GLAECONOMICS

London and Foreign Direct Inward Investment

Case for London Technical Report 2

Transport for London

LONDON DEVELOPMENT AGENCY

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London and Foreign Direct Inward Investment in the United Kingdom: Introduction

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Executive Summary

London Economics was commissioned by Greater London Authority (GLA) Economics to undertake a study on how London as a world city contributes to attract foreign direct inward investment (FDI) into the United Kingdom, and the factors that may reduce London's attractiveness to FDI in the future.

Generally, FDI is viewed as being beneficial to the UK economy at both the national level and the regional level. Some studies address FDI into London in specific industries, but there is none that examines the London economy across all sectors.

This report reviews recent trends in direct foreign inward investment into London, examines the impact and drivers of such investment and discusses some potential threats to sustaining recent trends.

Some facts about FDI

The United Kingdom is one of the top world destinations of FDI. In terms of the overall stock of inward investment, the United Kingdom typically ranks second or third in the world, behind the USA and in competition with Hong Kong. However, in recent years a number of EU Member States attracted a growing share of FDI inflows into the European Union, suggesting that the United Kingdom may face stiffer competition in the future in attracting foreign inward investment.

Within the United Kingdom, the foreign inward investment is heavily concentrated in a few sectors. Financial services, transport and communication services, retail and wholesale trade, mining and quarrying and real estate and business services account, according to the latest available data, for 66% of the stock of foreign inward investment and 75% of the inflows over 1998-2001. Within this, the importance of real estate and business services in attracting FDI has grown substantially.

London's contribution to the UK economy

London accounts for 16.4% of total UK gross valued added, somewhat more than its shares of population and employment: 12.2% and 12.4%, respectively. This broad characterisation considerably understates the importance of London to the UK economy in a number of sectors, especially financial services, where, in 2000, London's share of national output was 32.7%, other services (sanitation, personal, etc) at 25.8%, real estate and business services at 24.4%, transport and communication services at 21.6% and hotels and restaurants at 19%.

Of note is the fact that a number of these sectors (financial services, transport and communication services, real estate and business services) are all key attractors of FDI. These three sectors accounted for just over 50% of total FDI inflows into the United Kingdom over 1998-2001. This suggests that London has made a major contribution in attracting FDI to the United Kingdom.

London a distinct city

An analysis of the networks established by major financial and business service firms shows that London is the prime global business service centre in the world and ranks with Paris, New York and Tokyo as one of the top world cities, just ahead of Chicago, Frankfurt, Hong Kong, Los Angeles, Milan and Singapore.

In terms of the intensity and density of networks, London is substantially ahead of any other major European city. Moreover, no other city in the United Kingdom comes even close to achieving a similar status with Manchester, the second highest rated city in the United Kingdom, being ranked only 101st among the major world cities.

In short, London is a city that is highly distinct from any other city in the United Kingdom and almost all other cities in Europe. It may therefore hold special appeal for foreign investors seeking to locate business activities in the United Kingdom or, more broadly, in Europe.

FDI into London

Data from UK-Invest, the government agency responsible for promoting the United Kingdom as a business location to potential foreign investors show that, over the last three years, London accounted for 22.7% of all new foreign investment project assisted by the agency. London's performance was particularly strong with regards to non-manufacturing inward foreign investment, which accounted for almost 32% of all new foreign investment projects. On the basis of these data, one may conclude that London exerts a particular pull on FDI, particularly in the services sector.

Unfortunately, the UK-Invest data cover only those FDI projects that, in one form or another, received some assistance from the agency. As a result, it does not represent the full universe of FDI as many projects go ahead without any assistance.

While there exists no comprehensive official source of information on the regional distribution of FDI, complementary information is provided by the *European Investment Monitor* databank that includes all new direct foreign inward investment projects into Europe announced by companies, worldwide.

Even this databank is incomplete as it excludes investments in retail, hotels and leisure facilities, utility or communications fixed infrastructures and the extraction of ores, minerals and fuels. However, because of its pan-European coverage it allows one to undertake a detailed analysis of FDI on a city-by-city or region-by-region basis, and thus uncover London's comparative advantage in certain sectors.

Unsurprisingly, London is the strongest European city in finance and business services, attracting the most FDI projects in the financial intermediation, business services, insurance and pension, security broking and software sectors. London receives the most projects in sophisticated manufacturing sectors as well, especially electronics, computers and pharmaceuticals. However, the projects in these sectors cover activities such as sales and marketing rather than production facilities. Indeed the types of projects that London attracts are almost exclusively sales and marketing and headquarters location. It does not attract many projects for manufacturing or contact centres. It is also apparent that London attracts projects that are small as measured by the number of jobs created.

In terms of attracting FDI, the cities that seem to be London's main rivals are Barcelona, Dublin, Paris and Frankfurt. In the United Kingdom, London shows up as the prime financial centre destination even more, with other regions attracting FDI in large manufacturing projects and contact centres that are labour intensive.

Benefits of FDI

A key policy issue is whether inward FDI has any beneficial effects for the host economy besides the employment and output created by the new investment. The economic literature tends to conclude that, overall, inward FDI has wider positive effects. Employment at foreign-owned establishments seems to be more stable than at domestically-owned plants, though, in light of adverse economic developments, multinationals may be more prone to exit a host economy than a domestic firm. Inward FDI into industrialised countries also contributes to improve the trade balance. Finally, and perhaps most importantly, inward FDI is thought to have a number of positive spillover effects in terms of boosting productivity of domestic firms and making the economy more efficient.

Impact of FDI on the UK economy

There is a broad consensus that foreign-owned establishments in the United Kingdom post significantly higher productivity than indigenous establishments. Foreign-owned establishments are more capital intensive and use a more skilled labour force than their domestically-owned counterparts. However, differences in factor usage do not explain all of the difference in productivity performance. In other words, foreign-owned establishments have an inherent productivity advantage.

Regarding potential productivity spillovers, the evidence suggests that, on balance, such spillovers exist in the United Kingdom but are perhaps limited to domestic establishments where the technology gap relative to the foreign-owned establishments is small. In other words, the absorptive capacity of domestically-owned establishments is a critical factor in the materialisation of such spillovers.

Moreover, contrary to popular belief, the limited empirical evidence suggests that productivity spillovers are more likely to be found at the competitors and customers of the foreign-owned plants than at their suppliers.

Drivers of FDI

A review of the literature of the determinants of FDI shows that a number of factors may affect the level of FDI flowing to a country. These are a) geographical and economic factors such as the size of the accessible market, the distance between host and home country, relative endowments of factors, b) openness factors such as the exchange rate regime including currency union, participation in free trade areas, trade barriers, etc, c) product market regulations, d) subsidies to FDI, e) labour market legislation, f) state of the economy's infrastructure, g) agglomeration of FDI and clustering of activities and h) the quality of the national innovation systems.

Not all these factors have been conclusively found to encourage FDI. In some case opposite results were obtained by different studies. Nevertheless, the list above provides a useful checklist of factors that could influence FDI inflows and would thus need to be closely monitored.

London's attractiveness to FDI and emerging threats

London is viewed at the present time as one of the top world and European business locations. However, a number of threats are emerging that could endanger London's premier FDI status. These are the weak performance of London in the new

knowledge economy, serious concerns about a range of quality of life issues such as state of local transportation, education, housing and medical facilities and the high cost of office space.

Policy implications

The policy implications of our review are simple.

First, and foremost, given the potential importance of agglomeration and clustering of economic activities for attracting new FDI, it will be critical to pursue economic policies that do not result in outflow to other parts of the United Kingdom or elsewhere in the world of existing foreign investment in London.

In addition to the economic and social problems that may arise directly as a result of such an outflow of existing foreign investment in London, weaker agglomeration and clustering effects could indeed reduce the attractiveness of London as a business location.

Such an outflow of foreign direct investment form London does not appear to be imminent, but it would be essential to guard against such risk in the future by pursuing economic policies that are supportive of current key agglomeration and cluster sectors.

The weak performance of London in the knowledge-economy may constitute more of a longer-term threat as it may gradually erode the incentive to locate in London. At the present time, there exist in London a number of clusters of IT and creative industries firms. Economic policies that encourage the growth of such clusters would directly contribute to attracting further FDI into these sectors. It is likely that such policies will also contribute to the broadening of London's knowledge-economy base and thus could also indirectly improve London's attractiveness for knowledge-intensive FDI.

Other existing clusters in financial services, legal services and other business services will need to be nurtured, supported and grown in the future, in part through attracting further FDI into these economic activities. Such developments are mostly within the realm of the private sector. However, concerns raised by representatives of such clusters regarding London's quality of life issues, such as the state of local transportation, housing, education and medical facilities, would need to be addressed if these clusters are expand in the future.

Obviously, any policies that address these issues will benefit new domestic and foreign investment inside and outside the cluster. In fact, they would ensure that London remains the premier business location in Europe.

Introduction

London Economics was commissioned by Greater London Authority (GLA) Economics to undertake a study on how London as a world city contributes to attract foreign direct inward investment (FDI) into the United Kingdom, and the factors that may reduce London's attractiveness to FDI in the future.[1]

There is a broad consensus among economists that, overall, FDI into the United Kingdom has made a significant positive contribution to the performance of the UK economy and in raising standards of living.[2] At issue, however, is whether London and the United Kingdom will continue to remain one of the world's top locations for inward investment.

Only very few studies have so far focused specifically on FDI into specific regions of the United Kingdom or on the distribution of FDI across UK regions. Some of the studies in this field are those by Braidford et al. (2001), Brand et al. (2000), Hill and Munday (1992, 1994), Munday (1990), Gillespie et al. (2001), Phelps et al. (2003), Turok (1994), Young et al. (1988, 1994).[3] The focus of these studies is either on the Northeast, Scotland or Wales, or on the overall geographical distribution of inward foreign investment. None focus on London and its attractiveness to foreign investors.

Moreover, as far as we are aware, there exists no systematic and comprehensive study of the nature and determinants of FDI into London. However, Cullen-Mandikos and MacPherson (2002) examine FDI into legal services in London, Nachum and Wymbs (2002) do so for financial and professional services and Nachum and Keeble (2000, 2001) for the film and media industry.

The purpose of the present study is to provide a broad overview on the role of London in the United Kingdom's FDI performance. More specifically, the present study highlights:

- the contribution London makes in drawing foreign inward investment to the United Kingdom
- the benefits to the whole of the United Kingdom arising from this FDI into London
- the factors that encouraged foreign investors to locate in London

[1] Originally, the study aimed to focus on London and mobile investment in general, irrespective of whether it was foreign inward investment or potential outward UK investment. However, following a quick review of the literature, it became apparent the determinants of both types of investment flows differed significantly (see, for example Ietto-Gillies (1996) and Nachum et al. (2000). As a result, the report focuses on direct foreign inward investment. That being said, some of the threats to future foreign inward investment into London affect also domestic investment in London. Thus, the policy recommendations that are put forward later in this report and aim to address some of the threats to future foreign inward investment will also help to attract further domestic investment into London.
[2] See, for example, DTI (1998), Eltis (1996), Eltis and Higman (1995), Barrel and Pain (1997, 1999) and Hoeller et al. (1998), Pain (2001) and Proudman and Redding (1998).
[3] As well, some of the Regional Development Agencies (RDAs) have started to examine more closely trends and determinants of foreign direct inward investment into their own region.

- the factors that may deter foreign investors from investing in London in the future.

The structure of the report is as follows:

In Chapter 1 we define more precisely the concept of FDI and present a short overview of key FDI trends into the UK.

In Chapter 2, we discuss how, in many respects, London is a city distinct from all other cities in the United Kingdom.

Chapter 3 provides some data about FDI into London and compares London's performance to that of other regions of the United Kingdom and major competitors in Europe.

In Chapter 4, we discuss some of the findings from the literature regarding the impact of FDI and regional spillovers.

Chapter 5 provides an overview of the key location drivers of FDI.

In Chapter 6 we review how London rates in terms of these drivers.

We offer some policy conclusions in Chapter 7.

Finally, concluding remarks are set out in Chapter 8.

1 Foreign direct inward investment: definition and recent trends

In this chapter we define more precisely the concept of foreign direct inward investment and present some facts about the UK's performance in attracting foreign direct inward investment and the distribution of this investment across the various sectors of the UK economy.

1.1 Definition

Foreign direct inward investment into the United Kingdom is a direct investment by a non-UK enterprise in enterprises and businesses located in the United Kingdom that is financed through funds provided by the foreign investor. The direct investment may be a green-field operation, an extension of an existing foreign-owned enterprise or business or an acquisition of an existing UK-owned enterprise or business.

More precisely, according to the United Nations Conference on Trade and Development (UNCTAD):

'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 implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. FDI may be undertaken by individuals as well as business entities.

Flows of FDI comprise capital provided (either directly or through related enterprises) by a foreign direct investor to an FDI enterprise, or capital received from an FDI enterprise by a foreign direct investor. There are three components in FDI: equity capital, reinvested earnings and intra-company loans'[4]

It is important to note that only capital provided directly by foreign investors is considered foreign direct inward investment. Any additional funds raised in the host economy by the foreign-owned business entity are not considered to be foreign direct inward investment.

For simplicity, foreign direct inward investment will henceforth be referred to as FDI in this report. FI can be measured in terms of flows or stock. The flow measure provides information about the amount of new FDI that has taken place during a given reference period, say a year. In contrast, the stock measure essentially provides information on the total amount of FDI that exists in a country at a given point in time, say on 31 December, and broadly reflects eh cumulative sum of past inflows.[5]

[4] UNCTAD definition of FDI is given on UNCTAD's website http://r0.unctad.org/en/subsites/dite/fdistats_files/sources_definitions.htm and was downloaded on 25/10/2003.

[5] More precisely, accumulated retained earnings of the FDI projects would also be taken into account in calculating the FDI stock level.

1.2 Trends of FDI into the United Kingdom

The UK is one of the top world locations for FDI (see Table 1.1). In 2002, the United Kingdom posted the second highest level of inward FDI stock in the world. Moreover, the United Kingdom was generally among the top three countries in terms of inward FDI stock over the last 20 years. Typically, Hong Kong and the United Kingdom vied for the second and third place with Germany appearing, exceptionally, in top three in 2000.

Within the European Union, the United Kingdom accounted in 2002 for 24.3% of the whole EU-wide stock of inward FDI while Germany's and France's shares were about one-third lower (see Table 1.1). Of note is the fact that, in 1995 and to a lesser extent in 2000, the three countries' shares of the EU-wide inward FDI stock were much closer, suggesting that the United Kingdom's comparative advantage in attracting inward FDI may be under pressure in the future. In fact, as shown in Table 1.2, the United Kingdom no longer systematically attracts the highest level of new inward FDI flows into the European Union.

While the annual figures in Table 1.2 may be somewhat distorted by major cross-border mergers and acquisitions, they are nevertheless reflective of a general trend of a broader dispersion across a wider range of EU Member States of total FDI inflows into the European Union.

Table 1.1: Stock of inward FDI in the UK and other selected other countries

	1980	1985	1990	1995	2000	2002
Level of stock of inward investment in: (Millions of $)						
United States	83,046	184,615	394,911	535,553	1,214,254	1,351,093
United Kingdom	63,014	64,028	203,894	199,760	435,422	638,561
Hong Kong	177,755	193,219	201,652	227,532	455,469	433,065
Germany	36,630	36,926	119,618	192,898	470,938	451,589
France	25,927	36,701	86,845	191,899	259,775	401,305
Stock of inward FDI in the EU						
Share in % of total stock of inward FDI in the EU						
United Kingdom	29.0	23.9	27.2	17.6	19.4	24.3
Germany	16.8	13.8	16.0	17.0	21.0	17.2
France	11.9	13.7	11.6	16.8	11.6	15.3

Source: UNCTAD, World Investment Report 2003

Table 1.2: Inflow of FDI into the United Kingdom and other EU Member States

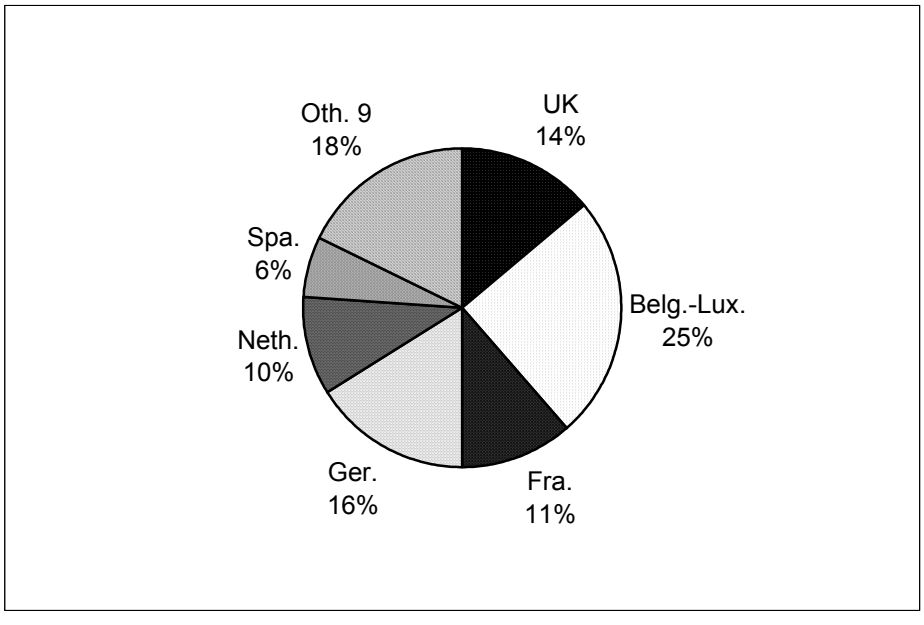
(Millions of $)

	1997	1998	1999	2000	2001	2002
United Kingdom	33,329	74,324	84,238	130,422	61,958	24,945
Austria	2,654	4,533	2,975	8,840	5,883	1,523
Belgium and Luxembourg	11,998	22,691	119,693	88,739	88,203	143,912
Denmark	2,801	7,730	16,700	32,772	11,486	5,953
Finland	2,199	2,040	4,581	8,015	3,732	9,148
France	23,174	30,984	46,545	43,250	55,190	51,505
Germany	12,244	24,593	55,797	203,080	33,918	38,033
Greece	984	85	571	1,089	1,589	50
Ireland	2,172	8,579	18,500	26,447	15,681	19,033
Italy	3,700	2,635	6,911	13,375	14,871	14,454
Netherlands	11,132	36,964	41,187	60,313	51,244	29,182
Portugal	2,477	3,144	1,234	6,787	5,892	4,276
Spain	7,697	11,797	15,758	37,523	28,005	21,191
Sweden	10,968	19,836	60,853	23,239	11,780	11,081

Source: UNCTAD, World Investment Report 2003

In fact, over the last three years (ie, 2000 to 2002), the United Kingdom's share of EU-wide inward FDI flows was only 13.9%, well below the share of 24.7% posted by Belgium-Luxembourg and somewhat below Germany's share of 16.2% (Figure 1.1).

