

## CHAPTER 24

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# OUTWARD DIRECT INVESTMENT AND PRODUCTIVITY

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RONNIE O'TOOLE<sup>1</sup>

### ABSTRACT

The pace and scale of direct investment flows from Ireland is likely to emerge as one of the most important features of Irish economic development over the next decade. The evidence presented in this chapter shows that much of the outward investment over the last number of years has been motivated by market access, as well as the need to access lower cost inputs. The econometric evidence shows that outward direct investment has generally had a positive effect on productivity, though the evidence is mixed regarding which firms/activities benefit most.

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<sup>1</sup> The views expressed are solely those of the author and do not necessarily reflect the views of Forfás

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## 24.1 Introduction

The pace and scale of direct investment flows is reshaping the international division of labour and the structures of developing and developed economies alike. To date, Ireland has benefited significantly from flows of foreign capital into our economy. As a result, Ireland is one of the most open economies in the world in terms of our trade and investment performance. This chapter gives an overview of evidence of the likely productivity impact of Outward Direct Investment (ODI) by Irish firms.

Section 24.2 of this chapter reviews some of the salient global trends in terms of investment flows. The productivity impact of ODI can be gleaned from two principal sources. Survey data can help to develop an understanding of the type of firm that is investing abroad, their motivation for so-doing, and the impact that this investment is having on their domestic operations. Survey and other data relating to Irish firms reviewing these questions are covered in Section 24.3. Furthermore, there is a growing body of research at the firm level estimating the impact that foreign investment has on the 'home' plant. This evidence is reviewed in Section 24.4, while Section 24.5 concludes.

## 24.2 Global Trends in Investment Flows

The role of multinational companies in the world economy has expanded rapidly over the last decade. According to the World Investment Report 2006 by the UN Conference on Trade and Development, the sum of world ODI stocks, calculated as a percentage of the world's GDP, rose from ten per cent in 1980 to 23 per cent in 2005. The importance of ODI as a phenomenon can also be seen when compared with trade flows. While trade flows have increased strongly in the period 1970 – 2004, they have been surpassed by the increase in ODI flows which, as expressed as a percentage of goods trade, rose from 18 per cent in 1970-1974 to 57 per cent in the period 2000-2004.

More recently, while there was a slowdown in global ODI flows following the economic downturn after the turn of the millennium, data from the UNCTAD 2006 World Investment Report indicates that ODI from OECD countries continued recovering strongly in 2005 on the back of an improved economic climate. Global FDI flows increased by 29 per cent to €916 billion in 2005, which was on the back of an increase of 27 per cent in 2004.

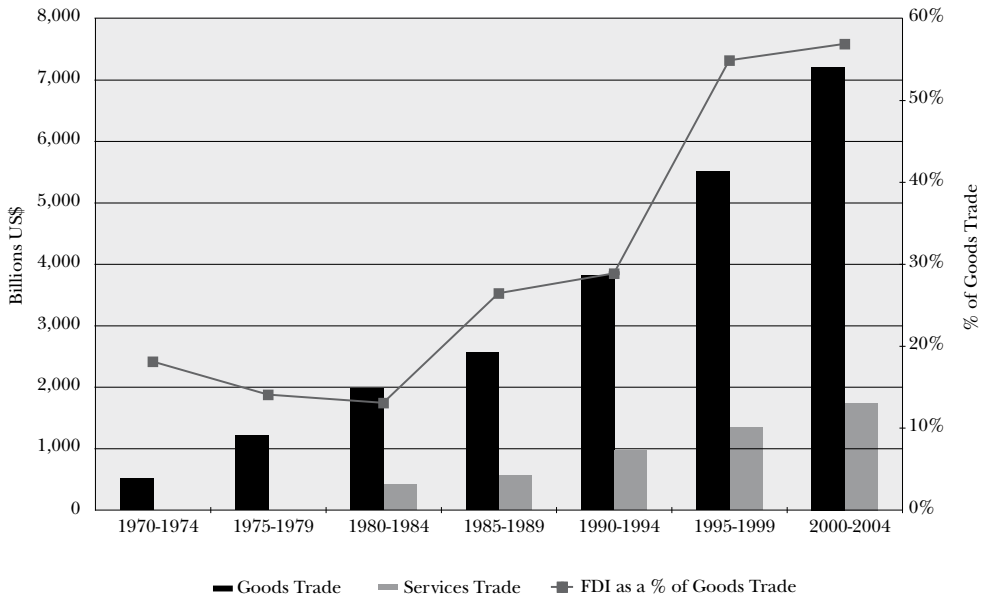
### 24.2.1 Forms of ODI Investment

As in the late 1990s, the growth in ODI witnessed from 2004 to 2005 was driven by increases in cross border Mergers and Acquisitions (M&As). This form of ODI differs from Greenfield investment in that M&A ODI does not add directly to the productive capacity (or employment) of the host country, *ceteris paribus*. It merely results in a change in ownership. Greenfield investment does, however, involve an immediate augmentation of the capital stock of the host country.

