-1999 period. The internationalization of production of MNEs from small economies (as measured by their level of GDP; cf. UNCTAD, 1998) shows much higher levels and a clear upward trend. These higher levels can be explained by the limited scope of expansion in their domestic markets, triggering international expansion (cf. UNCTAD, various

[74] The descriptive statistics between the average of the ratios over the 1990-1999 period as well as the correlations and F-statistics of the Anova test are available upon request with the author.

years). Only foreign employment growth appeared to be significant (F value of 2.341), while domestic and foreign employment growth shares were also significant (F value of 3.418). The COO differences in the growth in geographic scale and scope international production ratios appeared were not significant at the desired 90 percent level. Although, differences in the *degree* of internationalization exist between countries, the *growth* in the geographic scale and scope of internationalization appeared to be similar across all countries over the ten year period (1990-1999). The region of origin (ROO), either Europe or the United States showed more significant differences, especially for foreign employment growth (F value of 4.108) and growth in the share of domestic and foreign employment (F values of 4.864). The significant F-statistics for the growth in international production was 2.924, while this was 9.209 for extra-regional competitive internationalization. Significant differences prevailed in the growth of this latter direction of internationalization between European (largely EU) and US established MNEs.

8.3.4 Working with others: the employment effects of regionalism and the new regional division of labor (NRDL)

Not all Established MNEs provide abundant geographic segment information on their workforces to calculate the identified geographic employment shares. This is even more so for data on a longitudinal basis. A MNE may be reporting geographic employment segment data for only a few years (see chapter 6 on data reporting). Nonetheless, for 25 (out of a total of 43) leading European Established MNEs geographic employment segment data have been collected for the entire 1990-1999 period. Table 8.17 represents the geographic scope of employment of these 25 European established MNEs.

Table 8.17: The geographic scope of employment among leading European established MNEs, 1990-1999 (n=25) [75]

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Domestic	48.6	47.4	46.9	46.5	44.9	45.0	45.5	44.1	40.5	37.3
Foreign	51.4	52.6	53.1	53.5	55.1	55.0	54.5	55.9	59.5	62.7
Intra-regional competitive (strict)	19.8	21.0	21.5	21.6	21.3	21.4	21.6	21.6	22.4	24.4
Extra-regional general	31.6	31.6	31.5	32.0	33.8	33.6	32.9	34.3	37.1	38.2
of which										
Extra-competitive (broad)	16.9	16.1	16.9	16.8	17.1	17.0	16.6	16.8	19.8	20.3
Extra-classical	14.8	15.5	14.6	15.2	16.8	16.6	16.3	17.4	17.3	17.9
Total*	100	100	100	100	100	100	100	100	100	100
Bi-regional	36.6	37.1	38.5	38.4	38.4	38.4	38.2	38.5	42.2	44.7
Bi-regional (incl. Domestic)	85.2	84.5	85.4	84.8	83.2	83.4	83.7	82.6	82.7	82.1

** Total is sum of domestic, intra-regional, inter-regional and Rest of World (RoW) Source: company annual reports and SCOPE database.*

[75] Three Established MNEs (Royal Dutch Shell, Unilever and Bayer) did not specify their domestic employment figures in particular, but instead provided a complete figure for the whole home region (e.g. Europe). In these cases this figure was equally divided across the domestic share and intra-regional share.

Employment within these European MNEs has internationalized rapidly over the 1990s, as reflected in the decline of the domestic share of employment in table 8.17. While close to half the number of employees were employed in the parent company of the European MNE in 1990, in 1997 this share was down to 44 percent, after which it declined even more rapidly to 37 percent in1999. The rapid growth in foreign employment shares in 1998 and 1999 can largely be attributed to very specific cross-border M&As[76]. Leaving out these mega deals the internationalization of employment is less striking.

The geographic scope of employment of European MNEs shows a similar development as the geographic scope of production (see section 8.3.2). Competitive intra-regional employment shares increased between 1990 and 1992 from 20 to 22 percent after which it stabilized around 22 percent up to 1997, increasing again to 24 percent in 1999. A similar pattern can be observed for competitive extra (inter) regional employment shares, with rapid rises in the late 1990s. Classical extra regional employment shares increased from 15 percent in 1990 to 18 percent in 1999.

In 1990 85 percent of employees of European MNEs were located in developed countries (see the bi-regional incl. Domestic row in table 8.17) and 15 percent in emerging markets and developing countries, these shares declined to 82 and 18 percent respectively in 1999. Nevertheless, more than three quarters of employees are located in developed countries. The country of origin of most of these MNEs have nevertheless experienced declining shares of employment, declining from 49 percent in 1990 to 37 percent in 1999. This declining share coincided with a rise of employment shares in other European countries (largely the EU, intra-regional) and North America (largely the US, inter-regional).

What table 8.17 in fact shows is that, although extra-regional employment shares have increased sharply, many European Established MNEs have a high share of their employment in the home region, while the next largest share is in other developed markets, for European established MNEs this is largely the United States. On a bi-regional basis the share of employment has increased form 36 percent in 1990 to 45 percent in 1999. Including the domestic share more than 82 percent of employment of leading European MNEs is located in developed markets.

Looking at the individual firm level data, one striking element that one may observe is that many MNEs have in fact regionalized their activities. Some MNEs have set up regional headquarters in response to their regional activities, mediating between the global HQ in the country of origin and the local market. For instance Matsushita, Toyota, P&G and 3M adapted to the European market and specifically regionalized their global strategy.

Table 8.18 shows the absolute volume of employment involved with the regional shares of table 8.17.

[76] The acquisition of Chrysler by Daimler Benz, the acquisition of Amoco by BP and the acquisition strategy of Ahold in North and South America.

Table 8.18: The geographic scope of employment among leading European established MNEs, 1990-1999 (n=25)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Domestic	1.771.565	1.740.302	1.724.456	1.630.617	1.489.080	1.456.165	1.401.351	1.345.962	1.324.625	1.310.307
Foreign	1.951.784	1.974.960	1.980.489	1.920.648	1.927.956	1.923.553	1.914.194	1.967.876	2.241.840	2.356.350
Intra-competitive (strict	791.164	829.154	838.004	806.256	784.235	781.591	792.026	778.667	81.6619	869.969
Extra-regional general	1160.620	1.145.806	1.142.485	1.114.393	1.143.721	1.141.962	1.122.168	1.189.208	1.425.221	1.486.381
Of which										
Extra-competitive (broad)	555.310	525.401	551.575	519.056	522.354	520.088	503.617	544.868	752.390	786.108
Extra-classical	605.311	620.405	590.910	595.337	621.367	621.874	618.551	644.340	672.831	700.273
TOTAL	**3.723.349**	**3.715.262**	**3.704.945**	**3.551.265**	**3.417.036**	**3.379.718**	**3.315.545**	**3.313.838**	**3.566.465**	**3.666.657**

Source: company annual reports and SCOPE database.

8.3.5 Geographic integration and established MNEs

Much of the research discussed in chapter two, argued that the causation between FDI and trade, for established MNEs, often runs from investment to trade, when a new foreign investment project gives rise to new exports from the home economy. The initial loss of domestic employment due to increased international production by MNEs would be compensated through employment generated through increased levels of intra-firm trade, in the form of intermediate products between the home country of the MNE and foreign location in which its subsidiaries are located. This analogy rests on the key assumption that the extent to which intra-firm trade can take place largely depends on the level of vertical integration of the production process across borders (integrated international production - IIP) within MNE. The level of vertical integration of the firm, measured through the value of intra-firm sales, can be further observed through the organizational structure of the MNE.

As elaborated in section 5.3.3. the following vertical integration index was constructed for this study which is a proxy for the degree of vertical integration of a firm and is calculated as the share of intra-firm sales (IfS) within a firm as a share of total firm sales (TS).

Vertical Integration index (VI index) = intra-firm sales to total sales (IfS/TS)

Based on UNCTAD's (1993: 164) integration index an integrated international production index was also constructed.

Integrated International Production index (IIP index) = foreign intra-firm sales to total foreign sales FifS/FS)

While the first index, shows the overall degree of vertical integration of a firm, the second index shows to what extent this vertical integration takes place abroad (i.e. geographic integration).

Over the 1990-1999 period most Core 200 firms have increased both the frequency as well the level of detail, in terms of geographic specificity of their sales volume. This is particular so for 'corporate eliminations' reflecting intra-firm sales instead of an unallocated amount (see section 5.4.1). Due to the transition from SFAS 14 to SFAS 131 (see section 5.2.2), the (cross-border) M&A wave of the late 1990s and data provided by MNEs, longitudinal intra-firm sales (relative to total external-firm sales to outside customers i.e. arm's length trade) as well as their geographic spread, data have only been collected for the 1990-1997 period for a group of 20 Established MNEs.
Table 8.19 shows the result of this exercise. The table differentiates between (1) arm's length trade (trade to external customers – TEFS/TS), (2) the Vertical Integration Index (TiFS/TS), the ratio of (1) to (2) and the IIP index.

Table 8.19: Intra-firm trade and arm's length trade of Established MNEs, 1990-1997 (n=20)

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
TEFS/TS	86.3	85.1	85.6	84.5	84.5	83.8	83.7	83.8
TIFS/TS = VI index	**13.7**	**14.9**	**14.4**	**15.5**	**15.5**	**16.2**	**16.3**	**16.2**
FEFS/TEFS	45.9	47.5	48.5	47.9	48.4	49.6	50.0	50.6
FIFS/TIFS = IIP index	**11.6**	**12.6**	**11.5**	**13.5**	**13.5**	**14.7**	**14.6**	**14.5**

Source: company annual reports and SCOPE database.

As table 8.19 shows there has been some increase in vertical integration over the 1990s, but the bulk of trade within Established MNEs remains focused on eternal customers. As the second index shows, compared to arm's length trade, intra-firm trade is only limited internationalized. It did, however, show an upward trend from 12 percent in 1990 to 15 percent in 1997. This upward trend is less spectacular then the proponents of global integration suggest.
The average IIP index over the 1990-1997 period can used to differentiate between the three organizational typologies of MNEs:

1. Multi-domestic = low degree of geographic integration: below 10 percent
2. simple integration = low to medium degree of integration: 10- 25 percent
3. complex integration = medium degree of integration: 25-50 percent
4. deep integration = high degree of integration, greater than 50% percent

Of the 20 Established MNEs analyzed on the basis of their organizational structure 8 are multi-domestic, 10 are simple integrated, while only 2 Established MNEs have a complex integrated production structure. Table 8.20 shows the employment effects of the multi domestic geographic integration strategy.

Table 8.20: Number of total, domestic and foreign employees for multi-domestic Established MNEs, 1990-1999 (absolute number of employees and percent, 1990=100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
FE/TE	42.1	43.4	44.0	44.8	46.3	47.4	47.6	48.0	52.1	51.8
F/TS	51.2	52.3	53.4	54.5	55.1	56.5	55.6	57.3	65.9	66.0
Comp. Intra-regional	14.2	15.5	16.0	15.3	14.6	14.5	14.4	15.0	13.0	12.0
Extra-regional (general)	37.0	36.8	37.4	39.1	40.5	42.1	41.2	42.3	52.8	54.1
Comp. Extra-regional	23.0	22.1	22.4	22.2	22.3	22.8	22.1	21.7	29.2	29.2
Class. Extra-regional	14.0	14.7	15.1	17.0	18.2	19.2	19.2	20.6	23.6	24.8
TOTAL # OF EMPLOYEES										
Growth		-2.8	-2.9	-6.1	-8.4	-4.8	-3.1	1.7	19.5	-1.8
Index	**100**	**97**	**94**	**89**	**81**	**77**	**75**	**76**	**91**	**89**
DOMESTIC # OF EMPLOYEES										
Growth		-2.8	-3.1	-7.2	-12.3	-1.7	-4.5	0.3	-5.3	3.5
Index	**100**	**97**	**94**	**87**	**77**	**75**	**72**	**72**	**68**	**71**
FOREIGN # OF EMPLOYEES										
Growth		-2.7	-2.7	-4.1	-1.8	-9.6	-0.7	4.0	57.3	-6.7
Index	**100**	**97**	**95**	**91**	**89**	**81**	**80**	**83**	**131**	**122**

Source: company annual reports and SCOPE database.

Multi-domestically integrated MNEs have gradually internationalized employment over the 1990s, while rapidly expanding their foreign production base (Table 8.20). Intra-regional competitive internationalization declined over the 1990s, while most foreign production expansion took place in other developed markets (competitive extra regional expansion) and, in particular, emerging or developing economies (classical extra regional expansion). Both increased from 23 to 29 percent and from 14 percent to 25 percent respectively over the 1990s. This spatial configuration of Established multi-domestic MNEs is reflected in the employment pattern. Although, foreign employment grew, coinciding the setting up of multi-domestic subsidiaries in foreign markets. In a low integrated international MNE, with a multi-domestic organizational model, different subsidiaries often perform similar production processes, with employees in different localities performing similar tasks. In the latter case there is often much competition between the different subsidiaries, and hence between workers (see chapter 2 and four). Therefore the decline in domestic employment is largely attributable to substitution between domestic and foreign employment. This is in line with our expectations and previous research that the degree of geographic integration determines to what extent domestic employment is substituted for foreign employment.

Table 8.21: Number of total, domestic and foreign employees for Simple integrated Established MNEs, 1990-1999 (absolute number of employees and percent, 1990=100)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
FE/TE	42.0	43.4	43.7	42.5	42.1	43.4	45.7	44.7	46.5	43.7
F/TS	48.9	49.8	50.3	49.4	50.7	52.0	51.9	51.1	50.4	53.5
Comp. Intra-regional	11.0	11.6	10.8	11.3	11.8	11.0	11.1	11.5	12.2	15.8
Extra-regional (general)	37.9	38.2	39.5	38.1	38.9	41.0	40.7	39.6	38.2	37.7
Comp. Extra-regional	22.0	21.6	21.2	19.6	19.5	19.8	19.6	17.0	15.3	17.6
Class. Extra-regional	15.9	16.6	18.4	18.5	19.5	21.2	21.2	22.6	22.9	20.1
TOTAL # OF EMPLOYEES										
Growth		-6.0	-4.9	-5.5	-5.5	-1.0	6.7	1.0	-1.9	-4.3
Index	**100**	**94**	**89**	**85**	**80**	**79**	**84**	**85**	**84**	**80**
DOMESTIC # OF EMPLOYEES										
Growth		-8.9	-4.4	-4.0	-3.0	-1.6	2.2	2.9	-5.4	-1.5
Index	**100**	**91**	**87**	**84**	**81**	**80**	**82**	**84**	**79**	**78**
FOREIGN # OF EMPLOYEES										
Growth		-2.5	-5.5	-7.0	-8.4	-0.4	12.0	-1.1	2.1	-7.3
Index	**100**	**98**	**92**	**86**	**79**	**78**	**88**	**87**	**89**	**82**

Source: company annual reports and SCOPE database.

The group of simple integrated Established MNEs declined from 10 in 1990 to 8 in 1998 and to 7 in 1999 due to consolidation through cross-border M&As. In comparison with multi –domestic MNEs and MNEs in general the internationalization of employment showed a very volatile pattern and increased only a little between 1995 and 1998, after which it declined. The same is also true, although to a lesser extent for the internationalization of production, increasing from 49 percent in 1990 to 54 percent in 1999, with a volatile pattern in between. Not only is the increase much smaller as compared with multi domestic MNEs, but also the magnitude of geographic scale. While multi domestic MNEs had 66 percent of their production abroad in 1999, simple integrated established MNEs had only 54 percent abroad in 1999. The direction of internationalization was largely intra-regional competitive and extra-regional classical, with extra-regional expansion remaining relatively stable over the 1990s. This latter trend is attributable to the decline in extra regional competitive internationalization from 22 percent in 1990 to 18 percent in 1999 (table 8.21).

A highly integrated international production process (IIP) within a "globally organized MNE" entails that different subsidiaries produce specialized outputs, which are then 'sold' to the other subsidiaries and assembled in a final end product at the end of the international value chain. Different employees in different production locations, hence perform different tasks of the production process. This implies that there is less substitution between domestic and foreign employment among simple integrated MNEs as opposed to multi-domestic MNEs. This is, however, not entirely the case. Contrary to our expectations domestic employment fell considerably. Moreover, foreign employment declined, with a net decline of total employment. Simple integrated MNEs have thus largely set up integrated production plants abroad, but have not created employment in foreign markets.

8.4 CONCLUSION

This chapter has analyzed the link between the internationalization of production (conceptualized trough geographic scale, scope and integration), employment and productivity for two clusters of genuine MNEs: 18 Intermediate MNEs and 68 Established MNEs. Table 8.22 below summarizes the main trends in production, employment and productivity for the two clusters of MNE and their sub-groups.

Table 8.22: Summary of trends in employment, production and productivity amond two clusters of 'Genuine MNEs'

	Intermediate MNEs	**Established MNEs**
Industry	Diverse but mainly private, with trading the largest number (5). Retailing, motor vehicles and food each have two entries.	Mainly private owned and also diverse. Dominated by typical MNE industries like electronics (10), motor vehicles (9), petroleum (8) and pharmaceuticals (6).
Country of origin	Largely United States	France, Germany and United States
Internationalization	Relatively rapid for both employment and production: on average from around 20 percent to just over 30 percent.	Starting at a much higher level, with employment at 45 percent and production at around 55 percent. Increases in employment were comparable to those of Intermediate MNEs.
Geographic scale	Domestic employment declined marginally, but foreign employment increased rapidly, with net total employment increasing a little. Assets have increased but sales stayed behind. Capital productivity increased with volatile labor productivity.	Domestic employment declined substantially, while foreign employment remained stable around 1990 levels, resulting in a decline in total employment. Assets and sales both grew, although the former more than the latter. This trends is also reflected in labor and capital productivity..
Geographic scope	Balanced between intra-regional (comp) and extra regional (comp.)	In general extra-regional (both comp. and class.)
Intra-reg. Comp.	Stable domestic employment, rapid foreign employment increase: net result total employment slight increase. Assets increased rapidly, compared to sales, but both increased. Largest gains in capital productivity	Sharp decline in domestic employment, but increase in foreign employment, with decline in total. Assets have grown, while sales have remained stable, with large capital productivity increases and smaller labor productivity gains.
Extra-reg. Comp.	Decline in domestic employment, foreign employment doubled, while total employment increased slightly. Assets also grew rapidly, with sales less. Great increases in capital productivity and marginal increases in labor productivity.	Similar trend as above, but also decline in foreign employment, with total employment falling more as a result. Both assets and sales grew, with similar productivity gains.
Extra-reg. Class.	Sharp decline in domestic employment, increase in foreign, but decline in total. Total assets remained the same, while sales declined. Leading to a decline in labor productivity and small increase in capital productivity.	Similar employment trend as in above strategy with assets growth and volatile sales pattern (Asian crisis). Productivity gains largely in the form of capital productivity, with labor productivity showing volatile pattern
Geographic integration	Information not available	No significant increase in vertical and cross border integration
Multi-domestic		Internationalization of employment and production rapid, especially extra regional. Except for foreign employment all decline.
Simple-integrated		Levels of internationalization remain similar as to 1990. Both intra (competitive) and extra regional (classical), decline in extra (comp). All employment declines.
Form	Diverse, some M&As	Largely through cross-border M6As with some major M&As within the cluster.