Figure 1.1: EU Member States' share of EU-wide inward FDI flows – Average 2000 – 2002



Source: UNCTAD, World Investment Report 2003

1.3 Sectoral distribution of FDI into the United Kingdom

Within the United Kingdom, the stock of inward FDI is heavily concentrated in a few sectors such as financial services, transport and communications, retail/wholesale trade & repairs, mining and quarrying (including oil and gas), and real estate and business services. Together, these five sectors accounted for almost 66% of the total stock of inward FDI over the period 1998-2001 (see Table 1.3).[6]

Moreover, the importance of these sectors as sectoral recipients of inward FDI in the United Kingdom is growing. If one focuses on recent annual inflows of FDI into the UK economy, one observes that the same sectors accounted for almost 75% of all FDI inflows into the United Kingdom over the period 1998-2001 (see Table 1.4).

Within these five key sectors, two facts are worth noting:

In recent years, the transport and communications sector has become relatively more important than the financial services sector in terms of attracting a larger share of total FDI inflows in the United Kingdom.

The importance of the real estate and business services sector has grown sharply in recent years, with the sector's share of FDI inflows being 30% larger, on average over 1998-2001, than the sector's average share of the stock of inward FDI over the same period.

While FDI inflows occurred in all sectors of the UK economy, the statistics show clearly that a handful of sectors account for the bulk of recent FDI inflows into the United Kingdom. As will be seen in the next chapter, London is an important host of many of the five economic sectors that are key to attracting a large volume of FDI. As a result, London is likely to be an important contributor to the United Kingdom's overall inward FDI performance.

[6] Data are only available to 2001 at the present time.

Table 1.3: Sectoral distribution of stock of inward FDI into the United Kingdom, 1998 – 2001

Sector's share of total inward FDI stock into the UK – average over 1998 – 2001			
Sector	Share in %	Sector	Share in %
Financial services	20.6	Other manufacturing	3.4
Transport and communications	14.5	Transport equipment	3.2
Retail/wholesale trade & repairs	10.8	Office, IT & telecommunications equipment	2.8
Mining and quarrying (incl. oil and gas)	10.8	Food products	2.6
Real estate and business services	8.5	Other services	2.3
Chemical, plastic and fuel products	5.5	Hotels and restaurants	1.7
Textile and wood, printing & publishing	5.0	Construction	0.6
Electricity, gas & water	3.9	Agriculture, forestry and fishing	0.1
Metal & mechanical products	3.8		

Source: National Statistics, Business Monitor MA4, Foreign Direct Investment 2001

Table 1.4: Sectoral distribution of flow of inward FDI into the United Kingdom, 1998 – 2001

Sector's share of total inward FDI flow into the UK – average over 1998 – 2001			
Sector	Share in %	Sector	Share in %
Transport and communications	22.2	Electricity, gas & water	2.7
Financial services	17.0	Metal & mechanical products	2.0
Mining and quarrying (incl. oil and gas)	13.9	Office, IT & telecommunications equipment	2.0
Real estate and business services	11.2	Other services	1.4
Retail/wholesale trade & repairs	10.1	Food products	1.0
Other manufacturing	5.6	Hotels and restaurants	0.6
Chemical, plastic and fuel products	3.9	Construction	0.1
Transport equipment	3.4	Agriculture, forestry and fishing	<0.1
Textile and wood, printing & publishing	2.9		

Source: National Statistics, Business Monitor MA4, Foreign Direct Investment 2001

2 London a distinct city

In this chapter, we present a few facts about London and its place in the UK economy, and show how, according to a number of factors, London is a city that is clearly distinct from any other city in the United Kingdom.

2.1 London's place in the UK economy

London accounted in 2001 for 12.2% of the United Kingdom's population and 12.4% of the United Kingdom's employment.[7]

However, according to the latest regional output statistics, London produced in 2000 16.4% of the United Kingdom's gross valued added, a standard measure of regional output produced by National Statistics.[8]

While London's overall share of national output is larger than either its population or employment share, a detailed sectoral analysis shows that this result does not hold for all sectors. In a few sectors, London accounts for a share of national output that is proportionally much larger than either its employment or population share.

As shown in Figure 2.1, financial intermediation, other services[9], real estate, renting and business services, and transport, storage and communication are the sectors in which London's share of gross value added exceeds by more than 25% its overall share of UK gross value added. In other words, these are the sectors where London appears to have a strong comparative advantage relative to the rest of the United Kingdom.

Interestingly, financial intermediation, real estate and business services, and transport, storage and communication are three sectors that accounted for 50.4% of the total inflow of FDI over 1998 – 2001 (see Chapter 1).[10] It would thus appear that the sectors in which London excels are, in many cases, sectors that attract significant amounts of FDI into the United Kingdom.

As was noted in a recent report published by the Corporation of London, 'London's scale, specialisms and diversity provide many of its distinctive strengths. The balance of advantage declined during the second half of the last century with changes in transportation and technology and the decline in manufacturing. It has been moving back towards London as a result of the increasing emphasis on quality-based competition'.[11]

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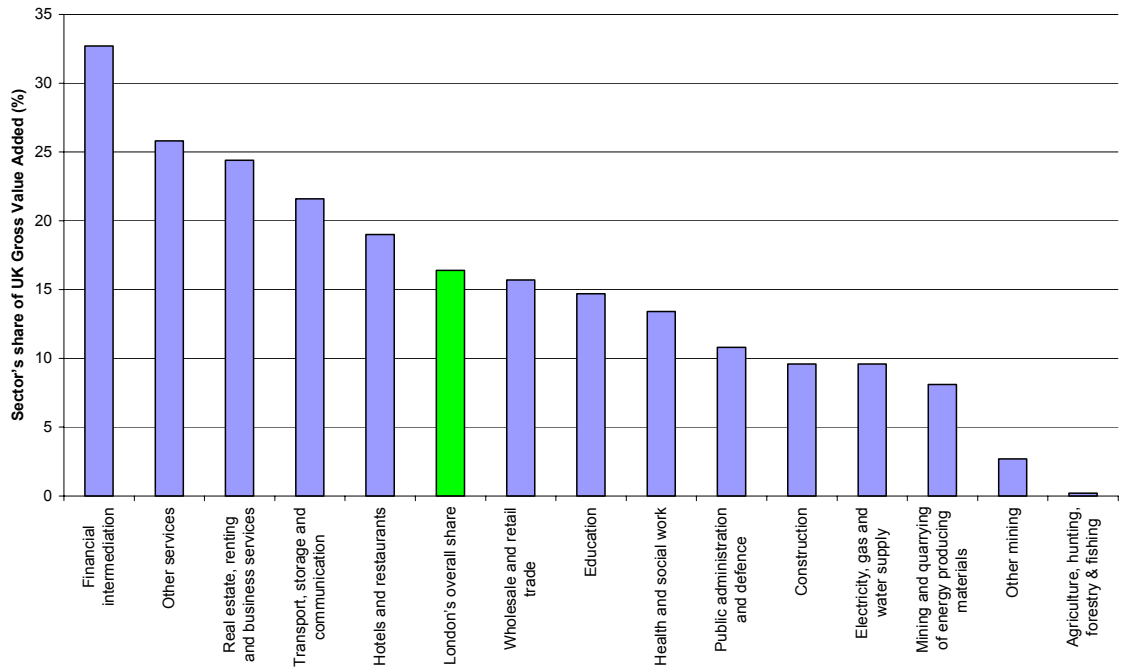
[7] See National Statistics 2003, *Focus on London* tables 2.11 and 6.1.
[8] Cope et al., 2003.
[9] Other services comprise the following economic activities: sewage and refuse disposal, sanitation and similar activities, activities of membership organisations not elsewhere classified, recreational, cultural and sporting activities, other service activities such as washing and dry cleaning of textile and fur products, hairdressing and other beauty treatment, funeral and related activities, physical well-being activities, private households with employed persons and extra-territorial organisations and bodies.
[10] The other two top sectors attracting FDI are mining and quarrying and retail/wholesale trade and repairs. While the former sector does not figure predominantly in London's economy, the latter's London-based gross value share is just marginally below London's overall share of gross value added.
[11] Corporation of London, 2002

Figure 2.1: London's contribution to UK Gross Value Added, 2000



Source: Cope et al. (2003)

Of particular interest is the fact that London produces a very large share of the United Kingdom's output in financial and business services, and in transport and communication services, and that these activities tend to be clustered in London.

For example, recent studies published by the Corporation of London (2003) and GLA Economics (2002) identified:

- strong clusters in banking, insurance, auxiliary finance, law and recruitment in the City of London
- strong clusters in banking, real estate law, management consultancy, advertising, business services, recruitment and architecture/engineering in the West End
- looser clusters in banking near Mayfair, advertising in Soho, real estate towards Hyde Park and IT in the northern fringe of the City of London
- a number of creative industries clusters in the West End and the fringe of the City of London.

For a number of reasons, such clusters are particularly attractive to foreign investors[12] and are a key factor underlying London's international competitiveness[13] and attractiveness as a location of domestic and foreign economic activity.

[12] This point is discussed in greater detail in Chapter 4, which highlights the key findings from the literature on the determinants of FDI location.

2.2 London a distinct city

London's key socio-economic features and characteristics distinguish it not only from other UK cities but also from most other cities in the world. In fact, using the presence and the level of advanced business services as yardstick for ranking major cities, Beaverstock et al. (1999) rank London among the top four world cities, together with Paris, New York and Tokyo. Chicago, Frankfurt, Hong Kong, Los Angeles, Milan and Singapore rank just a notch lower and are also considered top world cities. This assessment is based on the intensity of the presence and activity of accountancy, advertising, banking and legal services firms in the various cities. Firms are considered to have a 'significant presence' in a city if they have a principle office, or an office of relative importance, there. To avoid omitting relevant offices, firms are assumed to have between 50 and 150 significant city presences worldwide. Each presence carries equal weight, so the city with the most significant presences scores the highest. London is one of the few world cities that are prime global service centres in all four sectors (Table 2.1).

Table 2.1: Prime global business service centres

Prime global accountancy service centres	Prime global advertising service centres	Prime global banking service centres	Prime global legal services centres
Atlanta	Chicago	Frankfurt	Brussels
Chicago	London	Hong Kong	Chicago
Düsseldorf	Minneapolis	London	Hong Kong
Frankfurt	New York	Milan	London
London	Osaka	New York	Los Angeles
Los Angeles	Paris	Paris	Moscow
Milan	Seoul	San Francisco	New York
New York	Tokyo	Singapore	Paris
Paris		Tokyo	Singapore
Sidney		Zurich	Tokyo
Tokyo			Washington D.C.
Toronto			
Washington D.C.			

Source: Beaverstock et al. (1999)

Buttressing its status of world city, London is also the city in Europe and the world that is most connected to other cities[14] through service firms with offices in a wide ranging number of other cities (Taylor, 2003). This conclusion is based on an analysis of networks between cities with service firms in accountancy, advertising, banking/finance, insurance, law, and management consultancy providing the actual inter-city links.

Taylor identified 100 'Global Service Firms' by stipulating that they must have offices in at least 15 different cities and that there must be at least one office in each of the main globalisation arenas: North America, Western Europe and Pacific Asia. He then

[13] For a more in-depth discussion of the link between clusters and competitiveness see Porter and Ketels (2003).
[14] See Taylor (2001) for a detailed discussion of city network analysis.

took the largest such firms, with the added proviso that the service sector that the firm operated in must have at least ten enterprises defined as global service firms.

Information on offices was collected for 316 cities across the world, detailing the size of the office (by number employed, or proxy measures such as number of phones and faxes), and extra-territorial functions (eg whether the office was a headquarters, regional office, technology centre or a training centre). Offices were ranked on a scale from zero to five, where no presence in a city scores zero and headquarters location scores five. Intermediate scores of one, two, three and four were given, based on the evaluation of size and function of offices. Some data manipulation provided a (network) connectivity measure for each city as a proportion of the score for the top city.[15]

Within the top 25 cities in terms of connectivity in the world, London ranks first for global connectivity, banking connectivity, media connectivity and research network links. Moreover, the difference in the level and intensity in connectivity between London and the second highest-rated European city (Table 2.3) is sizeable.

For example, the second highest rated European city in overall global network connectivity and bank network connectivity, Paris (Table 2.2), achieves only 70% and 79% of London's ratings, respectively.

These statistics clearly confirm the general view that London is distinct from the other major cities in Europe and suggest that London has a number of special features that could be attractive to foreign investors, especially in the financial sector and in business and communications services.

Finally, it is also interesting to note that the studies of world cities and connectivity show that, in terms of global network connectivity, other major UK cities rank much lower. Manchester is second highest rated city in the United Kingdom but achieves a world ranking of only 101st. Birmingham ranks 106th, Bristol 135th and Leeds 137th (Taylor, 2003).

London is thus a city that is very distinct from any other city in the United Kingdom and from most other cities in Europe.

[15] For a full description and justification for this measure see Taylor, Catalano and Walker (2002).

Table 2.2: European cities among the top 25 global connected cities

Global network connectivity			Bank network connectivity			Media network connectivity		NGO network connectivity		Research network links	
City	Rank	Connect. Index	City	Rank	Connect. Index	City	Rank	City	Rank	City	Rank
London	1	1.00	London	1	1.00	London	1	Brussels	2	London	1
Paris	4	0.70	Paris	6	0.79	Paris	3	London	4	Geneva	5
Milan	8	0.60	Frankfurt	7	0.70	Milan	5	Geneva	9	Paris	7
Madrid	11	0.59	Madrid	8	0.69	Madrid	6	Moscow	10	Berlin	7
Amsterdam	12	0.69	Milan	11	0.63	Amsterdam	7	Rome	18	Mannheim	7
Frankfurt	14	0.57	Brussels	19	0.59	Stockholm	9	Copenhagen	24	Munich	7
Brussels	15	0.56	Istanbul	21	0.55	Copenhagen	10			Manchester	11
Zurich	19	0.48	Amsterdam	24	0.54	Barcelona	13			Amsterdam	11
			Warsaw	25	0.53	Zurich	14			Basle	11
						Vienna	15			Milan	11
						Oslo	16			Edinburgh	17
						Prague	17			Oxford	17
						Brussels	19			Cambridge	17
						Budapest	21			Frankfurt	17
						Warsaw	22			Dortmund	17
						Lisbon	23			Rome	17

Source: Taylor (2003)

3 FDI into London

In this chapter we present a number of facts about FDI flowing to London and compare London's performance to that of its location competitors in Europe and the United Kingdom.

Before proceeding any further, it should be noted that there exist no comprehensive regional data on inward FDI into the United Kingdom as National Statistics does not break down inward FDI flows and stocks by region. We therefore relied on two alternative databanks, one compiled by Invest-UK and the another compiled by Ernst & Young.

Invest-UK, the agency responsible for promoting the United Kingdom as a business location to potential foreign investors keeps a regional record of the inward investment projects assisted by the agency. This information can be used to draw a broad picture of the regional distribution of new inward FDI projects. However, this dataset is likely to provide an incomplete, and perhaps biased, overview of the true regional distribution of inward FDI as only those FDI projects that were assisted by agency are recorded.

