

ECONOMIC GEOGRAPHY AND PATTERNS OF INTERNATIONAL  
BUSINESS ACTIVITY

FINANCIAL AND PROFESSIONAL SERVICES FDI TO THE USA

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## **Abstract**

This paper attempts to examine the explanatory power of concepts drawn from economic geography for the explanation of the location decision of financial and professional service TNCs. It addresses some differences between international business and economic geography theories in the explanation they propose for the patterns of economic activity, in particular, differences in the analytical unit of analysis, the explanatory variables for the uneven distribution of economic activity and its dynamism, and the view of the firm and the sources of its competitive advantages.

Lessons from these discussions are used to construct a model which combines concepts from economic geography and international business theories as explanatory variables for the location decision of TNCs. The model is estimated on financial and professional service firms investing in the US. The findings suggest that ideas from economic geography, notably agglomeration economies, possess powerful explanatory power for the patterns of inward FDI in these industries.

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# **ECONOMIC GEOGRAPHY AND PATTERNS OF INTERNATIONAL BUSINESS ACTIVITY**

## **FINANCIAL AND PROFESSIONAL SERVICES FDI TO THE USA**

### **Introduction**

Research in international business has illustrated that location-specific factors affect the type and nature of the competitive advantages which firms develop (Porter 1990, 1994; Hu 1992, 1993; Nachum, 1999). While in principle, the characteristics of any location may be the basis for firms' advantages, this research implies that those of the home countries of the firms concerned are the most critical. TNCs have been shown by this research to have been affected by a complex historical process, in which the cultural, social, political and economic characteristics of their national home base play a dominant part. In an economic world which becomes increasingly more globalised and integrated, and in which the advantages of firms increasingly derive from intangible assets which are seemingly not tied to any particular location, home countries continue to exercise a strong impact on the advantages which firms develop. As a consequence, it is possible to explain the emerging patterns of international economic activity by differences among countries in the relevant characteristics in particular industries (Nachum 1999).

The search by business studies researchers and economists for the specific location characteristics which affect the competitiveness of firms and subsequently shape the patterns of international business activity has been dominated by the assumption that these factors vary across countries but are identical within them, that is, that the relevant unit of analysis is countries. There is a long tradition for such an approach, going back to the work of the classical and neo-classical trade theorists which sought to explain the patterns of international trade with reference to comparative advantage which arises from the

resources abundant within the boundaries of particular countries. Later developments have modified the concept of comparative advantage to take account of development and changes in the factors which are critical for competitiveness, and extended it from the mere abundance of tangible immobile factors of production to include also intangible assets such as culture, human capital and institutional frameworks. But the unit of analysis in these models has remained countries, which were assumed to be homogenous. No reference has been made to intra-country differences.

However, there are striking and persisting differences in the economic performance of regions and cities within countries, and strong patterns of concentration of economic activity in particular industries within countries (Porter 1994, 1996; Ohmae 1995; Enright 1998). This phenomenon was highlighted already by Marshall (1890) and exists also today. In an analysis of Sheffield steel making, Marshall concluded that in some regions certain skills seem to be 'in the air'. The education system fosters them, the local infrastructure and political system helps them along and competition from a cluster of similar firms encourages an informal exchange of ideas. Examples of contemporary centres of excellence are Silicon Valley in computing, Hollywood in film-making, the Prato region of northern Italy in textiles, the City of London in finance, and Madison Avenue in advertising. These centres rely on a unique combination of natural and man-made factors, and they are sustained by distinctive local traditions and cultures, which characterise the region rather than the whole country of which it is part.

Along with globalisation, and despite falling transportation and communication costs, there has been an increase in the clustering of economic activity, especially in high-technology, information-intensive sectors - sectors which, given the enormous recent developments in information technologies, one might have expected to be the least sensitive to the need for geographical proximity (Storper 1995; Lawson 1997).

These patterns of regional concentration suggest that countries may not be the only relevant geographical units which affect the competitiveness of firms and shape the patterns of international business activity. Countries are defined by political boundaries but the geographic, cultural and institutional proximity which provides a source of advantages may not necessarily coincide with such boundaries. Research in economic geography has shown the strength of the region, rather than of the country as a whole, as a source for the advantages of firms (see for example Amin 1994; Dupuy and Gilly 1996; Hassink 1997; Scott 1988, 1993, 1998).

More recently, business researchers and economists have discovered the potential merit in ideas underlying economic geography theories for explaining the sources of the competitiveness of firms and the resulting patterns of economic activity. Porter (1990, 1994) argued that the geographical concentration of leading firms and industries often reinforces and intensifies their competitive advantage. In a similar fashion, Krugman's analysis emphasises that externalities operating within and between industries in regional agglomerations make a difference to the competitive advantage of the constituent firms (see for example Krugman 1991, 1995, 1998). These scholars have called for economic geography to be brought from the periphery to the forefront of business economics. This paper attempts to make some progress in this direction, by incorporating ideas from economic geography in the theory of the location of Transnational Corporations (TNCs), as part of the more general theory of international business.

The arguments of the paper proceed as follows. In the next section I highlight some differences between the explanations suggested by the theories of international business and economic geography for the patterns of economic activity, and I draw out their implications for the conceptualisation of the determinants of the competitiveness of firms and their location decisions. I continue by examining the potential explanatory power of ideas drawn from economic geography, which were developed initially for small and indigenous firms, in explaining

the behaviour of large TNCs whose activities span many regions and countries, and I review recent developments in this direction by international business scholars. Some arguments which emerge from this examination are put forward for empirical test, using a simple exploratory model based on inward FDI in financial and professional services to the USA. The paper concludes by drawing the implications of the introduction of ideas from economic geography for our theoretical conceptualisation of the forces which affect the location decision of TNCs and for FDI policy.

### **The Theories of International Business and Economic Geography and their Explanations for the Patterns of Economic Activity**

The fields of international business (IB) and economic geography (EG) represent two somewhat distinct different ways of thinking about the organisation of economic activity and have, for the most part, developed in separation<sup>1</sup>.

The first and most obvious difference between the theories refers to the geographic unit of analysis. Economic and business theories focus on countries and seek to explain why internationally successful industries emerge in particular countries (see Porter 1990, Nachum 1999 for recent examples). These explanations are based on differences among countries in terms of the abundance of natural and man-made resources, the nature of the labour force and local demand, infrastructure, and various institutions. As the economic unit of analysis is defined by political boundaries, scholars in this school of thought have paid considerable attention to the ways in which governments can affect the resources within their jurisdiction by various policy actions. EG theories centre on regions and cities within countries and seek to explain why are they economically successful (Storper 1996, 1997, Sassen 1991, 1994). Such explanations are based on agglomeration economies and various externalities.

These differences have a long tradition in both schools. Trade economists in the neo-classical tradition paid little attention to the distribution of international economic activity within countries and IB theories adopted this approach. This lack of concern with regional issues is partly due to the fact that resources were assumed to be fully mobile within countries (Dunning 1998). One notable exception is the work of Ohlin (notably Ohlin 1933) who saw the potential gains to be derived from concentration of production in space, due to increasing return and economies of scale, and how they can lead to trade among regions. But Ohlin's followers in international trade theory ignored these gains and based their analysis on comparative advantage as the basis for trade. Economic geographers, until the 1980s at least, tended to deal with issues of industrial development on the basis of the classical theory of location, as originally codified by Weber (1929) and subsequently expressed by neo-classical theorists such as Hoover (1948), Losch (1940), Isard (1956) and Moses (1958). This approach asked what determines the optimum location for a particular mix of activities. In contrast to trade theory, the unit of analysis in these conceptualisations was the firm, and location was typically treated as a problem of individual decision making and behaviour. Given a particular market, the optimum location is that which minimises production plus transport costs. For the most part, the dichotomy between intra- and intercountry conceptualisations has remained also in later developments.