Comparing the trend of Intermediate and Established MNEs with the NGMs, analyzed in the previous chapter, shows a remarkably different pattern. The rapidly expanding international activities of new generation MNEs is in contrast with the relative stability of a more established heterogeneous group of MNEs. Although, most show increased levels of internationalization of production and employment, the growth rate is much lower than for the cluster of NGM. For well-established MNEs the geographical scale (measured through the ratio of FS/TS), has not increased substantially over the last ten years and circled, on average around 50-55%. The foreign growth has largely taken place in the home region of American and European MNEs and in the United States (for European MNEs) and in Europe (for American MNEs). This bi-regionalism has led to the fact that the issue of relocation is not so much an issue between the home country and a foreign production location, as in the first three waves of relocation, but rather between various countries, often belonging to one regional block (i.e. between the home country and regional block partners). The combination of intra-regional modification of the production structure and the growth in inter-regional production, in primarily developed markets, differentiates the current wave of relocation from previous waves of relocation.

PART V: CONCLUDING REMARKS

9. CONCLUSION

9.1 INTRODUCTION

The final chapter of this study synthesizes the results of the empirical chapters against the background of the literature review and missing links in existing research. It is structured as follows. Section 9.2 synthesizes the results. As proposed in chapter five this section discusses the most likely combinations of multinationality that have developed in the 1990s and their employment effects. The internationalization strategies form dominant combinations of realized – as opposed to intended, postulated or prescribed - strategies of large firms in reaction to the fifth wave of internationalization. The next section (9.3) provides a number of policy recommendations that emerge from the identified relationships between internationalization and employment. Finally, section 9.4 lists the limitations of this study and provides an agenda for future research.

9.2 CONCLUSIONS OF THIS STUDY: A SYNTHESIS

Through the adoption of a 3D framework of multinationality this study analyzed the relationship between internationalization, in the form of international production, and employment. In contrast to previous research this study adopted a firm level of analysis – by analyzing different clusters of MNEs - and focused on the fifth wave of internationalization (1990-1999). The three dimensional framework to asses multinationality consisted of three, often interrelated, dimensions: geographic scale, geographic scope and geographic integration.

The empirical section of this study showed that different internationalization strategies by firms and different stages of the internationalization process generates different domestic and foreign employment effects. As a point of departure the sample of SCOPE Core200 firms was clustered on the basis of geographic scale. Four clusters – *strategic groups* - of large core firms emerged: domestic firms (DMFs), New Generation MNEs (NGMs), Intermediate MNEs and Established MNEs. As internationalization is an evolutionary process, the first two clusters were analyzed in chapter seven and the third and fourth cluster in chapter eight. In addition, within each cluster some specific sub-groups were identified.

As firms reached a certain level of internationalization and more and more data were available the different parameters of the framework were analyzed in greater detail. The geographic scale dimension was analyzed for all three clusters, geographic scope only for intermediate and established MNEs (although for some NGMs the geographic scope dimension was analyzed in the individual case studies), while the geographic integration dimension could only be analyzed for the clusters of Established MNEs. Therefore it was possible to analyze the cluster of established MNEs in greater detail, by using more quantitative research techniques. The distinction between the four strategic groups of large SCOPE Core200 firms followed an industry pattern, indicating that the nature of the industry in which a firm operates is an important determinant of internationalization and employment. Nevertheless, the study also showed that firm-specific characteristics are also important in determining internationalization decisions and employment effects.

Whereas most of the DMFs and NGMs operated in formerly state-owned industries and the privately owned retail industry, intermediate and established MNEs largely operate in the traditional oligopolistic international industries (i.e. automotives, consumer electronics, petroleum and refining, chemicals and pharmaceuticals) and more limitedly food and retail. Broadly most of the DMFs and NGMs operate in the service sector, while the intermediate and established MNEs operate in the manufacturing sector. The study showed that the internationalization strategies and their associated employment effects are on the one hand deliberately shaped by governmental policies – through privatization and liberalization (e.g. the first group of new generation service MNEs in the telecommunication industry), while on the other hand shaped by the competitive pressure of rivals within the industry (e.g. the NGMs in the retail industry, but also established MNEs operating in oligopolistic industries). The empirical results of chapter seven and eight facilitate the completion of the 'synthesis table' of section 5.4.5 for each strategic group.

Table 9.1: Combinations of strategic groups, dimension of multinationality and employment effects

		DOMESTIC EMPLOYMENT	FOREIGN EMPLOYMENT	TOTAL EMPLOYMENT
I. SCALE	a. DMFs			
	1. State-Owned DMFs	See TE	No foreign activities	-
	2. Private-Owned DMFs	See TE	No foreign activities	+ +
	b. NGMs			
	1. State-Owned NGMs	-	+	-
	2. Private-Owned NGMs	+/-	+	+
	c. Intermediate MNEs	Marginal -	+	+
	d. Established MNEs	-	Stable	- -
II. SCOPE	a. Intra-Comp.			
	1. Intermediate MNEs	Stable	+ +	+
	2. Established MNEs	- -	+	-
	b. Intra-Class.	*Constraint by data*		
	c. Extra-Comp.			
	1. Intermediate MNEs	-	++	+
	2. Established MNEs	-	-	-
	d. Extra-Class.			
	1. Intermediate MNEs	- -	+	-
	2. Established MNEs	-	-	-
III. INTEGRATION	a. Multi-domestic	-	+	-
	b. Simple integration	-	-	-
	c. Complex integration	*No evidence found this type of Established MNE*		
	d. Deep integration	*No evidence found this type of Established MNE*		
	Prevalent combinations of three parameters			
	Established MNEs: extra-comp and extra-class. Multi-domestic	-	+	-
	Established MNEs: intra-comp. And extra-class. Simple integrated	-	-	-

In general, firms operating in the service sector generate more employment than those in the manufacturing sector, as the different domestic, foreign and total employment effects of DMFs and NGMs on the one hand and intermediate and established MNEs on the other hand show (table 9.1). Except for private owned DMFs and NGMs, domestic employment declined in all other strategic groups, whereas it remained stable in intra-regional competitive intermediate MNEs. As large core firms become international, domestic employment declines, but it is not necessarily substituted as foreign employment also declines. The counterfactual argument – i.e. no internationalization only partly holds as domestic employment development in the control group of DMFs showed a divergent pattern. Confronted with privatization and liberalization (formerly) state-owned DMFs (largely operating in public utility industries) showed a decline in their total, and thus domestic, employment levels. In contrast, private-owned DMFs increased their levels of employment. Benefiting from economic growth over the 1990s the increase in private owned DMFs was largely due to retail DMFs.

As some of these service oriented DMFs internationalized over the 1990s, joining the cluster of NGMs, divergent trends in employment generation were demonstrated. Driven by privatization and liberalization over the 1990s many of the telecommunication NGMs internationalized in search for new product markets. During this period they continued to restructure their operations, resulting in a decline in domestic employment. Through aggressive cross-border acquisitions many tried to gain access to foreign markets, leading to a growth in foreign employment. This employment was often realized through a change of ownership, rather than through internal firm growth. As domestic restructuring was larger, the net result was, however, a decline in total employment. As many of these (privatized) state-owned NGMs have recently run into problems, restructuring may be one of the options to curtail the downward trend. In contrast many of the private owned NGMs (often retail firms) were driven by large market potential in foreign markets and the need to catch up to competitors (e.g. retail intermediate and established MNEs), their foreign employment growth increased rapidly, but this not always led to complementary employment generation at home. This can be explained by the nature of the industry, retail and service oriented NGMs need to be close to the market in order to sell their products and there is limited geographic integration of production.

Based on prior research this study argued that the geographic scale and scope of international production and the direction of internationalization of MNEs determined the employment effects. The study showed that even in a period of rapid internationalization of production and employment, established MNEs in 1997 had for the first time more than 50 percent of their employees abroad. For production the increase was from 54 percent in 1990 to 61 percent in 1999. Dependent upon data availability, this study has differentiated between four directions of internationalization that prevail among intermediate and established MNEs: intra-regional competitive, intra-regional classical, extra-regional competitive and extra-regional classical internationalization. For both intermediate and established MNEs the main direction of internationalization over the 1990s is extra-regional. The regional integration agreements in the early 1990s between developed countries, the EU and NAFTA, have provided many MNEs a 'platform' or 'stepping stone' for further internationalization beyond the confines of their home region. Although, extra regional internationalization started off as equally competitive as well as classical in nature, the balance gradually shifted in favor of extra-regional competitive internationalization. In sum, over the 1990s, intermediate MNEs largely internationalized

to other developed markets, i.e. competitive internationalization. Cross-border M&As have been the leading vehicle of competitive internationalization strategies, especially among developed countries' MNEs. Motivated by the strategic responses of MNEs to the anticipated behavior of competitors – leading to herd behavior – cross-border M&As have become the prime mode of entry in the NAFTA and EU market by, in particular established MNEs. Although, differences in the *degree* of internationalization (reflected in the share FS/TS ratios) exist between MNEs from different countries of origin and operating within different industries, the *growth* in the geographic scale and scope of internationalization appeared to be similar across all countries and across most industries over the ten-year period (1990-1999). This observation supports the premises that internationalization often occurs in waves.

Departing from the literature it was argued that, within vertically integrated industries, the extent to which labor competition occurs is for a large extent determined by the similarity in locational conditions (i.e. workforce skills). Therefore it was expected that competitive internationalization, as opposed to classical internationalization, in general would have a more negative effect on domestic employment. As Table 9.1 shows this is not entirely the case both forms tend to both adversely affect domestic employment. Constrained by data availability the direction of intra-region classical internationalization (by Japanese MNEs) has only limitedly been analyzed. For the three remaining directions of internationalization and their associated employment effects by intermediate and established MNEs the following four conclusions can be drawn (table 9.1):

1. Firstly, intra-regional competitive internationalization by established MNEs has greater substitutive domestic employment effects than the same internationalization strategy by intermediate MNEs. For the latter domestic employment has largely remained stable.
2. Secondly, extra-regional competitive internationalization strategies by intermediate MNEs have a greater effect on domestic employment than similar strategies by established MNEs. In the case of established MNEs there is no increase in foreign employment.
3. Thirdly, the domestic employment effects of extra classical regional intermediate MNEs are more negative than those of a similar strategy by established MNEs. Similar to the second observation, established MNEs also decreased employment abroad.
4. In general established MNEs did not generate greater employment levels than at the beginning of the fifth wave of internationalization. Only within their home region did established MNEs increase their employment levels, although this did not lead to greater total levels as domestic employment declined more than foreign employment.

The findings for intermediate and, in particular established MNEs complement existing research in which a substitutive relationship between domestic employment and international production in other industrialized countries exists. This implies that competition among workers in alternative low wage countries or regions and among industrialized countries is greater than between high and low wage countries. Nevertheless, one must add that this is more so for intra-regional strategies in particular by established MNEs that are in a more advanced stage of internationalization. Furthermore, the findings also restate the argument that internationalization to low wage regions does affect domestic

employment and production. Although, this applies more to intermediate MNEs that are in an earlier stage of internationalization than for more established MNEs. In addition, the employment generation in developing countries (extra-regional classical) is negative or at most marginal as the analysis of the geographic division of employment among European MNEs showed.

These conclusions reveal and highlight an important trend in employment development within MNEs over the fifth wave of internationalization:

Intra-regional competitive internationalization strategies by established MNEs that are more internationalized has a greater affect on domestic employment than similar strategies by intermediate MNEs. Furthermore, extra-regional classical internationalization strategies by intermediate MNEs has a greater affect on domestic employment than similar strategies by established MNEs. In addition, although research suggests that the employment effects of internationalization depend upon the destination of international production or in other words the spatial organization of MNE activity, this effect is moderated by the stage of the internationalization process of the MNE (measured through geographic scale).

As remarkably few studies have used the counterfactual approach, and if so have either remained 'hijacked' between two extreme positions to analyze the employment effects of MNE activity in home and host countries, this study has not only included the control group of DMFs, but has also tried to reveal the underlying motive(s) and rationale for internationalization of MNEs. Through this approach it is possible to assess what would have happened in the absence of international production. As the example of the sub-group of (formerly) state-owned DMFs showed restructuring of domestic production and declining employment is thus not a process inherent to MNEs. Furthermore, many NGM and Genuine MNEs showed that internationalization was often a mean of survival. The oligopolistic nature of the market in which MNEs operate urges managers to internationalize in order to safeguard foreign markets vis-à-vis competitors. On the other hand government policy, in the form of privatization and liberalization has often pushed these firms into an internationalization adventure. Today many of these MNEs are trapped in what can be qualified as an ‘internationalization trap’ or engaged in a process of ‘accelerated internationalization’.

Similar to NGMs mergers and/or acquisitions s have played a large role in the international growth of genuine MNEs. The impact of the current wave of M&A on employment is twofold. In the first place, the declining preference for organic growth of core firms, leads to the fact that foreign employment growth is largely realized through a change of ownership. Secondly, M&As often lead to wide-scale restructuring and divestments of overlapping divisions and activities. The recent nature of most of the deals makes it difficult to assess the exact employment repercussions of these divestments. However, after the disappointing performance of cross-border M&As, previous historical M&A waves have usually been followed with large divestments. In addition, most of these M&As have been conducted in an oligopolistic market structure, many of the employment effects of the fifth wave of internationalization are thus intertwined with the competitive rivalry of MNEs.

In the discussion of the literature in chapter three it was argued that most of the “FDI and home country export” studies (section 2.5.1) argued that international production complements domestic exports and hence generated employment through intra-firm trade of intermediate goods and services from the home country to foreign subsidiaries. However, it was argued that the mode and extent to which international intra-firm trade

can take place hinges in particular on the cross-border vertical integration of MNEs and the way MNEs have organized their worldwide production network. In chapter eight it was demonstrated that even in a period of increased regional integration intra-firm trade within established MNEs and their degree of vertical cross border integration (geographic integration) has not increased considerably. Most established MNEs, even those with a high degree of internationalization (geographic scale and scope), have a multi-domestic or – at best – a simple integrated structure of production. In the first case domestic employment is substituted for foreign employment, while in the latter case both foreign and domestic employment declined (Table 9.1).

9.3 POLICY RECOMMENDATIONS

In the introduction of this study it was argued that research on the employment impact of FDI and MNE strategies has been on the agenda for many years. Although, existing research complemented with this study shows that the employment effects largely depend upon the nature of the internationalization strategies of MNEs and are per definition not always negative, the position of many people and workers towards the liberalization of FDI and employment has not changed, in contrary. A recent study and survey of the Institute for International Economics (Scheve & Slaughter, 2001) stated that there is still widespread job concern among American workers and citizens about FDI. Most of the respondent to the survey (90 percent) believe that US MNEs export jobs and that this hurts the US economy. This concern seems important enough that regardless of what gains 'globalization' may bring to American MNEs a majority believe that American companies moving operations abroad and exporting US jobs is a dominant feature of globalization, hurting the US economy. Most respondents were therefore in favor of a more restrictive regime on outward FDI and opposed the expansion of NAFTA to Latin America. These responses, combined with a growing backlash against 'globalization' in general, indicate that the issue of relocation will most likely dominate the political as well as the academic agenda for the next years. A number of policy areas arise out of this study.

9.3.1 Challenging the limited employment generating potential of inward FDI

In characterizing Raymond Vernon's work Subramanian Rangan described the continued relationship between MNEs and governments as an "unending embrace" (Rangan, 2001). The "unending embrace" is paramount at the junction of international production by MNEs and the nations states' struggle for jobs. The decision where and how to undertake which activities of MNEs inevitably meets one of the key issues in national policy formation in industrialized countries; the sustainability of employment-generating growth and the effective management of the national labor market.

As argued in the introduction of this study, governments increasingly see FDI and international production by MNEs as the motor behind, amongst others, employment generation. National and local governments increasingly adopt policies to attract FDI by foreign MNEs or to hinder existing MNEs from divesting in the national and local economy. These policy aims combined with a global market place for attractive investment sites for MNEs, facilitated by a general reduction of tariff and non-tariff barriers to trade in

the wake of regional integration schemes and the liberalization of investment policies worldwide, have led to intense competition between regions and localities for FDI to generate jobs. These locational tournaments are reflected in the bidding wars for FDI trophies by offering attractive incentives to potential foreign investors (often in the form of fiscal incentives or investment subsidies). "These incentives offered by regional authorities within the European Union (EU) and of states within the United States have been shown to be a decisive factor influencing the intra-regional location of inbound MNE activity' (Dunning, 1998: 52). Many of the jobs, generated by inward FDI, are thus bought through incentives and taxes. Consequently, employment is put at the core of the effort in territorial competition. However, "while locational tournaments and the subsidies they provide are justified mainly in terms of employment creation, the reality is that these jobs are being generated at high cost and, with the exception of less-favored regions where much of the investment is Greenfield investment, in net terms the increment is often quite small" (Mytelka, 2000: 294).

Notwithstanding, the indirect employment generating effects of MNE's internationalization strategies, this study has shown that the direct foreign employment generation among MNEs is limited and that not all forms of internationalization generate jobs. For instance the direct employment generation by MNEs in developing countries is limited, while transatlantic internationalization by European and US and European MNEs, is largely in the form of ownership-changing investment, through cross-border M&As, and much of it may result in downsizing with a substantial reduction in employment as some Transatlantic M&As have shown. Nonetheless, a large share of inward FDI is often subsidized with the justification to save or generate jobs. Although, these incentives or subsidies may be justified from a broader policy perspective (i.e. transfer and diffusion of R&D, knowledge and skills), the correspondence between regional incentive spending and foreign owned employment growth does not provide strong support for providing incentives with the aim of generating or maintaining employment.