The second source of information on the regional distribution of inward FDI flows is the Ernst & Young *European Investment Monitor (EIM)* databank that contains information on all foreign investment projects into Europe that are publicly announced. This databank defines FDI projects as:

- New projects, ie new investments
- New co-locations, ie new functions, collocated with an existing activity
- Expansions, ie increases in capacity of existing functions at their present location

All but a few industrial sectors are covered by the EIM. The only exceptions are retail, hotels and leisure facilities, utility or communications fixed infrastructure and the extraction of ores, minerals or fuels. Information is provided for all European countries at national, regional and city levels.

3.1 Regional distribution of inward FDI into the United Kingdom

According to the data available from UK-Invest, London accounted, over the last four years, for 20% to 25% of all new inward investment projects into the United Kingdom that were assisted by the agency (Table 3.1).

The bulk of these inward FDI projects were in the non-manufacturing sector reflecting London's strong service sector base. Over the last four years, London accounted in total for 30%, or slightly more than 30%, of all new inward FDI projects into the United Kingdom that had been assisted by UK-Invest. In contrast, London accounts for only a small share of the new inward FDI projects in the UK manufacturing sector,

though that share has grown somewhat in recent years and stood at just above 6% over the last two years (Table 3.1).

Table 3.1: London's share of new UK inward FDI projects

	1997/98	1998/99	1999/00	2000/01	2001/02
Manufacturing	0.3	0.3	2.7	6.0	6.3
Non-manufacturing	22.4	29.5	31.8	32.3	31.3
Total	9.9	15.8	19.9	25.3	23.0

Source: National Statistics, Regional Economic Trends 37 Table 13.8

Given that Invest-UK records only the inward FDI projects assisted by the agency, there might be scope for underestimation. This is revealed when we re-calculate the London's share of the FDI projects by using the EIM data, where it is above 35% from 1998/1999 (Table 3.2).

Table 3.2: London's share of new UK inward FDI projects

1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
28.9	35.6	40.2	35.0	35.6

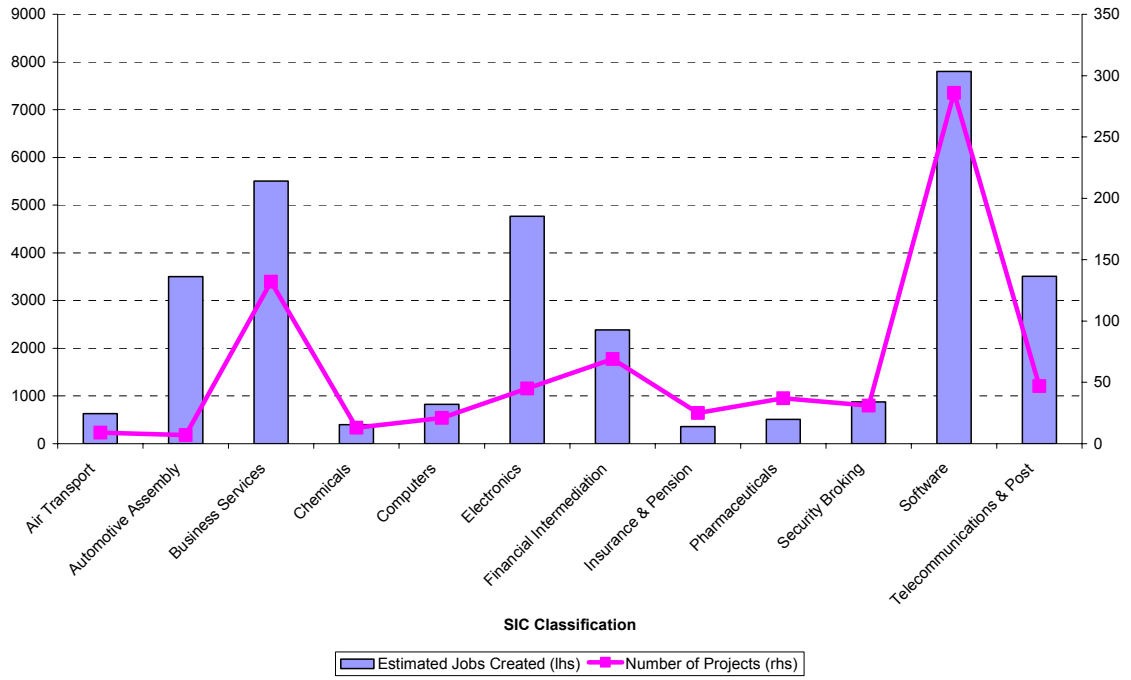
Source: EIM

In the next section, we will provide an overview of FDI in London by using the EIM database.

3.2 FDI activity in London

Although the number of projects that FDI generates is an important indicator of the relative standing of a location, it does not provide information on the impact that FDI has. Lots of small projects may not benefit the economy as much as a single large one. Figure 3.1 shows the sectors in which FDI generates the most jobs for London. The line graph overlay shows the number of FDI projects that each sector received in the period 1997 to 2002, and the bars show the number of jobs created in total for that sector. The higher the data point (from the line graph) is in relation to the bar from its corresponding sector, the lower the average number of jobs created by each FDI project in that sector.

Figure 3.1: FDI activity in London, 1997 – 2002



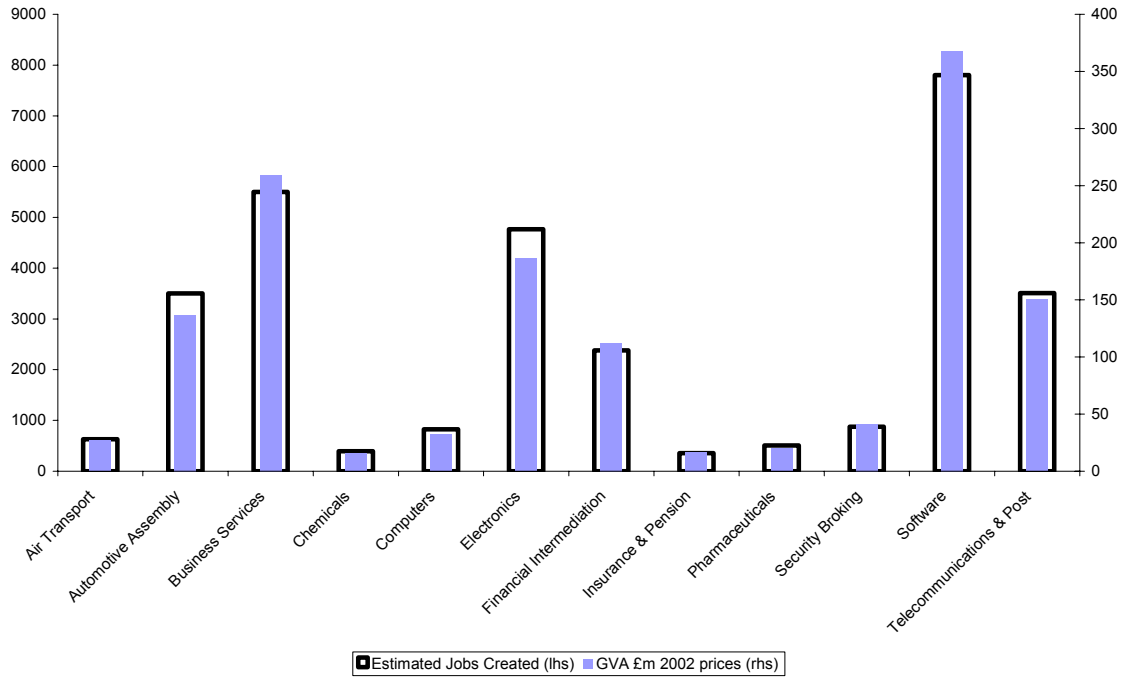
Source: LE calculations based on EIM data

The number of jobs created is an estimate based on the available data.[16] We can see that the most employment is generated by FDI in software and related activities, but that each project is relatively small, with an average employment figure of about 25. Business services and electronics each generated about 5000 jobs in London between 1997 and 2002, with each project generating about 40 and 100 jobs respectively.

FDI into London created about 3500 jobs in each of the automotive assembly and telecommunications and post sectors, but the mean number of jobs was much higher in automotive assembly at 500, compared to 75 in telecommunications and post. FDI for financial intermediation created almost 2500 jobs, with a mean of 35. The remaining sectors created less than 1000 jobs each, with lower average employment numbers as well.

[16] From the projects for which employment figures are available in the EIM dataset, we calculated the average number of jobs created by FDI in each sector. Assuming the average number of jobs created is the same for projects that do have employment figures in ht dataset as for those that do not, we estimated the total number of jobs created in each sector by multiplying the average number of jobs in a given sector by the total number of projects in the corresponding sector. Whilst this is not an ideal situation, it provides an insight into the employment levels associated with FDI inflows in different sectors.

Figure 3.2: The economic impact of FDI inflows in London, 1997 – 2002



Source: LE calculations based on EIM and ONS data

Not all jobs contribute equally to the economy: more productive employment makes a greater difference to output. Figure 3.2 shows the gross value added (GVA) in millions of pounds at 2002 prices of FDI by SIC classification for the sectors that contribute most to London's GDP. The solid bars illustrate the GVA, whilst the hollow bars show the total estimated employment, duplicated from the previous chart. The extent to which workers' productivity in different sectors varies is small enough that the ranking of sectors does not change, but it is interesting to see that their relative importance does. For instance FDI within the finance and business services sector increases in importance relative to FDI in manufacturing by this measure.

The sectors shown in Figure 3.2 account for 95 per cent of the gross value added that FDI brings to London, with total FDI into London contributing £1.43m (2002 prices), about 0.16% of total UK GDP.

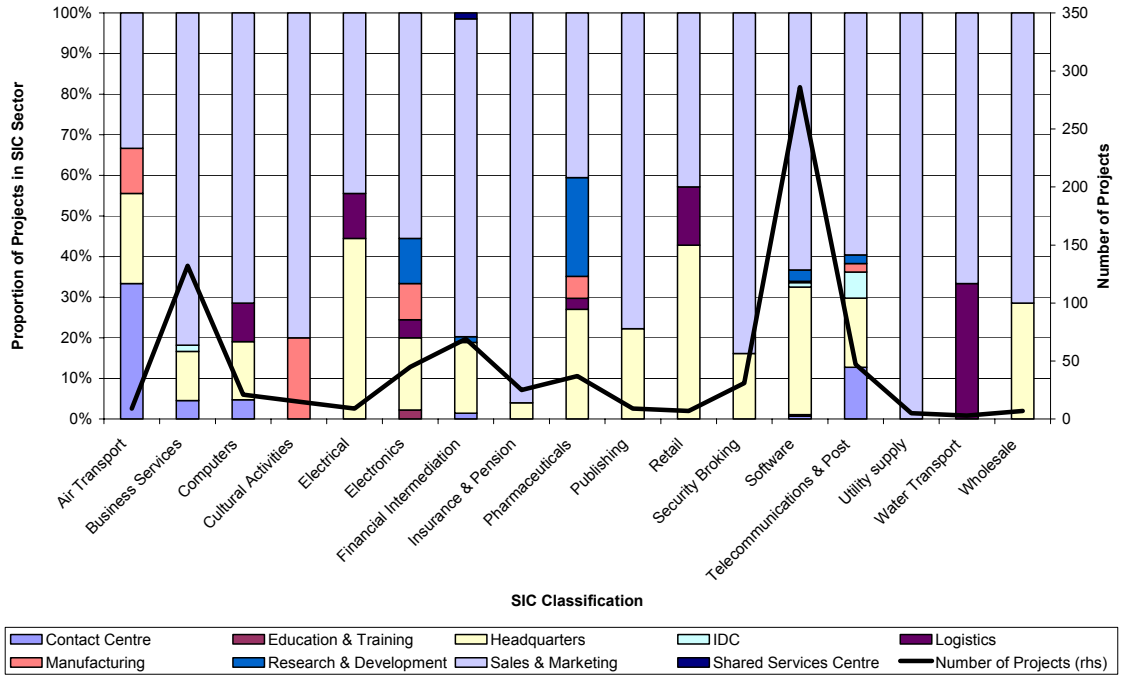
Types of activity funded by FDI in London

As previously mentioned, the number of FDI projects that come into a city does not offer as much information as the size of employment or the GVA generated by those projects. However, the number of projects remains an important indicator, and is the most complete information available as to the flows of FDI.

By the number of incoming FDI projects, London is a major recipient of FDI, excelling as the leading European city in several industries. In addition to attracting many investments because of its size, London is a hub for some industries that benefit from its location and international links. The black line in Figure 3.3 shows the number of FDI projects coming to London for the sectors in which it was the most attractive European city for the period 1997 to 2002. The bars show the different types of

activities (contact centre, education and training, headquarters, etc) funded by FDI, as a proportion of the total number of projects in each SIC sector.

Figure 3.3: FDI in London by sector and activity type, 1997 – 2002



Source: EIM

Across all sectors in which London shines, FDI to provide sales and marketing is a significant activity. The next most frequent activity is FDI to establish headquarters (and to a lesser extent, logistics). These activities reflect London's strengths within Europe and the UK. It is a large, prestigious city that has good access to wider markets with respect to transport, communications and trading partners. Its market access makes it ideal for sales and marketing in both domestic and international markets, whilst its prestige and international links give it an enviable position for locating central operations.

The most number of projects come to London in the finance and business services sector; the SIC classifications of business services, financial intermediation, insurance and pension, security broking and software combine to dwarf all other sectors. This is unsurprising, given that London is the top financial and business services centre in Europe. In these sectors, sales and marketing FDI is even more prevalent than elsewhere, perhaps with the exception of software, where headquarters account for about a third of FDI activity.

There are some sectors in which the numbers of projects, though low for London, are the highest in Europe. London attracts FDI due to its size, most notably in infrastructure (transport and communication): air transport, telecommunications and post, utility supply and water transport are all areas in which FDI is markedly higher into London than into the rest of Europe. Other than the common major activity of sales and marketing, air transport in London receives FDI for contact centres,

reflecting the fact that many airlines generate a lot of business from London's airports, most notably Heathrow.

In addition to infrastructure, retail, wholesale and cultural activities benefit from more FDI due to London's size and market access, whilst publishing is likely to benefit from London's prestige and communication capabilities. These sectors mostly attract FDI for sales and marketing and for headquarters.

Although London is traditionally thought to be a city that specialises in services, the FDI data show that it attracts the highest number of projects of any European city in some technologically advanced manufacturing sectors such as the manufacture of computers, electrical machinery and apparatus, electronics (radio, television and communication devices) and pharmaceuticals. Sales and marketing and headquarters comprise the main activities generated by FDI in the manufacturing sectors, but there are also research and development projects funded by FDI in the manufacture of electronics and pharmaceuticals. Almost all of the research and development activities into London are by multinationals from outside the EU, with about half from the US and about half from Japan or Korea.

3.3 London in a European context

In almost all sectors where London receives the most projects, it attracts many multiples of the number of projects that go to its nearest competitors. London's most common rivals are Barcelona, Dublin, Paris and Frankfurt. Rather than focus solely on the number of projects, we will also make comparisons of job creation, noting that this is very similar to value added.

Obviously, London is not going to be a strong competitor in sectors that are highly cost-sensitive, due to its high land and labour costs. We have seen that it primarily attracts FDI in services and the sophisticated end of manufacturing. To avoid comparing London to host locations that compete overwhelmingly on cost, we make the weak assumption that its rivals must be located within the EU.

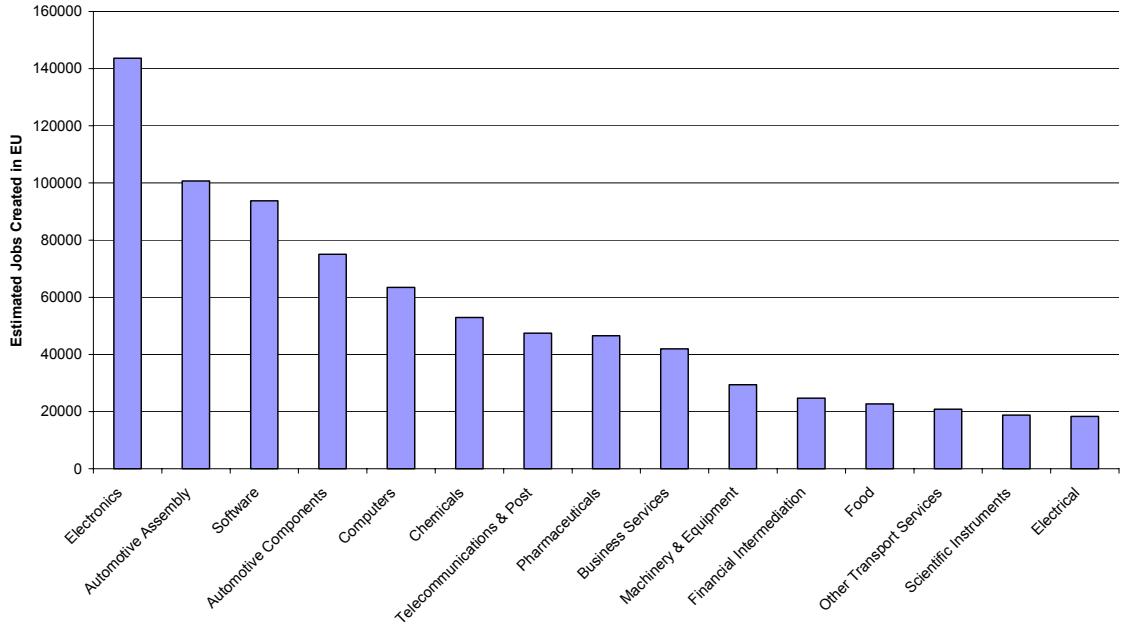
Using the same technique for the whole of Europe as for London, we estimate the total employment contribution that FDI makes in each of the SIC classifications. Successful FDI hosts are the ones that attract large shares of FDI in sectors where FDI creates the most output. Thus, taking the sectors that create the most jobs across Europe, we identify how London fares in terms of number of projects and number of jobs created against other leading locations in each sector.