From these different units of analysis follow fundamentally different explanations for the uneven distribution of economic activity in space and over time. Based on international trade theory, IB theories have traditionally relied on the relative abundance of tangible and intangible immobile assets as the factor which determines the emergence of certain locations into centres of excellence in particular economic activities. The gains derived from geographical concentration, agglomeration or clustering of related activities in space have remained until very recently almost entirely outside the theories of IB, and in particular of those related to the location

decisions of TNCs. By contrast, these economies have been at the centre of the explanations of EG theories for patterns of economic activity at least since the time of Marshall. These explanations are based on the recognition that links between firms, institutions and infrastructures within a geographic area give rise to economies of scale and scope, the development of general labour markets and pools of skills, enhanced interaction between local suppliers and customers, and other localised externalities. Such links tend to lower the costs or increase the revenues, or both, of the firms taking part in the local exchange, and give rise to agglomeration economies. In these conceptualisations, the origins of economic concentration are locked in by historical accident or chance, rather than by the relative or absolute abundance of given and created resources. This rationale for the concentration of economic activity could result in two countries with identical endowments having very different amounts of economic activity in any particular industry, a prediction which is at variance to that proposed by IB theory<sup>2</sup>.

Not only do the static conceptualisations of patterns of economic activity differ. So do also do the conceptualisations of their dynamism. Agglomeration economies as the basis for regional advantages tend to create a positive cycle which enhances itself by attracting more firms seeking to gain from the collective agglomeration economies, thus adding to the attraction of the location. These locations thus often become the source of increasing return to scale and scope, so that their competitive advantage tend to intensify over time (Scott 1998). Thus, locational advantages, once gained, tend to perpetuate themselves and centres of economic activity tend to become more successful and attractive over time<sup>3</sup>.

Concentration of economic activity is also used to explain the loss of regional competitive advantage (Hassink 1997, Saxenian 1994). The initial strength of a region, the atmosphere, the intense inter-firm linkages can turn into major obstacles to innovation, causing geographically concentrated clusters to become insular and inward-



looking systems, and lead to the decline of a region (Hassink 1997). The economic problems of some regional and urban districts which were successful in the past illustrate such diseconomies of agglomeration (see for example Florida and Kenney 1990, and Saxenian 1994 for a discussion of Route 128).

Dynamic changes in the advantages of countries in IB theories (based on their heritage from international trade theory) are based on an entirely different logic. Such developments are caused by changes in the relative value of the location advantages which initially gave rise to the centre of economic excellence. Location advantages are conceptualised as unrelated to the amount of economic activity taking place in a particular location, nor does the mere existence of centres of economic excellence strengthen their advantages. Some location advantages may inevitably disappear (for example, non-renewable natural resources, where the amount of economic activity tends to diminish the source of the advantage) or lose their value as new processes or materials are introduced, or as other countries catch up and develop similar advantages. Others, those based on created, rather than given assets, can be upgraded by active and continual investment, but they are not created, nor improved, by economic activity by itself. Rather, such outcome requires specific intervention, often undertaken from outside the centre of the activity (i.e., by governments) (see some of the papers in Webster and Dunning 1990 for analyses of such processes by business economists).

IB and EG theories differ fundamentally also in their conceptualisation of the firm and its links with other firms and its environment. For the most part, EG theories refer to clusters of firms and to collective advantages and assess the sources of competitiveness that lie outside the individual firm. In contrast, in IB formulations, the individual firm and its firm-specific advantages, which are internal to firms, have been at the centre of the analyses.

In the traditional formulation which has dominated IB theories until very recently, firms have clear boundaries, defined by their ownership, and are regarded as independent actors from other firms in their own industry or in other industries. The advantages of individual firms – the possession of which enables them to compete successfully against indigenous firms in foreign markets - have been the focus of the explanations for the international competitive position of firms (Hymer 1960/1976; Dunning 1993; Caves 1996).

To the extent that there has been reference to the activities of other firms in these traditional formulations of IB theories, they were regarded as competitors rather than as potential collaborators or as a source of learning. Such an approach was well elaborated in the theory of oligopolistic reaction (Flower 1976, Graham 1978) according to which the activities of competitors strongly undermine those undertaken by a firm. Such an outcome is driven by the intention not to lose competitive edge, rather than by an attempt to learn or collaborate with other firms. These are developments of the economic model according to which firms have no specific relations to each other and their interdependencies are regulated through the market mechanism which transforms the demands and supplies of different actors into market prices.

In contrast, in the main stream of EG theory, the individual firm is seen as dependent on other firms in its regional environment (Hassink 1997). Firms are knit together (Storper 1995), and are treated as part of a large group rather than as individuals. The relations of firms to each other are accomplished not simply as input-output relations or client-supplier linkages, as in economic theory (adopted by IB theory), but as untraded interdependencies subject to a high degree of reflexivity (Storper 1995, 1997, 1998). Skills and knowledge are not seen as proprietary to individual firms, as in the IB theories, but rather are powerfully conditioned by resources that lie outside the firms, and hence are not fully appropriable by them. The resources and capabilities vital for firms' success, which are found in IB theories

within individual firms, lie according to EG conceptualisations inside a locality, and are specific for the locality rather than for any firm. The emphasis is thus given to the complementarities and the collective learning of firms based in the same location to upgrade their collective capabilities and advantages (see for example Dupuy and Gilly 1996; Keeble et al 1998b) rather than to an individual firm with a distinctive identity, which is typical of the IB conceptualisations<sup>4</sup>.

As the member firms of industrial districts are closely linked by sub-contracting and mutual benefits which derive from co-operation (You and Wilkinson 1994), the boundaries between them are blurred, to such an extent that firms and districts become intermingled (Martin and Sunley 1996). The prosperity of firms is linked with that of the other firms operating in the same geographic location. In contrast, in the traditional formulation of IB theories which has dominated the conceptualisations of IB scholars until recently, firms have been treated as self sufficient and in isolation from other firms, and their prosperity depends on the way in which their management organise internally the resources and capabilities at their disposal. Consequently, EG scholars regard the functions and qualities of different sorts of transactions among firms as critical for their competitive success, while IB theorists have until recently been interested solely in processes internal to individual firms rather than in the relationships among them.

These different conceptualisations of the nature of firms and the links between them have led to different approaches to firms' size and growth. Explicitly or implicitly, most EG models are preoccupied with small and medium-sized firms (see for example Harrison 1992; Glasmeier 1996). Small firms are regarded either as atomistic competitors or as members of highly interdependent networks, each of which specialises in a particular stage of the value added chain, and hence depends on other firms. The idea of flexible specialisation, first proposed by Piore and Sable (1984), and adopted by many subsequent workers as fundamental to the conceptualisation of geographic

concentration, refers basically to small firms which are not dedicated to the production of standardised outputs in long runs, but rather produce small batches in constantly changing product and process configurations. Because flexible specialisation often entails a breakdown of internal economies of scale and scope in the production process, it tends to be associated with lower levels of vertical integration and with small or medium-sized units of production.