There are a number of similarities and differences in these two forms of ODI. Cross-border M&As and Greenfield investments both attract subsequent investment flows. Evidence from developing countries suggests that new (sequential) investments can be sizeable. Further, ODI

usually involves a lot more than just the transfer of capital. For example, a host country is likely to benefit from flows of technology, organisational and managerial practices through ODI. These are more associated with Greenfield investment, though M&As often involve substantial efforts to improve efficiency. In many situations, M&As may be the most appropriate form of investment. Cases where M&As may be more suitable than Greenfield investment include privatisations, where there are high barriers to entry, where the target firm has valuable firm specific assets or where the industry already suffers from excess capacity.

**Figure 24.1:** Changes in World Trade and ODI Flows, 1970 - 2004



**Source:** Authors calculation, based on UNCTAD data.

### 24.2.2 Regional Patterns in ODI

The regional pattern of ODI has undergone some major shifts over the last few decades (UNCTAD, 2006):

1. There has been a significant change in the structure of ODI within the triad of developed regions (i.e. EU, US and Japan) in particular, there has been a significant increase in the importance of the EU at the expense of the US. In 1980, there was slightly more ODI from the US (37.7 per cent of global ODI) than from all EU member states combined (37.2 per cent of global ODI). By 2005 this had changed significantly. EU members states now account for over half of all outflows, compared to less than one-fifth for the US. While the level of ODI from Japan rose sharply over the course of the 1980s, the subsequent prolonged Japanese recession has reduced this stock, which by 2005 was little higher than the level witnessed in 1980.

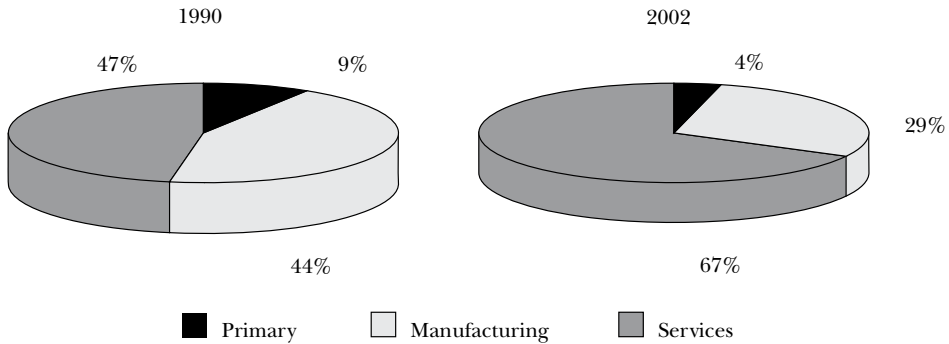
The UK, Germany, France and the Netherlands make up a large share of EU ODI activity and account for almost 70 per cent of EU outward stocks. Mutual investment between principal member countries plays an important role in continental European investment. While the EU's principal trade relationship is with the US, internal EU investment significantly exceeded both EU investment to the US and US investment to the EU. It is a notable feature of EU FDI that the mutual investment between the principal continental European countries has increased (Sasaki, 2004). However for the UK, like Ireland, the US is relatively more important.

2. While developed countries dominate both direct investment inflows and outflows, the importance of developing countries is growing, driven in particular by China. From 2003 to 2005, an average of 35 per cent of all FDI was invested in developing countries, with China accounting for almost half of this total. The share of total inflows destined for African countries fell gradually from one-tenth of total developing country inflows in the early 1980s, to around one-twentieth by the turn of the millennium, but it has recovered some of this ground in the last few years. Latin America and the Caribbean region have experienced a noticeable decline from its dominant position of the 1970s and early 1980s, and have yet to recover to this level.
3. There is growing evidence of increased activity by developing countries as a source of investment flows. While the flow of ODI from developing countries was negligible up to the late 1980s, it has since increased significantly. By 2005 ODI by developing countries had reached 15 per cent of global ODI flows, half of which is accounted for by China. While the cumulative ODI stock from developing countries was \$72 billion in 1980, it breached the trillion mark in 2005. This growth in developing country ODI reflects in part the growing importance of these economies in world commerce. Developing countries account for over half of global output at purchasing power parity in 2005, 40 per cent of world exports and two-thirds of global foreign exchange reserves. In 1986 there was only one developing country in the World Economic Forum's ranking of the top twenty most competitive economies (Turkey), while this had increased to five by 2005 (Taiwan, Singapore, South Korea, UAE and Qatar).
4. Ex-communist European countries have experienced significant growth in both inward and outward FDI, though their share in inward and outward stocks remain small. The figure for this grouping of countries is dominated by activities related to the Russian Federation.