Figure 3.4 shows the (estimated) total employment created by all FDI in EU countries for the top 15 SIC classifications. The list is similar, but not identical, to the sectors in which London dominates Europe.

Manufacturing sectors stand out as the chief generators of jobs, with software being the notable exception. A general observation about manufacturing is that there are often smaller host locations that seem to have exceptionally high employment from FDI relative to the number of projects. This kind of specialisation is unlikely to be available to London, though it could benefit if it were to be used as a conduit to wider markets. We already know that London can attract FDI for manufacturing sectors, but

that it takes the form of sales and marketing, headquarters, and occasionally research and development, rather than actual manufacturing plants and factories.

Figure 3.4: Job creation by FDI in EU, 1997 – 2002



Source: LE calculations based on EIM data

Services in general, such as business services and financial intermediation, are not major contributors to jobs across the whole of the EU, but are more likely to be influenced by agglomeration effects. This increases the share of the EU total that a single host location can potentially attract. This is where London excels and we would expect to see it taking the lion's share of the European inward FDI to these sectors.

We now consider the leading cities in the top 15 sectors. Table 3.3 shows the top three cities by project number in the sectors that contribute the most jobs across Europe. Table A1 extends Table 3.3 to show the top five EU cities.

Table 3.3: Top 3 EU cities by number of FDI projects in selected sectors, 1997 – 2002

Automotive Assembly

	Number of Projects	Jobs Created
Barcelona	21	4886
Oxford	8	6720
Swindon (WILTSHIRE)	8	5200

Automotive Components

	Number of Projects	Jobs Created
Barcelona	16	1600
Coventry	14	2740
Birmingham	11	2249

Table 3.3: Top 3 EU cities by number of FDI projects in selected sectors, 1997 – 2002

Business Services

	Number of Projects	Jobs Created
London	132	5562
Paris	53	739
Bruxelles	21	945

Chemicals

	Number of Projects	Jobs Created
Antwerpen	36	2415
Barcelona	24	1553
Tarragona	22	2369

Computers

	Number of Projects	Jobs Created
London	21	825
Dublin (Baile Átha Cliath)	20	5221
Amsterdam	8	13453

Electrical

	Number of Projects	Jobs Created
Barcelona	9	1148
London	9	224
(no other close competing cities)		

Electronics

	Number of Projects	Jobs Created
London	45	4921
Stockholm	29	1395
Paris	25	115

Financial Intermediation

	Number of Projects	Jobs Created
London	69	2432
Dublin (Baile Átha Cliath)	17	2983
Frankfurt am Main	16	288

Food

	Number of Projects	Jobs Created
Barcelona	13	1348
London	9	259
Bremen	5	54

Machinery & Equipment

	Number of Projects	Jobs Created
Telford	7	219
Rotherham	6	184
Cork (Corcaigh)	5	765

Other Transport Services

	Number of Projects	Jobs Created
Barcelona	7	168
London	7	118
Frankfurt am Main	6	1544

Pharmaceuticals

	Number of Projects	Jobs Created

Table 3.3: Top 3 EU cities by number of FDI projects in selected sectors, 1997 – 2002

London	37	506
Dublin (Baile Átha Cliath)	16	3168
Wien	16	960
Scientific Instruments		
	Number of Projects	Jobs Created
Cork (Corcaigh)	6	1950
Galway (Gaillimh)	6	3432
Belfast	4	365
Software		
	Number of Projects	Jobs Created
London	286	8054
Paris	146	3060
Dublin (Baile Átha Cliath)	78	13531
Telecommunications & Post		
	Number of Projects	Jobs Created
London	47	3749
Paris	24	871
Frankfurt am Main	22	894

Source: LE calculations based on EIM data

Barcelona is the European city that attracts the most number of projects in automotive assembly and manufacture of automotive components. In terms of estimated total employment, though, it is not as successful as other cities. Significantly, from London's perspective, other UK cities seem to attract larger projects. They could be benefiting from their connections with London: MNEs interested in its qualities as a base of operations might choose to locate production facilities within the same country. On top of this, we have already seen that FDI into London in automotive assembly manufacture employs an estimated 3500 people, which compares favourably with other leading EU cities.

FDI in the manufacturing sectors of electrical and electronic goods appears to be more centralised in prime locations. The top European performers are from different countries, each having many projects, particularly in electronics. FDI in electrical manufacture is thinly spread across locations, but London and Barcelona, with nine projects each, are considerably ahead of all other cities. In employment terms, Barcelona's electrical projects are on average more than three times the size of the ones in London. In electronics, London has 45 projects, with the next best, Stockholm polling 29. This is the strongest sector for employment for the EU region and is strong for London relative to its rivals. FDI for electronics in London created 4900 jobs, three times that of Stockholm and significantly greater than other big European cities, including Paris and Barcelona.

The one manufacturing sector in which London receives a significantly greater number of FDI projects than any other European host is in pharmaceuticals. It received 37 projects between 1997 and 2002, more than twice as many as Dublin and Vienna, and about three times as many as Paris and Barcelona. However, the

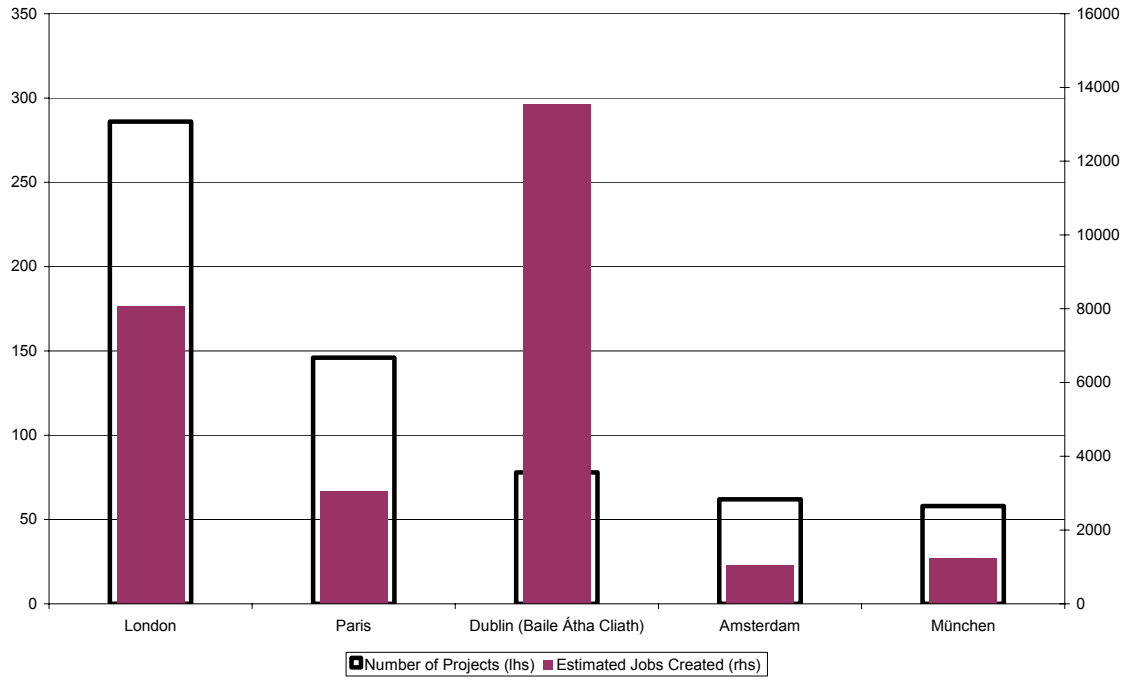
average number of jobs created per project in London is much lower than in its four nearest rivals. This is possibly due to the lack of actual manufacturing activity in London. As with all our estimated employment figures, though, the caveat must be made that they are only estimates based on the available data, which may not be truly representative of the whole picture.

In other manufacturing sectors, London's performance is unremarkable, for though it compares reasonably in terms of number of projects, it is rarely the top city. And, as with most manufacturing sectors' projects in London, average job creation per project is low.

The contrast between manufacturing and services is striking for London. To an even greater extent than in electronics and pharmaceuticals, the manufacturing sectors in which it performs best, London attracts more projects in finance and business services and telecommunications than any of its rivals. Furthermore, the average number of jobs created by these FDI projects is often higher too.

For instance, business services attracted 132 FDI projects to London, versus 53 for Paris, with the respective estimates for job creation being approximately 5500 and 750. Financial intermediation, software and telecommunications tell similar stories. London's competitors in these sectors are roughly the same small group of cities: Paris, Frankfurt, Dublin, Brussels and Amsterdam. Though far behind London, they have received enough projects to be considered competing locations, and, in the case of Dublin, especially, seem to attract FDI that creates many jobs. Figure 3.5 shows this for the software sector.

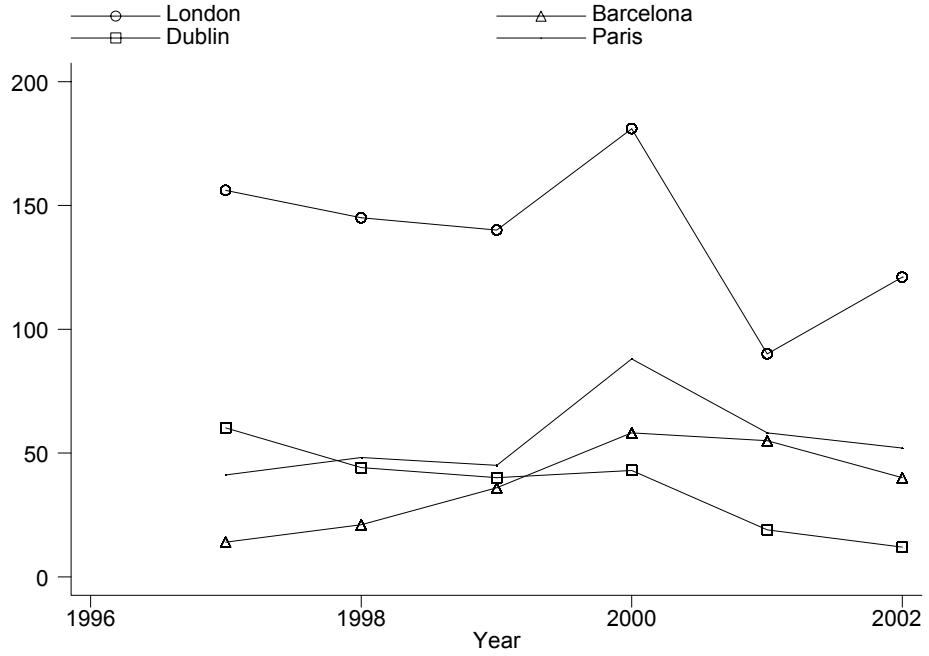
Figure 3.5: Top 5 cities for FDI in software, 1997 – 2002



Source: LE calculations based on EIM data

We conclude this section by illustrating the dynamics of FDI in the top European recipients of foreign investment. In Figure 3.6 we plot the number of FDI projects directed to London, Barcelona, Dublin and Paris over the period 1996-2002. These four cities accounted for 16% of the FDI projects in 1997-2002. Two facts are immediately evident: the dominance of London over the others and the fact that the FDI investment, as measured by total number of FDI projects, is on a downward trend in London and Dublin and on an upward trend in Barcelona and Paris.

Figure 3.6: Number of FDI projects in the top four European destinations, 1997 – 2002



3.4 London in a UK context

As we have seen in the previous sections, London is at the top of the European league for inward FDI. However, when we compare investment flows across cities of different countries, we are implicitly assuming that all the drivers of FDI are city specific. This is unlikely to be case. Cross-country differences in the legal system, taxation, labour and materials costs are all factors that can explain why FDI is directed to a city instead of to another. We need therefore to isolate the "true" London effect from other UK-specific factors that may impact on the decision of locating a foreign investment project in London. In this section, we isolate the "true" London effect by comparing the Greater London region to the other UK competitor regions for FDI. This methodology should give us a clearer picture of the London effect.

London's performance in relation to the rest of the UK in attracting FDI is similar its performance against the rest of Europe. To an even greater extent, it is the gravitational core for projects in the finance and business services sectors and in infrastructure. It receives the most projects, as a proportion of the population, of any region of the UK in the sectors that it is strongest, though the number of jobs is never the highest. This reflects the cost associated with doing business in London. Table 3.4 shows the top three UK areas for FDI projects as a proportion of their population, together with the total number of jobs created. Table A2, in the appendix, shows the full rankings of regional development agencies (RDAs, each of which corresponds to a geographic area) for each sector given in Table 3.4.

Much of the difference in employment impact is due to the nature of the FDI. Even within sectors, there is a difference in activity types. Manufacturing plants are more labour intensive than sales and marketing divisions or contact centres. Almost all of London's inward FDI is service-based, with outer regions of the UK being the host locations for plants and factories. This explains London's average-to-poor showing in job creation in the manufacturing sectors.

Table 3.4: Top 3 UK regions by project ratio* in selected sectors, 1997 – 2002

Automotive Assembly		
	Project Ratio*	Jobs Created
Wales	4.1	3692
West Midlands	4.0	8813
North East	4.0	9688
Automotive Components		
	Project Ratio*	Jobs Created
West Midlands	12.5	9806
Wales	12.4	3681
North East	6.8	1355
Business Services		
	Project Ratio*	Jobs Created
London	18.6	6112
Scotland	5.1	4626
North East	3.2	1050
Chemicals		
	Project Ratio*	Jobs Created
North East	10.7	1962
Wales	6.9	1133
North West	4.8	2670
Computers		
	Project Ratio*	Jobs Created
Scotland	5.5	6687
Northern Ireland	3.6	1947
South East	3.1	2021
Electrical		
	Project Ratio*	Jobs Created
Northern Ireland	3.6	130
Scotland	2.8	2167
Wales	2.4	1560
Electronics		
	Project Ratio*	Jobs Created
Northern Ireland	14.2	3754
Scotland	12.6	19843
South West	8.3	6124
Financial Intermediation		
	Project Ratio*	Jobs Created
London	9.6	2432
Scotland	2.8	4293
Wales	1.4	1860

Table 3.4: Top 3 UK regions by project ratio* in selected sectors, 1997 – 2002

Food		
	Project Ratio*	Jobs Created
Northern Ireland	4.7	523
North East	3.2	365
West Midlands	2.9	1784
Machinery & Equipment		
	Project Ratio*	Jobs Created
North East	6.0	1411
West Midlands	5.9	2259
Yorkshire	5.4	2216
Other Transport Services		
	Project Ratio*	Jobs Created
West Midlands	2.1	980
Scotland	1.8	2490
East Midlands	1.7	1880
Pharmaceuticals		
	Project Ratio*	Jobs Created
London	5.2	506
East of England	3.9	1117
Scotland	3.4	2963
Retail		
	Project Ratio*	Jobs Created
West Midlands	1.5	1726
Yorkshire	1.0	776
London	1.0	123
Software		
	Project Ratio*	Jobs Created
London	40.1	8094
Northern Ireland	23.1	4750
South East	18.5	9747
Telecommunications & Post		
	Project Ratio*	Jobs Created
London	6.5	3749
North East	2.4	1245
Wales	1.7	2716

*Source: LE calculations based on EIM data, * denotes number of projects per 1m population*

It is not simply that London attracts less labour intensive activities, such as sales and marketing and headquarters, but that the *same* activities when placed in London are smaller than when placed elsewhere. For instance, large contact centres, and sales and marketing activities are often located in Wales or Scotland, but head office, and perhaps a smaller sales and marketing team would be located in London. One explanation could be that a small office is located in London to capitalise on its strong organisational attributes, and that this office enables coordination of larger offices (perhaps with the same functions) in less costly parts of the country.

