

**U.S. Foreign Direct Investment in Ireland:
Making the Most of Other People's Money**

Rebekah Berry



*Clap hands, clap hands,
Till Daddy comes home,
With buns in his pocket
For Maisie alone.
Clap hands, clap hands,
Till Daddy comes home,
For Daddy has money
And Mammy has none.*

(Traditional Irish children's song.

Quoted by Frank McCourt in *Angela's Ashes*, p. 29)

Introduction

Is it possible that Ireland, where even the traditional children's rhymes describe poverty, has become the world's largest software exporter? Yes, it is, and what's more it is also producing semiconductors, finished pharmaceutical products, medical lasers, and aerospace equipment. As recently as 1986 Ireland was one of the poorest countries in the European Union (EU),¹ but today it is one of the richest. Mammy has money, and Daddy

¹ In 1986 gross domestic product (GDP) per capita in Ireland was 64 percent of the EU average, unemployment was 18 percent higher than the EU average, and national debt levels were 120 percent of gross national product (GNP). Real interest rates were high and emigration was heavy. (Cassidy, p. 1)

does too. The engine of this new Irish prosperity has been foreign direct investment (FDI).²

Ireland has always been a small country with a proud cultural heritage, but it has been dependent nonetheless on larger countries for its economic well-being. For centuries, England dominated the Irish economy – occasionally for better, often for worse. However, over the past twenty years Ireland has freed itself from English economic domination by utilizing two natural advantages: its geographic proximity to Europe and its cultural ties with the U.S. Today, only 21 percent of Ireland’s exports go to the U.K., compared with about 90 percent in 1960. (Barry and Bradley, p.1798)

Believe it or not, the Irish have done almost everything right. They have attracted huge amounts of money from America – due largely to a century of personal and familial ties – and they have used this money to build factories that sell goods into the European common market. Only Ireland was in a position to pull this off. Its cultural ties to America and its geographic proximity to Europe have produced its current economic success. Everyone is winning.

In this paper I will explain the nature of American investment in Ireland and show how it has affected the Irish economy. U.S. companies have chosen to invest in Ireland primarily because of three strategic advantages: the Irish workforce, Ireland’s tax and regulatory incentives, and EU integration. I will examine how effective each of these factors has been in attracting FDI in the past and outline how present prosperity can be

² This paper’s definition of FDI comes from the U.S. Department of Commerce’s Benchmark Survey on Foreign Direct Investment, where it is defined as: “Ownership or control, direct or indirect, by one foreign person of 10 percent or more of the voting securities of an incorporated U.S. business enterprise or an equivalent interest in an unincorporated U.S. business enterprise.” (“Foreign Direct Investment...,” p. 3)

continued. Finally, I will discuss Ireland's success in developing information transfer and backward linkages.

Foreign Direct Investment: U.S. Leadership

The process of opening the Irish economy began in the 1970s with the signing of the Anglo-Irish Free Trade Agreement and Ireland's membership into the European Economic Community (EEC). Opening the economy was originally aimed at helping struggling domestic industries; however, the low labor costs, low tax rates, and trade agreements with Europe also attracted foreign investors. Ireland realized the positive effect that foreign investment could have on the economy and since then has made a conscious effort to attract investment. Consequently, FDI into Ireland has been increasing since the 1970s.³ (Durkan pp. 6-12) Because Ireland is a small country, FDI has a much more important impact than it does in larger countries such as the U.S., which receives much larger sums of foreign investment. In fact, Ireland currently receives the highest amount of FDI per head, and in 1998 it had one of the highest rates of FDI inflows as a percentage of GDP. ("The Cutting Edge")

The U.S. dominates FDI in Ireland, accounting for 64 percent of employment by foreign companies. (Industrial Development Agency, "Vital ...") As Table 1 illustrates, U.S. companies account for 54.1 percent of total Irish output, with significantly higher percentages in the chemical and electronics industries. High tech sectors such as these accounted for almost 70 percent of manufacturing output in 1998; 91 percent of this output came from foreign owned companies. (Cassidy, p. 5)

Table 1

³ For a complete list of foreign companies investing in Ireland, see Appendix A.