The limited direct employment generating potential of inward FDI raises another important point. As argued in section 2.6. even when domestic direct employment of MNEs declines over a long period, these effects may not necessarily be detrimental for an economy as FDI is a two-way phenomenon, MNEs are moving out but also moving in. Many developed industrialized economies, have increasingly, in contrast to earlier waves of internationalization, become both home (investor) as host (destination) to FDI. The loss of employment of outward FDI can thus, in the case of open economies, be compensated through inward FDI by employment generation of the subsidiaries of foreign MNEs. However, if the inward positive employment effects are lacking or are very marginal due to change of ownership in the case of cross-border M&As, and countries experience declining domestic employment growth among their home MNEs, the balance turns out negative. Obviously, these effects must again, if possible, be weighted against the counterfactual argument; would employment in host countries have been at the same level as without foreign MNEs; would this employment have been picked-up by domestic firms? Or would the operations have been closed down altogether in the absence of the cross-border M&A deal by a host MNE?

Finally, FDI flows declined with 21 percent over 2002, complementing the decline of 41 percent in 2001. FDI levels are thus back to their original pre-peak level in 1998. As this study showed there are a number of MNEs that may have reached the limits of their international expansion over the 1990s. As some MNEs are increasingly faced with a

situation of 'overglobalization' and 'international overstretch' reflected in declining performance and productivity rates abroad, they may consider restructuring their operations. Large waves of restructuring, already underway, will most likely prevail in the near future affecting future FDI flows. UNCTAD predicts that FDI will not immediately revive again to its previous levels and that it will probably take a number of years before FDI will pick up to substantial levels again. Following the decline and the hesitant prospects competition for FDI and MNE activity in general will further intensify.

What can governments do?
To face up to the limited job generating potential, complemented with declining domestic employment among home MNEs, governments must enhance the employability of people.
If jobs are disappearing in one industry people are displaced and need to be reemployed elsewhere. This process is facilitated the creation of efficient labor markets that can facilitate the transfer of jobs from the transnational to local firms in the case of negative employment effects. In addition, when the employment effects are associated with the strategic motives of internationalization (i.e. strategic rivalry and bandwagon effects), often underlying cross-border M&As, these effects may be considered in future competition policies at the regional or national level. At the same time policymakers must avoid regulatory races to the bottom within a new competitive context and avoid buying jobs at any price in international competition for 'FDI trophies'. Policy-makers are perhaps assisted by new stringent WTO regulation in the use of incentives to attract MNE activity. In addition, national and local governments, and moreover investment promotion agencies (IPAs), should more carefully assess the employment impact of inward investment of foreign MNEs and carefully assess whether the subsidies and FDI trophies are worth spending. Policy-makers must therefore take a closer account of the different MNE strategies that generate employment and develop FDI and labor market policies accordingly.

9.3.2 The employment effects of regional integration through FDI and trade

With the formation of new RIAs and the integration of new member states into existing RIAs in the coming decade(s), the regional dynamism and its FDI, trade and employment effects is likely to draw considerable attention of policy-makers, scholars and business strategist. The expansion of the European Union with four new members in 2004, the possible expansion of Mercosur with other South American countries such as Chile, or even the formation of a Free Trade Area of the Americas (FTAA) including North America as well as Latin America, and the discussion on expanding ASEAN with Japan and China, are illustrations of expanding and increasing number of macro-regional institutions under construction.
As this study showed, over the fifth wave of internationalization the dynamism in international production (and trade), and their associated employment effects was largely within these macro-regions, such as the EU and NAFTA or between these RIAs (Transatlantic integration). In many of these regions, market seeking intra-regional FDI volumes initially surged faster than extra-regional FDI volumes. The employment effects were thus also first intra-regional and subsequently more extra-regional. In the late 1990s intra-regional internationalization increasingly became associated with efficiency seeking investments, while extra-regional internationalization (between the EU and US) was largely driven by strategic rivalry between

established MNEs. The changing employment effects of these strategies have been studied at length in this thesis.
With the possible expansion of existing RIAs there are already signs of FDI moving from current EU member states, such as Spain, Portugal and Greece, to the four CEE candidate countries. In addition among ASEAN member states, Japan and South Korea there is increased concern of manufacturing relocating to China. As MNEs tend to anticipate policy developments of regional integration rather than follow policy-maker's wish lists, the strategic behavior of MNEs, their internationalization and relocation strategies, and their employment effects should receive more attention in the negotiations and draft proposals of RIAs.

9.3.3 Improving the availability and transparency of firm-level FDI information

As the audience affected by the operations of MNEs has widened beyond the scope of shareholders alone and increasingly includes many stakeholders the public call for detailed company information (i.e. in the form of geographic segment reporting) has increased in recent years. Although, public information has become more abundant over the last couple of years (e.g. company homepages on the internet), accounting scandals in both the United States and Europe over the last couple of years have negatively influenced this process.
Much of the empirical analysis of this study, as in most other academic research, depends on the availability and transparency of data. In particular relevant for this study is the availability, quality and transparency of geographic segment reporting of assets, sales and employment of MNEs. As an increasing number of researchers are aware of the limitations of FDI data in assessing internationalization, researchers, (financial) analysts and policy makers increasingly depend on the reporting behavior of geographic segment data of firms in publicly annual reports. However, the firm level approach towards internationalization and employment of this study revealed limitations to the availability and quality of geographic segment data on assets, sales and employment provided in publicly accessible corporate (annual) reports.

A number of international accounting policies arise out of this study:

1. Improve the availability and quality (transparency) of geographic segment information in general;
2. Improve the availability and quality of geographic employment information;
3. Greater harmonization.

Ad. 1
Geographic segment reporting should be clear and concise and as meaningful as possible, not only for academics but also for analysts and investors trying to make forecasts using geographic segment data. For instance Nobes and Parker (2000) showed the reaction of stock markets to geographic segment reporting. In addition, financial analysts often use geographic sales and earnings information to predict and forecast company performance in specific regions. Nevertheless, obliging companies to report data is not all as annual reports all too often fail to display segment numbers prominently and clearly. In addition, although, the computer and the internet have indeed facilitated the data collection process it has also a number of implications, which may well lead to another direction. The

abundance of information on the internet, does not say much about the quality of this company information. Secondly, firms may shed off communication lines by providing information on the internet. For instance while the SEC requires business segment reporting, companies can emphasize or de-emphasize this information to the extent they wish, including relegating it to a financial footnote near the back of the report. As this study has show there are many variations in the reporting styles of geographic segments. While many MNEs tend to aggregate sales and employment data by continent, there are also examples of, in particular German and Scandinavian MNEs that voluntarily provide a very detailed breakdown of their geographic segments. These voluntary disclosures that tend to be much more informative and at a greater disaggregated level (Radebaugh & Gray, 2000). As there is no specific regulation on what constitutes an identifiable segment the reportable segment is largely left up to the discretion of each individual MNE. This leaves room for management to manipulate geographic segment information to control the external perception of the MNE and its performance. Against this background there is a greater need for stringent (inter) national policy making to develop and further improve geographic segment reporting regulation. Even the transition from SFAS 14 to SFAS in 1997 has not lead to better reporting as chapter six showed. Therefore there is increased demand to increase the obligation for companies to disclose information.

Ad. 2
Although, there are (inter)national accounting standards regulating firm level reporting of sales/revenues, assets and profits, there are no accounting standards governing employment reporting by MNEs. Even the international institutions like the EU, IASC, UN'ISAR and the OECD have accountings standards for sales, assets and earnings, but none for employees. Therefore this study largely relied on the voluntary disclosure of geographic employment data in corporate annual reports. In the absence of these data used proxies for geographic employment segment reporting (i.e. assets for, largely US MNEs). The OECD, ILO and UN Guidelines on MNEs and the recent Global Reporting Initiative are first steps in the directions to improve the level of employment reporting by MNEs in their annual reports. The OECD in its Guidelines for Multinational Enterprises devotes an entire section to the disclosure of information. Among the requirements are: the location of the MNEs' main affiliates and the percentage ownership, the geographical areas where operations are carried out, the operating results and sales by geographic area, and *the average number of employees in each geographical area* (Radebaugh & Gray, 2000; OECD, 1979). UNCTAD's Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting is also involved in, among other things, in developing international accounting standards and promote guidelines in reporting requirements of MNEs. ISAR also In practice only a handful of MNEs appear to have taken serious notice of the Guidelines and reporting requirements of MNEs. Both the UN and the OECD do however provide a good monitoring role. Much work needs thus to be done before geographic employment segment reporting in annual reports should become practice rather than exception.

Ad. 3
In addition, national accounting standards vary across countries requiring greater harmonization to improve international comparability. There are many different GAAP governing the financial and geographic segment reporting of MNEs. However, there are a

number of promising developments under way. The IASC independent responsibility for the development of international accounting standards has issued a number of standards, a number of revised standards and some exposure drafts. For geographic segment reporting the most important ones are: IAS 14 ("Reporting of Financial Information by Segment) and E51 (Reporting Financial Information by Segment).The IASB has issued international accounting standards, based on SFAS 131 for non-US listed companies. In June 2002 the council of ministers of the EU approved regulation requiring all publicly listed companies in all member states to prepare their consolidated financial statements using IASB standards by no later than 2005 (companies reporting in US GAAP must comply by 2007). In addition the OECD and UN also focus on improving the comparability and harmonization of accounting and reporting standards.

Finally, in most cases policy competition is analyzed at the level of FDI (Oman, 2000), while the appropriate level is the firm and national or sub-national level. This exercise is, however, hampered by the reluctance of both policy-makers and firms to provide information. "In general few companies are prepared to discuss publicly the negotiations that take place with different agencies and the extent to which the agencies are 'played' off against each other. Evaluation is also complicated by the fact that companies are often prepared to point out that they did not select the location with the highest offer, but are less willing to indicate whether they would have chosen a particular location in the absence of the incentive package (even if it was smaller than rivals)" (Raines, 1999: 85). In addition, policymakers are also reluctant to provide detailed information about the negotiation and bargaining process underlying individual FDI projects, for electoral reasons. Measuring the exact nature and effects of policy competition is thus very difficult (for crude measures see Raines, 1999: 78) unless both MNEs and policy makers are willing to provide more information about the bargaining process underlying the locational tournaments for FDI.

9.4 LIMITATIONS OF THIS STUDY AND AGENDA FOR FUTURE RESEARCH

Research linking the employment effects to the spatial organization of MNE activity is still in a nascent stage and hence requires further exploration. Through a better availability of data, researchers may reach more detailed conclusions beyond the scope of intra-regional and extra-regional, and analyze more specifically the employment effects of internationalization within a specific region.
The empirical analysis of this study has adopted straightforward descriptive statistics. As it used averages over a ten-year period it has only limitedly analyzed the longitudinal effects. A time-series analysis may provide more information on the dynamic employment effects over time. In addition, the concept of strict relocation has only received scant attention. Due to a lack of reliable data former studies were not able to come up with a detailed analysis of relocation, especially the relation between public aid and the host country of relocation. To study processes of strict relocation a case-by-case approach is essential. Direct investment statistics and even firm level data can give a biased image of the reality surrounding relocation to low-income countries. "On the one hand, relocation in the manufacturing sector is often conducted in the form of sub-contracting without any capital input between the principal company and the sub-contractor. Direct investment statistics do not have any trace of these capital links" (Horman, 1996: 47). By better data

availability and a better insight into the nature of the bargaining process in relocation decisions future studies may come up with complementary results.

This research has only focused on the *quantitative direct* employment effects of internationalization. As argued, international production also leads to a changing structure and specialization of the labor force. The primary impact of international production may eventually be greater on the industrial structure of the labor force within large firms. Although, some types of FDI and internationalization strategies are unfavorable to employment they can change the structure and nature of employment toward a direction that is more favorable to a country's long-term growth. In addition the indirect employment effects may be larger than the direct employment effects. Today many MNEs use flexible work arrangements (i.e. part-time work, temping agencies and subcontracting) that generate indirect employment not under the control of the MNE and not specifically reported in corporate annual accounts.

Furthermore, these flexible arrangements largely depend on the regulatory labor environment in home and host countries where MNEs operate. Labor market flexibility tends to play an important role as firms increasingly want to adapt the organization of production to the flexibility of their labor force. Labor market regulation has a central role in determining the boundaries of such flexibility. In recent years national and regional labor policy differences have become important location determinants in (sequential) FDI decisions (Raines, 1999: 154). Nevertheless, the literature on locational tournaments between regions and countries primarily emphasizes the role of incentives and tax gains in inward FDI decisions. The role of labor markets structures and human capital in this process has not received much attention. What role do labor market policies and institutions play in these locational tournaments and, more important, in the location strategies of MNEs? Are these structures taken for granted or do they play a key role in the site selection process of MNEs? What weight should governments give to labor market policies and regulation, such as flexible labor markets, in their FDI policies? To what extent is there institutional competition in order to attract or maintain MNE activity within countries or regions?

Finally, even when researchers are perfectly capable to analyze all FDI-related employment effects, the crucial question remains: what would have happened in the absence of FDI? For instance, what kind of employment structure would emerge if the public funds and incentives, necessary to attract FDI and MNEs were used for non-MNE domestic market activities? Additionally, this study showed that most MNEs internalize physical and financial *assets* across borders, but do not internalize *employment* across borders. How can this be explained in terms of TCE theories? To answer these questions more knowledge into the fundamental nature of MNE activity and the determinants behind internationalization is required. If one compares the early work in IB and IM, largely reflecting previous TCE theories by Coase, Alchain and Demsetz and Williamson and the theories of industrial organization reflected in the work of Bain and Hymer, one may ask whether there are any distinct alternatives to these theories in vogue at the beginning of the 1970s and 1980s. Although, existing theories have been refined adding to our understanding of MNE behavior and the spatial dispersion of economic activity, the basic lines of argument still stand. Although, this status quo in academic reasoning over the 1990s may be explained by its overemphasis empirical focus of most scholarly research, it has hindered the development of new theoretical avenues about the complex behavior of MNEs.

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APPENDICES

APPENDIX A: EMPIRICAL STUDIES ON INTERNATIONAL PRODUCTION AND HOME/HOST EMPLOYMENT, 1960S – 2002

Authors	Year	Home country	Source of data	Findings
Direct approaches (n= 23)				
Displacement and counterfactual studies (n=7)				
Hawkins	1972	USA	US FDI data for 1968	The net employment effects of outward US FDI ranged between + 279.000 and – 322.000.
Stobaugh	1976	USA	Nine case studies. Interviews	All nine MNEs in the case study would have lost their entire foreign markets within five years in the absence of FDI, with even larger employment effects.
Musgrave	1975	USA	US FDI data	Post World War II growth of US FDI had slowed the growth of US employment and productivity considerable.
Frank & Freeman	1978	USA	Aggregate data	FDI substitutes for US exports, net employment effect is an annual loss of between 120,000 and 160,000 jobs
Jordan & Vahlne	1981	Sweden	Sample of firms. Interviews	FDI leads to large increases in foreign market shares and, in addition, to increased exports from Sweden of intermediate products to affiliates abroad.
Chaudhuri	1983	USA	Data from Ruttenberg, Stobaugh (see above) and Hawkins (see below)	Chaudhuri distinguishes between 100% aggressive studies (i.e. Ruttenberg, 100% defensive studies (Stobaugh) and mixed studies (Hawkins). He emphasizes that Stobaugh and Ruttenberg are both counterintuitive, while Hawkins appears to be more plausible and in line with reality.
Glickman & Woodward	1989	USA	Aggregate data	A loss resulting from the displacement of 3.3 million jobs by foreign investment compared with only 588,000 jobs being stimulated. Thus a net job loss of 868,000 manufacturing jobs, largely the result of displacement by overseas US manufacturing.
Theories of the New International Division of Labor (n=1, most studies are conceptual)				
Kreye, Heinrichs & Fröbel	1980 and 1988	Germany and world	FDI data plus aggregate employment data	In the mid 1980s conservative estimates indicated that worldwide direct employment within MNEs was around 65 million, of which 43 million (66.2%) were employed in the home country of the MNE (primarily developed industrialized countries), 15 million (23%) in other industrialized countries, while only 7 million (10.8 %) in developing countries (Kreye, Heinrichs & Fröbel, 1988).
Labor intensity studies (n= 5)				
Riker & Brainard	1997	USA	Panel data from BEA	Cross-border complementary relationship between US production and affiliates in

Authors	Year	Home country	Source of data	Findings
				developing countries, and vice versa relationship for affiliates in industrialized countries (see also text).
Brainard & Riker	1997	USA	Panel data from BEA	Study challenges "labor competition story" and finds only modest substitution between affiliate employment and US parent employment, but finds enhanced competition between alternative affiliates in developing countries.
Braconier & Ekholm	1999	Sweden	Swedish MNEs (IUI database).	Wage competition seems to stem primarily from other high-wage countries rather than from low-wage countries.
Konings & Murphy	2001	Europe	Firm level panel data set of 1200 European MNEs and their subsidiaries in the EU or Eastern Europe	Relating the employment effects to the wage costs in the parent and the subsidiaries, the study finds that substitution effects primarily take place between parent firms and their subsidiaries located in the European Union than between parent firms and subsidiaries located in Eastern Europe. This effect is mainly driven by firms operating in the manufacturing sector.
Mariotti & Piscitello	2002	Italy	Data are form the Italian National Institute for Social Security for domestic employment data and a data set named "Reprint" for data on foreign manufacturing affiliates of Italian firms.	Domestic employment effects depend on the location of the foreign affiliates and the nature of FDI (horizontal or vertical). Horizontal FDI in advanced countries creates positive effects on domestic labor intensity, while vertical FDI in developing European countries creates negative effects. For extra-European vertical FDI in less developed countries the effects are not significant.
International relocation studies (n=10)				
Ruttenberg (AFL-CIO)	1971	USA	Aggregate data	Number of jobs lost in the United States between 1966 and 1971 ranged between 500.000 and 900.000
Shinohara	1979	Japan	Aggregate data	First relocation wave in Japan, study focuses on the textile industry and claims a substitution effect
Van Liemt	1992	Manufactur-ing industry	Case studies in steel, clothing, aircraft and motor vehicle industries	Spectacular cases of relocation (the closing of a plant today and opening up soon abroad) do occur, but are less important and frequent and incompatible with high sunk costs.
Arthuis	1993	France	Aggregate data	Relocations were claimed to be responsible for high unemployment in France (three million jobs and 80% of the workforce were threatened by relocation to low-wage countries)
Mucchielli &	1997	France	10 leading	Not labor costs but foreign market