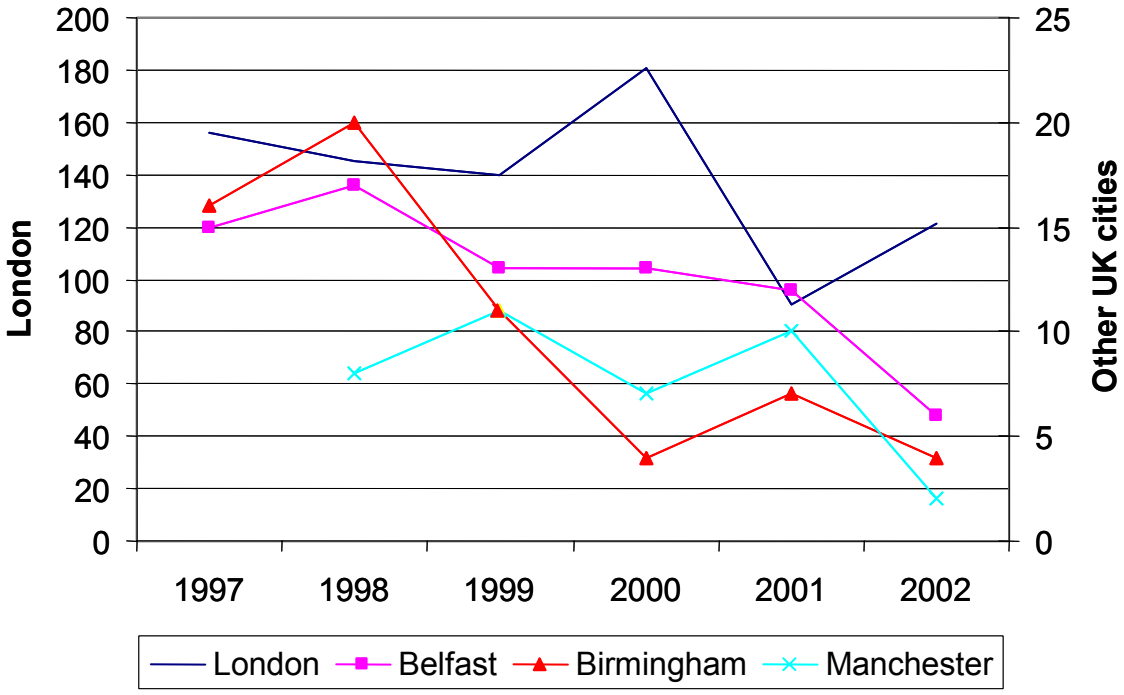
The evidence on employment arising from inward FDI suggests that London fares much better in the finance and business services sectors than in the manufacturing ones. This is perhaps the case, because the potential cost-savings are less in high

productivity sectors that require complex skills. There is still a case for shifting contact centres and some sales and marketing out of a big city, but perhaps more so for consumer-based business. When companies are selling services to other firms, they might benefit from the close proximity to the markets and specific knowledge that a London-based office would provide.

The attractions of London might influence the choice of FDI into other parts of the UK, since companies seeking to base their headquarters in London would gain from having production located in the same country. This would give them access to the financial markets in London, and the business services that it provides, helping to organise production better than if financing and production were located across national boundaries.

We conclude this section, and the chapter, by illustrating the dynamics of inward FDI over time for the top UK destinations of foreign investment. In Figure 3.7 we plot the number of FDI projects in London, Belfast, Birmingham and Manchester. The figure points to a nationwide negative trend in the number of projects in the UK, but shows that London moves distinctly from the other three cities. The number of FDI projects into each of Belfast, Birmingham and Manchester had fallen to about a third of their 1997 levels by 2002. The corresponding fall for London was to about three-quarters of its 1997 level. It also appears that London has the potential to recover losses quicker, with a high peak in 2000 and also signs of a revival in 2002, neither of which are true for the other cities.

Figure 3.7: Number of FDI projects in the top four UK destinations, 1997 – 2002



4 Impact of FDI on the United Kingdom's economy

In this chapter we review the various potential impacts of inward FDI on a host economy. In the economic literature one can distinguish three major strands of research on the effects of inward FDI. These relate to the direct employment (or output) effects associated with the inward FDI, the potential impact on net trade and spillovers effects within the host industry and across other sectors of the economy. Below, we briefly review first the broad evidence from the literature regarding these three factors and next we focus more specifically on the findings for the United Kingdom.

4.1 Broad findings from the economic literature

4.1.1 Employment and output effects

Any FDI will raise employment and output in the short run. At issue, however, is whether over the longer run these direct employment gains and output gains are sustained and/or offset by employment and output losses at indigenous plants or firms competing with the new FDI establishment. In other words, the key question of interest is the net employment and output gains in the long run.

The issue of the sustainability of direct employment and output gains is directly related to the on-going debate on so-called 'footloose' multinationals. A number of authors have pointed out that multinationals are more prone to being footloose than domestic enterprises because they adjust more rapidly to changing economic circumstances (Flamm, 1984) or have only shallow roots in the host economy (Hood and Young, 1997).

However, while much has been written on the 'footloose' nature of multinationals, empirical evidence regarding such a phenomenon used to be very limited. Fortunately, a recent study of multinationals in Ireland (Görg and Strobl, 2003) provides some interesting findings. Overall, the authors find that, everything being equal, plants belonging to multinationals have lower survival rates than indigenous plants over the period 1973-1996. This result provides support for the argument that multinationals are more prone to being footloose.

That said, the authors also find that, among the multinational plants that survived during the period, employment is more stable than at their indigenous counterparts. But, there are no differences between two the types of establishments in the speed of employment recovery following any downsizing.

Overall, the limited evidence regarding the footloose nature of multinationals suggests that indeed establishments belonging to multinationals are more likely to adjust to changing economic circumstances than indigenous establishments. But, before any firm policy conclusions can be drawn, significantly more research would be required to better understand the various determinants of this phenomenon.

Moreover, as far as we know, there exists no in-depth study of the long run net industry-wide employment and output gains following the entry of a new FDI establishment in the industry. The net impact will likely be determined by a number of interacting factors such as increased competition in the sector which may dampen

net employment and output gains and spillover and agglomeration effects which will tend to amplify the direct employment and output gains. Again, much additional research is required before any firm conclusions can be drawn.

4.1.2 Net trade effects

The location of a new establishment in a host country is often viewed as a substitute for exports from the home country to the host country. As such, everything else being equal, one would expect imports of the host country to decline following the inward FDI into the host country. To some extent, the effect on imports may be mitigated if a significant proportion of the new establishment's inputs is sourced abroad. Another possibility is that the new establishment displaces production in other sectors[17], henceforth leading to these outputs being imported from abroad.

If the inward investment is aimed entirely at meeting the needs of the domestic market, the impact on exports will be limited unless the spillover effects described below increase the increase competitiveness of the host industry or other industries in the host country.

Citing results of studies by O'Sullivan (1993) for Ireland, Cabral (1995) for Portugal and Blake and Pain (1994) for the United Kingdom, Barrell and Pain (1997) conclude that the available evidence points to a complementary relationship between inward FDI and exports of the host country. Building on this evidence and some previous work on the relationship between the outward FDI and the home country's exports, Barrell and Pain (1997) find that, in the case of Germany, France, the United Kingdom and Sweden, an increase in net outward investment[18] reduces the host country's exports. In other words, an increase in inward investment will increase exports in these four countries. More precisely, their results show that, in the case of these 4 countries, a 1 percentage point increase in the stock of inward investment will increase exports by about 0.15 percentage point in the long run.[19]

Overall, the available evidence suggests that, in the case of industrialised countries, inward FDI raises the host country's exports.

4.1.3 Spillover effects

Spillovers are often viewed as most important beneficial effects of inward FDI and the economic literature distinguishes a number of such spillover effects such as productivity spillovers, competition spillovers and market access spillovers. Below, we discuss each in turn.

4.1.3.1 Productivity spillovers

According to Blomström and Kokko (1998) 'productivity spillovers are said to exist when the entry or presence of MNCs (multinational corporations) lead to productivity or efficiency benefits in the host country's firms and the MNCs are not able to internalize the full value of such benefits'. Such productivity spillovers can occur in several ways. Either local establishments copy a new technology or process

[17] This may be the case when the arrival of the inward FDI drives up domestic input prices, especially wages, and thus renders the production of some goods or services non-profitable.
[18] Net outward investment is equal to total outward investment minus total inward investment.
[19] The country-specific long-run elasticities of exports to the stock of inward investment are as follows: 0.18 for Germany, 0.13 for France, 0.16 for the United Kingdom and 0.10 for Sweden.

imported by the foreign investor; or domestic firms use existing technologies, processes and inputs more efficiently in response to increased competition brought about by foreign entry into the industry; or increased competition forces firms to search for and adopt new, more efficient technologies. Firms in the host industry are the most likely to benefit from such spillovers, but suppliers and customers of the foreign establishment are also likely to benefit. At issue, however, is whether firms in unrelated industries may also benefit from spillovers through general demonstration effects for example.

The empirical evidence regarding productivity spillovers of inward FDI tends to support somewhat the view that such spillovers do indeed exist in industrialised countries. For example, Görg and Strobl (2001) report in their review of studies addressing the issue of productivity spillovers in OECD countries, four studies find supporting evidence while three are inconclusive.[20] Below, we will review in greater details the results of a number of UK studies focusing on such spillover effects.

How do these productivity-enhancing spillovers materialise? According to Blomström and Kokko (1998), case studies show that foreign-owned firms:

- contribute to efficiency by eliminating potential supply bottlenecks
- introduce new knowledge by bringing in new technologies, processes and systems and upgrading the skills of the indigenous employees
- increase the degree of competition in an industry or create a more monopolistic market structure (the direction of the impact depends on the strength and response of local firms)
- diffuse new knowledge to their suppliers and distributors by implementing more up-to-date inventory and logistics processes, imposing quality control processes, etc
- force competing indigenous firms to adapt to new competitive conditions and become more efficient themselves.

Overall, Blomström and Kokko (1998) are of the view that there exists a significant body of evidence supporting the argument that backward linkages are important in spillover dynamics and hold 'a suspicion about the growing importance of forward linkages as well'. Empirical evidence also suggests that foreign-owned establishments upgrade the skills of their employees more than indigenous firms and that the pool of higher skilled labour force can be accessed by indigenous firms. The evidence regarding the potential competition effects is more limited and no

[20] The studies finding evidence in favour of spillover effects are those by Caves (1974) for Australia, Globermann (1979) for Canada, Liu et al.(2000) and Driffield (2001) for the United Kingdom while the inconclusive studies are by Girma et al. (2001) for the United Kingdom, Barrios (2000) for Spain and Flores et al. (2000) for Portugal. Görg and Strobl (2001) conclude their review of studies of FDI productivity spillover effects by noting that the results seem to depend, to some extent, on whether cross-section or panel data are used with the former typically showing a greater spillover effect. A study by Nadiri (1991) also finds a positive productivity spillover effect from inward FDI in France, Germany, Japan and the United Kingdom.

comprehensive conclusions can be drawn at this stage. Entry of foreign-owned firms seems to be concentrated in industries with barriers to entry and relatively high concentration. Thus, in the short run, entry by a foreign-owned firm is likely to boost competition, but there exist no studies of the long-run impact of such entry on industry structure and competition.

4.1.3.2 Market access spillovers

Blomström and Kokko (1998) distinguish direct market access spillovers from indirect spillovers. Direct spillovers arise when an indigenous company's access to foreign markets is facilitated by its direct interaction with a foreign-owned company in the host country, most probably as a supplier. Indirect market access spillovers occur when indigenous firms learn from foreign-owned firms and copy their behaviour, participation in networks or benefit from staff mobility between foreign-owned firms and the indigenous firms.

The two authors conclude their review of the economic literature on spillovers effects of inward FDI by noting that, while such spillovers do appear to exist, the magnitude and scope of such spillovers depend on a number of factors such as local competence and a competitive environment.

In the following section, we examine whether these general findings hold true for the United Kingdom.

4.2 Impact of inward FDI in the United Kingdom

4.2.1 Differences in productivity levels

A recurring finding of studies on the impact of inward FDI into the UK is that foreign-owned firms in a given industry typically post higher labour productivity than domestic firms in that industry (for example, Hubert and Pain, 2000, Oulton, 1998a, 1998b and 2001 and Girma et al., 2001) (See Table 4.1).

For example:

- Girma et al. (2001) find that, after accounting for scale and industrial structure, the labour productivity of foreign-owned firms in manufacturing between 1991 and 1996 was 10 percentage points higher than at domestically owned firms and total factor productivity was 5.25 percentage points higher.

- Oulton (1998b) concludes that US-ownership raises productivity by 26% in manufacturing and non-US foreign ownership by 14%. In non-manufacturing, US ownership raises productivity by 34% and other foreign ownership by 31%.

- Griffith and Simpson (2001) find that labour productivity in North American-owned establishments is 36% higher than in British-owned establishments, in EU-owned labour productivity is 22% higher, 18% higher in other European-owned, 46% higher in Japanese-owned and 54% higher in other foreign owned establishments. Moreover, labour productivity improves faster over time and with age in foreign-owned plants.

Overall, foreign-owned firms tend to be more capital intensive than domestic firms, rely more on skilled employment and use more intermediate inputs than their domestic counterparts (Hubert and Pain, 2000). However, these differences in factor usage do not explain all of the productivity differences. For example, Oulton (2001) finds that greater usage of non-labour inputs explains only 61% of the higher labour productivity at US-owned establishments in the United Kingdom.[21]

4.2.2 Productivity spillovers

The evidence regarding productivity spillovers is more mixed (see Table 4.2). A number of UK studies find evidence in support of the productivity spillover hypothesis in the manufacturing sector. For example, Barrell and Pain (1997) conclude that one percentage point increase in the stock of inward investment raises technical progress by 0.26%.

However, a number of recent studies (for example, Driffield, 2001a, Girma et al., 2001, Girma & Görg, 2002b and Driffield et al., 2002) suggest that such productivity spillovers are limited to indigenous establishments that have the capacity to benefit from potential spillovers, and to the foreign-owned establishments' customers. The factors determining this capacity to benefit vary between studies but include the extent to which indigenous establishments already, have highly skilled employees, are highly productive, are regionally concentrated and the strength of competition they face.

On balance, the best one can conclude at the present time on the basis of the available empirical evidence is that spillovers are likely to be concentrated and unlikely to affect all indigenous establishments.

It should be noted that most of the studies on spillovers of inward FDI into the UK have focused on the manufacturing sector. Very little work has been done on potential spillovers in the services sector, an area that would be of key interest for assessing the economic impact of inward FDI in London.

The only exception is the study by Hubert and Pain (2000) who find that a 10% percentage point increase in inward FDI raises technical progress in the commercial services sector by 1.35%.

[21] It should be noted that greater usage of non-labour inputs explains 97% of the higher productivity in foreign-owned establishments other than U.S. owned-establishments.

Table 4.1: Productivity differences between foreign-owned and indigenous establishments in the United Kingdom

Study	Period	Sector	Key findings
Oulton (1998a)	1973-1993	Manufacturing	Foreign-owned establishments, in particular US-owned ones, substantially outperform UK-owned establishments. Labour productivity is 31.7% higher in US-owned establishments with measured inputs, capital intensity and labour quality explaining 61% of the gap. The labour productivity advantage at non-US foreign owned firms is smaller at 14.6% and differences in inputs account for 97% of the gap.
Oulton (1998b)	1995	Manufacturing and non-manufacturing	US-ownership raises productivity by 26% in manufacturing and non-US foreign ownership by 14%. In non-manufacturing, US ownership raises productivity by 34% and other foreign ownership by 31%. Higher capital intensity and the use of a more skilled labour force largely explain the differences.
Girma et al. (2001)	1991-1996	Manufacturing	Labour productivity of foreign-owned firms in manufacturing is 10 percentage points higher than at domestically owned firms and total factor productivity is 5.25 percentage points higher.
Oulton (2001)	1973 - 1993	Manufacturing	Finds that greater usage of non-labour inputs explains only 61% of the higher labour productivity at US-owned establishments in the United Kingdom. US-owned establishments have a 9% to 20% labour productivity advantage over indigenous establishments, even after controlling for higher capital intensity.
Oulton (2001)	1995	Manufacturing and non-manufacturing	After controlling for industrial composition and other factors, US ownership raises labour productivity by 35% in manufacturing relative to UK-owned establishments and other foreign ownership by 23%. In non-manufacturing, productivity gains are even more substantial, 49% for US ownership and 46% for other foreign ownership.
Griffith & Simpson (2001)	1980-1996	Manufacturing	After controlling for the age of the establishments, the authors find that labour productivity in North American-owned establishments is 36% higher than in British-owned establishments, in EU-owned labour productivity is 22% higher, 18% higher in other European-owned, 46% higher in Japanese-owned and 54% higher in other foreign-owned establishments. Moreover, labour productivity improves faster over time and with age in foreign-owned plants.