U.S. Investment Data 1998

	All Industry	Chemicals	Electronics	Pharmaceuticals
U.S. Firms' % of Output	54.1	74.5	76.3	38.9
% of Output Exported	72.9	94.7	90.6	95.3

Source: Census of Industrial Production, 1998, in Durkan (2001)

Unlike U.K. companies, which only export 39 percent of output, the majority of which goes back to the U.K., U.S. multinationals in Ireland export 96 percent of output, over half of which goes to the EU. (Barry and Bradley, p.1900) The emergence of these U.S. multinationals, which have used Ireland as a base for exporting into Europe, has transformed Ireland into an export-driven economy.

Since 1987 GDP growth in Ireland has averaged about 6.5 percent, with growth rates sometimes reaching 9 percent.⁴ (Cassidy, pp. 1-3) Table 2 compares the GDP and employment rates of Europe and Ireland over the period 1981-2000. Most of this growth has been attributed to Foreign Direct Investment (FDI).

Table 2
Economic Comparisons

	1981-90	1991-93	1994-00
Average Annual GDP Growth			
Ireland	3.60%	2.60%	8.90%
EU-15	2.40%	0.80%	2.50%
Average Annual Employment Growth			
Ireland	-0.20%	0.50%	4.60%
EU-15	0.50%	-0.90%	1.20%

Source: Eurostat, in Cassidy (2001)

⁴ GNP, which may be a better measure for Ireland since it adjusts for incomes sent abroad, grew at an average annual rate of around 8 percent between 1994 and 2000.

The People: An Inexpensive, Well-Educated, English Speaking Workforce

When we weighed all of the factors involved, Ireland was the clear winner. Telecom Ireland's pricing package was unbeatable. Salaries are as much as 50 percent lower for a workforce that is younger and better educated than elsewhere, many with second and third languages.

Geoff Obeney, MIS Director, Gateway Corporation PLC

Gateway is not the only multinational company (MNC) that has noticed the desirability of Ireland's workforce. In fact, a key incentive for many MNCs to locate in Ireland has been the high skill-low cost characteristic of the Irish workforce. Irish workers speak English, are well educated, and for most of the 1990's were among the cheapest labor in the EU.

Ireland's education system has been ranked as one of the best in the world according to a 1999 independent *World Competitiveness Yearbook* report by the Institute for Management Development (IMD), one of the top five executive business schools in the world. In Ireland 65 percent of the population between the ages 5-29 are enrolled in various levels of schooling, a greater percentage than in France, Germany, Spain, Portugal, and Japan. Since 1970 the number of students enrolled in third level (the equivalent of U.S. college) has quadrupled. (Cassidy p. 24) Furthermore, over half of college graduates obtain degrees in computer science, engineering, science, or business, subjects that add value to the workforce. (Industrial Development Agency, "Vital..." p. 6)

In addition to the high quality of education in Ireland, the return of highly educated Irish immigrants from North America and Europe has also added value to the Irish workforce. A study by Barratt and Trace (1998), as quoted in Cassidy, has shown that that immigrants, both Irish and non-Irish, have higher levels of education than the general Irish population and are likely to add value to the Irish workforce. (Cassidy p. 25)

Another important characteristic of the Irish workforce is that it is English speaking. This makes information exchange and training between and within companies easier. Additionally, language compatibility makes it more appealing for highly skilled U.S. employees to spend time working in Ireland, where they can dine, shop, and socialize without facing language difficulties.