### 24.2.3 Sectoral Composition of ODI

Services are also becoming increasingly important in terms of global ODI flows. As can be seen from Figure 24.2, services now account for 67 per cent of the stock of ODI globally. This is for two primary reasons. Improvements in ICT and cheaper communications are making the outsourcing of many services activities possible. These technological developments, combined with improving educational standards and the adoption of English in developing countries, are facilitating firms to outsource many activities that can be reproduced/conducted in digital form. These include IT support, back office functions (payroll administration and accounting), call-centres, software programming and some R&D functions (UNCTAD, 2004a).

**Figure 24.2:** Sectoral Distribution of World ODI Stock, 1990 and 2002



**Source:** UNCTAD World Investment Report (2004).

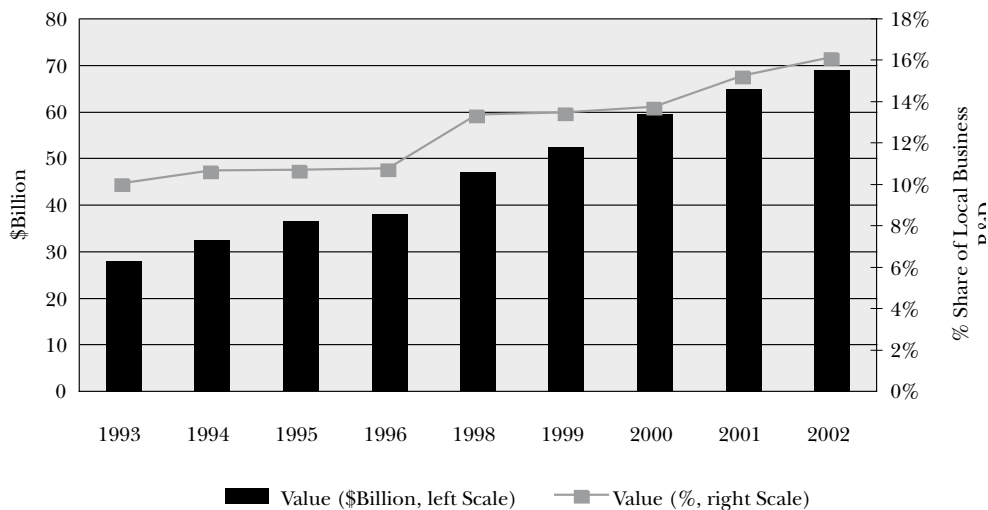
Secondly, ODI in services industries is often motivated by firms wishing to gain market access in new markets, rather than offshoring the production of services for existing markets. A growing number of the world’s largest MNCs are in services industries, while even among manufacturing MNCs, services activities are accounting for a rising portion of value added. In addition, the privatisation of many services industries (telecommunications, energy, banking, etc.) in recent years has boosted services ODI flows further. Ireland is an important location for ODI from other countries in sectors such as computer software, international financial services and other business process activities such as call centres and shared services (Barry and Van Welsun, 2005).

### 24.2.4 R&D and ODI

There has been a global increase in ODI related to Research and Development (R&D) activities. While traditionally it was assumed that core economic activities such as R&D would remain tied to a MNCs home country, R&D activities are increasingly highly mobile. Figure 24.3 shows that R&D expenditure by foreign affiliates, measured in both nominal dollar amounts and as a percentage of the host economy’s total business R&D, has been growing steadily since 1993.

MNCs are both outsourcing to and investing in overseas R&D units for a number of reasons. Key advantages include the ability to utilise the labour skills of other countries, to achieve costs savings and to tailor products and services for the local market. Local presence can be important in understanding local preferences, trends and regulations. The US is the source for much of this outward R&D investment, accounting for over 42 per cent of the 700 largest R&D spending firms (UNCTAD, 2005). Japan is the second most important home economy (22 per cent), while Germany is the most important EU country with less than eight per cent.

**Figure 24.3:** R&D Investment by Foreign Affiliates



Source: UNCTAD (2005).