Table 4.2: Productivity spillovers of inward FDI into the United Kingdom

Study	Period	Sector	Key findings
Barrell & Pain (1997)	1972Q1-1995Q4	Manufacturing	A one percentage point rise in the stock of inward investment raises technical progress by 0.26%.
Barrell & Pain (1997)	1972Q1-1995Q4	Services	The stock of inward non-manufacturing investment has no discernible impact on technical progress in the services sector.
Liu et al. (2000)	1991-1995	Manufacturing	Results show that a positive productivity spillover effect exists. Moreover, the greater the technological capabilities of local firms, the greater the benefit they obtain from inward FDI. The spillover effect is, on average, negatively related to the technology gap between foreign and locally-owned firms.
Hubert & Pain (2000)	1984-1992	Manufacturing	A one percentage point rise in the output of foreign firms in a particular industry raises technical progress by 0.53 % in domestic firms in that industry (intra-industry spillovers). A one percentage point rise in the output of foreign firms outside of a particular industry raises technical progress by 0.65% in domestic firms in that industry (inter-industry spillovers).
Hubert & Pain (2000)	1972-1996	Manufacturing, transport and communications, distribution, business services and public services	Authors find strong productivity spillover effects in manufacturing with a 10% increase in the stock of inward FDI raising technical progress by 3.2%. Similar results are obtained for the three commercial services grouped together, although the impact at 1.35%, is somewhat lower.
Driffield (2001a)	n.a.	Manufacturing	There is a positive spillover effect of FDI within the industry and region, and a negative one within the industry but across regions.
Driffield (2001a)	1989-1992	Manufacturing	No evidence of output, R&D and investment spillovers as a result of inward FDI. However, productivity spillovers are found in industries where the foreign-owned sector has a clear productivity advantage. Domestic firms respond to increased competition by boosting their efficiency. Inward investment thus stimulates productivity growth in the domestic sector by around 0.75%.
Driffield & Munday (2001)	1984-1992	Manufacturing	Inward FDI spillovers in improving technical efficiency do vary according to industry characteristics. Such spillovers are more pronounced in sectors that are relatively productive and regionally concentrated.
Girma et al. (2001)	1991-1996	Manufacturing	In aggregate there are no productivity spillovers. However, firms located in sectors with high employment skills and a high degree of foreign competition can gain from inward FDI in the sector even if they have a large technology gaps. But, firms with a high technology gap, low skills and low levels of foreign competition may be negatively affected by inward FDI.

Table 4.2: Productivity spillovers of inward FDI into the United Kingdom

Study	Period	Sector	Key findings
Girma & Görg (2002a)	1980-1994	Electronics and food sectors	Foreign-owned establishments have lower returns to scale than domestic firms suggesting that the latter could benefit from increasing returns to scale. Acquisition of a domestic firm by a foreign entity reduces returns to scale, suggesting better usage of capacity. Following such an acquisition, a small reduction in productivity occurs in the case of a firm in the electronic sector while a firm in the food sector posts improved productivity
Girma & Görg (2002b)	1980-1992	Electronics and engineering industry	Mixed results. Spillover effects depend on absorptive capacity of domestic firms. In general, an increase in the stock of FDI in a region boosts TFP growth in the industry in the region. However, there are negative spillovers across regions within the same industry in some cases, depending on the absorptive capacity of domestic firms. At mean absorptive capacity, the regional spillover is positive in the case of electronics and negative in the case of engineering.
Driffield et al. (2002)	1983-1992	Manufacturing	There are positive spillovers from inward FDI to domestic downstream firms in the same sector or in other sectors. The forward link seems to be important. However, there is little evidence of spillovers to suppliers of the foreign-owned firms.
Haskel et al. (2002)	1973-1992	Manufacturing	Authors find significant productivity spillovers. Typical estimates suggest that a ten percentage point increase in foreign presence in an UK industry raises the total factor productivity of that industry's domestic plants by 0.5%.
Potter et al. (2002)	1994	Manufacturing	Survey of 30 medium-size and large foreign subsidiaries, their suppliers, competitors and customers provides evidence that important and extensive spillovers exist from inward FDI on technologies, efficiency and competitiveness of domestic suppliers, competitors and customers. The results are similar for assisted and non-assisted regions. Clusters do not seem to have been an important factor. Some negative impacts were felt by indigenous firms.

4.2.2.1 Other impacts of inward FDI on the UK economy

A number of recent studies have also focused on the impact of inward FDI in the United Kingdom on agglomeration, employment, exports, profits of domestic firms and R&D. These studies are summarised in Table 4.3 and below we highlight some of the key findings.

- Inward FDI contributes to agglomeration of economic activity.
- Inward FDI reduces employment in the host industry and stimulates employment at small and medium enterprises (SMEs) in the services sector.
- Inward FDI increases the net trade balance.
- Inward FDI increases R&D.

Table 4.3: Other impacts of inward FDI on UK economy

Study	Period	Sector	Key findings
Agglomeration effects			
Driffield and Munday (2000)	1984-1992	Manufacturing	FDI contributes to an industry's comparative advantage, defined as the ratio of the exports to imports of the industry. An increase of one percentage point in the share of employment in the industry accounted for by foreign-owned plants raises the ratio of exports to imports by 0.9 percentage point. Moreover, an industry's comparative advantage is one of the major determinants of FDI into the industry. Thus, FDI can lead to dynamic agglomeration effect where FDI inflows into a sector attract further FDI inflows.
Bailey and Driffield (2002)	1984-1992	Manufacturing	In non-assisted areas in the United Kingdom, domestic investment is boosted by inward FDI. In assisted areas, the opposite result holds. An increase in inward FDI crowds out domestic capital. This may be because the domestic firms in these areas are unable to appropriate the potential agglomeration gains.
Employment effects			
Taylor & Driffield (2002)	1983-1992	Manufacturing	Inward FDI in an industry leads to an overall reduction in employment in that industry
Hart & McGuiness (2003)	1994-1997	Manufacturing and services	Inward FDI in the manufacturing sector stimulates employment in services SMEs but has no impact on employment at manufacturing SMEs
R&D effects			
Cantwell et al. (2001)	1991-1995	Large firms	The proportion of patents granted by the United States Patent and Trademark Office (USPTO) to foreign-owned large firms as a proportion of all such patents granted to large firms in the UK grew from just over a

Table 4.3: Other impacts of inward FDI on UK economy

Study	Period	Sector	Key findings
			third in the 1980s to 45% over 1990-1995.
Becker & Pain (2003)	1993-2000	Manufacturing	R&D performed by foreign-owned firms stimulates the overall level of industry-wide R&D. An increase of one percentage point in the share of an industry's R&D funded by foreign-owned firms will raise the industry's R&D volume by between 0.5% and 0.7%.
Export effects			
Driffield and Munday (2000)	1984-1992	Manufacturing	FDI contributes to an industry's comparative advantage, defines as the ratio of the exports to imports of the industry. An increase of one percentage point in the share of employment in the industry accounted for by foreign-owned plants raises the ratio of exports to imports by 0.9 of a percentage point.
Fontagné & Pajot (2001)	1987-1996	Manufacturing	A one dollar increase in the stock of inward investment raises exports by 3-3½ cents and reduces imports by 6½ to 6¾ cents
Impact on profits of domestic firms			
Driffield and Munday (1998)	1989-92	Manufacturing	Large-scale inward investment generates a reduction in domestic industry profitability

5 Determinants of FDI into industrialised countries

5.1 Overview

In this chapter we review the key drivers of FDI into industrialised countries with a view to identifying those that would particular relevant for understanding the determinants of FDI into London.

For any firm determining whether, and to what extent, to set up production facilities in a new location, there are four broad considerations that it must make (Crozet, Mayer & Mucchielli, 2003). A higher expected demand and/or lower factor costs in any location increase the incentive to invest there. In addition, public policies can be designed to attract firms to specific locations. The fourth factor that a firm must consider is the number of firms active in the same location. By these four considerations a firm can choose between different locations, or decide to maintain its current production facilities and transport its output to the target location instead.

A multinational enterprise (MNE) faces the same decision-making process as a domestic firm, but encounters extra costs in that it might lack specific local knowledge about its target location. On the other hand, exporting can incur higher transport costs and possible tariffs. Over a longer horizon, greater demand in the target location encourages the MNE to locate production there.

The trade-off between exports and production is faced by all *horizontal* MNEs (ie, enterprises that own plants in several countries, each producing the same output), whose aim is to access foreign markets. The second type of multinational firm, the *vertical* MNE, seeks to exploit comparative advantage in individual countries by locating production to suit specialisations. Intermediate components, made in different locations, are (re-) exported and combined for sale. In this instance, exports and FDI are complements rather than substitutes, since cheaper export costs encourage the use of a host location for specialist production.

Government policies, such as job creation subsidies, and tax incentives can directly encourage foreign firms to locate offices and factories in a target location. In addition to the traditional (static) factors that affect FDI choices, agglomeration (clustering of MNEs in a target location) can create a (dynamic) virtuous circle of FDI. The presence of more MNEs can create spillover effects, increasing the net benefits (either by reducing the cost, or by increasing the benefit) of FDI. In opposition to the agglomeration effect is the dispersion effect: locating next door to competitors puts competitive pressure on profits. Thus, though current FDI attracts future FDI, it is not guaranteed to be perpetual.

We will start by identifying the factors that are traditionally thought to influence the location decision, describing how they manifest themselves, and summarising their significance. Following this, we will look at the dynamic nature of FDI, establishing whether agglomeration is a significant factor, and discussing to what extent the dispersion effect limits reaping the benefits of clustering.

5.2 Geographical and economic (non-policy) factors

Geographical and economic factors characterise the market conditions of the host economy. The size of the domestic market, the extent to which it has access to wider

markets, and the relative factor endowments in the host economy are factors that are invariant to public policy, at least in all but the long-term.

It is clear that consumer demand attracts FDI, and so a larger market makes FDI in that location more attractive. What is important in determining demand however, is the size of the market that the FDI will be capable of reaching. Just as a domestic firm's production is not limited to the city in which it is based, the output of an MNE produced abroad is not constrained to be solely for the consumption of the host city. The market could be the host country, or could include neighbouring countries as well.

In addition to absolute size, the host market is likely to attract more horizontal FDI if it is of a similar size to the MNE's domestic market, by ensuring similar internal (firm-level) economies of scale. Likewise, product differentiation (perhaps caused by differences in legislation between the countries) encourages horizontal FDI due to internal economies of scale.

The distance between the country of origin of the MNE and the host country might negatively affect FDI. Though there are gains to be had from lower transport costs, there are increased transactions costs for investment, such as information transfer and dealing with a different culture and language. As distance increases, transactions costs may increase faster than transport costs, making exporting relatively more attractive at longer distances.

The relative factor endowments of the two countries can influence the type of FDI that is made. These factor endowments will include the skill level of the workforce, the abundance of capital (physical and financial) and the availability of land. If the host market has similar factor endowments to the home country, this implies that horizontal FDI is more likely. Vertical FDI is more likely if there are differences in factor endowments, as MNEs will seek to exploit comparative advantage in the respective economies.

In the OECD, all the geographic and economic factors discussed above are significant in determining FDI (Nicoletti, Golub, Hajkova, Mirza & Yoo, 2003). Market size and similarity, distance and transport costs were all found to affect FDI as was predicted. Although factor dissimilarities negatively affected outward FDI, a high level of human capital positively affects inward FDI. The combination of results that market and factor similarities would have a positive effect on FDI supports the argument that FDI among OECD countries is mostly by horizontal MNEs (OECD, 2002).

5.3 Openness

If the two economies have different currencies, then an appreciation of the home currency against the host currency reduces the competitiveness of the MNE's exports, thus encouraging FDI. However, the net effect of an appreciation on FDI is unclear. Whilst the amount that any given flow of FDI (as measured in the home currency) will purchase in the host country has increased, the value of stock in the host country is reduced when converted back into the home currency. In the UK, an appreciation of the real effective exchange rate is estimated to reduce inward FDI (Becker & Hall, 2003), suggesting that the domestic market in the United Kingdom is relatively important in the European single market. Supportive of this is the finding

that an increase in the volatility of the *euro*-dollar exchange rate increases FDI into the United Kingdom (Becker & Hall, 2003).

Currency unions can remove exchange rate volatility, reducing the investment risk of FDI and the transaction costs of insuring against losses. The impact on FDI, however, is dependent on the operating procedures of the MNE. The origin of inputs, the destination of output and the location of capital financing all contribute to the importance of a currency union. FDI is less affected by the existence of a currency union the more that these factors are centred in the host country.

Cross-border barriers (both tariff and non-tariff) create incentives for tariff-jumping by horizontal MNEs. Producing within the host market bypasses the barriers reducing costs of production. Vertical MNEs will be deterred from FDI in the presence of cross-border barriers, because of the higher transactions cost incurred in export or re-export. Given that FDI among OECD countries is thought to be predominantly horizontal, we would expect to see that increasing cross-border barriers has a positive effect on FDI. Whilst this is true for non-tariff barriers (ie quotas), it is not the case for tariffs (Nicoletti et al., 2003).

FDI restrictions imposed by the home or host country clearly discourage FDI of either type. The extent to which inward FDI is depressed is estimated to be between ten and eighty per cent for OECD countries (Nicoletti et al., 2003). The most damaging restriction is that of foreign equity ceilings. Even in the absence of legal restrictions, there can be informational barriers that can be overcome through agglomeration. For example, Japanese manufacturing and Japanese banks have mutually benefited from their co-habitation in London.

If the home and host countries are members of the same free trade area, it is likely that there will be an incentive for MNEs to channel FDI into the host, especially for vertical MNEs, who can make full use of the two economies' comparative advantage. Horizontal MNEs may or may not see a common free trade area as making FDI attractive, since they might lose internal economies of scale gained from locating production solely at home and will not benefit from tariff-jumping if they do locate in the host. If the host is a member of a free trade area to which the home country does not belong, this has a positive effect on FDI from the home country, since locating production in the host avoids cross-border barriers in accessing not just the host economy, but all the members of the free trade area.

Nicoletti et al. (2003) find that countries that are members of the *same* free trade area experience more FDI, and that membership of the EU has a positive effect on inward FDI from non-members. However, the impact on FDI of economic integration will vary for different agreements (Blomström, Kokko and Globerman, 1998). They conclude that the stimulation to inward FDI of entering a free trade agreement was not as strong for countries in North America as in Europe. Furthermore, the impact is not distributed evenly, with existing policies and current macroeconomic conditions playing a role. The end-result is that little can be safely forecast about the effects of future economic integration (such as the expansion of the EU) on FDI flows. Mold (2003) also finds that for the EU, FDI from the US was not made more sensitive to factor-based differences, or less sensitive to changes in market conditions in the host country, by the process of economic integration.

5.4 Product market

A greater degree of product market regulation in the host is likely to deter FDI, since it raises cost of production in the host economy. This is especially true of vertical FDI, but is also probable for horizontal FDI. The only caveat to this is that the MNE might take advantage of more competitive conditions in its home economy by importing intermediate products for finishing in the host country, thereby giving itself a cost advantage over local firms. If the home economy is more regulated, this gives an incentive for the MNE to seek production facilities abroad.

Nicoletti et al. (2003) find that the *net balance of regulation* is what determines inward FDI. If the host country becomes more regulated with respect to the home country that it was previously, this would reduce FDI. Barrell and Pain (1999) note that although the UK has made moves towards more liberalised markets, France and Germany have not, and yet *have* witnessed big increases in inward FDI. List (2001), looking at data at US county level, finds that more stringent environmental regulations (to control pollution) do not diminish inward FDI, unless the industry is pollution-intensive. Even in this latter case, the effect is weak, to the extent that foreign firms are less sensitive to changes in the regulation than domestic firms.

Public funding to encourage FDI through subsidies is not guaranteed to have a significantly positive effect. Becker and Hall (2003) find for the United Kingdom that 'a permanent increase of one percentage point in the share of business research and development funded by the government will increase the volume of [FDI] by 1.6 per cent'. Crozet et al. (2003) find that French government's regional policy grants and EU structural funds have relatively little impact in encouraging FDI either contemporaneously or in the future (structural funds are often spent on improving infrastructure).

5.5 Labour market

Employment protection legislation and labour taxes (if they are higher in the host than at home) raise the costs of production in the same way as product market regulation. However, collective bargaining can be an offsetting factor if it is conducted centrally, rather than at an industry level. However, centralised wage bargaining reduces the capacity of production to respond to shocks, making FDI more risky. If investors are looking to minimise their risk-return ratio, this effect will deter them from conducting FDI in a host country with centralised bargaining.

Nicoletti et al. (2003) note that a positive tax differential and increased employment protection legislation between the host and home countries each significantly reduce FDI. De Santis, Mercuri and Vicarelli (2001) calculate that the impact of a positive differential in the labour tax rate is more significant than one in the corporate tax rate in influencing FDI into EU member states, suggesting that MNEs look at the overall tax burden in making location decisions. By reducing tax rates, member states can attract more inward FDI. This increased tax base could offset the revenue loss caused by the tax rate reduction.

Baldwin and Krugman (2000) claim that harmonised taxes are not necessary in the EU, despite closer economic integration. Countries with high taxes and large welfare states can still attract FDI because of their excellent infrastructure, established

customer and supplier bases, accumulated experience and well-trained workforces. The fiscal regime has allowed these countries to get to this position and the prevailing economic conditions make them preferred locations for future FDI. According to these authors, if taxes were to be harmonised across the EU, this would make FDI move not away from, but toward, these countries.