Authors	Year	Home country	Source of data	Findings
Saucier			French MNEs + DREE (Directiondes Relations Economiques Extérieures) data	penetration is the main determinant for relocation. Relocation is merely a process of Schumpeterian creative destruction.
Tüselmann	1998	Germany	FDI data	There are limited grounds to relate German outward FDI to the exodus of jobs. But, Tüselmann, in addition, argues that cost-oriented FDI into Western industrialized countries sharing similar location conditions as Germany, have stronger substitutive effects on domestic investments and jobs. This is largely due to the fact that this kind of FDI affects capital and skill intensive aspects of production.
Bruinsma, Gorter & Nijkamp	1998	Netherlands	21 Nomadic firms:	Really footloose companies rarely exist, relocation is rather an incremental process.
Ferner	1999	World	UNCTAD Top 100 TNCs, 1993 plus cases	Conceptual article exploring the motives and policy implication of relocation in Europe.
Pennings & Sleuwaegen	2000 and 2002	Belgium	Data are from Federal Planning Bureau (FPB) and the National Institute of Statistics (NIS in Belgium	Labor-intensive firms tend to relocate more to other countries that more capital intensive firms. Access to a global network and the rate of innovation have a positive effect on the probability of relocation, while uncertainty has a negative effect.
Indirect approaches (n= 30)				
Outward FDI and domestic export studies (n=23)				
Reddaway, Perkins & Potter	1967	UK	Aggregate data on UK industry	Positive relationship as the parent firm would have lost the foreign market to rival competitors if no foreign expansion had occurred.
US Department (Chamber) of Commerce	1972	USA	Sample survey of 158 companies	Export stimulus effects of 300 000 and home office and supporting firm employment effect of 250 000, thus substantially positive.
Emergency Committee for American Trade	1972	USA	Survey of 74 companies	Export stimulus effects of 311 345 employees, positive relationship
US Tariff Commission	1973	USA	Unpublished statistics on operations of US MNEs	Positive net employment effect of 488 000 (excluding the 629 000 jobs created by foreign based MNEs located in the USA)
Horst	1974	USA	Aggregate data	Complementary effects outweighs substitution effect
Bergsten, Horst & Moran	1978	USA	Aggregate data	Theoretical and empirical evidence suggesting that FDI and exports change from complements to substitutes

Authors	Year	Home country	Source of data	Findings
Swedenborg	1979	Sweden	Sample of 100 Swedish manufacturing firms with over 300 foreign affiliates for the year 1974 (IUI data)	Although there is some substitution effects between foreign production and country exports, in general there is a positive effect on exports through the export to of intermediates and finished products to foreign affiliates of the MNE
Lipsey & Weiss	1981	USA	Aggregate data	Complementary effects outweighs substitution effect
Swedenborg	1982	Sweden	Study of 1979 is extended with three more years: 1965, 1970, and 1978 (IUI data)	Although there is some substitution effects between foreign production and country exports, in general there is a positive effect on exports through the export to of intermediates and finished products to foreign affiliates of the MNE
Lipsey & Weiss	1984	USA	Aggregate data	Complementary effects outweighs substitution effect
Kravis & Lipsey	1988	USA	BEA data	Evidence is found that large US manufacturing MNEs locate more labor-intensive and less skill-intensive activities outside the US.
Blomström, Fors & Lipsey	1988	Sweden	IUI data	Analysis of Swedish exports and FDI for 10 aggregate industry groups between 1970 and 1978
Hufbauer & Scott	1993	USA	BEA data	Hufbauer and Scott estimate that a gross total of 316.000 US jobs will be created through NAFTA, while a gross total of 145.000 US jobs will be dislocated. Study indicates that NAFTA creates jobs, through exports of capital goods (in the short run) and intermediate goods, replacement parts and associated goods and services (in the long run). Conceptual with estimates on NAFTA.
Blomström & Kokko	1994	Sweden	IUI data	Effects of FDI on the structure of exports and, consequently on the structure of employment are large. In addition the article provides a large literature overview (see also text).
Buigess & Jacquemin	1994	Japan	FDI data and export data	The export, and consequently employment, effects of Japanese investments in the EU are analyzed
Svensson	1996	Sweden	IUI data for 1965, 1970, 1974, 1978, 1986 and 1990	An initial complementary relationship may in the long run substitute domestic exports for foreign production for third markets. Substitution effects through exports from foreign affiliates to third countries replacing parent exports.
Markusen, Venables, Konan & Zhang	1996	USA	Aggregate data	Theoretical and empirical evidence suggesting that FDI and exports change from complements to substitutes
Braunerhjelm	1996	Sweden	Aggregate data	Theoretical and empirical evidence suggesting that FDI and exports change

Authors	Year	Home country	Source of data	Findings
				from complements to substitutes
Blomström, Fors & Lipsey	1997	Sweden and USA	BEA data (1989) and IUI data	Cross-national differences in employment effects between United States and Sweden (see also text appendix).
Andersen & Hainaut	1998	Industrialized countries	Aggregate FDI and employment data	Although, some job losses may occur, through improving distribution and sales channels, FDI outflows complement rather than substitute for exports and thus help to protect rather than destroy jobs in the source countries.
Braunerhjelm & Oxelheim	1998	Sweden	Aggregate data	Study challenges substitutive findings of Svensson (1996) and claims that the employment effects are determined by the industry characteristics.
Fors & Kokko	1999	Sweden	IUI data on 17 manufacturing MNEs between 1986, 1990, 1994	Similar results as Blomström and Kokko (1994). Drawing heavily on previous work, this study also focuses on the changing industrial structure of the home country due to FDI (study also provides literature overview).
Lipsey, Ramstetter & Blomström	2000	Japan, Sweden and USA	MITI, IUI and BEA data	Results resemble those of Blomström, Fors and Lipsey (1997). Japanese MNEs exports tend to be larger, relative to its output, the larger the firm's overseas production. This is similar to US MNEs. However Japanese parent employment is higher the greater the production abroad. This result is similar to that of Swedish MNEs. The latter results are partly explainable through the "need for supervisory or ancillary employment at home to service foreign operations" (Lipsey, Ramstetter & Blomström, 2000: 17).
Outward FDI and domestic investment studies (n=7)				
Herring & Willett	1973	USA	Aggregate industry data (early 1970s)	Positive relationship between investment at home and abroad (time series analysis)
Noorzoy	1980	USA	Aggregate data	Positive relationship between investment at home and abroad (time series analysis)
Stevens & Lipsey	1992	USA	Seven US MNEs, data for 20 years	A negative relation between domestic and foreign direct investment.
Belderbos	1992	Netherlands	Food and metal/electronic firms (1978-1984)	A negative relation between domestic and foreign direct investment.
Mucchielli & Chédor	1999	France	DREE data on 922 enterprises	Study analyzes both the relationship between outward FDI and domestic exports and outward DI and domestic investments. The results are mixed.
Braunerhjelm & Oxelheim	2000	Sweden	Aggregate FDI data	Substitutive relationship between foreign and home country investments (and thus hypothetically also employment) for more R&D intensive production, while the opposite pattern exists for industries

Authors	Year	Home country	Source of data	Findings
				based on the more traditional comparative advantages (and thus hypothetically also for employment) (see also text appendix).
Graham	2001	USA	Aggregate BEA data	Positive relationship between investment at home and abroad (time series analysis)
Dual inward-outward approaches (n=16)				
Van Den Bulcke & Halsberghe	1979	Belgium	Survey data for affiliates of foreign MNEs operating in Belgium between 1968-1975 and 1975-1978. Data for 33 Belgium MNEs one third of all Belgian MNEs) are for 1976	Gross employment effect of affiliates of foreign MNEs between 1969 and 1975 is 13.000. Eliminating employment "switches" due to takeovers the net effect is 80.000, an annual growth rate of 5.1%. Between 1968 and 1975 the Belgium industry as a whole lost 30. 544 jobs, an annual change rate of –043%. The growth rate of foreign MNEs could, however, not be sustained between 1975-1978 due to the recession. Small negative employment effects of the foreign operations of Belgium MNEs are compensated by the growth of foreign MNEs in Belgium. For outward employment effects the methodology of Hawkins 1972 was applied.
Bailey	1979	Germany	Several sources. Data are form Jungnickel and refer to foreign MNEs in Germany and German MNEs	Foreign MNEs operating in Germany seem to have contributed proportionately more until the recession of 1974. However, German-owned MNEs were found to be substantial employment creators in Germany. Survey of relevant studies on Germany.
Stopford	1979	UK	Aggregate FDI data and Business Monitor Census of Production data of Dept. of Industry for 1971, 1973 and 1975	Paper also discusses the general behavior of foreign MNEs in the UK and UK MNEs. In general the paper concludes that employment or labor has benefited from close foreign ties. Isolation from world markets would d be accompanied by loss of employment
Kujawa	1980	USA	US Dept. of Commerce data for 1973-1978	Production, as opposed to profession/technical workers, will most likely carry the burden of the negative impact of FDI on the US economy.
Jordan & Vahlne	1981	Sweden	2 MNEs of IUI Database	Case study on two Swedish MNEs. See Jordan and Vahlne (1981) above.
Olle	1985	Germany	Enterprise specific data of 112 firms in Germany (both foreign as German	Study pays attention to the origins of the "Standort" Germany debate in the mid 1970s, when Germany became a net exporter of FDI. Study finds no support of direct substitution effects, but limited support for export substitution due to

Authors	Year	Home country	Source of data	Findings
			owned)	projectionist policies (triggered by the 1970 recession) of other countries forcing German MNEs to expand abroad.
Buckley & Artisien	1987	Greece, Spain and Portugal	Aggregate data of OECD	FDI from the UK, France and Germany in Greece, Portugal and Spain is positive and thus employment creating. While in the source countries the results are mixed, the overall impact for the EC is positive. Most firms made their investments prior to the host countries' membership to the EC, possible reevaluating their investments in the future.
Kreye, Heinrichs & Frobel	1988	Industrialized countries with focus on Germany, USA and Japan	Aggregate data on employment within MNEs	Overview article on direct and indirect employment effects as well as overall developments in the world economy and their impact on employment within MNEs from Germany, Japan and the USA (e.g. export led growth). Employment within MNEs will mostly likely grow due to takeovers.
MacDonald	1989	Sweden, Norway, Denmark, Finland and Iceland	Variety of sources	Descriptive report analysis trends for five Nordic countries, for which FDI is largely located in nearby EC countries. The countries are very different from each other so it is hard to make general conclusions. In terms of large MNEs Sweden is much further developed that the other countries.
Bradley & Kumar	1990	Canada	Statistics Canada	Positive influence of inward FDI on Canadian economy (only host analysis). The importance of FDI for the Canadian economy diminished steadily over the 1970-1986 period. Report also analyses the influence of public policy changes in Canada as regard to trade and investment on firm strategies.
Campbell & McElrath	1990	USA	FDI data of US Dept. of Commerce (survey of current business)	Paper discusses the wider policy implications of increased internationalization of the US economy and pays attention to the employment displacement issue in particular. The authors suggest the need for government policies to facilitate the adaptation of the US labor marker to increased internationalization.
MacDonald	1994	Australia	Several sources. Especially, *Business Review Weekly* data on Australian MNEs	Study focuses on employment in the service sector as a large contributor to aggregate employment as opposed to manufacturing employment, which has declined over the 1970-1990 period. Leading to de-industrialization. Provides some company data analysis.
Jungnickel	1995	Germany	FDI data and own databank	More than 80% of German FDI is market-seeking. Only 15% of total German FDI is directed to typical

Authors	Year	Home country	Source of data	Findings
				relocation countries i.e. wage cost oriented FDI (Ireland, Spain, Portugal and South-East Asia). The exodus of German jobs, although widespread in declining sectors (e.g. textiles and shipbuilding), is therefore negligible.
Hatzichronoglou	1997	OECD	OECD, EAS Division Industrial Activity of Foreign Affiliates Data Bank, period 1980-1990 (or nearest year possible)	Study analyzes the employment impact of foreign affiliates in host OECD economies. Apart from contributing to the overall employment in those OECD countries, the foreign affiliates generate positive externalities, e.g. technology transfer. In addition the propensity of foreign subsidiaries to export and import are greater than those of domestic firms in those countries surveyed.
Altzinger & Bellak	1999	Austria	Aggregate data	See also text on the inclusion of indirect FDI from and related employment effects.
Lipsey	2002	USA	BEA data on US manufacturing MNEs for 1989	Any negative employment or production effects on the US economy of US MNEs is offset by matching shifts into the United Sates by foreign manufacturing MNEs. However, at an individual firm level there are negative effects of foreign production on employment

APPENDIX B: DATA GATHERING PROBLEMS WITH FDI DATA AND EMPLOYMENT STUDIES

Most of the studies discussed in chapter two adopt a high level of aggregation. They used macro data on the internationalization of MNEs, i.e. FDI data (cf. Jungnickel, 1995; Tüselmann, 1998; Andersen & Hainaut, 1998), and aggregate data on employment effects drawn from national statistical agencies that cannot be decomposed to the level of individual companies (cf. many of the dual inward and outward approaches). FDI data[77] purport to measure the extent of foreign involvement of MNEs[78] and are regarded as a proxy for international production[79]. Additionally, aggregate national MNE employment should ideally reflect the number of employees related to MNE activity in the national jurisdiction of a country.
There are two types of problems associated with aggregated FDI data and nationally collected MNE employment data. Firstly, problems associated with the recent nature of the collection process, relating to the scientific rigor and *reliability*. Secondly, more fundamental problems relating to *validity*.

Reliability of FDI[80]

Despite the enormous importance of Foreign Direct Investment, the data compiled by most governments are neither highly accurate nor, by most criteria, sufficiently wide in scope of coverage to fully cover all aspects of FDI (Graham, 2001). Although FDI has been conducted for more than a hundred years (cf. Jones, 1996) the collection of data on FDI – in sharp contrast to trade flow data gathering - started relatively recent. It was not until the mid-1980s that the OECD was able to reach full country coverage of inward FDI among its member states. In 1950 only five countries reported inward FDI to the OECD (Van Bergeijk, 1997). The FDI data of the US and Canada have appeared most consistent and most reliable over time (Graham, 2001). Many governments collect data on FDI capital flows, through their central banks. In the balance of payments accounts of most countries,

[77] According to UNCTAD, a Foreign Direct Investment (FDI) is defined as an: "investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate)." (UNCTAD, 1998: 350).). However, there is no international consensus on the minimum equity stake to exert this *control.* For the majority of countries it varies between 10 and 25 percent of the total equity stake of an enterprise. The OECD has recommended to its member countries that 10% be the minimum equity stake for and investment to be 'direct' (Dunning, 1993: 5 and 12). The definition by UNCTAD is largely based on the definition of FDI applied by the IMF and OECD. However, the UNCTAD definition is extended with: "Foreign direct investment implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy." (UNCTAD, 1998: 350). The three components of FDI are: equity capital, reinvested earnings and intra-company loans. Similar definitions are provided by Dunning (1988) and Cantwell (1991).

[78] International production is, according to Dunning (1987), defined as "production financed by foreign direct investment and undertaken by multinational enterprises".

[79] "A multinational or transnational enterprise is an enterprise that engages in foreign direct investment and owns and controls value adding activities in more than one country" (Dunning, 1992: 3). For a more elaborate discussion on the concept of MNEs and multinationality in general, see chapter 3.

[80] For other discussions on the limitations and pitfalls of FDI data see Cantwell (1992), Stephan (2001) and Graham (2001) in a review on UNCTAD's World Investment Report, 2000. The history of the *concept of FDI and its measurement* is discussed at length by Lipsey (2001).

trade related issues, as exports and imports are reported under the *current account* items. Investment related issues as FDI are often reported under *capital account* items. In addition there are a number of International Governmental Organizations (IGOs) and institutes, that started to collect FDI data from the national statistical offices and analyze the data (Box 3.1).

Box B.1: International Governmental Organizations and the collection of FDI data

The International Monetary Fund (IMF) is one of the international institutes collecting the 'raw data files' of the official national statistics and processes the data in its annual IMF Balance of Payments Yearbooks.
Secondly, the OECD also collects FDI data from its member countries, but also receives many data from the IMF. The primary advantage of the OECD data, published in its annual *International Direct Investment Statistics Yearbook* (Cf. OECD, 1999:OECD, 2001), is that source and destination of FDI can be distinguished.
Thirdly, one of the major sources of worldwide FDI data, operations of MNEs, and related analysis is the annual *World Investment Report* published by UNCTAD. The data on FDI of developed countries are in most cases obtained from the IMF and the OECD. However, UNCTAD (in particular the DITE division) supplements IMF data on developing and emerging economies for which balance of payments data are not available, and therefore, has a long tradition and experience in collecting and estimating FDI from and to developing countries.
Finally, the data on FDI collected by Eurostat are particularly focused on the European Union (EU) member states and are obtained from national banks and statistical offices of the respective member countries, as well as through close collaboration with the OECD. Eurostat makes a large contribution to the analysis of FDI by splitting up FDI capital flows by their three components: equity capital, reinvested earnings and other capital. The first volume of the European Union Direct Investment Yearbook 2000 analyzes harmonized statistics on FDI flows and positions and income for the entire EU between 1992 and 1999. In this volume the EU is treated as an entity as opposed to a portfolio of nations, thereby filtering out intra-EU FDI. The second volume provides harmonized FDI data for each of the individual member states as well as for the major FDI partners of the EU member states (cf. Eurostat, 2001). The voluntary nature of the surveys used to collect the FDI data from the national statistical offices, as well as the recent nature of the collection process by Eurostat, make FDI data less suitable for historical comparisons.