IB scholars, in contrast, have studied the emergence of large TNCs, who dominate many of their industries and are regarded as the main generators of wealth and economic progress (see for example the papers in Chandler et al 1997 and Casson 1997). There is also a pattern of small and medium sized firms becoming transnationals (UNCTAD 1993; Bell et al 1998), but the TNCs to which most IB theory refers are typically very large, built around a set of global activities which cover the complete value added chain and tend to be well diversified (Chandler 1990).

Spatial agglomeration thus becomes a substitute for both vertical integration and diversification. In EG theories, economies of large scale production are generally external to firms and result from the concentration of production in geographical proximity. Such concentration allows all the member firms to enjoy the benefits of large scale industrial production and of technical and organisational innovation which are beyond the scope of any individual firm (You and Wilkinson 1994). By contrast, the ability to benefit from economies of scale is regarded in the IB theories as an attribute of individual firms (Chandler 1990) and as part of their firm-specific advantages. As such, firms can benefit from this advantage everywhere. Internal economies of scale explain the growth of individual firms (Chandler 1990), while external economies of scale explain the growth of regions.

External economies are tied to a particular location, and consequently the firms to which most EG models relate are tied to their cluster in

their location decisions. They locate themselves in proximity to other firms, to benefit from various externalities<sup>5</sup>. By contrast, in its traditional formulation as put forward by Hymer (1960/1976) and dominant in IB literature until recently, the location decisions of firms are made with the intention of maximum utilisation of their firm-specific advantages, in line with the location advantages of the relevant countries (Dunning 1993). Furthermore, a critical tenet of IB theories is the assumption of the mobility of the firm-specific advantages within the firm across countries<sup>6</sup>. It is this mobility which allows the firm to utilise its advantages in different locations, which is part of the rationale for international production (Hymer 1960/1976; Dunning 1993). The firm can benefit from its advantages everywhere in line with its overall strategic plans. The advantages of firms in EG conceptualisations are tied to the region through ties with the other firms in the cluster. These regional ties imply that firms are largely immobile. Consequently, they serve foreign markets by exports rather than by foreign production.

From these different conceptualisations of the firm follow different views of market structure. A central feature of industrial districts is that they have a competitive market structure (You and Wilkinson 1994), characterised by a large number of autonomous firms, in which the prices and quantities of what firms produce and sell are determined by the market. IB theory refers to markets which even in their global context are dominated by few very large firms and are characterised by oligopolistic structure. Since the origin of IB theories in Hymer's (1960/1976) work, there has been a recognition of the particular market structure in which TNCs operate, and a realisation that the necessary conditions for perfect competition do not exist in these markets. This realisation provided the basis for one of the major tenets of FDI theory - the notion of market failure<sup>7</sup>.

The discussion so far highlights some notable general differences between IB and EG theories. It appears that ideas from EG theories might prove fruitful in explaining some aspects of the location

behaviour of TNCs which until recently have gone largely unexplored and for which the traditional IB models might be insufficient. In what follows we examine and attempt to test empirically the potential merit of such an approach.

### **The Introduction of Ideas from Economic Geography to International Business Theory**

Anecdotal observations suggest that TNCs exhibit strong patterns of geographical concentration within countries (see for example Dunning 1997a, fig. 3.1 for location of TNCs within the US. See also table 1 ahead). In some cases, TNCs are the main creators of such concentrations of economic activity. Examples are clusters created by Japanese motor vehicle and consumer electronic firms in the UK and the US, which were not initially attracted by a cluster of existing activities, but rather have helped create new clusters. More often, however, TNCs are attracted to existing centres of economic activity, which are centres of activities of indigenous firms and often contain the headquarters of TNCs originating from the country under consideration.

Yet, a priori, the applicability of concepts drawn from EG, which have been developed initially to explain the clustering of small and indigenous firms, to TNCs which tend to be large and are active in many countries and continents, might be questioned. It is not at all clear whether TNCs indeed benefit from various links with other firms based in the same location in a manner similar to the benefits accruing to small and indigenous firms. It might be that they are attracted to centres of economic activity because the latter possess particular location advantages rather than because of their desire to benefit from certain externalities in this area.

Due to the nature and magnitude of their activities, TNCs may have less need to take part in external agglomeration. They are often able to benefit from internal economies of agglomeration, by concentrating

particular activities in a limited geographic area, an ability which distinguishes them from small firms. For example, a major reason for the concentration of R&D activities in a centralised laboratory complex is the intention to gain such internal economies of agglomeration. GE's R&D centre in New York state (Business Week 1998) and BMW's research and engineering centre in Munich, which is the largest single concentration of vehicle engineering expertise in Europe (Cooke and Morgan 1998), are examples of such attempts to integrate R&D activities. These centres were established in order to use geographical proximity as a means of facilitating the circulation of knowledge and new ideas within the organisation.

TNCs are also distinguished from local firms by their ability to make use of, and apply locally, knowledge developed in other parts of the TNC, while the classical industrial district develops its own knowledge internally.

Furthermore, the ability of TNCs to take part in the dynamics of a location which creates economies of externalities might be constrained by several factors. Compared with indigenous firms, foreign affiliates have weaker ties to the location in which they operate, and they may have less need to take part in its dynamic. Moreover, foreign affiliates are not independent and their autonomy of action is constrained by their subordination to the parent company and its organisation and strategies. The more an affiliate is integrated into the TNC of which it is part, in terms of decision-making and functions, the less open it is likely to be towards its local environment. Unlike indigenous firms, which have close and direct links only to one dynamic - the local one - foreign affiliates are linked with two dynamics - those based on organisational learning that is internal to the TNCs, and those which rely on the learning dynamics of the territory under consideration (Dupuy and Gilly 1996, 1998).

The balance between these two forces, and consequently the extent to which TNCs can take part in the externalities of a location, is likely to

vary in line with the kind of the investment, the sector concerned, and some firm-specific attributes. In manufacturing industries, particularly in vertical FDI, in which the various activities along the value added chains are implemented by affiliates located elsewhere with a substantial amount of intra-firm trade, the links between the various parts of the TNCs tend to be stronger and the local dynamics might be weaker. When investment is horizontal, which is most often of the market seeking type, there is stronger need for interaction with the local environment and less need for close links with the parent firm and the TNC as a whole. By contrast, due to the non-tradability of most services, service affiliates tend to be a smaller replica of their parent firm and to produce the complete value added chain. Usually they also have a strong need for close knowledge of their clients and of the business environment in which they operate. These characteristics often lead to considerable independence and separation from the parent firm. Under such circumstances, the affiliate is likely to be more strongly involved with the locality. The nature and extent of the links with the locality vary also in line with the organisational structure within the TNC and the ways in which responsibilities are shared between the parent and affiliates and control is exercised.