The importance of developing countries as investment centres for global R&D is also increasing. Developing Asian countries have tripled their share of overseas investment in R&D by MNCs from the US from 3.4 per cent to ten per cent from 1994 to 2002. China has become the second largest R&D performer behind the US, largely due to the rapid growth in researcher salaries that have encouraged talented Chinese scientists and engineers to remain in China (OECD, 2006). For example, China and Taiwan are developing world class expertise in wireless chips and wireless software (McKinsey, 2004).

### 24.2.5 Trade and ODI

More firms outsource activities to firms in other countries rather than provide the same good/service internally through direct investment in facilities overseas. A measure of the importance of each can be gauged by assessing the extent of inter-company trade in unfinished products that takes place across borders (a measure of offshore outsourcing) vis-à-vis intra-company trade in unfinished products that takes place across borders (captive offshoring). According to research by the International Labour Organization (ILO), around two thirds of US international trade in unfinished products takes place between different firms, while around one third takes place between cross border subsidiaries of the same MNC (Milberg, 2004).

The decision as whether to engage in offshore outsourcing or whether to favour captive offshoring by investing overseas depends on a wide range of factors, and differs greatly from industry to industry. Some company's favour offshore outsourcing, as the ownership and management of an overseas facility entails significant costs, both in terms of higher set-up costs and ongoing management costs. Further, offshore outsourcing offers greater flexibility, in particular by allowing a firm to change sub-suppliers in response to a change in market conditions, product design, wage levels, exchange rates or government policy. For many firms,

competition amongst sub-contractors is also of critical importance. In fact, some economists argue that the higher levels of sub-contracting will result in a snow-ball effect, as competition for these outsourced functions becomes more intense, it will drive costs further down while improving quality. Finally, many firms favour offshore outsourcing so as to retain a focus on core competencies.

For other firms, direct investment overseas is more attractive. Generally, firms will typically invest overseas to protect firm specific products or knowledge, which would be at risk if the company was to operate a technology sharing agreement with a sub-supplier, while remaining based in Ireland. The type of firms involved is usually R&D intensive firms that have built up a portfolio of patents and technologies, which have sufficient market power to both develop and profit from these 'knowledge assets'. Firms can also be motivated to invest directly abroad as a means of improving supply chain co-ordination, imposing a company ethos or accessing a scarce resource such as intellectual property or skilled staff.

## 24.3 Irish Firms Engaged in ODI

Irish firms are investing more abroad than ever before. Data from CSO (2006) shows that Ireland was a net investor abroad in 2004 for the first time. Once seen as a relatively low cost manufacturing base, Ireland has become a higher cost economy. This places a greater emphasis on value added activities such as high-skill manufacturing and internationally traded services as the key to Irish economic growth. Ireland's experience is consistent with the investment development path theory, which predicts that ODI from successful economies will increase as their firms increasingly seek overseas markets (Barry, Gorg and McDowell, 2003). This section assesses the profile of Irish firms investing abroad, their motivation for doing so and the impact that this investment is having on their Irish operations.<sup>1</sup>

### 24.3.1 Profile of Firms Investing Abroad

LOCO monitor has tracked 212 Irish firms that have invested in Greenfield facilities overseas since 2002. Table 24.1 below subdivides the firms that engaged in ODI by broad economic sector. As can be seen, the practice of engaging in ODI seems to be very broadly based across a number of industries. Of the services firms engaged in ODI, over half were providers of business and financial services, while over one third were classed as property, tourism and leisure activities. This table only gives information about the number of projects established by Irish firms, and does not give information about the size of these deals.

**Table 24.1: Firms Investing Abroad by Sector, 2002 - 2006**

	2002		2003		2004		2005		2006 (Jan-Feb)		2002-2006	
Sector	No	%	No	%	No	%	No	%	No	%	No	%
Business & Financial Services	9	17.6	8	17.4	8	17.4	17	28.8	2	20.0	44	20.8
Chemicals, Plastics & Rubber	-	-	1	2.2	3	6.5	8	13.6	-	-	12	5.7
Consumer Products	-	-	1	2.2	-	-	1	1.7	-	-	2	0.9
Electronics	-	-	1	2.2	1	2.2	-	-	-	-	2	0.9
Food/Bev/Tobacco	6	11.8	4	8.7	1	2.2	3	5.1	-	-	14	6.6
Heavy Industry	6	11.8	13	28.3	7	15.2	10	16.9	2	20.0	38	17.9
ICT	11	21.6	5	10.9	4	8.7	5	8.5	2	20.0	27	12.7
Life Sciences	2	3.9	1	2.2	2	4.3	3	5.1	1	10.0	9	4.2
Light Industry	-	-	6	13.0	5	10.9	1	1.7	1	10.0	13	6.1
Logistics & Distribution	-	-	-	-	2	4.3	-	-	-	-	2	0.9
Property, Tourism & Leisure	12	23.5	4	8.7	6	13.0	8	13.6	1	10.0	31	14.6
Transport Equipment	5	9.8	2	4.3	7	15.2	3	5.1	1	10.0	18	8.5
<b>Total</b>	<b>51</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>59</b>	<b>100</b>	<b>10</b>	<b>100</b>	<b>212</b>	<b>100</b>

Source: LOCOmonitor (2006).