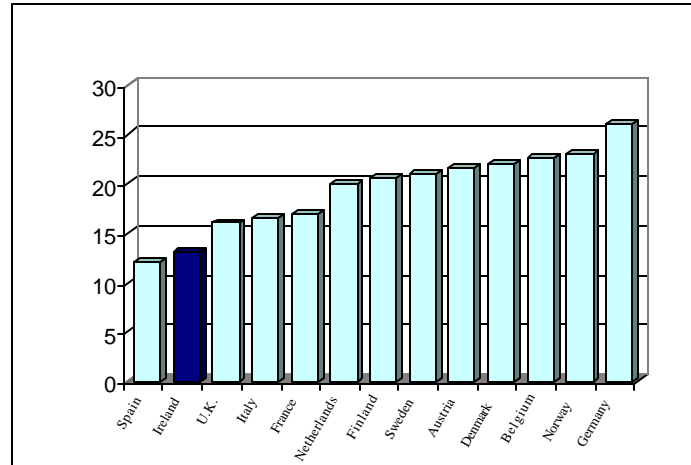
In addition to language compatibility, there is also a cultural compatibility between Ireland and the U.S., a compatibility that has emerged from a constant flow of immigration and tourism. Because of this, employers in America are familiar with Irish culture, or are even Irish themselves, and have a natural tendency to feel more comfortable working with Irish workers than with workers of some of the other low wage EU countries.

The importance of cultural ties and language compatibility can be seen in this quote by Rory O'Donnell, of the Institute of European Affairs:

While at the outset of our membership of the European Community it was possible to argue that much of the US interest in investment in Ireland was as an English-speaking base with access to the European market, I believe the perspective has changed. Our huge success in attracting high-tech and information-oriented industries and services is both a product of, and cause of, an extraordinary Irish achievement in deepening our relationship politically, diplomatically and economically with the United States, while at the same time embracing European integration. (O'Donnell, p. 48)

As if being culturally and linguistically compatible and highly educated were not enough, Ireland also has had one of the lowest wage rates in the EU. Figure 1 compares the hourly compensation (wages plus benefits) that companies in Ireland must pay with those of other EU countries.

Figure 1
Average Hourly Compensation (in US \$)



Source: U.S. Department of Labor (2000), in IDA Ireland: “Why Ireland – Competitive Costs.”

Ireland’s low wages are largely due to its national partnership agreements between workers and the government, which were established as part of the Program for National Recovery in 1987. (Burke, “Sparring Partners...”) In the series of national agreements that followed, workers agreed to accept lower wage increases in return for tax cuts that provided a significant increase in actual take-home pay. Both workers and companies have benefited from these agreements; the take-home pay for the workers has not been lowered, while employers have been able to obtain high skilled labor at a low cost.

The national partnership agreements have helped keep industrial peace and maintain coherence in planning between government, workers, and businesses. But with unemployment estimated to be as low as 3.3 percent in 2001 and inflation as high as 4 percent, wage demands are now increasing. Strikes in the late 1990’s and higher wage demands by nurses, bus drivers, and construction workers reflect the recent tension between workers and employers. (Sullivan) Wages in general have risen 7.8 percent in 2000, with estimates of a 10.2 percent growth in 2001. (McCoy, p.1) With a tight labor

supply, the bargaining power of the workers is much greater than it was in the high unemployment times of 1987 when the first partnership was negotiated.

The government is addressing the tight labor supply problem by bringing in at least 200,000 skilled immigrants to Ireland over the next six to seven years. (Yeates, “Employers Back Plan...”) To attract these new immigrants, the state training and employment agency has held job fairs all over Europe and North America. (Breathnach, p. 2) The government hopes that an increase in the labor supply through immigration will help to relieve some of the upward pressures on wages.⁵

The Irish workforce is one of the best in the world. As the Irish economy has grown, however, workers have demanded and will continue to demand higher wages. Inevitably, less developed European economies, such as those in the Eastern bloc, will have lower wage rates and may begin to spend generously on education to create a skilled work force just as Ireland did. Ireland’s great long-term advantage is that no matter how low the wages or how high the skills levels of workers in these developing EU countries, English is not their first language.