At the same time, it has been argued that size and international activity by themselves may not disqualify a firm from participating in the social division of labour, the formation of external economies and agglomeration in a particular locality. There are cases where these outcomes are potentiated by the existence of large firms, especially where these are prone to much outsourcing and spin-off activity. Likewise, there might be no reason why such processes are confined to indigenous firms and why TNCs cannot take part in them as well. Scott (1992) has shown that large firms, many of which are TNCs, have frequently functioned as mainsprings of development and growth of high technology system houses in Southern California. Dunning (1992) argued that by investing in a centre of economic activity TNCs tend to reinforce the value of existing agglomerations of activity, though the overall impact is often ambiguous, and seems to



depend upon the type of activities in which a foreign affiliate is engaged and the extent to which it buys from local suppliers or sells to local consumers.

Recently there has been growing interest by economic geographers in the ways in which large multinational firms interact with industrial districts and in their role in inducing and sustaining agglomeration, as part of attempts to chart the impact of the increasing internationalisation of firm structures. It has been argued that traditional EG models, with their focus on small and locally-tied firms, have limited analytical power because they do not recognise the importance of emerging global corporate networks (see Amin 1993; Amin and Thrift, 1992; Dicken 1994, 1998; some of the papers in Amin and Thrift 1994; and in Lee and Wills 1997). These scholars argue instead that the world economy is constructed, to a significant and increasing degree, of a mosaic of regions consisting of localised networks embedded in global networks of transactions (Scott 1992; Amin and Thrift 1994). This form of localisation, which Amin and Thrift (1992) have termed 'neo-Marshallian nodes in global networks' (p. 571), is quite different from the traditional Marshallian one, in that the member firms have local linkages but also rely on global networking. In such conceptualisations, TNCs often play a facilitating rather than a destructive role (Scott 1992).

Scott's (1993) examination of the role of large firms in several high tech industries in Southern California provides some support for these arguments. Scott found that interfirm linkages cut across all firms based in the locality, regardless of their size, and that the large firms have some direct dependency on the dense networks of small producers throughout the region. Even large firms, whose main activity extends far beyond the boundaries of Southern California and most of them also beyond those of the US, seem to be dependent in critical ways on these local agglomeration economies. However, small and large firms were found to differ in certain some other aspects. In terms of informational intensity, small indigenous firms were found to

be far more likely than their larger counterparts to interact with other firms in the area. Likewise, while small and large firms alike are strongly linked in their upstream and downstream transactions to the local economy in terms of their suppliers and subcontractors, small firms sell larger shares of their output to clients located close to them than do large firms.

There has also been some interest by economic geographers in the ways in which the international activity of firms affects their links with the locality of which they are part, and whether firm's international links reduce the need, or substitute, for local links. In a study of technology-intensive firms in the Cambridge and Oxford regions Keeble et al (1998a) have found that firms which have successfully developed extensive international links show no evidence of reduced local links as a consequence. On the contrary, in several cases firms with intense international activity (defined as those exporting 50% or more of their 1995 sales and/or reporting that 50% or more of their collaborative inter-firm research activity is with overseas firms) recorded higher, not lower, local linkage intensities than their nationally-oriented counterparts. Internationalisation appears to be associated with above average levels of local research collaboration and networking, with both other firms and universities. Similar findings have also been reported by a team of European researchers, based on studies of technology intensive clusters of firms in several European countries (Keeble 1996).

These findings suggest that international firms are in fact, if anything, more dependent on and embedded within the local milieu provided by other firms, institutions and the local professional and scientific labour market than are their more nationally-focused counterparts. They thus may well reflect the importance of local embeddedness, of local access to expertise and technologies, in sustaining firms' technological innovation and leadership, including leadership in global markets, and they suggest the simultaneous, and perhaps

complementary, importance of both global and local networks for the competitive success of firms (Keeble et al 1998a).

It is only recently that IB scholars have begun to address such issues and to examine the applicability of ideas drawn from EG to their models and conceptualisations. This trend (which has often occurred without discovering economic geography!) signifies a break from conventional IB theory, in which the spatial aspects of some kinds of economic activity were usually considered secondary (if not thoroughly negligible).

As part of this interest, IB scholars (along with trade theorists and international political economists) have begun to acknowledge intra-country differences in terms of the abundance of the resources which provide the basis for the competitiveness of firms (Porter 1994; Enright 1998) and the significance of agglomeration economies in explaining the intra-country distribution of FDI (Dunning 1997, 1998). Increasingly more attention is being paid to the spatial aspects of value added activity, and these aspects are incorporated into mainstream thinking about the growth and competitiveness of firms and the economic structure and dynamic comparative advantage of regions and countries (see some of the papers in Grabher 1993, and in Chandler et al 1998). The dynamics of the firm and its interaction with related firms located in close proximity to each other are receiving increasing attention and agglomeration economies is being assigned considerable importance in affecting the competitive advantage of both the participating firms and of the regions and countries of which they are part. Attempts are being made to incorporate these concepts in the IB models and to test for their explanatory power for the sources of advantages of firms, the dynamic comparative advantage of countries and the resulting patterns of international business activity.

One of the earlier systematic attempts to introduce the links among firms as a critical source of their competitive advantages was

undertaken by Scandinavian researchers, notably of Uppsala University (earlier formulations are Forsgen and Johanson 1992, the papers in Forsgen and Johanson 1992a, Hagg and Johanson 1992, Johanson and Mattsson 1994. See also Mattsson 1998, Holm, Eriksson and Johanson 1996 for more recent elaboration). This approach conceptualises the firm as a dense network at the centre of a web of relationships, with no sharp dividing lines separating the inside of the firms from the outside. Production systems are structured as networks of multidimensional exchange relationships between actors who control heterogeneous, interdependent resources and carry out interlinked activities for production, distribution and consumption. Such a network structure implies a considerable degree of diffusion of boundaries between the firm and its environment, and flexibility in the extent to which firms can internalise or externalise specific functions within the production chain. The advantages of firms derive from establishing, developing and maintaining their position in the network, rather than from making the strategic choices which will maximise their return and the organisation needed to implement them, which was the dominating approach of the business literature.

There have also been some attempts to extend this approach to international business (Forsgern and Johanson 1992; Mattsson 1998), based on the argument that firms engage in international activity in order to establish, defend or develop positions in foreign networks of relationships. Until recently, however, they have been dealt with mainly in the context of industrial and international marketing research rather than of international production.

Organisational scholars have also started recently to introduce ideas of links among firms into their models and conceptualisations and have considerably advanced our knowledge about the nature and determinants of networks of related activities and how they affect the competitive position of firms. A key feature of the transnational solution in Bartlett and Ghosal's (1989) classification is their integrated network configuration and their capacity to develop

flexible co-ordinating processes. Such capabilities apply both inside the firm (the network of intra-firm relationships which, it is argued, is displacing hierarchical governance relationships) and outside the firm (the complex network of inter-firm relationships). However, these contributions have been slow to embrace the spatial dimension in their models. Less emphasis has been paid to the spatial aspects of the network and geographical proximity is not necessarily regarded as a condition for these processes to occur.

These issues have received the most elaborated treatment by scholars interested in the spatial distribution of technological innovation. The dynamism in Cantwell's (1989) conceptualisation of technological knowledge as accumulated, and thus tending to increase over time, is a form of agglomeration economies. The conclusion which Cantwell draws from this conceptualisation, namely that countries which were historically strong in a particular technological activity will tend to become more so over time (Cantwell and Janne 1997) is indeed what EG scholars predict, based on their conceptualisation of the accumulated nature of agglomeration economies.