### 24.3.2 Destination of Irish ODI

What is striking about the Irish ODI experience is that the most important destinations are geographically close to Ireland. Of the 212 Irish firms tracked by LOCOmonitor, Western Europe (58 per cent), Eastern Europe (15 per cent) and North America (11 per cent) form the three most important locations respectively. Within Western Europe, ODI to the United Kingdom is by far the most important destination, accounting for two-thirds of Irish ODI to Europe.

Conversely, the number of ODI projects destined for developing countries is relatively small, but growing. In particular, the number of ODI projects undertaken by Irish firms in developing Eastern European economies has been rising. In the earlier 2002-2003 period, developing European economies only attracted seven per cent of Irish ODI projects, though this subsequently tripled to 21 per cent from 2004 to 2006. This indicates the increased attractiveness of this region to Irish firms due both to continued economic reforms in many Eastern European countries, alongside the accession to the EU of many of them in 2005. It is also notable that Asia, including both developed countries such as Japan and developing countries such as China, attracted less than ten per cent of Irish ODI projects in the period 2002-2006.



**Table 24.2:** Regional Location of Irish ODI, 2002 - 2006

Region	2002		2003		2004		2005		2006 (Jan-Feb)		2002-2006	
	No	%	No	%	No	%	No	%	No	%	No	%
Africa	1	2.0	2	4.3	2	4.3	1	1.7	-	-	6	3
Developed Asia Pacific	2	3.9	-	-	2	4.3	2	3.4	-	-	6	3
Western Europe	34	66.7	25	54.3	21	45.7	36	61.0	7	70.0	123	58
Developing Asia Pacific	2	3.9	5	10.9	2	4.3	4	6.8	-	-	13	6
Eastern Europe	4	7.8	3	6.5	13	28.3	10	16.9	1	10.0	31	15
Latin America & Caribbean	1	2.0	2	4.3	2	4.3	2	3.4	-	-	7	3
Middle East	-	-	2	4.3	1	2.2	-	-	-	-	3	1
North America	7	13.7	7	15.2	3	6.5	4	6.8	2	20.0	23	11
<b>Total</b>	<b>51</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>59</b>	<b>100</b>	<b>10</b>	<b>100</b>	<b>212</b>	<b>100</b>

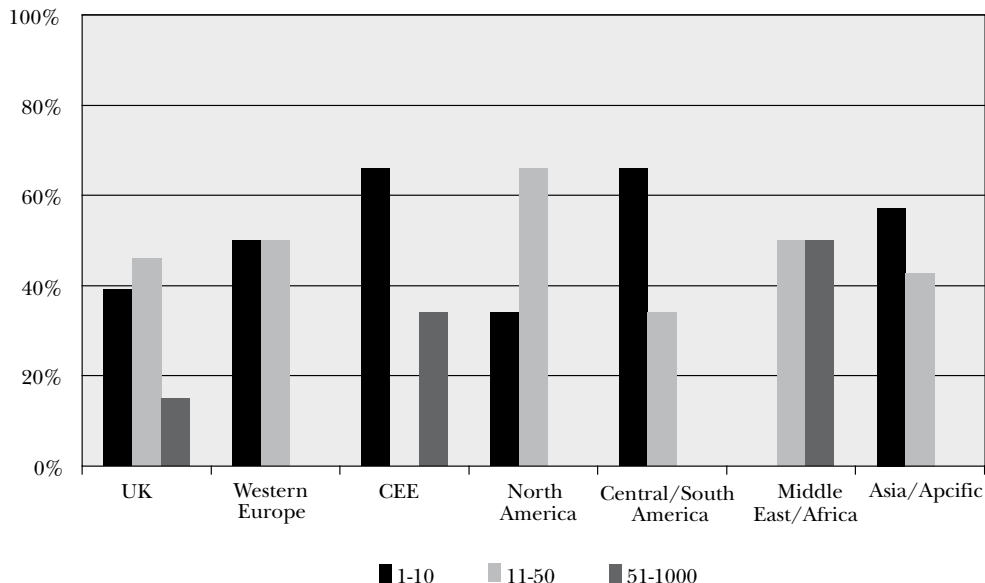
Source: LOCOMonitor (2006).