The Government: Lower Taxes and Less Bureaucracy

The fact that the Irish speak English may be considered a fortunate accident of history, but the government’s friendly attitude towards business over the past twenty years is no chance occurrence. As early as the 1970’s, Ireland recognized the benefits of attracting high tech, knowledge-intensive industries. The Industrial Development

⁵ The government is also trying to increase the labor supply by inducing even lower unemployment. In the 1999 budget, for example, the finance minister moved to encourage potential wage earners to seek employment rather than receive welfare by not requiring taxes on the first 100 pounds of earnings. (Suiter)

Agency (IDA), a national organization responsible for securing investment from overseas, was given funding for projects that targeted the development of these industries, particularly focusing on attracting investment from the U.S. (Cassidy, p.17) The government went one step further in 1981, when it introduced a low tax rate of 10 percent for international manufacturing companies.⁶

Currently, Ireland has two tax rates. Activities within the Shannon airport zone, the Dublin International Financial Services Center (IFSC), and all manufacturing activities are all taxed at a rate of 10 percent.⁷ Other corporate taxes within Ireland can be as high as 25 percent, but few international companies pay this rate since the Irish government has defined “manufacturing” liberally. In addition to traditional manufacturing activities, Ireland’s definition includes data processing, electronics, software development, pharmaceuticals, repair of ships, shipping activities, and film and newspaper production.

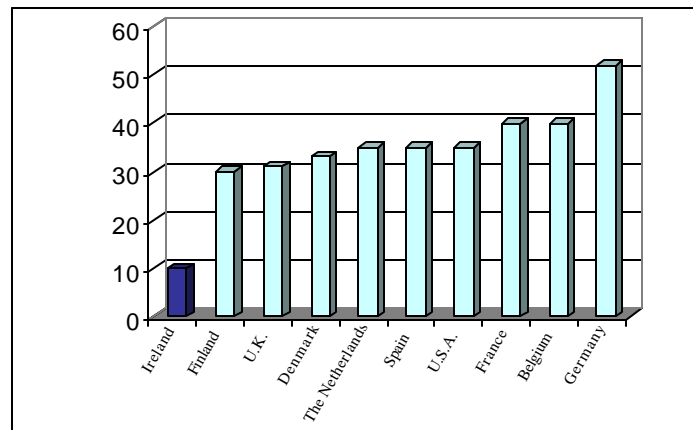
Ireland’s dual corporate tax structure has led to complaints of unfair tax favoritism by other EU countries and the domestic companies that do not qualify. Ireland has responded with a new corporation rate of 12.5 percent that will be applied to all trading sectors after December 31, 2002. All higher tax bracket activities will move

⁶ Ireland has a relatively low tax rate on E-commerce, as long as Europe continues to follow the initiative reached by the OCED in 1998, which states that E-commerce should be taxed in the same way as traditional commercial activity. If all of the EU countries follow this standard, Ireland will remain competitive in this area since its tax rates on commercial activity are already so low (Revenue, pp. 71-72).

⁷ Eligible activities in the Shannon airport zone include the repair and maintenance of aircraft, trading operations increasing the use of Shannon Airport, and trading operations ancillary to manufacturing trade. The IFSC was established in 1987 to revitalize the Dublin docklands area. It encompasses financial service businesses like asset financing, corporate treasury and investment fund management, custody and administration, and futures and options trading. (Cunningham)

down to 12.5 percent by this deadline, and the current rate of 10 percent will be phased out over a longer period of time for different activities. For example, the tax rate on manufacturing activities will remain at 10 percent until December 31, 2010, and the Shannon Airport Zone and the Dublin IFSC will keep the 10 percent rate until December 31, 2005. (Cunningham) Although the new rate is an increase from the extremely low 10 percent rate, the scheduled 12.5 percent rate still remains significantly below the rate in the U.S. and other European countries, as Figure 2 illustrates.⁸

Figure 2
Corporation Tax Rates for Manufacturing and Qualifying Services



Source: Deloitte and Touche (2000) as in IDA Ireland: “Why Ireland – Taxation.”

⁸ Although they have criticized Ireland, several other EU countries have adopted the Irish dual tax model, offering hidden incentives in special geographic regions or industries. For instance, Portugal has a zero tax rate in Madeira and Azores; Spain has a zero tax rate in Ceuta, Melilla, and Basque Holding Companies; the Netherlands has a 7 percent rate for multinational finance and holding companies; Belgium has expatriate tax breaks, and Luxembourg also offers breaks for holding companies. (Cunningham).