But, there is no international coordination. Consequently, not all countries apply similar definitions of Foreign Direct investment. For instance some countries do not register retained earnings as FDI. For these countries actual FDI flows are larger than registered, leading to an *underestimation* of FDI flows and stocks. UNCTAD's annual World Investment Report provides an overview of the differences in annual FDI reporting per country (see annex B of the report "Definitions and Sources"). This explains the limitations of the FDI data as well as often used 'educated guesses' to fill in missing values.[81] The FDI data reported by national central banks and official national statistical offices are vulnerable to major distortions, hindering, cross-country comparisons over time. For example, where flows of FDI serve to replace an existing plant, they do not represent an addition to the stock (OECD, 2002: 6).
This weak international research tradition has resulted in a large number of measurement errors and differences between countries and among IGOs measuring annual FDI flows and stocks. This diminishes the reliability of macro FDI data. Van Bergeijk (1995) reports measurement errors in FDI data, reaching up to at least 14 percent of outward FDI. At the institutional level the European Union (European Commission, 1997) identified major inconsistencies between three main collection agencies of FDI flows within the *Triad*. The data of the three sources show only one single case of agreement. In most other cases there

[81] Dunning and Cantwell (1987) also provide a good statistical survey of the collection of FDI data in by national statistical agencies.

are wide differences.[82] (i.e. In a similar vein UNCTAD identified institutional differences of FDI inflows in developing countries (cf. UNCTAD, 1999: 403). The comparison, between the FDI data over 1997 and 1998 gathered by UNCTAD, the World Bank, the Institute of International Finance (IIF) and J.P. Morgan, showed remarkable differences. Where UNCTAD reported a rise in total FDI inflows to Latin America and the Caribbean between 1997 and 1998 the World Bank reported a decline. The stock figures for FDI reported are built up from a succession of annual flows, sometimes accumulated over long periods, often adjusted in unspecified ways to take account of inflation and devaluations. This remains a questionable practice according to Lipsey (2001).

Validity of FDI measures as a proxy to firm activities

Of a more fundamental nature is the *problem of validity* associated with aggregated FDI data*: Do FDI data measure what they purport to measure?* FDI is regarded as a proxy for international production and international investment undertaken by MNEs. It reflects the foreign activities of a country's MNEs. However, there exists a mismatch and discrepancy between FDI data and the actual value and international distribution of the productive activities of MNEs (OECD, 2002), which hinders the application of these data as indicator for firm level international productive activity.

Even when measured correctly, "changes in FDI may simply reflect a restructuring of a firm's liabilities and have little or no relationship to changes in production or other related activities in MNEs, such as employment and trade." (Ramstetter, 1998: 186). In some cases this has led to an overestimation of the foreign involvement of MNEs, creating a bias towards 'globalization', in other cases it has led to an underestimation of the phenomenon (section 3.2). Hirst and Thompson (1999) share similar criticism when they state: "Contrary to common claims, FDI is not a measure of the assets held in affiliated firms. Rather it measures what is happening on the liability side of companies' balance sheets. " (Hirst & Thompson, 1999: 77). An example of this is that "retained earnings" of foreign affiliates, one of the three components of FDI, are counted as FDI irrespective of their use. Moreover, firms have many other possibilities than FDI of raising funds for their foreign activities. Although acknowledged by UNCTAD, the definition of FDI is in this sense too limited and neglects non-equity forms (e.g. strategic alliances) of international investment (cf. UNCTAD, 1999: 466).

The issue of validity is ever more relevant as cross-border Mergers and Acquisitions (M&As) become the main vehicle for foreign expansion for many MNEs. "The importance of M&As as modes of expansion of international production implies that the net addition to total physical production capabilities annually is less than that implied by the value of annual FDI flows, since most of the additions may well be created by simply a change in ownership." (UNCTAD, 1999: xx). Although this 'simple change of ownership' does in itself not imply that FDI becomes a less valid indicator for corporate international production, it merely shows a changed preference over time of MNEs to enter foreign markets. In *quantitative* terms the crucial variable is the mode through which cross border M&As are financed and how this is spread over time (i.e. is the payment for the M&As made in the year of the M&A or phased over several years (UNCTAD, 1999: 4). Not all cross-border mergers are financed through FDI. The main validity problem with FDI arises if cross-border M&As, *financed*

[82] As in the case of FDI flows of the EU to the US in which there existed a difference of 9.8 billion ECU between the flows reported by Eurostat and the US Department of Commerce (Hirst & Thompson, 1999: 77-78).

through FDI, are precipitated by increased speculative market capitalization. This can be exemplified by the takeover of Germany's Mannesman by Vodafone of the UK. If for instance Vodafone had acquired Mannesman earlier, it would have paid half the price as it finally did. Let us assume that Vodafone financed the M&A deal through FDI in the same year as the merger. Logically the FDI flows form the UK to Germany would have been 50 % lower. The deal between Vodafone and Mannesmann eventually led to Germany being the second largest recipient of FDI after the United States in 2000 (cf. UNCTAD, 2001). The German FDI figures are, however, inflated by the stock market price of Mannesman. Wortmann, (2000) convincingly demonstrated an indirect positive relationship between the growth of FDI flows and market capitalization figures over the 1990s. To increase the validity of FDI figures it is thus not only relevant to assess the M&A content of FDI flows, but also to analyze to what extent FDI reflect inflated market capitalization figures. The latter is especially relevant if the stocks of the target MNE rapidly increase prior to the M&A deal (which is most often the case). Logically one may assume that even if only half of the cross-border M&As are financed through FDI, the figures over the latter part of the 1990s are slightly inflated and do not represent the exact magnitude of the change in MNE involvement through foreign production in a host economy. The inflation of FDI data can best be represented in the tremendous drop in developed country FDI (flow) data over 2001, coinciding the fall in cross-border M&A activity (UNCTAD, 2002).

This discussion showed that comparisons of FDI data reported by national central banks and official national statistical offices, whether between countries or over time, are vulnerable to major distortions and inadequacies, hindering cross-country and temporal comparisons. Some promising developments have recently (2001) been initiated by the OECD, which may eventually lead to a better convergence of country FDI data.[83]

Despite a better collection effort by many national government agencies, central banks and IGOs and, better regulations on cross-country comparisons, the fundamental issue of validity of FDI remains: Do macro FDI statistics measure what they purport to measure (i.e. international production by MNEs)?[84] At an aggregate level of analysis, for many researchers FDI data seem to represent the single source and 'best in town' for analyzing the extent of international investment and production by MNEs in general, and its effect on employment in particular. However, many scholars increasingly recognize the shortcomings and limitations of macro-level FDI data for drawing firm-level inferences related to international production (Cantwell, 1992; Ramstetter, 1998; Vernon, 1998; Hirst & Thompson, 1999; Stephan & Pfaffmann, 2001; Lipsey, 2001). "It has taken a decade or

[83] See the OECD's unclassified "Report on the survey of implementation of methodological standards for direct investment". In addition the OECD is working on a handbook of globalization on the harmonization of FDI data across OECD member countries. The handbook is to be released in 2003.

[84] Vernon (1997) even argued that: "The transactions of MNEs across borders, whether it is trade or investment, between affiliated subsidiaries are reported as if it was trade or investment between independent parties or between two countries. The data of MNEs are reported in categories that distort their character and disregard the structure of the enterprises (Vernon in Beamish, Delios & Lecraw, 1997). In government statistics there is no well-defined place for a worldwide network of affiliated firms comprising the MNE. "The functions performed by the subsidiaries covered in the data will be different from one country to the next, affecting their balance sheet and their record of profits. The conventions followed in different periods and in different countries for the allocation of profits will have varied as well. The 'foreign direct investment' reported by governments are subject, therefore to major sources of distortion, and represent dubious measures of the place of foreign business activity in the national economy" (*ibid.* xv-xvi).

two for scholars to begin recognizing the gross ambiguities of the official data labeled as foreign direct investment and their glaring inadequacies as measures of the cross-border economic flows generated by TNCs". (Vernon, 1999: 45).

Scarce data on direct employment within MNEs

While FDI statistics concentrate on the overseas activities of national entities and foreign entities in the domestic economy, national labor market statistics do not differentiate between home and host MNEs and domestic firms (Bailey & Parisotto, 1993). Similarly, the well renowned studies of the International Labour Organization (ILO), the annual *World Employment* Report and the OECD's annual, *Job's Study* provide no data on the level of direct employment within MNEs.

Data on employment within MNEs are often a better indicator of MNE presence in a country than FDI stock or inflows (Ramstetter, 1998; Kreye *et. al.*, 1988: 4). But exact data on total direct employment within MNEs are scarce. The problems associated with aggregate MNE employment data are thus largely related to the collection process, or lack thereof, and more on their reliability than on their validity.

There are only a few countries that report employment levels within MNEs and the geographical spread of their employment:, notably the government agencies of the United States (BEA) and Japan (METI/MITI). In Sweden MNE employment data are, amongst others, collected by the Research Institute for Industrial Economics of the University of Stockholm (IUI). Data on the foreign operations of US, Japanese and Swedish MNEs and direct employment are systematically collected over a long period of time. The disproportionate share of research focused on the United States and Sweden, and later more limited on Japan can thus (also) be explained by the availability of data. The collection of data, however, can also be explained by the perception of its relevance to national policy makers, which shows cyclical movements as well (see chapter two).

In the United States the US Department of Commerce, Bureau of Economic Analysis (BEA) collects data. The annual "Survey of Current Business" by the Bureau of Economic Analysis and "US Direct Investment Abroad - Benchmark Surveys" by the US Department of Commerce have provided researchers with unique data on US firms operating abroad. The BEA data are among the most reliable worldwide but are only available in aggregate form, as the BEA guarantees confidentiality to the participating firms in the survey. Since 1970, the Ministry of International Trade and Industry of Japan (MITI/METI[85]) also collects *aggregate* financial and operational data on home based MNEs and affiliates of foreign MNEs in the domestic economy. In both the US and Japan data are collected through specific annual surveys and provide researchers with unique data on direct employment within MNEs. In the annual surveys of Japan by MITI, however, the voluntary nature of the replies and the fluctuations in the number of companies surveyed each year lead to problems of consistency and comparisons over time, which is a major weakness (Watanabe, 1993: 154). In France the Ministry of Finance, DREE, collects data on direct employment levels within MNEs. Data are also collected through surveys and are of a voluntary nature. The *Research Institute of Industrial Economics (IUI)* in Stockholm possesses a detailed database on the foreign operations of all Swedish manufacturing MNEs with at least 50 employees and at least one majority owned foreign affiliate. Data

[85] Since Jan. 6, 2000 MITI is named the Ministry of Economics Trade and Industry (METI) of Japan (Source: www.miti.jp).

are consistently collected through extensive annual surveys, questionnaires and interviews and cover for the following years: 1965, 1970, 1974, 1978, 1986, 1990 and 1994. (Blomström & Kokko, 1994; Fors & Kokko, 1999). There are a few international institutions that assess the foreign involvement of MNEs in host economies in general or through employment within MNEs in particular. Through comprehensive surveys to statistical offices of UN member countries, the Division on Multinational Enterprises (MULTI) of the ILO has built up a database on the aggregate level of direct employees within host MNEs in largely *developing countries*. The data are collected by national statistical offices in developing countries through and are largely based on survey responses and estimates (Bailey & Parisotto, 1993). In the course of the 1990s, the OECD and Eurostat started to assess the role of MNEs in host economies. In 1997 the OECD published the first results of this efforts (OECD, 1997). The OECD' effort was triggered by the perceived need of its member countries to assess the role and impact of not only direct investment in financial terms, but also in terms of international production. Detailed data are collected through questionnaires send to the statistical offices of OECD countries. They cover 18 variables such as turnover, R&D expenses and *employment* within host MNEs. The data in the first publication (OECD, 1997) related mainly to the manufacturing industry and inward investment and cover the period: 1985-1994 (OECD, 1997: 9).[86] The data on employment within host MNEs vary from country to country and over time. Some countries provide only data for a few industries and for a few years (e.g. the Netherlands), hindering longitudinal comparisons. Following the OECD's effort, Eurostat has recently (2001) analyzed the role of foreign owned enterprises in eight EU Member States: Denmark, Spain, Ireland, Italy, the Netherlands, Finland, Sweden and the United Kingdom. Statistics describing the overall activity of foreign owned enterprises are qualified as "Foreign Affiliate Trade Statistics" (FATS). Similar to the OECD's effort the Eurostat publication covers data solely related to inward FATS. The data are retrieved from the FATS database, that has been built up since the middle of 1999 at Eurostat (Eurostat, 2001: 97). A survey was sent out to each of the participating member countries, covering 11 variables such as: the number of host enterprises, value added and the number of employees. In 2001 the OECD and Eurostat have joined hands

The recent developments by the OECD and Eurostat to join hands in data collection and the compilation of Foreign Trade Statistics (FATS) on employment and turnover in a large number of OECD countries (cf. Eurostat, 2001), are promising. However, the shortcomings the major shortcoming of the initiatives by the ILO, OECD and Eurostat is that source and destination of MNEs cannot be identified. The studies by the ILO, OECD and Eurostat reveal the direct employment contribution of foreign subsidiaries in host economies, but they do not reveal the origin of the MNE. In addition, the three institutions heavily draw on the response rate of the national statistical offices of their respective member countries, which in their turn are dependent upon the response rate of MNEs to surveys operating within their national jurisdiction.

The limited availability of data on direct employment within MNEs has induced many

[86] The second edition appeared in 1999 and covers data over the period: 1992-1996/1997 (OECD, 1999: 9), while the third edition was published in 2001 and covers the period: 1994/95 – 1998/99 and, in contrast to the first two editions, covers data on service MNEs in OECD countries. The research is conducted by the *Economic Analysis and Statistics Division of the OECD Directorate for Science, Technology and Industry* (STI) under the auspices of the Working Party on Industrial Statistics of the Industry Committee (Expert Group on Globalization).

researchers to rely on estimates or derive samples of MNEs in their analysis on the employment impact of MNEs in domestic and host economies (Bailey & Parisotto, 1993). Examples of researchers that have built up their own databases on firm level employment data (cf. Jungnickel, 1995; Dorrenbacher & Wortmann, 1997 in Germany).

In addition, it is often argued that the indirect employment effects of international production may be far greater than its direct employment effects. Foreign affiliates of MNEs in host countries purchase materials and inputs from local firms, but also contribute to the general economic growth in a host country, hereby creating employment (OECD, 1998). Lall (1979) for instance found that a large share of employment created by host MNEs in developing countries is of an indirect nature. Furthermore, if MNEs outsource a large share of production to sub-contractors abroad, this also creates indirect employment effects. The exact growth potential of indirect employment by MNEs is unknown, and its net effect even more difficult to quantify (Kreye *et. al.,* 1988: 25). Data on direct employment are not available. Dupuy and Savary (1993) estimated that for every one job created by foreign investors, another 1.6 are created in the rest of the economy.

In quantifying indirect employment effects two complications arise: (1) the counterfactual argument - what would have happened if MNE activities had not taken place;(2) the problem of double counting: indirect employment effects of activities of firm A can represent direct employment for firm B; if firm B belongs to an MNE (be it the same as firm A or be it a different one), its employment is already included in the overall direct MNE employment estimates. This reservation is valid for both national and transnational linkages (Kreye *et. al.*, 1988).

APPENDIX C: HISTORICAL AND CURRENT FIRM-LEVEL DATABANK PROJECTS

This appendix will highlight and briefly describe some historical and current databank projects that collect firm level data on internationalization and performance[87]. The main drivers behind these projects are: (1) the dissatisfaction of macro level data FDI, hindering to grasp the complexity of the internationalization process of MNEs, and, (2) the emerging practice of drawing on secondary data sources (i.e. publicly accessible databanks) that are not explicitly intended to accommodate the demands for scientific rigor necessary in academic scholarship[88].
The research projects described below have therefore taken up the challenge to collect longitudinal firm level data through primary sources (corporate annual reports and/or company surveys). "If such data are to have much value in the development of a useful theory, they will have to provide the materials for more longitudinal studies at the firm level. Unfortunately, data of that sort of a kind that governments cannot easily provide, given the rules of confidentiality to which they are held. But once again, the effects of the computer has been to reduce dramatically the costs of compiling such data through non-government channels. So one challenge is to find a way of extending, improving and enlarging the data banks that can provide such information, perhaps taking off from the body of data that the Harvard Group generated up to 1975. Apart from providing a fitting coda to the Group's work, such a project could stimulate the academic community to turn its energies more energetically to an understanding of one of the key institutions of the twenty-first century" (Vernon, 1999; 47-48).

The Harvard Multinational Enterprise Project (HMEP)

Many decades have past since researchers first attempted to unravel the nature of the international involvement of multinational enterprises and their implications for economies. The Harvard Multinational Enterprise Project (HMEP) was the first substantive effort in this direction. Set up in the 1960s, when only a few country's reported their FDI figures the HMEP databases document the internationalization strategies of 187 US MNEs and 200 foreign MNEs. The project departed from a pre-determined set of MNEs for which subsidiary level data have been collected on: *assets, employment, sales, exports, number and location of foreign affiliates, country of incorporation and date of establishment.* Although, data on the location of foreign affiliates go back to the beginning of the twentieth century data on other variables (e.g. employment) are only collected for one or two years.

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[87] Apart from these projects there are a number of source books containing data on corporate multinationality: Stopford, Dunning and Haberich., 1980 and 192 and Dunning and Pearce, 1981 and 1985.

[88] Examples of 'publicly' accessible databases and handbooks are: Worldscope, Datastream, Bloomberg, Reach (solely on Dutch firms), Amadeus (on firms operating in Europe), Standard & Poor's COMPUSTAT (on publicly held US and Canadian companies and *selected* non-US companies that *file* with the SEC), Moody's Global Company Data, Directory of Multinationals (largely on US companies abroad and foreign companies in the United States: providing geographical and product analyzes, five-year financial summaries and a list of subsidiaries worldwide) and the CIFAR Global Company Handbooks. Although, the source data of these secondary databanks and company handbooks are compiled from: balance sheets, income statements, 10-K and 10-Q forms, annual and quarterly reports, press releases and prospectuses by companies, the comparison between these data and annual report date have proven to be particular cumbersome.

The aggregate research results are published in Vaupel and Curhan (1969), focusing on the US MNEs, and Vaupel and Curhan (1973) on the foreign, non-US, MNEs. An update of the US MNE database is published in Curhan and Davidson (1977).

UNCTC and UNCTAD

The Division on Investment, Technology and Enterprise Development (DITE) of UNCTAD (established in 1964), formerly known as the United Nations Conference on Transnational Corporations (UNCTC), serves as a focal point within the United Nations Secretariat for all matters related to foreign direct investment (FDI), transnational corporations and economic development.

In the 1970s and 1980s UNCTC developed the "Million Dollar Club Database" and published regularly on the foreign activities of TNCs in its predecessor of the World Investment Report (cf. UNCTC, various years). Data are collected on foreign assets, foreign sales and foreign employment. Since 1997 the DITE division of UNCTAD has, in close collaboration with the SCOPE research project at Erasmus University (see below), collected data on foreign assets, sales and employment of the Top 100 TNC from developed countries, the Top 50 from developing countries and the Top 25 TNCs from Central and eastern Europe (ranked by foreign assets). The trends in internationalization of these three groups of TNCs are published annually in UNCTAD's World Investment Reports (chapter on " Largest TNCs").