### 24.3.3 Employment in Ireland and Overseas

Turning to employment levels, PACEC (2004) found that the average Irish firm with investments abroad employed 97 workers in their Irish operations, with employment in subsidiaries outside of Ireland averaging 147. Virtually all sectors employed more workers in their overseas subsidiaries than they did in Ireland.

Supporting the LOCOMonitor data, PACEC data also indicates that the UK is the primary destination of ODI from Ireland in terms of the number of people employed by Irish firms that have invested overseas. The data also suggests that Irish investors have their largest overseas investments in the UK, presumably because they have had more time to grow their operations. While employment in Irish owned affiliates in the UK shows large size distribution ranges, investments in other countries tend to be relatively small in terms of employment.

**Figure 24.4:** Average Number of Direct Employees in Irish Affiliates Abroad by Country/Region, 2004



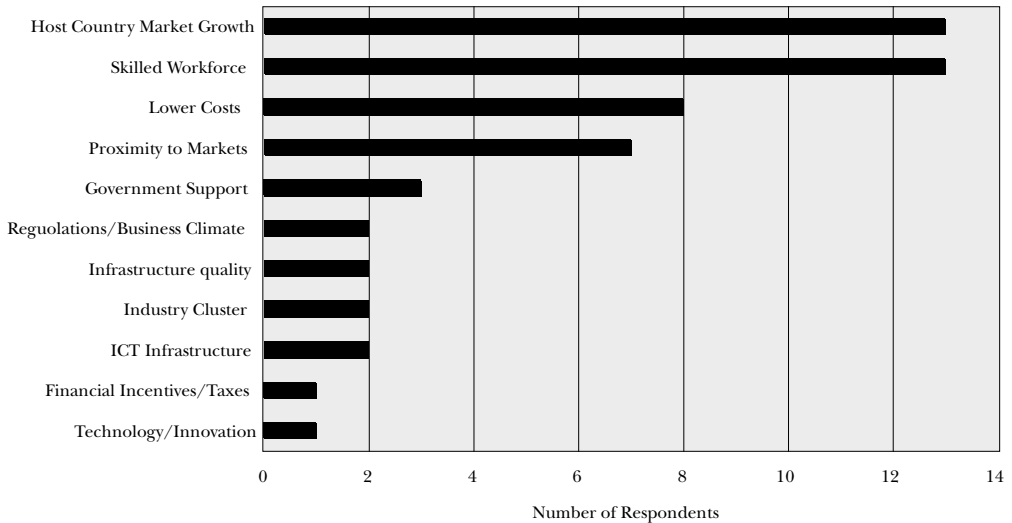
Source: PACEC (2004).

### 24.3.4 Motivations for Irish ODI

The key motivations cited for ODI are typically easier access to overseas markets and managing costs. Most of the ODI from Ireland is motivated by gaining access to overseas markets. This can be seen in Figure 24.5, with proximity to market and foreign market growth being two of the four most important reasons given for investing overseas. This is also supported by earlier evidence which highlights that most Irish investment overseas is targeted at developed, high cost markets in Western Europe and North America. It should be noted that market access is not necessarily restricted to the market of the host country, but often for the region as whole. Empirical evidence shows that MNC affiliates located inside free-trade areas display significant levels of sales to other free-trade member countries as well as to the host market (Ekholm, Forslid, and Markusen, 2004).

The ability to manage cost competitiveness is another primary motivation for ODI. This can be seen in the fact that two of the primary motivations for ODI were lower costs and the availability of a skilled workforce. Numerous reports suggest that firms can make savings of between 20 to 50 per cent when they offshore in regions such as Asia (See McKinsey, 2004 and Agrawal, and Farrell, 2003). Labour costs make up a significant proportion of these savings, with large wage differentials between developed and developing countries at almost all skill levels (See Boston Consulting Group, 2005 and McKinsey, 2004). However, cost saving on this scale is rarely achieved in practise. For example, some of these savings are lost when increased management overheads, start-up and communication costs are factored in (Deloitte, 2004). This is particularly true when a facility is directly owned and managed from great distance, such as an Irish firm managing a Chinese production facility.

**Figure 24.5:** Motivation for Irish Enterprises Investing Abroad, 2002-2006



Source LOCOMonitor (2006).

### 24.3.5 Activities Undertaken by Foreign Affiliates of Irish Firms

Table 24.3 shows that the establishment of manufacturing facilities overseas accounted for more than a quarter of all investments in the period 2002-2006. This is followed in importance by business services (21.2 per cent) and construction (12.3 per cent). Other services functions such as sales and marketing (eight per cent), logistics (7.5 percent) and R&D (2.8 percent) account for a relatively small proportion of activities overseas.