The low tax rates in Ireland have naturally led to “transfer pricing,” an accounting technique that defers as much income as possible to the country with the lowest tax rate.⁹

This practice has been a source of tension between both U.S. multinationals and the IRS,

⁹ Examples of transfer pricing include: 1. Writing the work of a high skilled U.S. employee as the work of an employee in Ireland in order to report the profits in Ireland (Murphy, p. 18) 2. Selling Irish output at artificially high prices to maximize profits in Ireland. (Durkan, p. 14)

as well as between Ireland and the EU, because it distorts growth and output figures. Productivity and growth in Ireland is overstated so that more profits are reported in Ireland. This means less tax revenue for other countries, which has caused frequent international complaints against Ireland's low tax rates and has become one of the foremost arguments for fiscal harmonization, which will be discussed later.

Most countries also have local or state corporate taxes on businesses in addition to those levied by the central government. Once again, Ireland has one of the lowest rates in the EU, second only to that of Greece. In 1996 local taxation was only 2.3 percent of total tax revenue. Ireland's local taxes will continue to remain competitive in the future, since Revenue (the Irish tax collection agency) has stated that any increase in local taxes will be offset by reductions in income taxes, leaving the total tax burden unchanged.

(National Economic and Social Council, pp. 35-36)

Income tax rates, which are sometimes a concern for the management of MNCs because of their effect on the relocation of international employees, are also low in Ireland. The income tax rate in Ireland is 24 percent for the first 14,000 pounds of taxable income, and 46 percent for the balance. Ireland has income tax treaties with most industrialized countries, which allow for foreign-taxed income to be deducted from Irish income taxes. ("Ireland -- Overview and Introduction.")

The importance of tax breaks to MNCs investing in foreign countries is still being debated. Economic studies have shown that in many cases excessive tax rates may deter investment, but the inverse is rarely true. Studies by the Foreign Investment Advisory Service (FIAS) have shown that low tax rates alone do not attract FDI. (Bergsman) Also, H. J. Robinson's study of 205 companies in 67 countries supports this conclusion. The

study found that government officials rated tax incentives highly, but executives of MNCs did not.¹⁰

The FIAS study concludes that tax and other government incentives are only effective in export-oriented investments, in countries or regions similar to neighboring countries or regions, in places where the business climate is favorable, and where the incentives occur sooner in the project's life and with more certainty. Ireland meets all of these qualifications. The FIAS study also asserts that for tax incentives to be effective, they should not be above the average tax rate within the economic zone they are competing in. Attractive countries with large markets of their own can afford to have the average tax rate or slightly higher, but smaller countries looking for an export market should have rates that do not go above 10-15 percent. (Bergsman, p.4-7) Ireland falls within this second category, making tax incentives a key factor in competing with similar European countries for access to the EU market.¹¹ Furthermore, Ireland does not have the advantage of an exclusive access to a large domestic market that countries such as the U.S. and Brazil have. This makes taxes at the lower end of the scale necessary.

¹⁰ Another major study by the IFC Development Committee also supports this claim, but qualifies it with the important proviso that tax rates do attract FDI if the investor is deciding between two similar platforms for producing to export markets or between two similar platforms for producing in one large market (such as the U.S, China, Brazil, or the EU). Where investors can find alternative locations that have comparable conditions to export to a larger market, incentives become more important. (Guisinger) This is supported in recent studies by Alshuler, Grubert and Newlon (1998) and Gropp and Kostial (2000), as used by Cassidy, which confirm that corporate tax rates do effect the location of investment, and that they are a necessary but not sufficient condition for attracting funds. (Cassidy, p. 20)

¹¹ Because Ireland is part of the bigger EU market with no internal trade barriers, Ireland's tax rates should be compared with those of other EU countries; countries in Latin America and Asia will not always be competing for the same local market. Ireland's tax rates are extremely competitive within this EU context. Even though Ireland's corporate tax rates may be higher than rates in Asia and Latin America, so are the rates in the rest of Europe.