Toyo Keizai project at Richard Ivey

This research project tries to fill in the lack of studies using large-sample firm-level data on the international expansion of Japanese MNEs. The project is based on the Toyo Keizai (TK) database, published annually[89]. There are two versions of the Toyo Keizai database. One list of affiliates compiled by country of affiliate operation and one list of affiliates by parent company in Japan annually published in Japanese.

Data are at a subsidiary level and cover variables as: entry date of subsidiary, subsidiary industry, host country, sales, equity ownership, employment of local and Japanese workers, ownership percentage and mode of entry[90]. The Toyoi Keizai databases also provide estimates of affiliate employment, although the coverage is very low[91]. To date the Toyo Keizai database are the single source of comprehensive information on Japanese affiliates abroad. The data are similar in scope and depth to the HMEP databases.

In the late 1990s researchers at the Richard Ivey School of Business have started to process and structure the TK databanks in English and has resulted in numerous articles in leading

[89] For information on the Toyo Keizai databases see www.toyokeizai.co.jp.

[90] The TK databanks include information on foreign affiliates of: a list of owners and their ownership shares; the name, address etc.; date of establishment or beginning of operations; equity stock estimate (incl. foreign and local contribution); number of employees and number of Japanese nationals employed; sales; total assets; production; a subjective evaluation of profitability (good, fair, poor); a description of the line of business; a subjective list of investment motives. In practice only items 1,2,3,4 and 10 are generally available. Item 5 is available for most affiliates, but there are some important gaps in coverage (e.g. Sony affiliates do not report employment). Coverage for other items is really poor. For instance sales is only available for only 20% or so of the affiliates and assets for even less.

[91] According to personal E-mail communication with Professor Eric D. Ramstetter, director of "The International Center for the Study of East Asian Development and leading expert on Japanese and East Asian MNEs, to whom I owe most of the information of the TK databases and other databases on Japanese MNEs, the coverage rate in the TK databases on employment data within Japanese MNEs and their subsidiaries is extremely low, for some years below 20% (the e-mail correspondence can be obtained from the author).

journals, PhD thesis and several books (cf. Beamish, Delios & Makino, 2001). With the exception of the data on Japanese employment and subsidiary performance Beamish, Delios and LeCraw (1997 and 2002) provide an aggregate overview of the TK data. The TK data are matched with the data from the HMEP database, resulting in a comparison of US and Japanese MNEs foreign expansion strategies over time.

FAST Berlin databanks on German MNEs and relocation[92]

This research project is coordinated by The FAST institute in Berlin and the Institute for Economic Policy and Economic History, Economics Faculty, Free University of Berlin. The project is aimed at examining the extent to which companies can relocate production. The database covers data about the extent and structure of the mobility of *German* industrial companies. Data are collected on, in particular turnover and employment levels, for 400 German multinational companies and approximately 1500 subsidiaries producing abroad. The data are gathered on four levels: whole company, divisions, individual foreign affiliates, and individual plant. Data are categorized into the following regional clusters: home, abroad, specific regions (e.g. EU) and "other countries". The database is complemented with questionnaires to quantify and record the extent and structure of relocation. These surveys will be followed up with explorative interviews with company experts.

The Templeton Global Performance Index (TGPI) database

Research at Templeton College, University of Oxford is based on an extensive time-series database under construction that covers the foreign assets, revenues and earnings of the most recent *Fortune Global 500* and *Forbes International 500*. The results of the project are published annually in the *Templeton Global Performance Index* (Gestrin, Rugman & Knight, 2001). The annual Templeton Global Performance Index, now in its third edition, ranks the world's leading multinational enterprises (MNEs) according to the profitability of their foreign operations in 2000. The *Templeton Global Performance Index 2001* ranks 246 companies according to their returns on foreign assets and their foreign operating margins. Each measure is calculated both for the most recent year's performance as well as the average performance over three years. The reason for taking both a one-year and a three-year measure of performance is to reward companies that might have done badly in recent times but have achieved good performance over a longer period (or vice versa). Each company's overall score is the average of the four performance measures described above (Gestrin, Knight & Rugman, 2001).

SCOPE Database Project at Erasmus University

The SCOPE (Studies and Competence Center on Organizational Policy Research in European Business) database project covers the internationalization strategies of two hundred of the world's largest enterprises and the Top 50 largest national enterprises of the: United States of America, Japan, Germany, France, United Kingdom, The Netherlands and Switzerland (Van Tulder & Van Den Berghe, 1998). The database is a pivotal project in a broader interdisciplinary research project on "internationalization and competitive space"

[92] The library at the *Hamburg Institute of International Economics* (HWWA) in Hamburg has the largest historical collection of annual reports of many German MNEs.

(cf. Van Tulder, 1997).
The *SCOPE*-database is intended to function as a tool for the researchers at the Erasmus University, plus a number of selected linkage projects that take place in collaboration with partner universities and institutes, departing from a common selection of "core firms" (Ruigrok & van Tulder, 1995). The internationalization strategies of the selection of firms are linked to other strategies of firms (e.g. R&D, Environmental strategies and employment). Part of the results of the SCOPE database are published annually in UNCTAD's World Investment Report (see above) and Van Tulder, Van Den Berghe & Muller, 2001).
The SCOPE database provides information on the geographic spread of assets, sales, employment and affiliates of approximately 300 companies for the period 1990- present. For a number of companies internationalization data have been collected dating back to the early 1970s.

APPENDIX D: INDICATORS OF CORPORATE MULTINATIONALITY

OPERATIONAL INDICATORS	
FS/TS	Foreign sales as a share of Total Sales. In most cases researchers differentiate between foreign sales by destination or demand (including exports from the home country + revenues of foreign affiliates – their revenues from exports to the home country) and sales by origin or supply (sum of revenues of foreign affiliates) (Dörrenbächer, 2000);
ES/TS	Export sales as a percentage of total sales (Sullivan & Bauerschmidt, 1989);
FA/TA	Foreign Assets as a share of Total Assets;
FE/TE	Foreign Employees as a share of Total Employees (usually direct employees);
Faff./Taff.	The number of foreign affiliates as a share of total affiliates. Sullivan (1994) used the, grammatically less correct, ratio of overseas subsidiaries as a percentage of total subsidiaries (OS/TS). An affiliate is defined as a firm in which the MNE has more than 10% ownership (Sullivan, 1994; Ietto-Gillies, 1998);
R&D	The amount or proportion of research and development (R&D) activities abroad (Cantwell 1998, Cantwell 1999, Pearce 1989, Kuemmerle 1999). Franko (1989) developed a "Research and Development Intensity indicator (RDI)".
No. of Countries	The number of countries/nations a firm has affiliates or subsidiaries (Sullivan, 1994; Ietto-Gillies, 1998; Hassel, Hoepner, Kurdelbusch, Rehder & Zugehoer, 2000);
NSI	Related to the No. of countries index, the composite *Network-Spread Index* measures the number of foreign countries in which a MNE has foreign affiliates, which is denoted by "N" divided by the number of countries in which a firm could have potentially located affiliates, denoted by N*. On the basis of FDI data of UNCTAD's World Investment Report 1997, N* is equal to 178 (the number of countries where FDI took place in 1997,minus one for the home country of the firm). Residual indicators are developed by multiplying the NSI with the ratios FS/TS (sales spread index: SSI), FA/TA (asset spread index: ASI) and FE/TE (employment spread index; ESI);
GDI	A variation to the NSI is the geographic dispersion index by Sanders and Carpenter (1998) who use a geographic dispersion index gauged by the number of countries in which a firm has subsidiaries expressed as a percentage of the highest number of countries with subsidiaries in their sample;
GMD	Global Market diversification index: defined as the total number of countries in which a firm is involved, divided by the total number of geographical areas in which the firm is active. It measures the average number of countries in which the firm is present, by geographical area (Ramírez-Alesón & Espitia-Escuer 2001, p. 299-300)
TNI	The transnationality index is a composite index of the average of three indicators: FA/TA, FS/TS and FE/TE.
MULTI	Multinationality Index, a standardized index consisting of the following ratios: FS/TS, FA/TA and No. of countries (Gomes & Ramaswamy 1999)
PERFORMANCE INDICATORS	
ROS	Ratio of income to average total revenues/sales.
ROA	Ratio of income to average total assets (gross and net) (Ross, Westerfield & Jaffe, 2002). Returns on (foreign) assets, calculated as (foreign) income before tax divided by total (foreign) assets. Or Return on operating assets (ROOA) defined as the share of net operating profit by net operating asset (Ramírez-Alesón & Espitia-Escuer 2001)
ROI	Return on investments.
ROE	Ratio of net income (after interest and taxes) divided by average common stockholders' equity (Ross, Westerfield & Jaffe, 2002)
FOM	Foreign operating margins are calculated as foreign income before tax divided by net revenues (i.e. revenues from external customers). (Gestrin, Knight & Rugman 2001:.24).

FP/TP	Foreign profits as a share of total profits
EPS	Earnings per share (Goll , Sambharya, & Tucci, 2001)
Tobin's q	Market value expressed as a share of replacement cost of productive capital (Ramírez-Alesón & Espitia-Escuer 2001);
Market share	A long term performance measure (Harveston, Kedia & Francis,1999);
TGPI	The Templeton Global Performance Index is a composite index and calculated as the average of four separate performance measures: a one year measure of returns on foreign assets, a one year measure of foreign operating margins, a three year measure of returns on foreign assets, a three year measure of foreign operating margins;
OCTS	Operating costs of sales as a share of total sales as the sum of firms' material costs to sales and employee costs to sales ratios (Gomes & Ramaswamy 1999, Ruigrok & Wagner, 2003) or OPSAL;
ORIENTATION INDICATORS	
HQ Orient.	Headquarters oreintation toward subsidiaries in a MNE. Measured along variables of organization design : complexity of organizatiuon, authority; decision making, evaluation and control, rewards and punishment ; incentives, communication ; information flow, identification perpetuation (recruiting, staffing, development (Perlmutter, 1969 ; Perlmutter & Heenan, 1974; Heenan & Perlmutter, 1979);
VISION	Global mindset or global vision of the board of directors and the top management team (TMT) of the MNE. Often measured through demographic factors as age and education (MBA or abroad) of the board and the TMT (Kedia & Harveston, 2001; Harzing, 2000; Athanassiou & Nigh,2002). Sklair (2001) offers an alternative approach to the assessment of the global vision and global imageries of the MNE which can be deducted from statements of the CEO of a MNE (managerial mindset) in annual reports or in the press (p. 276-282).
PDIO	Psychic Dispersion of International Operations reflects the dispersion of a firm's subsidiaries among the ten psychic zones of the world (cognitive maps relating to management principles as identified by Ronen & Shenkar, 1985; e.g. Anglo, Germanic) (cf. Sullivan, 1994a);
TMIE	Top Managers International Experience abroad. The cumulative duration of year's top managers spent working abroad weighted by the total years of their working experience (Sullivan, 1994a);
OWNERSHIP INDICATORS	
BOARD	The number or proportion of non-nationals (of the country of origin) in the board of the MNE;
TMT	Nationality composition of the Top management Team;
CEO Comp.	CEO compensation (Sanders & Carpenter 1998).
FSE	Number of Foreign Stock Exchanges a MNE has listings (Hassel, Hoepner, Kurdelbusch, Rehder & Zugehoer, 2000);
FO/TO	Foreign ownership as a share of total ownership: proportion of shares owned by foreigners as opposed to total owners;
IAS	International accounting standards: the extent to which the MNE applies international accounting standards;
MULTI-DIMENSIONAL INDICATORS	
DOI	The *Degree of Internationalization* scale is calculated, through, item-total analyses and consits of five ratios: FS/TS, FA/TA, OS/TS, PDIO and TMIE;
REAL/FINANCE	Hassel et. al. (2000) propose a two dimensional approach towards corporate internationalization: "a real dimension of internationalization which is based on activities of firms abroad and a financial dimension which refers to the proximity of the firm to international capital markets." (Hassel, Hoepner, Kurdelbusch, Rehder & Zugehoer, 2000: 11). The two-dimensional index of Hassel *et. al.,* (*ibid.*) consists of the average of three ownership (FINANCE) ratios: FO/TO, No. foreign stock markets, IAS) and three operational (REAL) ratios: FS/TS, FE/TE and No. of countries (categorized in high, middle and low).

APPENDIX E: CALCULATING THE FIRM-LEVEL MEASUREMENTS OF THIS STUDY

This research project, built around the SCOPE database (see appendix B), also exposes the methodological hazards faced while putting together the database and collecting quantitative firm level geographic spread data on sales, assets, employment and corporate affiliates. In the analysis of data from 200 companies (the 'Core200') over a ten-year period in the form of 2,000 annual reports (complemented with 10-K forms), a number of methodological issues came to the fore that were particular related to processing geographic sales and asset spread data[93].

The firm level of analysis needed to fill in missing links of other studies (chapter three), will be further specified on the basis of the geographic segment data for sales and employment that companies themselves report in their annual reports and Security Exchange Commission (SEC) fillings (primarily 10-K and 8-K forms).[94] The reason for using primary firm level source data is threefold. Firstly, the *origin* of secondary publicly accessible data are not always clear. These secondary sources (i.e. data collection agencies – see appendix E) are not subject to the same methodological rigor as academic science. As part of an integral research project conducted since 1997 at Erasmus University, data were initially drawn from these secondary sources. It soon became evident that data collection and the calculations of 'foreignness', were not always executed consistently across sources - much less across firms or over time. As a result, the data showed erratic patterns which could not be explained by e.g. divestments, mergers or exchange rate fluctuations alone. Furthermore, by using primary firm level data from *publicly accessible* annual reports other researchers can derive at the same figures, increasing the methodological reliability of this research study. Secondly, an additional spin-off of using primary firm level data, apart from the accumulation of pure quantitative data alone, is that studying the ways firms disclose geographic segments is in itself also a research outcome in that it reveals how firms themselves perceive the *geography of their production*. Finally, firm level data are from corporate accounts are the primary source of information for not only academics but above all for shareholders, financial corporate analysts, consultants and the wider community. There is, for instance, evidence that financial markets are sensitive to geographic segment disclosures of MNE as it contains strategically sensitive information. The latter is also one of the reasons why MNEs have resisted attempts to implement more stringent reporting requirements.

Clear methodological guidelines for the collection and use of such data are lacking. The result is a level of methodological inconsistency that clouds not only the applicability of these data, but also our understanding of their significance. This appendix addresses these issues by exploring the methodological pitfalls of collecting, in particular sales data at the firm level and offering standard guidelines to improve the quality of that data. Not only will these guidelines lead to a more accurate reflection of the geography of production, they will allow better for consistency and comparison between studies. In addition, this

[93] As this research study only applies geographic sales spread data, the discussion of the methodological pitfalls of collecting geographic segment data is primarily focused on processing sales data.

[94] For an explanation of the different types of SEC fillings and forms and the regulations governing the disclosure of financial information of companies to the SEC, see the SEC website: www.sec.gov.

appendix addresses a number of methodological issues on processing employment data, corporate affiliate data, fiscal year ends and currency conversions.

PROCESSING SALES DATA

As argued in section 5.2.4 foreign sales is an arbitrary concept therefore three major pitfalls presented themselves that formed the root of the discrepancies.

1. Random use of sales by origin and sales by destination
2. Random allocation of 'eliminations' and/or geographically unspecified data

The following sections explore the significance and extent of these issues and offers methodological tools through which they can be addressed consistently and systematically, based on the research in the SCOPE database.

AD.1

In most corporate accounts there are two ways to report the geographical segmentation of total sales and revenues that centers around the way exports, from both the parent country as well as exports by foreign subsidiaries to third countries are processed in the geographic segment reporting.

A company's sales can be defined either by origin or by destination. Sales by origin (SO) are equal to the sum of net sales (gross sales minus value added taxes and similar levies) generated from subsidiaries in a certain location, while sales by destination (SD) are equal to the sum of net sales (gross sales minus value added taxes and similar levies) generated from subsidiaries in the location in question plus sales imported from the headquarters or subsidiaries in other countries (Van Tulder, Van Den Berghe and Muller, 2001). In the US, UK and Dutch accounting standards, companies are required to publish both sales by origin and sales by destination, 'unless the two are not materially different' (Nobes and Parker, 1998). For many companies and industries, the two will not be 'materially different' if, for example, a company sources all its inputs locally. Each type of sales has a common denominator in terms of e.g. market share or the attributably of sales to production within a particular location or to a specific division of management. Furthermore, each says something different about the importance of the location to that company in general, and equally importantly, the significance of the company for the location. For industries which exhibit vertical integration across widely dispersed locations such as the automobile industry, the difference can be quite remarkable. For Daimler-Benz in 1995, for instance, foreign sales by origin (FSO) accounted for 45.6 percent of the total, while the figure for foreign sales by destination (FSD) was 63.2 percent (a difference of 17.6 percent). Canon, in the same year, exhibited FSO of 64.1 percent and FSD of 66.9 percent (a difference of 2.8 percent). In some cases the differences may seem minor or insignificant, but it should be noted that for this study a two percent change year-on-year is considerable, especially when the absolute impact is taken into account.

It is vital that 'fluctuations' in internationalization indicators are not attributable to random use of these variables. When comparing the significance for a company of a given location, particularly within industries, it must be clear which type of sales figure is being used. Moreover, this type should ideally be used consistently across firms within one sample, but in any case for individual firms over time.

If reporting only SO or SD suggests that the difference is immaterial, they can in theory be

used interchangeably. However, since a considerable number of firms disclosing geographically segmented sales data report both, it is therefore of the essence that the researcher is aware which firms report what, which sales type most accurately reflects the concept it is intended to measure, and that consistency over time is maintained.

AD. 2

In their annual reports companies report a wide variety of posts in their geographic segmentation of sales (and assets) in particular which cannot be directly linked to a particular segment. Most common is 'eliminations' or some form thereof[95]. Eliminations generally refer to intra-firm sales, or intermediate goods that are consumed in the production process and must be accounted for in the balance in such a way that they are not re-counted at each stage in the production process. Imagine the 'motor division' of a car company buying a carburetor from the 'carburetor division', fitting it to the motor, and then selling the complete motor to the 'assembly division'. The carburetor is thus transacted and implicitly paid for twice, but of course in reality only exists once. Hence the second transaction must be 'eliminated' from the consolidated accounts.