Scholars in this school of thought regard the diffusion of knowledge as geographically bounded and as a process which becomes more effective when implemented in geographical clusters (Freeman 1991, 1995; Zander and Solvell 1995; Malmberg et al 1996; Patel and Vega 1998; Solvell and Zander 1998; Cantwell and Iammarino 1998). The very nature of the innovation process, characterised by the need for face to face contacts in order to improve communication in the creation and exchange of new ideas, suggests strong links to geography. The firm is seen as embedded in a system, in which no precise boundaries are defined, of interactions in the production, diffusion and use of new technologies, a system which thus determines the firm's innovative capabilities and performance. Networking and collaboration with other firms affect the location of technology activities and the nature of these activities of TNCs, in a manner similar to the processes which accrue within the innovative

milieu, as described by EG scholars (see for example Lawson 1997). Recent globalisation forces have not altered this process in any fundamental ways. In an increasingly global world the sustainable competitive advantage of firms has remained intimately linked to the dynamism of local systems of innovation, which are tied to countries, regions or cities (Lundvall 1992).

The importance of the links between firms and the spatial embeddedness of their activities are strongly echoed in Dunning's 'alliance capitalism' (Dunning 1995, 1997, 1998). Dunning argues that the growing significance of inter-firm partnering and networking is demanding a re-examination of traditional approaches to our understanding of the extent and form of international business activity and a need for 'reconfiguring the boundaries of international business activity' (Dunning 1997, p. 99). In particular, it requires consideration of the composition and behaviour of group of firms as an important determinant of the foreign activities of the individual firms comprising the network.

Dunning incorporates the idea of alliances between firms into the eclectic paradigm<sup>8</sup> and suggests how it should change each of its components, as traditionally perceived. Thus, the concept of Ownership advantages needs to be broadened to take explicit account of the costs and benefits derived from inter-firm relationships and transactions. The traditional assumption that the capabilities of the individual firm are limited to its ownership boundaries, and that outside these boundaries, factors influencing the firms' competitiveness are exogenous to it, is not acceptable when the activities of firms are significantly influenced by collaborative agreements which they have with other firms. The concept of location advantage needs to give more weight to the embeddedness of interdependent immobile assets in particular geographic areas, and the increasing need for the spatial integration of complex and rapidly changing economic activities. The idea that firms internalise intermediate markets primarily to reduce the transaction and co-

ordination costs of markets needs to be widened to encompass other goals<sup>9</sup>.

Within the FDI literature which sought to examine the determinants of the location decisions of TNCs there have also been some attempts to examine the location decisions of foreign affiliates within particular countries and to explain the uneven distribution of intra-country FDI<sup>10</sup>. Not surprisingly the focus of this research has been on the distribution of FDI between US states (Smith and Florida 1994; Glickman and Woodward 1988; Coughlin et al 1991; Friedman, Gerlowski and Silberman 1992; Head et al 1995; Lunger and Shetty 1985; Bagchi-Sen and Wheeler 1989; Woodward 1992). Evidence from other countries is not as plentiful. Examples include Dicken and Lloyd (1976), Dunning and Norman (1987), and Hill and Monday (1992) who explored the uneven regional distribution of FDI within the UK.

For the most part, however, these studies rely on an application of the factors usually considered to affect location decision at the level of countries to regions. The main variables identified in these studies to explain the intra-country distribution of FDI were market size, growth rate, the conditions of local labour markets and essential local infrastructure. Energy costs, state promotional expenditure to attract new investment, and retail spending were also found by a few of these studies as possessing certain explanatory power for intra-country distribution of FDI.

Along with specific location characteristics, some of these studies also included some measures of agglomeration economies and highlighted their significance in affecting the location decision of TNCs. Gross (1981) showed that the regional offices of TNCs in Latin America are often favoured by agglomeration economies, which may reduce the costs of distribution and production. Head et al (1995) found that the location decisions of Japanese affiliates in the US are undertaken in order to benefit from economies of agglomeration rather than in line

with inter-state differences in endowments of natural resources, labour and infrastructure. Wheeler and Moody (1992) found that agglomeration economies (proxied by infrastructure quality, degree of industrialisation, and stock of existing FDI) exhibit a high degree of statistical significance and have a large and positive impact on the location of FDI. When the sample of countries was split, US FDI was found to be affected almost exclusively by agglomeration benefits. In an analysis of Swedish outward FDI over the period 1975-1990, Braunerhjelm and Svensson (1995) found a positive and significant statistical relationship between that variable and the presence of externalities associated with demand and supply linkages, including the diffusion of knowledge resulting from a clustering of related firms. Evidence from China (Wei et al 1998, Gong 1995) suggests that agglomerated cities (proxied by an accessibility index, which is the sum of the population of the city concerned divided by the square distance between the city and each of the other major Chinese cities) have a better chance of attracting FDI than widely separated cities. However, such studies have remained until very recently outside the main stream of the literature which seeks to explain the location of TNCs.

In the rest of this paper I seek to make a contribution in this direction and to examine empirically one aspect of the link between the theories of EG and IB - the merit of externalities and agglomeration economies in explaining the location of TNCs.

### **The Choice of Financial and Professional Services**

For two main reasons financial and professional service industries are particularly interesting for the examination of these issues and were chosen to be the focus of the empirical analysis. First, unlike firms in many manufacturing industries, the advantages of financial and professional service firms are based entirely on intangible assets which are not physically tied geographically, and therefore there is no apparent reason for them to have links to any particular locality.



Nonetheless, there are strong patterns of concentration of firms in these industries, the reasons for which are not clear<sup>11</sup>.

Elsewhere I have documented the geographical concentration in professional service industries at the level of countries (Nachum 1999, chapters 3 and 5 in particular), and have shown that the internationally leading firms in most of these industries originate from a single or very few countries. I have also shown that differences among countries in terms of the location factors identified as most critical determinants of the competitiveness of firms in these industries provide some explanation for these patterns. However, these leading firms tend to concentrate in particular cities or metropolitan regions within these countries (table 1), which subsequently become the centres for such activity.

This pattern of concentration within countries is not confined to TNCs. Most of these clusters also house the domestic home base of the leading firms - including TNCs - in the sector. The geographic distribution of business activity in advertising provides an example of such concentration. In France, the 'Ile de France' area accounts for 80% of agencies' activity and 70% of the employees (French Advertising Association, 1993). In the US, expenditure on advertising reached about \$25 billion billings in New York and \$7 billion in Chicago, compared with less than \$5 million in Pittsburg, Baltimore, Milwaukee, Washington, Rochester, and Miami among others (Advertising Age, 1991). Certain characteristics of these leading centres make them attractive for both foreign and indigenous firms.

Moreover, there are strong patterns of concentration of both foreign and indigenous firms within large cities. For example, the one square mile of the City of London is the centre of financial services and Soho and Covent Garden are localised centres for advertising and media-related industries. Likewise, Manhattan is the centre for financial and professional activities within New York City. In the early 1990s, over 90% of jobs in finance, insurance and real estate and 85% of jobs in

business services in New York City were located in Manhattan (Sassen 1994). These patterns suggest that the relevant economic area which affects the nature of the advantages which firms in these industries develop is often smaller than a country and in many cases smaller than a whole city. Such patterns cannot be understood by analysis at the level of countries alone and they call for a combination of explanatory variables at the level of countries and regions (urban centres).