**Table 24.3:** Activities Undertaken by Foreign Affiliates of Irish Firms

Sector	2002		2003		2004		2005		2006 (Jan-Feb)		2002-2006	
	No	%	No	%	No	%	No	%	No	%	No	%
Business Services	13	25.5	7	15.2	8	17.4	15	25.4	2	20.0	45	21.2
Construction	10	19.6	3	6.5	5	10.9	7	11.9	1	10.0	26	12.3
Customer Support Centre	2	3.9	1	2.2	-	-	-	-	-	-	3	1.4
Electricity	1	2.0	2	4.3	2	4.3	1	1.7	2	20.0	8	3.8
Extraction	2	3.9	7	15.2	3	6.5	4	6.8	-	-	16	7.5
HQ	2	3.9	-	-	2	4.3	3	5.1	2	20.0	9	4.2
Internet/ICT Infrastructure	1	2.0	-	-	-	-	-	-	-	-	1	0.5
Logistics	3	5.9	2	4.3	8	17.4	2	3.4	1	10.0	16	7.5
Maintenance/Service	1	2.0	1	2.2	-	-	-	-	-	-	2	0.9
Manufacturing	9	17.6	17	37.0	12	26.1	16	27.1	-	-	54	25.5
R&D	1	2.0	-	-	2	4.3	3	5.1	-	-	6	2.8
Retail	3	5.9	2	4.3	-	-	1	1.7	-	-	6	2.8
Sales & Marketing	2	3.9	4	8.7	3	6.5	6	10.2	2	20.0	17	8.0
Shared Service Centre	-	-	-	-	1	2.2	1	1.7	-	-	2	0.9
Testing /Training	1	2.0	-	-	-	-	-	-	-	-	1	0.5
<b>Total</b>	<b>51</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>59</b>	<b>100</b>	<b>10</b>	<b>100</b>	<b>212</b>	<b>100</b>

Source: LOCOmonitor (2006).

### 24.3.6 Implications for the Irish Operations

Over 70 per cent of firms who have engaged in ODI believe that it has produced positive effects on their strategic management and marketing and sales capabilities in Ireland. There is a common perception that international management skills have also improved, as have R&D and design capabilities. Forty three per cent remarked that there had been a reciprocal effect of technology upgrading by technology transfer from affiliates abroad.

**Table 24.4:** Implications for the Irish Operations

<b>Business Process</b>	<b>%</b>
Enhanced Strategic Management	71
Enhanced Marketing & Sales	71
Enhanced International Management Skills	57
Enhanced R&D	57
Enhanced Design	57
Increased Specialisation of Irish Activities	43
Enhancement of Business Processes	29
Enhanced Ability to Raise Processes	14

**Source:** PACEC (2004).

## 24.4 Econometric Estimates of Effect of ODI on Productivity

As Ireland is now characterised by full employment, rises in future economic welfare will depend primarily on increases in productivity. ODI can enhance the productivity of the Irish economy, by allowing Irish firms to focus on areas where they have a comparative advantage, by creating new market opportunities for a firm's existing products and by promoting the creation of new dynamic firms, and the destruction of old inefficient ones.

Given the ways by which ODI can affect productivity, this section reviews the available evidence at both the economy level and the industry/plant level. The section then concludes with a discussion on the evidence regarding changes in total output as opposed to productivity.

### 24.4.1 Economy Level Productivity Effects

The small numbers of studies that examine the productivity effects of offshoring production at an aggregate economy wide level suggest that it has a positive impact in the long run, particularly for small countries like Ireland. A study on the effect of offshoring production on the European Union found a positive long run impact, while a study which focused solely on the offshoring of the production of materials inputs in the US also found a small but positive productivity effect.<sup>2</sup>

Research on the Austrian economy, a smaller economy, showed that offshoring production had a much larger productivity impact (Egger et al., 2001a). A possible explanation for this difference is that large economic regions such as the EU or the US tend to be less open in terms of trade flows, and as such any benefit from ODI might be more difficult to detect statistically. For example, some of the offshoring from Austria was to other EU countries, such as Germany. In the study of the EU as a whole, this is not classed as ODI, as it takes place entirely within the EU.

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## 24.4.2 Firm Level Effects

The results of the firm level research is consistent with the economy level evidence discussed above, namely that offshoring production is associated with higher productivity. Research conducted at the firm level, however, allows researchers to probe this result further, and identify the specific conditions under which ODI is most likely to be conducive to higher productivity. In particular, the research has examined three characteristics which are thought to affect the productivity impact of ODI:

- Whether the firm is offshoring production to overseas operations that produce material inputs (such as hard drives) or services inputs (such as software).
- Whether the Irish based plant is domestically or foreign owned.
- Whether the Irish based plant trades locally or is export focused.