Head and Mayer (2002) find that higher unemployment in European countries results in lower FDI. They interpret unemployment as a proxy for rigidities in the labour market, suggesting that a more flexible labour market draws in more FDI, contrary to the claims made by Barrell and Pain (1999). Billington (1999) finds that higher unemployment in the UK, at both country and regional level, increases FDI because it proxies labour availability rather than rigidities in the labour market.

5.6 Infrastructure

Transport and communication links and energy supply are important in determining the cost of production, but also the potential market to which the host has access. Better infrastructure can give a host comparative advantage over its neighbours and the home country of the MNE. In spite of this, a sub-standard level of infrastructure can attract FDI to improve the infrastructure itself. The role of infrastructure is ambiguous in both theory and practice: there is little evidence that the quality and quantity of infrastructure in a host country influences FDI (Nicoletti et al., 2003). They suggest that the lack of a significant result could be because infrastructure can be endogenously determined through use of FDI to fund its improvement.

5.7 Agglomeration

In addition to the factors so far considered, the number of firms already present in a location affects the location decision by future firms. Similar types of firms tend to cluster in specific locations. Famous examples are Silicon Valley and Hollywood, but everyday cases would be retail parks and shopping centres. This is more than just a local specialisation of the workforce, although knowledge spillovers play a role, as described in innovation systems below. Increasing internal economies of scale and lower transport costs encourage firms to condense production into a single plant and place that plant near the source of demand. Consumers have an incentive to move near to the site of production, since increased demand for factors of production raises the corresponding factor prices (ie wages). Like firms, consumers save on transport costs by locating near the final supply.

Thus, production costs and market access are not simply the static factors as thus far discussed. Each time a foreign firm invests in a host location, it enlarges the market, by drawing to it more consumers, and thus more factors of production. Firms employ local workers, endowing them with better skills and higher productivity, both of which can be taken with them if a new firm in the same industry enters the market. The increase in quality and quantity of factors of production help to stem the increase in the factor prices, and the increase in the size of the market improves the profits from selling there, because increasing returns to scale mean lower average production costs.

As a counterbalance to the agglomeration effect, increasing the density of producers in a given location raises competition and thus reduces the profits that a firm could make by selling its output in the host market. Thus the threat of higher competition

encourages MNEs to locate further away from their competitors. As was alluded to in the last paragraph, the higher density of firms in a location increases demand for factors of production (primarily labour and land), and consequently puts upward pressure on production costs. Increased use of space by firms has the added effect of pushing residential areas further away from the core, increasing commute times and costs, further increasing the wage rate (Fujita & Thisse, 1996).

Studies of individual firms suggest that the agglomeration effect dominates the dispersion effect in FDI at the national level, and at a sub-national level. 'The same result holds for location choices of French multinationals in EU regions at the end of 1993 (Ferrer, 1998), and location decisions of Japanese firms in Europe at a national and regional level (Mayer & Mucchielli, 1999).' (Disdier & Mayer, 2003)

Crozet et al. (2003) find that MNEs investing in France locate predominantly in the region around Paris, but also, in the case of MNEs from France's neighbours, near common borders. However, FDI evolves away from border locations over the course of time, implying that the foreign firms learn more about their host country through the process of FDI, allowing them to locate closer to their target markets.

The implication is that there will be a clustering of firms in host locations, with FDI being focused on a core-region of the host economy. Since the clustering occurs due to the presence of firms, the effectiveness of public policy in attracting FDI can be multiplied. The extent to which clustering occurs is determined by how large the market is to which production in the host country has access. In estimating this, the transaction costs of selling in locations outside of the host location must be considered.

Crozet et al. (2003) find that the influence of clustering in France is stronger on FDI if the cluster is made up of French firms rather than foreign ones, suggesting that local firms provide better signals about prime locations. They also find that Italian and Dutch MNEs are less influenced by agglomeration effects. American firms, conversely, look for productive workers despite their higher cost. Overall, Japanese, UK, Belgian and American firms seem the most influenced by agglomeration effects, whereas Dutch, Italian and, less so, German firms are more responsive to dispersion forces.

The manufacturing industries of computers, office machinery, machine tools and car parts are most sensitive to agglomeration effects. The clothing industry is much less so, being instead responsive to wage differentials (Crozet et al., 2003). Braunerhjelm and Svensson (1996) find similar results for Swedish MNEs outward FDI, where technologically advanced industries most strongly exhibit agglomeration tendencies. Moreover, half of MNEs that locate in Sweden do so in clusters. Those that do, co-operate technologically with local Swedish firms substantially more than the others, though it is not clear that the knowledge gained is spread back to the country of origin any more than with MNEs that do not agglomerate (Ivarsson, 1999).

Braunerhjelm and Oxelheim (2000) find that, for Swedish MNEs investing abroad, FDI crowds out domestic local investment in production that requires research and development, but complements production based on comparative advantage. Becker and Hall (2003) find that investment by local domestic UK firms crowds out inward

FDI. They claim foreign firms might see the lack of FDI as a signal that the potential for technological spillovers is low.

5.8 Innovation systems

Kottaridi and Nielsen (2003) identify three factors that characterise the attractiveness of Scandinavian economies with respect to agglomeration effects. In theories of both agglomeration and innovation systems, it is important to realise that factors from which external effects result are actually identified in traditional economic theories. The difference is that the new economic theories interpret these factors as being endogenous and self-perpetuating. New economic theories show that the factors that attract FDI are enhanced by the actual increase in FDI. With this in mind, the three factors explored by Kottaridi and Nielsen (2003) are physical infrastructure, technological sophistication and inventiveness. In their empirical work, they find that all three of their 'new trade and new economic geography variables' are statistically and economically significant.

Kottaridi and Nielsen (2003) find that capital attracts capital: MNEs identify economically attractive industrialised regions by the high level of their existing capital stock. A favourable economic (ie capital rich) environment attracts FDI, and the resulting high level of gross fixed capital formation provides a signal to MNEs with incomplete information. MNEs witnessing the high level of capital stock can infer that the location is a low-risk choice even if they have little knowledge of its specific merits.

Knowledge spillovers are an important factor in technologically sophisticated industries. Firms can free-ride on the innovations of a rival by word-of-mouth, or by appropriating employees from their rival. Knowledge acquisition by this method is more effective the closer the two firms are. If there are several firms in the same industry, each of whom with some firm-specific knowledge, clustering allows mutual free-riding, improving the productivity of all of the firms in the locality.

Another aspect of technological sophistication is inventiveness. A strong knowledge base in the economy increases the ability of the workforce to make new discoveries. The number of patent applications as a proportion of the workforce can be used to estimate the inventiveness of the host economy.

5.9 Summary

A number of factors may affect the level of FDI flowing to a country. These are:

- Geographical and economic factors such as size of accessible market, distance between host and home country, relative endowments of factors
- Openness factors such as the exchange rate regime including currency union, participation in free trade areas, trade barriers, etc
- Product market regulations
- Subsidies to FDI
- Labour market legislation
- State of the economy's infrastructure
- Agglomeration of FDI and clustering of economic activity
- Quality of the national innovation systems

Not all these factors have been conclusively found to encourage FDI. In some case opposite results were obtained by different studies. Nevertheless, the list above provides a useful checklist of factors that could influence FDI inflows and would thus need to be closely monitored.

6 Business views of location criteria and London

In the previous chapter, we reviewed the recent academic literature on key determinants of FDI location in industrialised countries. Below, we expand this information by reporting the results of recent surveys of major business leaders on factors affecting the location of business activity. Next, we present the results of studies focusing on the state in London of a number of these location factors, identifying in particular those factors that may deter foreign investors from locating in London in the future.

6.1 Business surveys of business location criteria and London's rating

In 2000, as part of a major study on the attractiveness of Zurich as a business location, a survey was undertaken of business leaders in six major European cities (Frankfurt, London, Milan, Munich, Paris and Zurich) on the relative importance of a range of factors that influence location decisions.

The five key location factors identified by respondents in the Swiss survey were (Table 6.1):

- proximity to technical education institutions
- proximity to universities
- proximity to research institutions
- quality of life
- proximity to suppliers.

The next five location considerations included:

- stability of legal and political environment
- business-friendly environment and acceptance of new technologies
- quality of graduates from technical higher education institutions
- non-financial economic assistance
- cost of capital.

More specific to London, a 2002 survey of foreign direct investors in London showed that the main factors that led these investors to locate in London were:

- access to European markets
- London's status as a global business city
- the proximity of the client base
- good transport links.[22]

This survey also showed that more than half of the companies surveyed have used London as a springboard for European operations and almost 60% of the companies surveyed planned to expand their operations beyond London over the next three years.

[22] The survey was commissioned by London First Centre and Georgeson Shareholder Communications.

Moreover, for the 13th year in a row, London has been rated, in an annual survey of senior executives of 506 European companies, Europe's leading location for business (European Cities Monitor, 2002, compiled by Cushman & Wakefield Healey & Baker). In this survey, London is top rated for:

- the availability of qualified staff,
- good communications,
- availability of space
- languages spoken.

Not only is London rated the top European city for new business location, but its rating is almost 40% higher than that of Paris, the second highest rated European city and almost 140% higher than that of Frankfurt, the third highest rated European city (Table 6.2). The 30 European cities rated in the survey include also Manchester and Glasgow but their rank is much lower, 19th and 21st respectively.

Table 6.1: Ranking of business location factors in survey of business leaders in six major European cities

Location factor	Ranking	Location factor	Ranking
Proximity to technical higher education institutions	1	Non-financial economic assistance	9
Proximity to universities	2	Cost of capital	10
Proximity to research institutions	3	Financial assistance	11
Quality of life	4	Quality of telecommunications	12
Proximity to suppliers	5	Proximity to business in same sector	13
Stability of legal and political environment	6	Energy costs	14
Business-friendly environment and acceptance of new technologies	7	Access to European internal market	15
Quality of graduates from technical higher education institutions	8	Public R&D support	16

Source: Himmel et al. (2000)

Table 6.2: Ranking of top 10 European cities for locating a business

City	Rank			Weighted score
	1990	2001	2002	
London	1	1	1	0.95
Paris	2	2	2	0.68
Frankfurt	3	3	3	0.40
Brussels	4	4	4	0.31
Amsterdam	5	5	5	0.30
Barcelona	11	6	6	0.23
Madrid	17	8	7	0.19
Milan	9	11	8	0.18
Berlin	15	9	9	0.17
Zurich	7	7	10	0.17

Source: European Cities Monitor (2002)

In addition, a recent survey of 350 financial services businesses in London concluded that 'in terms of its international competitiveness, London is some way ahead of Paris and Frankfurt" and just behind New York although statistically the two cities are equal (Corporation of London, 2003b). London scored very well in terms of flexibility, size and professionalism of the labour force, regulation and taxation, and light regulatory touch.

In addition to these broad surveys, press communiqués of various foreign companies announcing their investments in London also provide, admittedly more anecdotal, information on the reasons that have led these investors to locate in London. In the examples below, the factors cited were the special characteristics of London as a world city, London's role as one of the top financial centres in the world and the proximity to the client base.

For example,

- Nissan indicated that its reason for locating its European design centre in London were London's 'unique ambience which gives Nissan's designers the necessary room for the discovery, definition and implementation of new ideas'.[23]

- GE announced that it located its new Aviation Unit in London because being 'based in London, this unit will be able to maintain closer contact with brokers'.[24]

[23] Translation from German magazine Motor-Talk (2003).
[24] Press communiqué of GE of 25th July 2002.

- The technology firm Marketmax announced that it put its new UK headquarters in London because 'moving to London, a world-leading retail hub, brings us geographically closer to our current customers'.[25]

- NeoNet, a provider of real-time equity trading services, indicated that it was opening a base in London because '…London is the financial centre of Europe and to have a local office is important to create confidence and also to further explore the potential of the U.K. market'.[26]

Obviously, this is only a very small sample of all new London business-location announcements[27], but it provides a glimpse of the various reasons that have led foreign investors to locate in London.

The bottom line of this short overview of various assessments of London as a business location is that London is very highly rated at the present time as a destination for inward FDI.

Moreover, in a comprehensive study of sustainable cities in Europe and on the US East Coast, London ranks third overall after Munich and Zurich and first in terms of overall dynamism.[28]

However, a number of pressure points are building and, in the future, could threaten London's ranking as the premier city in Europe for business location.

6.2 Potential threats to London's status as the premier business location in Europe

Despite its many attractions, London's quality of life is rated as poorer than that of a number of other European cities (Table 6.3). This may reflect a number of factors such concerns about transport, housing, schools and medical facilities. These are areas where, according to the survey of financial services businesses, London lags well behind New York and Paris (Corporation of London, 2003b). In particular, 'survey respondents were deeply disquieted over the state of public transport and regarded it as imposing huge costs on the City'.

[25] Press communiqué by Marketmax of 26th August 2002.
[26] Press communiqué by NeoNet of 14th August 2002.
[27] It is interesting to note that many foreign companies that located in London in 2002 did not provide an explanation as to why they had chosen London in the press communiqués announcing the investment.
[28] Bleisch et al. (2002). The European cities covered by the study include, in addition to London, Basel, Barcelona, Berlin, Boston, Cologne, Frankfurt, Geneva, Hamburg, Lyon, Madrid, Milan, Munich, New York, Paris, Stuttgart, Strasbourg, Vienna and Zurich.

Table 6.3: Quality of life in a number of major cities

City	Quality of life index (New York = 100)
Copenhagen	105
Amsterdam	104.5
Brussels	104.5
Stockholm	103.5
Dublin	102.5
Hamburg	102
Paris	101.5
London	100.5
New York	100

Source: Mercer Quality of Life Survey 2003

Office costs are also much higher in London than in its major European competitor cities such as Brussels, Frankfurt, Milan or Paris. For example, according to a recent survey, the cost per square metre in the West End of London are about 50% higher than in Paris and more than 100% higher than in Frankfurt (Table 6.4).

Obviously, office costs are not the only factor determining location choices. However, when other quality dimensions of a location are under threat or deteriorate, high office costs may deter foreign investors from locating in such a city or region as the overall location package may be poorer value for money compared to other, less-expensive locations.

Table 6.4 Office space costs – Top 20 most expensive locations 2003

City	Rank	Cost in € per m^2	City	Rank	Cost in € per m^2
London (West End)	1	1,478	Seoul	11	567
Tokyo	2	1,104	Hong Kong	12	565
Paris	3	961	Dublin	13	525
New York (Manhattan)	4	770	Warsaw	13	525
Moscow	5	729	Luxembourg	15	501
Frankfurt	6	685	Madrid	16	481
Stockholm (Birger Jarlsgaten)	7	636	Mumbai	17	454
Milan	8	624	Amsterdam	18	418
Geneva	9	592	Brussels (Quartier Leopold)	19	391
Athens (Syntagma Square)	10	589	Singapore	20	388

Source: Cushman & Wakefield Healey & Baker (2003)

That being said, high office costs, poor local transportation and quality of life factors are not the only threat to London's status as premier European business location.

Perhaps more importantly, according to the latest World Knowledge Competitiveness Index[29], London does not rank very highly in the new knowledge-based economy. The index is 'an integrated and overall benchmark of the knowledge capacity, capability and utilisation' of a region and ' the extent to which this knowledge is translated into economic value, and transferred into the wealth of the citizens of each region' (Huggins et al., 2003).

Out of the 125 regions in the world reviewed by the report, London ranks only 68th, well behind other European regions such as Stockholm (18th), Uusima in Finland (37th), Luxembourg (44th) and Switzerland (49th)[30] (Table 6.5). More worryingly, London also ranks behind some regions or cities, such as the Ile de France (54th) or Brussels (56th), which can be considered strong competitor cities to London for inward FDI.

The World Knowledge Competitiveness Index report also provides an index of the knowledge intensity of a region or city. This index gives an indication of the 'relative importance of knowledge and knowledge-based activities to the overall economic performance and structure of each region' (Huggins et al., 2003). According to this indicator, London ranks only 90th, well behind a number of other European cities and regions (Table 6.4) and even behind the Southeast and Eastern regions of England (Table 6.6).

[29] See Huggins et al. (2003).
[30] Most of top 50 positions are held by various cities/regions in the United States.