The second reason for my interest in financial and professional services in the context of the present study is that these industries provide a most interesting illustration of the combination of advantages drawn from regional (urban) and global scales, what Amin and Thrift (1992) named 'neo-Marshallian nodes in global networks' (p. 571).

During recent decades, the seemingly contradictory processes of rapid expansion of international activity and of urban concentration have increased in parallel to each other in most of these industries (see Nachum 1999 and Sassen 1994 for documentation of the former and the latter respectively). Consequently, while financial and professional service TNCs are increasingly concentrated in small areas within countries and cities, their orientation is toward the global economy rather than toward the local economy in which they are based. They have more in common with TNCs in their own centre and in other urban centres elsewhere than with other firms in their own countries (Drennan 1992, 1997; Sassen 1994; Crampton and Evans 1992; King 1990): as Drenner puts it: '... the economic fortunes of Birmingham and Manchester... may be less important for London's economy than the economic fortunes of New York and Tokyo' (Drennan 1997, p. 364). In such an economic world, the urban centres of excellence become somewhat dissociated from the national system in which they are based: 'London may be located geographically in the United Kingdom, but economically it may just as well be in international waters or in orbit' (Vogel 1993, p. 53)<sup>12</sup>.

This dissociation of TNCs in these urban centres from the countries in which they are located limits the explanatory value of country level analysis for the sources of the competitiveness of these firms. Urban and international level processes, rather than national level processes, appear to be more relevant for understanding their competitiveness. These developments are very apparent in financial and professional service industries, more than in most other service and manufacturing industries, making them a most interesting case for the study of the determinants of the location decision of TNCs.

### **Some Suggestive Evidence**

In order to examine the impact of agglomeration economies and externalities on the location decision of TNCs in financial and professional service industries, I develop and test a simple exploratory model of the link between inward FDI flows and proxies for location advantages and agglomeration economies. The theoretical basis for this link is drawn from both EG and IB theories. In IB theory, inflows of FDI are related to the location advantages of the host countries concerned. Firms invest in countries which are locationally advantageous in their particular industry. This theoretical proposition has been confirmed by large number of empirical studies (see UNCTC 1992 for survey of the literature and Jun and Singh 1996, Nunnenkamp 1997, for more recent examples). I add to this conventional link within the IB literature measures of agglomeration economies to see whether they are related to the locational patterns of inward FDI. EG theories predict that firms are attracted to centres of economic activity within particular countries to benefit from agglomeration economies which accrue to firms located in proximity. While in its original formulation, this proposition relates to indigenous, typically small firms, I apply it to TNCs to see whether, and to what extent, it appears to affect their location decisions.

These variables are measured as follows:

- Inward FDI - measured by number of foreign affiliates and employment in foreign affiliates in particular industries.
- Agglomeration economies and externalities - proxied by volume of economic activity (total employment)<sup>13</sup> and the possible extent of networking between firms (average size of firms) in the industries concerned. This last proxy is based on the argument that the extent of networking tends to be related to the size of firms and flourishes particularly in localities populated with smaller firms.
- Location economies, proxied by the growth of domestic demand (Gross State Product: GSP<sup>14</sup>) over the last 5 years, and the quality of the local employees (output/employee) in the geographical area concerned in particular industries. Elsewhere I have developed the theoretical arguments for these measures as the most powerful location advantages for service firms and have shown empirically their explanatory power for the competitiveness of firms in several professional service industries (see Nachum 1999, in particular chapters 3, 5 and 6).

The choice of financial and professional services raises the question of the applicability of concepts which were initially developed with reference to manufacturing activity to these industries. There has been a growing interest in this issue by both IB and EG scholars.

The applicability of location advantages in explaining variations in international activity in service industries has attracted much research attention from IB scholars over the last few decades, in response to the rapid expansion of international activity in these industries (it was estimated that in the mid-1990s, services account for well over 50% of the total world stock of FDI (UNCTAD-DTCI 1997)). Several studies have examined this issue for various service industries, most often in the broader context of the applicability of the eclectic paradigm to

service industries (for example, Enderwick, 1989, for engineering consulting firms, West, 1996, for advertising agencies, and Spar, 1997, for law firms). These studies have shown that the three strands of the paradigm explain successfully the propensity of service firms to engage in international activity. Yet the application of the theory to specific industries often requires some adaptation to take account of the unique nature of ownership, locational and internalisation advantages in these industries. This, however, is not specific to services, as these factors are indeed specific for all industries, or small groups of closely related industries.

The location of service firms has attracted much attention from EG scholars, who have sought explanations for the concentration of these firms in particular localities (see for example, Keeble et al 1993; Bryson 1997). These scholars have acknowledged the limitations of some of the factors highlighted by EG theories in explaining agglomeration when applied to service industries (such as economies of scale, disintegration, flexible specialisation). There is nonetheless a widespread consensus that service firms benefit from the external economies created by agglomeration (see for example Daniels 1993; Hermelin 1998). In this respect, major factors cited to explain metropolitan clusters of these firms include access to well-established general infrastructure (for transport, communication, office buildings), access to a wide range of skills and expertise within large metropolitan labour markets, and benefits from localised knowledge spill-overs, as well as the very important advantage of proximity to clients. To conclude, both concepts seem to apply to service industries but their application requires some adjustments to acknowledge the unique characteristics of these industries.

The USA is the only country which publishes FDI data for financial and professional service industries at an intra-country spatial level (that is, at the level of individual states), and it is therefore the only country for which the theoretical link established above between inward FDI and location advantages and agglomeration economies

can be examined empirically (table 2). Such data is available only for 1987 and 1992. All US states for which data is available are included.

The main lesson from the results of correlation analysis of the selected variables is that the proxies of agglomeration economies - total number of establishments and employment - correlate most strongly with both measures of FDI activity in individual states. The correlation coefficients of these variables are far higher than those for all the other measures, which show very low, sometimes negative, relations to inward FDI. Interestingly, agglomeration economies correlate more strongly with professional services FDI than with its financial services counterpart. Also the correlation coefficients for firm size (as a proxy for the intensity of networking) tend to be higher in the case of professional services compared with financial services. This suggests that agglomeration advantages are more influential for professional services FDI than for financial services, a finding which is not surprising, given the closer links of professional services to the locality in which they operate. Such links may be less critical in financial services, in which proximity to clients and knowledge of local norms and tradition may play a less important role, and in which recent technological developments have arguably diminished the role of geography (O'Brian, 1992). A further indication of such a trend may be evident in the decrease in the strength of the correlation of the two proxies for location advantages - GSP growth and output/employees - from 1987 to 1992 in financial services. This suggests that over this period the activities of financial service firms have become less tied to the locality in which they operate. No similar change has however occurred in professional services FDI.

In order to examine possible links between inward FDI and location advantages and agglomeration economies, and to obtain some indication of the nature of the relations between them in influencing the location of financial and professional TNCs, I constructed a model which assumes a causal link between inward FDI as the dependent variable (measured by number of foreign affiliates in a given state)

and the proxy measures for agglomeration economies and location advantages presented above. The model is estimated for financial and professional service industries, at the two points of time for which data is available (1987, 1992) (table 3). In light of the limitations of the data and the resultant proxy variables which have had to be used, the model should be regarded as no more than suggestive and exploratory. At best, it may help to indicate the general directions and broad order of magnitude of relationships rather than providing proof of any reality or theory.