'Unallocables' refer to a geographically unspecified item in the geographic sales data that does NOT represent eliminations or other references to intra-firm sales (e.g. 'incidental', 'miscellaneous', 'associated undertakings'). The problem with eliminations and unallocables is that they can influence the calculation of a company's geographic spread depending on how they are included in the calculation. This is because many companies list an aggregate eliminations figure as opposed to specifying eliminations per region. Non-elimination unallocables, for their part, are never geographically specified. In calculating percentages based on segment data which include either an aggregate eliminations figure or an otherwise unallocable sum, one runs the risk of allowing that value to function as a region of its own in the percentages.

The calculation of a geographic segment's relative importance as a percentage of the whole seems at first glance rather straightforward. For any company X, it is logical to express the share of any segment i, as a share of the total, as follows:

$$Share_{iX} = \frac{Sales_{iX}}{Sales_{TotalX}} \qquad \text{(Equation 1)}$$

where $Share_{iX}$ is expressed as a percentage.

Example 1 below describes such a case, drawing on Motorola in 1998 (based on data provided in the 1999 annual report, page 30).

[95] Other terminology used by firms is for instance: eliminations of inter-segment sales, eliminations of inter-area proceeds, inter-segment sales, internal sales.

Example 1: Aggregate eliminations in geographic segment reporting: Motorola, 1998

Geographic segment	Sales (millions $US)
United States	20,397
United Kingdom	5,709
Other nations	12,812
Adjustments and eliminations	-9,520
Total	**29,398**

Following Equation 1, $Share_{USMotorola}$ in example 1 = 20,397 / 29,398, or **69.4 percent**. However, calculating $Share_{USMotorola}$ based on $Sales_{TotalMotorola}$ as listed on the balance sheet implicitly allocates the eliminations figure (-9,520) to the other segments; i.e., to segments other than $Sales_{USMotorola}$.

Companies do on occasion segment their eliminations (intra-firm sales) by region as well, which allows for an analysis of net revenues or sales per segment. Since geographic segment data reported as in Example 1, however, provides no information as to the proper segmentation of the eliminations figure, there is no theoretical basis for allocating the eliminations to other segments, or any segment for that matter. Given that fact, a methodologically sounder (arguably still imperfect) calculation would be as follows:

$$Share_{iX} = \frac{Sales_{iX}}{Sales_{TotalX} - Sales_{ElmnationX}} \qquad \text{(Equation 2)}$$

The calculation for Motorola (1998) is then 20,397 / (29,398- [-9,520]), or **52.4 percent**, or a difference of **14 percent**. The comparison of a pre-eliminations segment total with a pre-eliminations company total is more accurate than comparing a pre-eliminations segment total with a post-eliminations company total. Although it may be more desirable to have post-eliminations segment totals, the reality of firm reporting is often otherwise (see following section). Moreover, in practice, the absolute value of eliminations when aggregated as in Example 1 will often be higher than the value of one or more individual geographic segments and can thus create a margin of error greater than the value of a small segment (e.g., if the absolute value of the eliminations is higher than the absolute value of a given segment).

Since in practice, it turns out that some companies report more than one unallocable figure, or an eliminations and an unallocable in the same geographic segment overview, a more generally applicable calculation method for sales follows in Equation 3:

$$Share_{iX} = \frac{Sales_{iX}}{Sales_{TotalX} - \sum_{1}^{n} Sales_{UndefX}} \qquad \text{(Equation 3)}$$

where 'Undef' (1…n) equals all unsegmented eliminations, miscellaneous or otherwise geographically unspecified items in the geographic segmentation.

However logical these arguments may seem, much International Business research inadvertently employs FA and FS percentages calculated using Equation 1, sometimes not

even consistently. The methodological shortcomings of Equation 1 only become glaringly apparent when percentages are calculated for *all* geographic segments, and then tallied. Depending on whether one is faced with a negative number (e.g., eliminations) or a positive number (e.g., corporate assets), the sum of all percentages will either be more than 100 percent or less than 100 percent, respectively. Since most studies addressing firm-level internationalization are only concerned with the foreign-domestic dichotomy, this fact is easily overlooked through the calculation of a percentage based on one segment alone. Note that *absolute* values generated from these percentages will not accurately reflect the 'real' value of sales or assets; the procedure is applied to the calculation of *relative shares* only.

SCOPE methodologies

The methodologies presented in Table 3 are given in order of preference, based on the level of detail disclosed and then the degree of accuracy possible based on the data provided.

Table E.1: Methodologies used in SCOPE database

METHODOLOGY	APPLICATION
Methodology A:	Used when all terms (eliminations, corporate sales and assets and employment) are specified by geographic segment.
Methodology B:	Used when the eliminations are specified by geographic segment but in addition include one or more undefined sums not allocable to a specific segment.
Methodology C:	This methodology is used when eliminations are given, but only in an aggregate and not specified by regions at all..
Methodology D:	This methodology is used when data is specified by region, but eliminations are not given.

The distinction between methodology B and C has to do with whether the geographic segment figures are pre- or post-elimination before being corrected for the unallocable sum. Although both use a TS or TA figure different from the balance sheet total, Methodology B is 'closer' than Methodology C.

The problem with eliminations and other non-geographic segments (e.g. 'corporate assets') is that they can influence the calculation of foreign to total activities (i.e. Foreign Sales to Total Sales: FS/TS ratio) depending on how they are included in the calculation. This is because not all companies report eliminations per geographic area, and thus the eliminations post ends up functioning like a region itself in the percentages. We have therefore first of all identified which companies report their intra-firm sales figures and checked whether the non-geographic sales post reflects intra-firm sales/eliminations for examples see box 5.1). Second, we have identified at what level these intra-firm sales are regionally specified (i.e. total, foreign-total or a detailed regional specification).

Relatively few firms specify eliminations per region (and virtually none do this for unallocated asset posts). This is, however, a desirable sub-group because the level of intra-firm sales per region is an indication of difference in value-added levels across geographic space. In the case companies provide a detailed geographical specification (i.e. domestic, Europe, North America and Rest of the World) of intra-firm sales, the sales per country/region includes both intra-firm sales as well as arm's length trade (sales to external

customers). Hence, the sales per region reflect *pre-elimination figures* and are 'gross figures'. If necessary, the 'net' sales to outside customers per region can be calculated by subtracting the intra-firm sales from the gross figures. The reason to include both types of trade is that both are related to the productive activity of a firm (in the SCOPE database this approach is referred to as methodology A).

In most cases, however, a firm specifies regional activity but gives only a consolidated eliminations post (total intra-firm sales). Since the eliminations are not specified by region, the 'gross' (pre-elimination) are used to calculate the regional shares. The sum of the regional totals (adding all the regional segments together) hence represents a number *before* (pre) eliminations are subtracted and differs from the consolidated balance total in a company's annual report. This methodology (in the SCOPE database referred to as methodology C) makes more sense as it compares 'gross' segment sales figures with 'gross' total sales figures (compares with apples) and is preferred above any other approach. Additionally, this methodology is similar to methodology A, which also reports 'gross' (pre-eliminations) geographic segment sales figures.

In most cases however, firms do not report their intra-firm sales, in this case no further calculations are applied to process the regional segment data (methodology D). In this case we have assumed that intra-firm trade takes place within the MNE, but is negligible and therefore included in the total sales figures and not reported separately in the firm's annual report. Hence, total sales also reflects a 'gross' pre-elimination figure.

Only in a very limited number of cases firms reported some other random *non-geographic unallocated post*. This minor post was included in the regional totals, hence the sum of the regional segments (in percentages or absolute value) does not exactly add up to the regional total sales (i.e. 97%). This approach is referred to as methodology B in the SCOPE database.

The results of the sales data processing of the SCOPE Core200 and the different methodologies applied is addressed in sections 6.3.1 and 6.3.2

PROCESSING EMPLOYMENT DATA

In most annual reports and 10-K forms the information on the geographical spread of employees is usually not reported in the financial section, but often in a specific section on "personnel" or "Human Resources". The data on the number of foreign employees are often integrated in the text, while the regional spread of employees is presented in percentages in so-called pie charts. The difference of the position of employee data in a firm's annual report, leads in some cases to different geographical employment segments being identified than is the case for sales, assets and profit data.

In terms of the definition of total number of employees tends to vary between firms. Most firms report the number of employees as a Full-time Equivalent (FTEs), such that e.g. two part-time employees are calculated as one full-time employee. The definition of total number of employees tends to vary between firms. Most firms report their average number of employees (definition A), while only some report the number of employees at year-end (definition B), while sometimes firms report two figures. When both figure are given there are sometimes large differences between definition A and definition B. To the extent that firms publish a geographic segmentation of their employment, definition A tends to be applied, which is arguably preferable as it reflects the overall level throughout the year.

In this study the definition applied is consistent over the whole period of analysis (1990-1999) for each individual firm at every level (total, foreign-total and regional). In most cases the definition A, average number of employees was applied as this definition was also applied in the regional breakdown. In only a very limited number of cases (three MNEs) the regional totals did not add up to the total employment figures due to different definitions applied. This is sometimes due to the fact that firms use different data to calculate their regional spread. But is sometimes due to the fact that the firms report their number of regional employees at a very detailed level. In this case the regional totals were used as proxy for the total level of employment within a MNE, this makes the figures also more comparable over time.

APPENDIX F: THE SCOPE CORE200

Scope #	Company name	Country	Revenues	Assets	Employees
1	Mitsubishi Corporation	Japan	184.365	91.921	36000
2	Mitsui & Co., Ltd.	Japan	181.519	68.771	80000
3	Itochu Corporation	Japan	169.165	65.709	7182
4	General Motors Corporation	United States	168.829	217.123	709000
5	Sumitomo Corporation	Japan	167.531	50.269	6193
6	Marubeni Corporation	Japan	161.057	71.439	6702
7	Ford Motor Company	United States	137.137	243.3	346990
8	Toyota Motor Corporation	Japan	111.052	106.004	146855
9	Exxon Corporation	United States	110.009	91.296	82000
10	Royal Dutch/Shell Group**	Netherlands	109.834	118.012	104000
11	Nissho Iwai Corporation	Japan	97.886	46.754	17005
12	Wal-Mart Stores, Inc.	United States	93.627	37.871	675000
13	Hitachi, Ltd.	Japan	84.167	91.621	331852
14	Nippon Telegraph & Telephone Corporation (NTT)	Japan	81.937	127.077	231400
15	AT&T Corp.	United States	79.609	88.884	299300
16	DaimlerChrysler A.G.	Germany	72.256	63.813	310993
17	International Business Machines Corporation (IBM)	United States	71.94	80.292	252215
18	Matsushita Electric Industrial Co., Ltd.	Japan	70.398	74.877	265538
19	General Electric Company (GE)	United States	70.028	228.035	222000
20	Tomen Corporation	Japan	67.756	22.366	2943
21	Mobil Corporation*	United States	66.724	42.138	50400
22	Nissan Motor Co., Ltd.	Japan	62.569	66.277	139856
23	Volkswagen AG	Germany	61.489	58.611	242420
24	Siemens AG	Germany	60.674	57.347	373000
25	BP Amoco p.l.c.	United Kingdom	56.982	50.259	56650
26	Metro AG***	Germany	56.459	25.061	178594
27	United States Postal Service (USPS)	United States	54.294	48.921	870160
28	Chrysler Corporation*	United States	53.195	53.756	126000
29	Philip Morris Companies Inc.	United States	53.139	53.811	151000
30	Toshiba Corporation	Japan	53.047	51.967	186000
31	The Tokyo Electric Power Co., Inc.	Japan	52.362	131.485	43448
32	Daewoo Corporation	South Korea	51.215	63.598	196000
33	Nichimen Corporation	Japan	50.842	19.766	2443
34	Kanematsu Corporation	Japan	49.838	16.232	11759
35	Unilever N.V./ Unilever PLC**	Netherlands	49.738	30.077	308000
36	Nestlé S.A.	Switzerland	47.78	38.354	220172
37	Sony Corporation	Japan	47.582	47.156	151000
38	Fiat S.p.A.	Italy	46.468	64.3	237426
39	Veba AG	Germany	46.28	47.23	125158
40	Deutsche Telekom AG	Germany	46.149	11.709	220000
41	NEC Corporation	Japan	45.557	43.768	152719
42	Honda Motor Co., Ltd.	Japan	44.056	32.861	96800

Scope #	Company name	Country	Revenues	Assets	Employees
43	Elf Aquitaine*	France	43.618	49.454	85500
44	Electricite De France (EDF)	France	43.508	139.841	116909
45	Istituto Por La Ricostruzione Industriale SPA	Italy	41.903	115.041	263063
46	Royal Philips Electronics	Netherlands	40.148	32.58	265113
47	Fujitsu Limited	Japan	38.976	40.416	165056
48	E.I. du Pont de Nemours and Company, Inc.	United States	37.607	37.312	105000
49	RWE Group	Germany	37.233	52.948	137331
50	Renault	France	36.895	45.535	139950
51	Texaco Inc.*	United States	36.787	24.937	28247
52	Mitsubishi Motors Corporation	Japan	36.645	28.11	28383
53	Hoechst Aktiengesellschaft	Germany	36.409	36.729	161618
54	ENI S.p.A.	Italy	36.393	56.016	86422
55	Mitsubishi Electric Corporation	Japan	36.38	34.985	11585
56	Sears, Roebuck and Co.	United States	35.181	33.13	275000
57	Samsung Corporation	South Korea	35.06	11.34	18257
58	Kmart Corporation	United States	34.654	15.397	250000
59	ABB Asea Brown Boveri Ltd	Switzerland	33.738	32.076	209637
60	The Procter & Gamble Company	United States	33.434	28.125	99200
61	The Daiei, Inc.	Japan	33.149	20.342	40723
62	Peugeot S. A.	France	33.074	29.586	139300
63	Vivendi	France	32.665	47.333	221157
64	BASF A.G.	Germany	32.259	29.303	106565
65	Bayerische Motoren Werke Aktiengesellschaft (BMW)	Germany	32.199	28.475	115763
66	Alcatel S.A.*	France	32.154	52.205	191800
67	Chevron Corporation	United States	32.094	34.33	43019
68	Hewlett-Packard Company	United States	31.519	24.427	102300
69	Mitsubishi Heavy Industries, Ltd.	Japan	31.249	38.999	67372
70	Bayer AG	Germany	31.108	30.879	142900
71	Nippon Steel Corporation	Japan	30.614	42.311	93900
72	PepsiCo, Inc.	United States	30.421	25.432	480000
73	Ito-Yokado Co., Ltd.	Japan	30.368	16.361	101050
74	France Télécom SA	France	30.06	57.921	167661
75	VIAG Aktiengesellschaft*	Germany	29.26	30.046	83770
76	Carrefour	France	28.987	13.199	102900
77	Thyssen Krupp AG	Germany	28.032	17.537	126444
78	Amoco Corporation*	United States	27.665	29.845	42689
79	Total Fina S.A.	France	27.226	28.374	53536
80	Motorola, Inc.	United States	27.037	22.801	142000
81	The Kansai Electric Power Co., Inc.	Japan	26.736	63.748	27141
82	Petroleos de Venezuela, S.A.	Venezuela	26.041	40.502	53457
83	East Japan Railway Company	Japan	25.624	68.652	79298
84	Ssangyong Corporation	South Korea	25.392	22.511	35000
85	Nippon Mitsubishi Oil Corporation	Japan	25.043	25.856	11921

Scope #	Company name	Country	Revenues	Assets	Employees
86	Robert Bosch GmbH	Germany	25.012	19.87	156771
87	SK (Sunkyong)	South Korea	24.218	23.463	24600
88	Samsung Electronics Co., Ltd.	South Korea	24.151	21.878	75000
89	ConAgra, Inc.	United States	24.109	10.801	90871
90	British American Tobacco p.l.c.	United Kingdom	24.033	70.254	170412
91	AB Volvo	Sweden	24.022	20.923	79050
92	The Kroger Company	United States	23.938	5.045	200000
93	Dayton Hudson Corporation	United States	23.516	12.57	214000
94	Hyundai Corp.	South Korea	23.221	1.387	690
95	Canon Inc.	Japan	23.012	23.831	72280
96	Lockheed Martin Corporation	United States	22.853	17.648	160000
97	United Technologies Corporation	United States	22.802	15.958	170600
98	British Telecommunications PLC	United Kingdom	22.612	35.921	130700
99	Japan Postal Service	Japan	22.498	92.332	142712
100	Mannesmann AG*	Germany	22.395	15.826	122684
101	Pemex (Petróleos Mexicanos)	Mexico	22.33	31.581	124703
102	Enel SPA	Italy	22.225	59.493	97937
103	Jusco Co., Ltd.	Japan	21.998	13.167	34161
104	Chubu Electric Power Co., Inc.	Japan	21.85	56.99	21068
105	J.C. Penney Company, Inc.	United States	21.419	17.102	205000
106	Suez Lyonnaise des Eaux	France	21.117	32.035	118770
107	United Parcel Service of America, Inc (UPS).	United States	21.045	12.645	337000
108	The Dow Chemical Company	United States	20.957	23.582	39500
109	Deutsche Bahn AG	Germany	20.811	36.294	312579
110	Japan Tobacco Inc.	Japan	20.538	20.535	22625
111	Promodès S.A.*	France	20.16	8.828	46889
112	GTE Corporation	United States	19.957	37.019	106000
113	International Paper Company	United States	19.797	23.977	81500
114	J. Sainsbury plc	United Kingdom	19.765	10.308	95519
115	Taisei Corporation	Japan	19.762	29.557	22134
116	The Boeing Company	United States	19.515	22.098	105000
117	Mazda Motor Corporation	Japan	19.093	12.787	33705
118	Tesco PLC	United Kingdom	19.004	9.523	84895
119	Xerox Corporation	United States	18.963	25.969	85200
120	Shimizu Corporation	Japan	18.923	24.016	12026
121	Johnson & Johnson	United States	18.842	17.873	82300
122	Preussag AG	Germany	18.759	10.532	65227
123	NKK Corporation	Japan	18.711	25.166	39933
124	Sanyo Electric Co., Ltd.	Japan	18.541	23.689	57120
125	Koninklijke Ahold	Netherlands	18.446	5.766	127000
126	American Stores Company (Albertson's)*	United States	18.309	7.363	121000
127	Kajima Corporation	Japan	18.271	26.934	14157
128	Costco Companies, Inc.	United States	18.247	4.437	52000
129	USX Corporation	United States	18.214	16.743	42774