Table 6.5: Ranking of top 15 European cities/regions in 2003-2004 world knowledge competitiveness report

Cities	Knowledge competitiveness index		Knowledge intensity ratio	
	Index	Rank	Index	Rank
Top city – San Francisco	228.7	1	1.48	2
Stockholm	147.0	18	1.28	14
Uusima, Finland	123.0	37	1.10	42
Luxembourg	114.8	44	0.75	99
Switzerland	110.8	49	1.18	29
Ile de France	105.4	54	0.85	84
Hamburg	103.7	55	0.73	105
Brussels	102.3	56	0.60	115
Norway	101.3	59	0.87	79
Baden-Württemberg	95.5	67	1.00	60
London	93.9	68	0.82	90
West Sweden	93.9	68	1.18	27
Denmark	91.9	71	0.99	63
South Sweden	91.9	71	1.18	27
Bayern	90.6	73	0.93	73
South Netherlands	86.8	75	1.05	52

Source: Huggins et al. (2003)

Table 6.6: Ranking of London and other UK regions in 2003-2004 world knowledge competitiveness report

Indicator	London		Eastern		Scotland		Southeast	
	Index	Rank	Index	Rank	Index	Rank	Index	Rank
Knowledge competitiveness index	93.9	68	74.9	84	60.2	104	85.2	77
Knowledge intensity ratio	0.82	90	0.92	74	0.79	96	0.98	66
GDP per capita	115.2	39	81.4	92	76.2	105	86.7	81
Economic activity rate	100.2	69	100.8	65	96.7	79	103.9	48
Number of managers	73.7	70	314.8	1	66.2	74	237.2	5
Employment in IT & computer manufacturing	23.2	97	62.5	55	143.6	28	83.7	41
Employment in biotechnology and chemicals	44.7	88	105.3	51	67.6	74	110.0	45
Employment in automotive & mechanical engineering	28.1	105	80.8	61	57.5	81	74.7	67
Employment in instrumentation & electrical machinery	48.6	88	94.9	58	90.0	62	131.5	28
Employment in high-technology services	133.5	21	133.0	22	76.0	72	157.1	10
Per capita expenditure on R&D performed by the government	53.7	68	77.7	53	77.2	54	136.3	29
Per capita expenditure on R&D performed by business	32.7	104	152.9	23	24.9	111	116.9	41
Number of patents registered	32.5	100	78.6	53	26.9	105	68.4	57
Labour productivity	100.8	62	96.0	73	84.9	96	92.3	79
Mean gross monthly earnings	121.7	23	88.0	91	83.9	99	95.3	74
Unemployment rate	71.3	100	140.5	42	69.3	103	175.7	20
Per capita public expenditures on primary and secondary education	76.6	101	76.6	100	76.6	103	76.6	102
Per capita public expenditures on higher education	67.3	69	32.9	111	77.5	62	40.9	96

(1) Per 1,000 inhabitants (2) Per one million inhabitants
Source: Huggins et al. (2003)

6.3 Summary

London is viewed at the present time as one of the top world and European business location.

However, a number of threats are emerging that could endanger London's premier FDI status in the future. These are:

- the weak performance of London in the new knowledge economy
- serious concerns about a range of quality of life issues such as state of local transportation, education, housing and medical facilities
- the high cost of office space.

7 Policy implications

The policy implications of the our review of London's performance in terms of attracting FDI into the United Kingdom, the drivers of such FDI and the potential threats to future FDI into London are straightforward.

First, and foremost, given the potential importance of agglomeration and clustering of economic activities for attracting new FDI, it will be critical to pursue economic policies that do not result in outflow to other parts of the United Kingdom or elsewhere in the world of existing foreign investment in London. In addition to the economic and social problems that might arise directly as a result of such an outflow of existing foreign investment in London, weaker agglomeration and clustering effects could reduce the attractiveness of London as a business location.

Such an outflow of foreign direct investment form London does not appear to be imminent, but it would be essential to guard against such risk in the future by pursuing economic policies that are agglomeration and clustering friendly.

In this regard, the weak performance of London in the knowledge-economy may be more of a longer-term threat as it may gradually erode the incentive to locate in London. At the present time, there exist in London a number of clusters of IT and creative industries firms. Economic policies that encourage the growth of such clusters would contribute directly to attract further FDI into these sectors. Such policies will also likely contribute to broaden London's knowledge-economy basis and thus could also indirectly increase London's attractiveness for knowledge-intensive FDI.

Other existing clusters in financial services, legal services and other business services will need to be nurtured, supported and grown in the future, in part through attracting further FDI into these economic activities. Such developments are mostly within the realm of the private sector. However, concerns raised by representatives of such clusters regarding London quality of life issues, such as the state of local transportation, housing, education and medical facilities, would need to be addressed if these clusters are expand in the future.

Obviously, any policies that address these issues will benefit new domestic and foreign investment in and outside the cluster. In fact, they would ensure that London remains the premier business location in Europe.

8 Conclusions

London and the role played by London in attracting inward FDI into the United Kingdom were at the heart of this report. To better understand the interplay between inward FDI and London, the United Kingdom's capital and one of the major cities in the world, we began by highlighting some key facts about inward FDI into the United Kingdom. Of particular interest is the fact that business, financial and communication services are among the top five sectors attracting inward FDI.

As London accounts for a disproportionately large share of the United Kingdom's output in these three services sectors, this suggests that London is indeed an important factor in attracting a substantial amount of inward FDI into the United Kingdom. We also showed that London is a city very distinct from any other city in the United Kingdom and most other cities in Europe.

Our analysis of recent inward FDI revealed that London accounted for about 30% of all new inward investment projects into the United Kingdom on recent years, a significantly larger proportion than London's 16.4% share of UK-wide gross value added. Our analysis also showed that, among all European cities, London ranked first in terms of the destination of inward FDI projects in a number of sectors, most notably finance and business services and infrastructure (telecommunications and transport), in recent years.

The same analysis showed that London's key competitors for new inward FDI projects are mostly European cities such as Paris, Dublin, Barcelona, Brussels and Frankfurt. Other UK cities generally do not rank among these top competitors.

On the basis of our review of the economic literature on the impact of inward FDI on a host economy and recent UK studies, one can conclude that the inward FDI into London benefited London and the UK economy through a variety of channels, including potential productivity spillovers.

A number of factors have contributed to make London one of the premier world locations for inward FDI. London is nowadays considered to be a top business location. Agglomeration of inward FDI and clustering of economic activities in London may hold a particular interest for new potential foreign investors.

However, this exceptional status may be threatened in the future by a) foreign investors' concerns about quality of life in London, reflecting concerns about local transport, housing, education and health infrastructures, b) the high cost of office space and c) London's apparent low ranking as a knowledge city.

So far, none of these factors appear to have had a notable detrimental impact on London's attractiveness as a business location. But, to guard against the risk of inward FDI leaving London and continuing to attract future inward FDI, it would be important that public policies address these issues.

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A1 Top five EU destinations of inward FDI by sector

In this appendix we report the top five EU15 destinations for inward FDI investment (Table A1). This table is an extended version of Table 3.3.

Table A1: Top five EU destinations of inward FDI investment by sector, 1997-2000.

Automotive Assembly

	Number of Projects	Jobs Created
Barcelona	21	4886
Oxford	8	6720
Swindon (WILTSHIRE)	8	5200
Bruxelles	7	362
London	7	3501

Automotive Components

	Number of Projects	Jobs Created
Barcelona	16	1600
Coventry	14	2740
Birmingham	11	2249
Gent	7	1037
Göteborg	6	37

Business Services

	Number of Projects	Jobs Created
London	132	5562
Paris	53	739
Bruxelles	21	945
Dublin (Baile Átha Cliath)	20	2447
Frankfurt am Main	19	208

Chemicals

	Number of Projects	Jobs Created
Antwerpen	36	2415
Barcelona	24	1553
Tarragona	22	2369
London	13	395
Rotterdam	13	2711

Computers

	Number of Projects	Jobs Created
London	21	825
Dublin (Baile Átha Cliath)	20	5221
Amsterdam	8	13453
Barcelona	8	692
København	7	144

Electrical

	Number of Projects	Jobs Created
Barcelona	9	1148
London	9	224

Table A1: Top five EU destinations of inward FDI investment by sector, 1997-2000.

Electronics

	Number of Projects	Jobs Created
London	45	4921
Stockholm	29	1395
Paris	25	115
Livingston	19	6323
Barcelona	18	2156

Financial Intermediation

	Number of Projects	Jobs Created
London	69	2432
Dublin (Baile Átha Cliath)	17	2983
Frankfurt am Main	16	288
Paris	13	770
Bruxelles	10	518

Food

	Number of Projects	Jobs Created
Barcelona	13	1348
London	9	259
Bremen	5	54
Wien	5	10
Dublin (Baile Átha Cliath)	4	480

Machinery & Equipment

	Number of Projects	Jobs Created
Telford	7	219
Rotherham	6	184
Cork (Corcaigh)	5	765
London	5	68
Paris	5	187

Other Transport Services

	Number of Projects	Jobs Created
Barcelona	7	168
London	7	118
Frankfurt am Main	6	1544
Madrid	6	600
Amsterdam	4	273

Pharmaceuticals

	Number of Projects	Jobs Created
London	37	506
Dublin (Baile Átha Cliath)	16	3168
Wien	16	960
Barcelona	13	1459
Paris	11	275

Table A1: Top five EU destinations of inward FDI investment by sector, 1997-2000.

Scientific Instruments

	Number of Projects	Jobs Created
Cork (Corcaigh)	6	1950
Galway (Gaillimh)	6	3432
Belfast	4	365
Berlin	4	400
München	4	392

Software

	Number of Projects	Jobs Created
London	286	8054
Paris	146	3060
Dublin (Baile Átha Cliath)	78	13531
Amsterdam	62	1054
München	58	1233

Telecommunications & Post

	Number of Projects	Jobs Created
London	47	3749
Paris	24	871
Frankfurt am Main	22	894
Amsterdam	19	7244
Bruxelles	17	1343

Source: LE calculations based on EIM data

A2 Full ranking of UK regions for inward FDI by sector

In this appendix we report the full ranking of the UK regions for inward FDI investment by sector (Table A2). UK regions are defined as the administrative areas of the various development agencies in the UK. This table is an extended version of Table 3.4.

Table A2: Full ranking of UK regions for inward FDI investment by sector, 1997-2000.

Automotive Assembly

	Project Ratio*	Jobs Created
Welsh Development Agency	4.1	3692
West Midlands Development Agency	4.0	8813
One North East	4.0	9688
South West Development Agency	2.6	5544
South East England Development Agency	2.4	11390
East Midlands Development Agency	1.9	2987
East of England Development Agency	1.9	2845
North West Development Agency	1.3	5650
London First	1.1	4001
Yorkshire Forward	0.8	180
Scottish Enterprise	0.4	200

Automotive Components

	Project Ratio*	Jobs Created
West Midlands Development Agency	12.5	9806
Welsh Development Agency	12.4	3681
One North East	6.8	1355
Industrial Development Board	5.3	811
South West Development Agency	2.6	1900
East Midlands Development Agency	2.2	395
North West Development Agency	1.9	1469
Yorkshire Forward	1.4	590
London First	0.8	63
South East England Development Agency	0.6	270
Scottish Enterprise	0.6	276

Business Services

	Project Ratio*	Jobs Created
London First	18.6	6112
Scottish Enterprise	5.1	4626
One North East	3.2	1050
South East England Development Agency	3.1	298
Industrial Development Board	3.0	1274
Welsh Development Agency	2.4	2130
East of England Development Agency	2.4	660
South West Development Agency	1.6	1096
West Midlands Development Agency	1.5	305
East Midlands Development Agency	1.2	29
North West Development Agency	1.2	258

Table A2: Full ranking of UK regions for inward FDI investment by sector, 1997-2000.

Chemicals

	Project Ratio*	Jobs Created
One North East	10.7	1962
Welsh Development Agency	6.9	1133
North West Development Agency	4.8	2670
Scottish Enterprise	3.9	1120
Yorkshire Forward	3.2	1288
Industrial Development Board	3.0	500
West Midlands Development Agency	2.8	1335
South West Development Agency	2.6	448
East Midlands Development Agency	2.6	868
East of England Development Agency	2.0	35
London First	1.8	395

Computers

	Project Ratio*	Jobs Created
Scottish Enterprise	5.5	6687
Industrial Development Board	3.6	1947
South East England Development Agency	3.1	2021
London First	3.1	835
One North East	2.0	1116
Welsh Development Agency	1.7	1272
West Midlands Development Agency	1.5	575
South West Development Agency	1.2	61
East of England Development Agency	1.1	1300
North West Development Agency	1.0	880
Yorkshire Forward	1.0	860
East Midlands Development Agency	0.7	330

Electrical

	Project Ratio*	Jobs Created
Industrial Development Board	3.6	130
Scottish Enterprise	2.8	2167
Welsh Development Agency	2.4	1560
One North East	2.4	20
South West Development Agency	1.6	1374
London First	1.3	224
North West Development Agency	1.2	1155
East of England Development Agency	0.9	42
Yorkshire Forward	0.8	165
West Midlands Development Agency	0.8	99
South East England Development Agency	0.7	1705
East Midlands Development Agency	0.2	0

Table A2: Full ranking of UK regions for inward FDI investment by sector, 1997-2000.

Electronics

	Project Ratio*	Jobs Created
Industrial Development Board	14.2	3754
Scottish Enterprise	12.6	19843
South West Development Agency	8.3	6124
Welsh Development Agency	7.9	9738
South East England Development Agency	6.9	5124
London First	6.4	4921
One North East	6.0	4984
East of England Development Agency	4.6	1342
East Midlands Development Agency	2.9	840
North West Development Agency	1.9	1599
West Midlands Development Agency	1.1	640
Yorkshire Forward	1.0	1030

Financial Intermediation

	Project Ratio*	Jobs Created
London First	9.6	2432
Scottish Enterprise	2.8	4293
Welsh Development Agency	1.4	1860
Yorkshire Forward	0.8	118
North West Development Agency	0.7	130
East Midlands Development Agency	0.7	2200
Industrial Development Board	0.6	300
West Midlands Development Agency	0.6	1000
One North East	0.4	10
South West Development Agency	0.2	800
East of England Development Agency	0.2	13
South East England Development Agency	0.1	0

Food

	Project Ratio*	Jobs Created
Industrial Development Board	4.7	523
One North East	3.2	365
West Midlands Development Agency	2.8	1784
Welsh Development Agency	2.8	1053
Yorkshire Forward	2.4	1482
North West Development Agency	1.3	724
London First	1.3	259
East Midlands Development Agency	1.0	215
East of England Development Agency	0.9	70
South West Development Agency	0.4	180
Scottish Enterprise	0.4	0
South East England Development Agency	0.2	0

Table A2: Full ranking of UK regions for inward FDI investment by sector, 1997-2000.

Machinery & Equipment

	Project Ratio*	Jobs Created
One North East	6.0	1411
West Midlands Development Agency	5.9	2259
Yorkshire Forward	5.4	2216
Industrial Development Board	4.1	688
South West Development Agency	3.2	702
Welsh Development Agency	3.1	782
Scottish Enterprise	2.4	1295
East Midlands Development Agency	1.9	756
North West Development Agency	1.8	1313
East of England Development Agency	1.3	409
South East England Development Agency	1.1	281
London First	0.7	68

Other Transport Services

	Project Ratio*	Jobs Created
West Midlands Development Agency	2.1	980
Scottish Enterprise	1.8	2490
East Midlands Development Agency	1.7	1880
East of England Development Agency	1.3	320
London First	1.0	118
Industrial Development Board	0.6	20
North West Development Agency	0.4	190
South West Development Agency	0.4	15
Yorkshire Forward	0.4	0
South East England Development Agency	0.2	10

Pharmaceuticals

	Project Ratio*	Jobs Created
London First	5.1	506
East of England Development Agency	3.9	1117
Scottish Enterprise	3.4	2963
One North East	2.8	210
South East England Development Agency	2.4	3265
Industrial Development Board	2.4	252
Yorkshire Forward	1.8	386
Welsh Development Agency	1.7	222
West Midlands Development Agency	1.3	598
East Midlands Development Agency	1.2	1214
North West Development Agency	0.7	350
South West Development Agency	0.4	0

Table A2: Full ranking of UK regions for inward FDI investment by sector, 1997-2000.

Retail

	Project Ratio*	Jobs Created
West Midlands Development Agency	1.5	1726
Yorkshire Forward	1.0	776
London First	1.0	123
East Midlands Development Agency	1.0	1200
South West Development Agency	0.8	480
South East England Development Agency	0.6	545
East of England Development Agency	0.6	60
Welsh Development Agency	0.3	160
Scottish Enterprise	0.2	100
North West Development Agency	0.1	250

Software

	Project Ratio*	Jobs Created
London First	40.1	8094
Industrial Development Board	23.1	4750
South East England Development Agency	18.5	9747
Scottish Enterprise	7.7	6036
East of England Development Agency	6.9	1833
North West Development Agency	4.5	622
South West Development Agency	4.3	1582
West Midlands Development Agency	4.2	3252
Yorkshire Forward	3.2	2389
Welsh Development Agency	3.1	1113
One North East	2.8	1350
East Midlands Development Agency	2.2	359

Telecommunications & Post

	Project Ratio*	Jobs Created
London First	6.5	3749
One North East	2.4	1245
Welsh Development Agency	1.7	2716
East Midlands Development Agency	1.7	1350
West Midlands Development Agency	1.5	1750
South East England Development Agency	1.5	197
Scottish Enterprise	1.2	1830
East of England Development Agency	0.9	1285
South West Development Agency	0.8	301
Yorkshire Forward	0.8	800
North West Development Agency	0.6	122
Industrial Development Board	0.6	874

*Source: LE calculations based on EIM data, *number of projects per 1m population*