The findings of the analysis in table 3 provide additional support for the argument that agglomeration economies on the location patterns of inward FDI to the USA in financial and professional services. The most powerful explanatory variable is agglomeration economies whose explanatory power exceeds by far that of all the other variables included. The two measures of location advantages, commonly regarded in FDI literature as the most powerful determinants of the international location decisions of TNCs, are not significant. These findings suggest that externalities which are tied to a specific locality may play a significant role in the location patterns of financial and professional service TNCs. They also provide some insights regarding the balance between the latter and other location factors as determinants of FDI to the USA in these industries.

### **Concluding Remarks**

The findings of this study suggest that a fuller understanding of the factors which affect the location patterns of TNCs require appreciation of the advantages which these firms derive from their interaction with other firms based in the near locality, rather than only from the location advantages of the country as a whole. At the same time, the localities which provide the strong stimuli for TNCs are based in national territories and are ruled by sovereign nation-states, whose policies remain geographically grounded in their territories<sup>15</sup>. They are often dependent upon national policy for much of their

operating environment, and on public capital to create new resources. There are certainly relevant variations in policy, regulatory, legal, or general market environments from country to country, which affect the behaviour of firms. This suggests that a combination of national and regional conditions fosters the competitiveness of firms, and this combination should be acknowledged in attempts to reach a fuller understanding of the factors which affect the competitiveness of firms.

The highly significant explanatory power of the proxy variable for agglomeration economies adopted in our exploratory model suggests that, as agglomeration economies tend to give rise to virtuous circles, FDI may create a cumulative mechanism, in which past inflows of FDI engender current and future flows. This implies that countries and regions that already attract FDI are those most likely to continue to do so. The key policy issue for governments seeking to attract FDI thus becomes what needs to be done to create the virtuous circle in the first place. Any benefits received from attracting a single investment will be magnified by an increased probability of attracting subsequent similar investments. This is a novel and different approach from the policy recommendation drawn from the traditional IB model, in which the attraction of investments is treated on an individual basis, which ignores any links between them.

The findings of this research have important implications for our conceptualisations of the factors which affect the competitiveness of TNCs and shape the patterns of international business activity. The focus of the explanation for patterns of economic activity in IB has been the single firm and its firm-specific advantages. Location considerations were incorporated as a way by which the firm may best utilise its ownership advantages in different locations. The introduction of the spatial dimension of economic activity signifies some shift of this focus and a return to an importance of location which was a hallmark of classic and neo-classic trade theory.



The findings reported in this study also contribute to the on-going debate regarding the role of location, and particularly of the role of the home country, in affecting the competitiveness of firms (see Nachum 1999 for a review). The impact of agglomeration and externalities, which are strongly tied to a particular locality by their very nature, on the location decisions of TNCs found here, provides support for the arguments regarding the impact of particular locations on the competitiveness of firms. Furthermore, these findings suggest that the impact of location is often confined to particular regions of countries, an influence which was for the most part not captured by traditional analysis, based on countries as the unit of analysis. They thus suggest a need for re-examination of the relevant unit of analysis and the relevant location factors at work.

Much more research is needed to incorporate the logic of EG into IB models and to identify what it may explain that the IB models ignore or explain only partially. In particular, there is a need to extend our knowledge regarding issues such as the extent to which TNCs can integrate into local networks, and their ability to become insiders, just like any other firm in the geographical cluster. What may happen to the strength and sustainability of the local concentration of economic activity as a result of the activity of TNCs? Does the latter affect the nature of the advantages which local firms derive from this clustering and if so, in what way? To what extent, and in what specific areas, can well established TNCs build competitive advantage through integration with other firms? What are the kinds of advantages most likely to be affected by links with other firms? What are the implications of the introduction of ideas drawn from EG theories for the mobility of the advantages of firms, which is so central in the theory of IB?

Empirical examination of these issues requires improvements in our methodological tools. There is a need to develop and obtain more adequate and finer empirical indicators of the theoretical concepts drawn from EG to allow us to measure them meaningfully in an

international context and in particular to take account of their dynamic and accumulative nature. Due to the stage of research in this area, the findings reported by this study should be seen as suggestive and highly preliminary only.

## Notes

1. It was noted forcefully (Martin and Sunley 1996) that this separation was until recently particularly notable on the side of international economists and business scholars. While ideas from economics have been part of EG theories, business economists have been much slower to integrate ideas from EG in their conceptualisations. In the words of Martin and Sunley (1996): ‘...the relationships between economic geography and economics has long been an asymmetric one. In contrasting their theories and explanations of regional development, economic geographers have drawn freely on concepts and perspectives of different schools of economics; but, for their part, economists have tended to accord little if any attention to the role of geography in the economic process’ (p. 259).
2. Location advantages and agglomeration economies might get closer when there is a circular process, in which firms choose advantageous locations, but the decision of each individual firm to choose this particular location improves its advantages for other firms (through for example, improvement of the market and/or supply access).
3. This dynamic conceptualisation of agglomeration is more recent and its origin can be found in the work of Hirshman (1958) and Pred (1977) among others. Agglomeration as conceptualised by Marshall, and adopted by his immediate followers, was predominantly static and was regarded first and foremost as promoting increased efficiency of the transactions of goods and services that gives rise to benefits for firms located in proximity to each other.
4. It ought, however, to be emphasised that there is a central difference between Marshall and his modern followers in terms of the relative importance of individual firms and clusters of

firms. In Marshallian analysis the driving force of economic progress is the individual entrepreneur and individualistic initiative. The importance of the localisation of the production within industrial districts is that it creates an environment more favourable to individual success. Contemporary analyses of the success of local clusters of small firms put much greater emphasis than did Marshall on the collective basis for success. It is in these discussions of industrial districts that collectivity, in the form of inter-firm relationships and formal and informal institutions, plays a central role in fostering innovation and technology diffusion (You and Wilkinson 1994).

5. There is, however, a realisation among EG scholars that there are considerable differences in this respect among firms, with some firms substantially more independent and self sufficient and able to chose their location independent of the cluster (Storper and Harrison 1991: see also Scott 1988 for the location patterns of aircraft producers in Southern California).
6. There have been a few attempts within IB theory to question this assumption (Lall 1980; Hu 1995). These attempts identified several circumstances under which the advantages of firms are immobile across countries. Some advantages are not mobile because they are tied to a particular location, others may lose their value in different countries. However, the dominating assumption in the IB literature has remained that the advantages of firms are mobile geographically.
7. Issues related specifically to market structure and its impact on performance have remained somewhat underdeveloped in IB theories. They have been undertaken recently by the new Industrial Organisation literature, largely driven by the application of game theory, rather than by IB scholars (see Graham 1998 for review). Explicitly, however, IB theories refer to oligopolistic market structures. This neglect by IB scholars is

quite surprising, given the origin of IB theory in Industrial Organisation, but this issue is well beyond the scope of this paper.