Scope #	Company name	Country	Revenues	Assets	Employees
130	The Coca-Cola Company	United States	18.018	15.041	31000
131	BCE Inc.	Canada	17.939	28.339	121000
132	Bridgestone Corporation	Japan	17.922	16.171	89418
133	BellSouth Corporation	United States	17.886	31.88	87571
134	Nippon Express Co., Ltd.	Japan	17.767	10.129	62008
135	Mycal Corporation (Nichii)	Japan	17.738	16.206	20277
136	Sara Lee Corporation	United States	17.719	12.431	149100
137	Columbia/HCA Healthcare Corp.	United States	17.695	19.892	240000
138	Novartis Group*	Switzerland	17.51	26.404	84077
139	Fleming Companies, Inc.	United States	17.502	4.297	44000
140	Deutsche Post AG	Germany	17.486	14.117	342413
141	Isuzu Motors Limited	Japan	17.425	14.397	14317
142	RAG Aktiengesellschaft	Germany	17.233	20.414	102086
143	Sociedad Estatal De Participaciones Industriales (SEPI)	Spain	17.163	33.03	76998
144	Sharp Corporation	Japan	17.102	18.758	44789
145	Mitsubishi Chemical Corporation	Japan	17.074	18.553	30162
146	Rhône-Poulenc	France	16.996	27.648	82556
147	Toyota Tsusho Corporation	Japan	16.928	6.935	3928
148	AMR Corporation	United States	16.91	19.556	110000
149	Franz Haniel & Cie. GmbH	Germany	16.883	6.589	24485
150	Karstadt Group	Germany	16.811	7.985	105129
151	Atlantic Richfield Company (ARCO)*	United States	16.739	23.999	22000
152	Merck & Co., Inc.	United States	16.681	23.832	45200
153	La Poste	France	16.642	15.807	290839
154	Supervalu Inc.	United States	16.486	4.184	44800
155	Fried Krupp AG*	Germany	16.423	12.162	66352
156	Safeway Inc.	United States	16.398	5.194	113000
157	Petrõleo Brasiliero S.A.	Brazil	16.387	31.822	50675
158	Electrolux AB	Sweden	16.219	12.544	112300
159	Imperial Chemical Industries Plc (ICI)	United Kingdom	16.206	14.715	63800
160	Intel Corporation	United States	16.202	17.504	41600
161	SHV Holdings N.V.	Netherlands	16.17	8.481	56400
162	Minnesota Mining and Manufacturing Company (3M)	United States	16.105	14.183	70687
163	Compart Spa.	Italy	16.086	24.833	36088
164	Caterpillar, Inc.	United States	16.072	16.83	54352
165	Nabisco Group Holdings	United States	16.008	31.518	76000
166	Groupe Danone	France	15.925	19.037	73823
167	Tohoku Electric Power Co., Inc.	Japan	15.848	34.873	14581
168	Japan Energy Corporation	Japan	15.827	15.531	15623
169	Usinor	France	15.719	14.746	58335
170	Pechiney	France	15.596	11.435	43714
171	Pinault-Printemps-Redoute	France	15.594	11.163	59299

Scope #	Company name	Country	Revenues	Assets	Employees
172	The Home Depot, Inc.	United States	15.47	7.354	80000
173	Btr Plc.*	United Kingdom	15.432	15.356	125065
174	Takenaka Corporation	Japan	15.368	16.647	10518
175	Kobe Steel Ltd.	Japan	15.302	22.162	31203
176	Eastman Kodak Company	United States	15.269	14.477	96600
177	MCI WorldCom, Inc.	United States	15.265	19.301	50367
178	Repsol,S.A.	Spain	15.125	13.744	18878
179	Federated Department Stores, Inc.	United States	15.049	14.295	119000
180	Japan Airlines Company, Ltd.	Japan	15.013	19.73	20030
181	UAL Corporation	United States	14.943	11.641	79410
182	Sumitomo Metal Industries, Ltd.	Japan	14.83	22.915	51682
183	Kyushu Electric Power Co., Inc.	Japan	14.829	38.594	14473
184	Bouygues	France	14.801	15.096	91894
185	Compaq Computer Corporation	United States	14.755	7.818	20470
186	Idemitsu Kosan Co., Ltd.	Japan	14.755	18.785	5268
187	Denso Corporation	Japan	14.739	14.738	56385
188	Thomson SA	France	14.396	17.864	96000
189	AlliedSignal Inc. (Honeywell)*	United States	14.346	12.465	88500
190	McDonnel Douglas*	United States	14.332	10.466	63612
191	Suzuki Motor Corporation	Japan	14.303	8.903	13693
192	Georgia-Pacific Corporation	United States	14.292	12.335	47500
193	Saint-Gobain	France	14.093	19.702	89852
194	Kawasho Corporation	Japan	14.063	7.564	3386
195	Telefonaktiebolaget LM Ericsson	Sweden	13.961	13.702	85513
196	Telefónica , S.A.	Spain	13.96	39.689	99203
197	Deutsche Lufthansa AG	Germany	13.886	12.84	57586
198	Sekisui House, Ltd.	Japan	13.841	16.021	14676
199	Dentsu Inc.	Japan	13.825	6.312	5722
200	Digital Equipment Corporation*	United States	13.813	9.947	61700
Notes:					
Data on sales, assets and employment are from Fortune Magazine, August 5th, 1996					
** company has been subject to acquisition, merger or de merger since 1995*					
*** both firms are British Dutch*					
**** Metro AG was originally identified as Swiss in the Fortune Global 500, 1995 but German in subsequent Fortune lists.*					

APPENDIX G: SPECIFIC METHODOLOGICAL ISSUES TO CHAPTER EIGHT

As analyzed in detail in chapter six the geographic segment data reporting of MNEs shows many variations among firms, within firms across time, but also across different variables researched. As was shown only a limited number of SCOPE Core200 firms report the geographic employment segment data consistently over the 1990-1999 period. The information provided was based on an agreement of confidentiality. This exercise resulted in a sub-sample of 60 out of 148, largely European, 'Genuine MNEs' for which consistent geographic employment segment data were available over the entire 1990-1999 period.
As the geographical spread of assets largely correlates with the geographic spread of employment of MNEs (Ietto-Gillies, 1998) and to avoid a biased sample of largely European MNEs, a number of 'Genuine MNEs' consistently reporting the geographic spread of assets were included to enlarge the original sub-sample of 60 'Genuine MNEs'. The geographic asset spread ratios were applied as proxies for the geographic spread of employment and to calculate the absolute number of employees located in each geographic segment. The sub-sample of 86 'Genuine MNEs' is representative for the group of 148 'Genuine MNEs within the Core200 as it has a similar industry and country of origin structure. Nevertheless, due to the limited reporting of geographic employment and asset data, Japanese MNEs are still underrepresented in the final sub-sample of 86 'Genuine MNEs'. As many MNEs are required to report geographic sales segment data, all 86 MNEs reported their geographic spread of sales.

FISCAL YEAR ENDS

Most non-Japanese SCOPE Core200 companies have their fiscal year endings at December 31, with only a few firms adopting a fiscal year ending at different data (e.g. June 30). However, almost all Japanese firms have their fiscal year ending at March 31 (exceptions are companies such as Sony and Toyota, which are closer to Western accounting standards).
In this study a fiscal year end is denoted as any fiscal year ending between June 30 and June 29 of the subsequent year. For instance the year 1995 is defined as any fiscal year ending between June 30, 1995 and June 29, 1996. We have chosen for the most “up-to-date option". This implies that for Japanese companies with fiscal year ends on 31-3-1991 (i.e. Annual Report 1991), the data processed reflect the year 1990.

CURRENCY CONVERSION

The financial data on the geographic spread of corporate sales (and assets) are collected and analyzed directly in the local currency of the MNE’s country of origin in order to minimize the effects of inconsistent exchange rates and currency fluctuations. In cases where data had to be converted in US dollars the International Monetary Fund (IMF) “Financial Statistics” were used. The IMF documents average exchange rate per quarter (denoted as *rf =average market rate for period)* and exchange rates at the end of a period (denoted as *ae = market rate at end of period*). To convert the geographic sales/revenue data in US dollars the “average market rates for period” (rf) were added up and divided by four, in order to get an annual average. For the conversion of asset data in US dollars the IMF “market rate at end of period” (ae) figures are used.

DEALING WITH MISSING VALUES

In some cases a time series of employment and sales by origin data was incomplete due to: (1) the annual report was no longer available, and/or (2) the company decided not to specify the geographic assets sales or employment segment data for that year. In order to fill up missing values in the analysis, in these cases the original firm level data from annual reports were complemented with data obtained through direct communication with the firms (through a brief survey). If this approach was unsuccessful in only a handful of cases geographic employment and sales data were based on so-called 'educated guesses', i.e. taking the average of three years to fill in one missing year in order to conduct a longitudinal analysis. In addition, sales by destination data were used as proxy for sales by origin for 10 MNEs, while seven MNEs did not specify their domestic production figures in particular, but instead provided a complete figure for the whole home region (continent based measures). In these cases this figure was equally divided across the domestic share and intra-regional share.

DEALING WITH (CROSS-BORDER) M&AS

Due to the wave in (cross-border) in the late 1990s the number of core firms included in the Core200 has become a 'moving target' it is subject to changes in its composition, leading to a decline of the initial base sample (from the original Core200 firms only 186 were left in 2002). Moreover, the wave of cross-border M&As also affects the size and structure of core firms and, consequently, the geographic segments shares of production and employment. For instance processing the takeover of Chrysler by Daimler-Benz in DaimlerChrysler's 1998 annual report, the share (and volume) of international production over 1998 increased from 42 percent at the end of 1997 to 81 percent at the end of 1998. For employment the figures were 25 percent to 47 percent respectively. Logically, the majority of this foreign increase can be explained by Daimler's stake in US Chrysler. Vice versa, the takeover of Mobil by Exxon in 1999, a domestic US merger, led to an accelerative growth of the new group's domestic activities as compared to its foreign activities.

Despite the influence of these 'mega deals' on the geographic spread of production and employment of these MNEs, data have been processed applying the same methodology (see annex E) (cf. Van Pelt, De Voldere, Veugeler & Sleuwaegen, 2002). The reason for this is threefold. (1) The preference of many MNEs to enter foreign markets through M&As or grow domestically through M&As is a reflection of their (international) strategic behavior. The takeover of Chrysler by Daimler-Benz in 1998 is a reflection of Daimler Benz' rationale to target the North American market. (2) There is no clear rational, beyond arguments of sheer size, to treat the mega (cross-border) M&As differently than the smaller deals who do not become headline news but are part of the daily practice of large MNEs. (3) After a M&A geographic segment data of the acquired company are no longer avialable, i.e. the independent entity ceases to exits. Most corporations have terminated the publication of a separate annual report after the acquisition and have either been completely integrated into a new 'Group' or been restructured. For example, although Chrysler Corporation is still identified as one of the six separate 'industry segments' of the whole DaimlerChrysler Group, its 'financial services segment' (formerly known as 'Chrysler Financial Services') is completely integrated with the Group's new services division entitled 'Services' (DaimlerChrysler, annual report 1999 p. 106).

INDUSTRY AND FIRM SIZE CLASSIFICATION FOR ANOVA TEST (SECTION 8.3.3)

Broad industry classification based on Fortune Magazine 1995

	Industry group	No. of firms	Fortune code
1	Consumer electronics	16	8, 11, 37, 39, 41
2	Automotives	9	30
3	Retail, Food & Allied (beverages plus Tobacco)	13	3, 15, 16, 17, 19, 32, 40, 42, 44
4	Chemicals	8	6
5	Industrial Products	10	1, 5, 13, 21, 27, 28, 43
6	Oil and related	8	31
		64	

Firms size classification based on natural log (LN) of total assets (TA)

Firm size group	TA LN	No. of firms
1	16	15
2	17	34
3	18	13
4	19	2

EXECUTIVE SUMMARY (IN DUTCH)

Multinationale ondernemingen (MNOs) worden vaak verantwoordelijk gehouden voor de relocatie van productie en 'export' van banen. Daarnaast worden de activiteiten van MNOs – met name in ontwikkelingslanden - gezien als de bron van werkgelegenheid en de motor achter economische groei.

Deze studie analyseert de vijfde golf van internationalisering (1990-1999) en de effecten hiervan op werkgelegenheid binnen verschillende 'generaties' van MNOs. Wat is de geografie van internationale productie en werkgelegenheid van MNOs? Wat zijn de werkgelegenheidseffecten van de verandering in de locatie van internationale productie en internationale strategie van MNOs? Hebben MNOs in toenemende mate hun transnationale productie geïntegreerd, is er een regionale arbeidsverdeling en wat zijn hiervan de werkgelegenheidseffecten?

Deze studie laat zien dat de geografie van internationalisering alsmede de fase van internationalisering waarin MNOs zich bevinden belangrijke verklarende factoren zijn achter de werkgelegenheidseffecten in het thuis- alsmede gastland van de MNO. Concurrentie *tussen* werknemers binnen macroregio's in zowel ontwikkelde als ontwikkelingslanden is vaak groter dan *tussen* lage-lonen en hoge-lonen landen. De werkgelegenheidseffecten van internationalisering zijn nauw verbonden met regionale integratie als met het strategische gedrag van MNOs.

De studie bestaat uit vijf delen, inclusief de introductie en de conclusie.

Deel I is de algemene introductie bestaande uit hoofdstuk één waarin het doel en de historische continuïteit van internationalisering uiteen worden gezet. Vijf golven van internationalisering worden kort besproken, waarbij de nadruk ligt op de vijfde golf van internationalisering (1990-1999) welke nauw verbonden is met regionalisering op interstatelijk als economisch gebied.

Deel II richt zich op de onderzoeksresultaten, beperkingen en 'missing links' van de bestaande literatuur over internationalisering, relocatie en werkgelegenheid. Hoofdstuk twee bespreekt de inhoud, empirische resultaten en wortels van de bestaande literatuur welke sinds 1970 zijn gepubliceerd – parallel met de laatste twee golven van internationalisering. Hoofdstuk drie positioneert de studie binnen de vijfde golf van internationalisering en bespreekt de kenmerken van deze laatste golf (1990-1999). Tevens

presenteert dit hoofdstuk de onderzoeksagenda van deze studie. De huidige golf van internationalisering, kenmerkt zich door een concentratie van internationale productie en werkgelegenheid binnen ontwikkelde landen, internationale fusies en overnames, strategisch gedrag van MNOs, en leidt tot nieuwe onderzoeksvelden op het gebied van internationalisering en werkgelegenheid. Een van de belangrijkste 'missing links' in de bestaande literatuur is dat bij de bestudering van de relatie tussen internationalisering, relocatie en werkgelegenheid een micro – MNO perspectief – ontbreekt.

Deel III introduceert dit microperspectief. Hoofdstuk vier introduceert een multi-disciplinair perspectief t.a.v. internationalisering waardoor de werkgelegenheidseffecten gekoppeld worden aan de motieven van internationalisering. Drie perspectiven worden geintroduceerd: *International Business (IB), International Management (IM)* en, *International Political Economy (IPE)*. Vervolgens operationaliseert hoofdstuk vijf het concept multinationaliteit en fomuleert de onderzoeksvragen en het onderzoeksraamwerk van deze studie.

Deel IV is het empirische 'hart' van deze studie. Hoofdstuk zes bespreekt de nationale en regionale verschillen in de wijze waarop MNOs hun geografische segment data weergeven in hun jaarverslagen en de wetgeving hieromtrent. Het hoofdstuk toont aan dat er vele verschillen bestaan tussen MNOs onderling alsmede tussen MNOs uit verschillende landen in de rapportage van hun werkgelegenheidscijfers en de geografische spreiding hiervan. Aan de hand van het raamwerk van hoofdstuk vijf, analyseren hoofdstuk zeven en hoofdstuk acht de relatie tussen internationalisering, relocatie en werkgelegenheid binnen MNOs over de jaren negentig. Deze analyse vindt plaats voor MNO in verschillende fases van hun internationaliseringstraject: de zogenaamde 'generaties' van MNOs.

Deel V is het concluderende deel van de studie. Hoofdstuk negen vat de belangrijkste bevindingen samen en bespreekt een aantal beleidsaanbevelingen en toekomstige golven van internationalisering en relocatie. Dit hoofdstuk definieert ook de beperkingen van deze studie en geeft een aantal suggesties voor toekomstig onderzoek.

Curriculum Vitae

Douglas van den Berghe was born in Breda, the Netherlands on March 3, 1970. Before he went to university he worked and traveled in South-East Asia and Australia, where he lived part of his life. In 1990s he joined the University of Amsterdam as a student and received his M.A. in Political Science with a major in International Political Economy and his B.Sc. in Economics in 1996. After his graduation he worked for KPMG and Graydon Credit Management. In 1998 he became a research associate at the Rotterdam School of Management, Erasmus University where he set up the SCOPE (Studies and Competence Center on Organizational and Policy Research in European Business) expert center and database. The SCOPE database has been developed in conjunction with the United Nations Conference on Trade and Development (UNCTAD), that has published the interim research results in its *World Investment Report* since 1998. His Ph.D. research commenced in 1999 at the Erasmus Research Institute of Management (ERIM). He has taught courses in international business and strategy, European management and, European integration. He published in various academic journals including *International Business Review*, *Transnational Corporations*, and the *Journal of International Business and Economy*, as well as in publications of international organization including: UNCTAD's *World Investment Report* and the Economist Intelligence Unit's (EIU) *World Investment Prospects* and EIU's *Regional Overviews*. As a consultant he worked on issues related to international strategy, relocation and, FDI and development for various organizations: UNCTAD, Organisation for Economic Co-operation and Development (OECD), Economist Intelligence Unit (EIU), Ernst & Young's International Location Advisory Services (ILAS), Transfer Pricing Associates (TPA), the Rabobank, the Dutch tax authority and, the Dutch Ministry of Development Assistance. Since March 2003, after the completion of his PhD research, he is a consultant for UNCTAD and a part-time assistant professor at the Rotterdam School of Management, Erasmus University.

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Working Across Borders: Multinational Enterprises and the Internationalization of Employment

Multinational enterprises (MNEs) are often held responsible for the 'relocation of production' and 'export of jobs' to low-wage countries at the expense of jobs in developed countries. Additionally, host country governments – in particular in developing countries – perceive international production by MNEs as the panacea for generating employment and economic growth.

What is the spatial organization of production and employment of MNEs? What are the employment effects of changes in the geography of internationalization of MNEs? Have MNEs increasingly integrated production across borders and established a regional division of labor?

This thesis demonstrates that the stage of a MNE's internationalization process as well as the geography of its internationalization strategy influences employment levels in both home and host countries. The employment effects of internationalizing MNEs are often *intertwined* with processes of regional integration as well as with the herding and strategic behavior of MNEs.

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