Research results to date by different researchers on different data sets have often come up with mixed conclusions as to when offshoring production is most likely to result in higher productivity.

In recent years, firms seem to have made the most gains from offshoring the production of services rather than material inputs. For example, the offshoring of services production by the Irish electronics manufacturing industry was found to have a positive impact on productivity, though no benefit was detected from goods offshoring (Görg and Hanley, 2003). One possible explanation for this finding is that as material outsourcing has a much longer history than services outsourcing, the productivity gains have already have been achieved. The data coverage in these studies might not stretch back far enough to capture the phenomenon's original productivity enhancing effects. Other studies from the UK and US show more mixed results.<sup>3</sup>

Offshoring by Irish firms can potentially be just as important in terms of enhancing productivity as offshoring by foreign MNCs based in Ireland. The productivity effects of goods offshoring are of a similar positive magnitude regardless of whether the plant is foreign or domestically owned (Görg et al., 2004). Evidence based on research in the UK is more mixed. A study of UK manufacturing found that foreign ownership re-enforces the positive effects of outsourcing on productivity (Girma and Görg, 2004). Conversely, a second study found that a positive productivity effect is only significant for domestically owned firms (Criscuolo and Leaver, 2005).

## 24.4.3 Level of Output

While offshoring some element of production is associated with higher productivity, it does not necessarily follow that it is associated with higher aggregate output. The cumulative transfer of elements of manufacturing to overseas locations over the last number of decades is often identified as the principle cause of deindustrialisation, the term used for the observed decline in the importance of manufacturing in rich, developed countries.<sup>4</sup>

However, a recent study showed that net trade with low wage countries is associated with only one-fifth of the deindustrialisation observed in a range of OECD countries between 1970 and 2002 (Boulhol and Fontagne, 2005). As such, while internationalisation had a noticeable effect on the reduction in the share of manufacturing, much of the observed deindustrialisation happened because of relatively high productivity growth in manufacturing.

Even if offshoring of production is contributing to the decline in the importance of manufacturing, they seem to support a higher level of economic output in aggregate. Survey evidence suggests that ODI by Irish firms – including both manufacturing and services firms – has generally had a positive impact on exports (PACEC, 2004). Of the firms interviewed, 57 per cent reported that the ODI had resulted in an increase in exports from their operations in Ireland, while only 14 per cent reported that the ODI had resulted in a decrease in exports from Ireland.

## 24.5 Conclusion

The pace and scale of direct investment flows from Ireland is likely to be one of the most important features of Irish economic development over the next decade. The evidence presented in this chapter shows that much of the outward investment over the last number of years has been motivated by market access, rather than by accessing lower cost inputs. This can be interpreted as *prima facie* evidence that the impact on the Irish operations of much ODI has been positive, in that it entails moving to higher value added functions such as management. Firms also report that this in fact has been the case, with over 70 percent of firms who have engaged in ODI reporting a positive effect on their strategic management and marketing and sales capabilities in Ireland. Finally, the econometric evidence shows that offshoring (whether involving ODI or not) has a generally positive effect on productivity, though the evidence is mixed regarding which firms/activities benefit most.

## Notes

- 1 The section is based on two primary data sources on Irish firms. The first is a study by PACEC consulting commissioned by Forfás. This is a quantitative and qualitative survey into ODI from Ireland which was undertaken on behalf of Forfás in 2004 with 20 Irish-owned firms active in international trade. Specifically, those interviewed were in senior positions – directors, managing directors and financial director/managers. The second source is LOCOMonitor, a global database that tracks Greenfield ODI projects internationally. Of the 35,800 ODI projects worldwide tracked by LOCOMonitor since 2002, 212 originated from Ireland.
- 2 The EU study was conducted by Egger and Egger (2001b), and the US study by Amity and Wei (2004).
- 3 The US study was conducted by Amity and Wei (2004b), and the UK study of services establishments was conducted by Criscuolo and Leaver (2005).
- 4 The transfer of elements of manufacturing from developed to developing countries involves more than offshoring. Offshore outsourcing or offshoring through ODI includes the transfer elements of manufacturing out of developed countries such as Ireland while retaining some production in Ireland. However, a company can transfer its entire manufacturing operations abroad, or can go into liquidation. Deindustrialisation because of net trade with developing countries captures both of these ways that manufacturing can leave Ireland.

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