8. The eclectic paradigm is a theoretical framework constructed to explain the propensity of firms to undertake foreign investment. The paradigm predicts that this propensity is dependent on three factors: the possession of firm-specific advantages which can be exploited in foreign countries (ownership advantages), the availability of some immobile advantages in foreign countries (location advantages), and the perception of firms that it is more beneficial for them to exploit their advantages through an extension of their own operation than through any form of contracting (internalisation advantages).
9. Internalisation theory has traditionally acknowledged the linkages between firms more than any other body within FDI theory. Some scholars within this stream of literature have considered co-operative arrangements among firms as alternative to fully owned affiliates and as a form of quasi internalisation (see the papers in Beamish and Killing (eds.) 1996). Yet for the most part, this literature has been dominated by a market/hierarchies transaction costs model, with such arrangements being perceived as a point on a continuum between arm's length markets and complete hierarchies.
10. Notably, many of these studies have been carried out by economic geographers rather than by IB scholars.
11. The often cited reason for the concentration of professional service firms, namely the need to be located in proximity to their clients (see for example, Wood 1995), has been questioned recently on the grounds that there seems to be no link between the location decisions of these firms and those of their clients (Sassen 1991; Hermelin 1998). For example, despite the fact that

New York and London have continued to lose corporate headquarters throughout the 1980s and early 1990s, the number of people employed by professional service firms based in these cities which serve these headquarters expanded steadily (Sassen 1991, 1994). Hermelin (1998) has shown that although proximity to clients is important, it offers only a partial explanation of the location of a sample of Swedish firms in several different professional services industries.

12. Such economic dissociation of cities from the countries in which they are located is most apparent in the case of London and the UK. The growth of London as a trading and financial centre in the 18th and 19th centuries went hand in hand with the growth of the UK after the Industrial Revolution and the development of its largest overseas empire, but it did not follow its decline during the 20th century. On the contrary, the City of London has held its own fortune in recent decades as a major global financial centre. Thus while Britain is no longer one of the world's largest industrial nations, London is unequivocally one of the three major centres of global financial and professional services activity. This economic divergence between London and the rest of the UK is seen for example in the differences in their level of development and growth. In 1998, GDP per employee in London was about 36% higher than the UK average, a rise from 29% in 1994 (The Economist 1998).
13. The rationale for this choice is that a large volume of employment captures a range of externalities taking place in a particular locality which are related to better access to specialised inputs of various kinds, such as skilled employees, specific expertise, and opportunities for collaboration with other firms.
14. The output of financial and professional services is, for the most part, not internationally traded, and much of it is consumed

locally. This is particularly the case for professional services. Financial services are traded to a larger extent and their tradability has increased recently with advances in new telecommunication and data-processing technology (UNCTAD-DTCI 1994). Nonetheless, most of the output of US financial service firms is sold in the USA (Survey of Current Business 1997). The generalisation of US data to other countries, in this context is particular, is of course problematic. Therefore domestic production can be used as a reasonable proxy for domestic consumption.

15. An example of an activity at the national level which affects TNCs based in urban centres is the UK's stance on EMU, which, if continued, might threaten the strength of London as a financial centre (see for example *The Banker* 1997).

## TABLES



**Table 1. Headquarters location of the top TNCs in selected professional and financial service industries, 1990, 1995**

Number of firms in the top 50 (\*) (in parentheses the total number of firms in the top 50 from the country in which the city is located)

City	Advertising		Law	Accounting		Banks	
	1990	1995	1995	1990 **	1995 **	1990	1995
New York	10 (19)	8 (20)	9 (32)	11 (14)	9 (14)	2 (3)	4 (7)
Chicago	2 (19)	3 (20)	7 (32)	2 (14)	1 (14)	-	-
Los Angeles	-	-	4 (32)	-	-	-	-
London	5 (5)	4 (4)	12 (12)	11 (11)	19 (19)	5 (5)	4 (4)
Paris	3 (5)	3 (3)	1 (1)	-	4 (5)	6 (6)	7 (7)
Tokyo	13 (15) (***)	12 (13) (***)	-	-	-	11 (16)	12 (17)
Seoul	2 (2)	5 (5)	-	-	-	-	-
Sydney	-	-	6 (6)	-	1 (1)	1 (1)	-(1)
Others	15	15	11	4	9	25	23

(\*) Advertising agencies and accounting firms are ranked according to total world-wide revenues (gross income in advertising). Banks are ranked according to assets. Law firms are ranked according to number of partners (revenues are the main measure for size of law firms, but because most law firms are organised as private partnerships, information on revenues is usually not publicly available).

(\*\*) 1990 data on the top 28; 1995 data on the top 43.

(\*\*\*) All other leading Japanese advertising agencies are based in Osaka.

Sources: Advertising Age "World's top 50 advertising organisations" March 25 1991, April 15 1996; International Financial Law Review "50 largest law firms" October 1996; International Accounting Bulletin "The world's largest accounting groups" December 13 1996, December 10 1990; The Banker "Top 1000 banks in the world" July 1991, July 1996.

**Table 2. Correlation ratios between inward FDI and various proxies for location advantages and agglomeration economies**

Inward FDI to the USA in financial (SIC 60) and professional (SIC 73)<sup>1</sup> service industries, 1987, 1992  
Pearson correlation coefficients

States characteristics	Financial services 1987		Financial services 1992		Professional services 1987		Professional services 1992	
	establis(*)	employ(**)	establis.	employ.	establis.	employ.	establis.	employ.
Establishments	0.8647	0.8695	0.8897	0.7772	0.9764	0.9348	0.9698	0.9390
Employment	0.8395	0.8586	0.9298	0.8651	0.9649	0.9527	0.9808	0.9463
Firm size	0.1020	0.1612	0.2992	0.3321	0.2940	0.3118	0.3826	0.1625
GSP (***) growth	0.2008	0.2326	0.0320	-0.0495	-0.0774	-0.0396	-0.0457	-0.0397
Output/employee	0.2869	0.3265	-0.0884	-0.3307	0.0667	0.0061	0.0079	-0.0915
N	34		34		34		34	

(\*) Number of foreign affiliates

(\*\*) Employment in foreign affiliates

(\*\*\*) GSP - Gross State Product

Sources of data: US Dept. of Commerce, Bureau of Economic Analysis, Foreign Direct Investment in the US: Establishment data for 1992, 1987 (with the Bureau of the Census) and Gross State Products, 1977-1996 (US Dept. of Commerce, Washington D.C.)

<sup>1</sup> Agglomeration economies and other externalities are likely to be sensitive to the level of industrial aggregation used (see Moomaw 1998 for a detailed discussion). When comparing estimates based on 2- and 3-digit levels of classification, Moomaw (1998) found that estimating agglomeration economies at the 2-digit level does not exaggerate their importance.

**Table 3. Location advantages and agglomeration economies as explanatory variables for inward FDI to the USA in financial and professional service industries**

Regression statistics

Explanatory variables		Coefficients (t-stat. values)
Constructs	Operational measures	
Intercept		20.545 (0.234)
Agglomeration economies	employment	0.001 (17.590)(*)
Networking	size of firms	-8.977 (-1.780)
Domestic demand	GSP growth (5 years)	21.708 (0.441)
Quality of the employees	output/employee	347.387 (1.039)
Adjusted R <sup>2</sup>		0.716
Significant F		8.53E-36
Standard Error		164.460
N		136

(\*) significant at 2.66E-36 level.

Sources of data: as for table 2.

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