In addition to a low tax rate, Ireland has also developed a non-financial incentive for businesses – reducing red tape. In a recently launched program (Reducing Red Tape: An Action Program of Regulatory Reform in Ireland) the government has placed responsibility on each department or office to revise, consolidate, or repeal frivolous laws within their jurisdiction, especially those that hinder market entry or are burdens to small businesses. (National Economic and Social Council, p. 48) In addition, Revenue has made an effort to reduce the red tape involved with tax payments by consolidating taxes, creating electronic payment options, and maintaining high levels of customer service. (Quigley)

In summary, the Irish government is openly committed to attracting business and making foreign companies as comfortable as possible by keeping taxes and regulations at a bare minimum.

The Eu: Trade, Taxes, And Inflation

The low cost way to support European customers is from a single site. This enables overheads, inventory, and accommodation costs to be minimized. Dell pioneered the trend by centralizing European logistics and customer support in Ireland, which offers one of the lowest cost and most flexible working environments in Europe.
Michael Dell, President and Chief Executive, Dell Computers.

Ireland's decision to join the EU and later the European Monetary Union (EMU) has been a third crucial factor in attracting foreign investment. Today 47 percent of Ireland's exports are destined for the EU, and only 21 percent are destined for the U.K. (Central Statistics Office) While becoming part of this larger entity has undoubtedly

helped to attract FDI, Ireland's robust rate of economic growth may be difficult to sustain due to some of the levelling policies of the EMU.

Ireland has often experienced economic cycles that do not correlate with those of other major EU countries. For example, in the past two years Ireland's economy has been rapidly growing, but the rest of Europe has been experiencing growth slowdowns. Similarly, while Ireland's unemployment has been low, other parts of Europe have experienced high unemployment. Another difference has been the inflation rate; faster-growing periphery countries such as Ireland and Spain have had higher rates of inflation (5.6 percent in Ireland in 2000), while the EU core economies such as France and Germany, which make up 55 percent of the EMU economy, have had inflation rates of around 1.5 percent. (Lynn, p.2).

These economic factors produced an expansionary monetary policy for the EU that benefited the core countries, but that accelerated Ireland's inflation problem. The general attitude of the EU has been that Ireland should adhere to the common monetary policy and handle the resulting inflation problem internally. In fact, European Monetary Affairs Commissioner Pedro Solbes warned that if inflation in Ireland is to be dealt with, it should be through Ireland's fiscal policy and not through monetary policy from the ECB. (Lynn, p. 3) However, even the use of fiscal policy is being threatened by EMU membership. Fiscal harmonization, which would force all EMU countries to have the same tax structure, would undermine Ireland's competitive tax advantage. Unfortunately for Ireland, this strategy is being actively pursued by several influential members of the EMU community. For instance, when asked about fiscal harmonization within the EMU, European Central Bank council member Eugenio Domingo Solans stated:

There has to be harmonization, though not uniformization of taxes in Europe. It's a key element of European economic and fiscal integration. It's essential that there not be fiscal distortions in Europe. Currently, tax treatment of savings stumbles over fiscal redoubts that aren't transparent. We have to eliminate the distortions in income tax treatment of savings...I think progress of plans for tax harmonization are desirable. (Lewis, p.1)

Proponents of fiscal harmonization within Europe argue that different tax structures within different states of the EMU will stimulate tax wars because labor and capital can move freely within the EU. Workers and investments will go where taxes and government regulations are less burdensome, leading to tax competition that could hurt the fiscal structure of countries with high levels of government spending, such as France and Germany, who both have a strong influence on EU policy-making. ("Level-headed") Harmonization proponents also argue that different schemes of taxation and regulation add to the cost of doing business across borders, a problem that could be avoided if governments have conforming codes of taxation and regulation. France has been the major promoter of tax harmonization, proposing a legally enforceable tax code, which would eliminate the current tax irregularities that have enticed companies to cross the borders. ("Taxidermy")

Not surprisingly, low tax countries, such as Ireland and Spain, argue that tax competition is not harmful, but is rather an effective means of lightening tax burdens. They argue that since any country can lower taxes, countries with low taxes do not have an immutable unfair advantage.¹² ("Taxidermy") Furthermore, implementation of fiscal

¹² Interestingly, this is exactly what seems to be happening in Europe. In 2000, Finland was the only OECD country to report an increase in tax rates, while France, Germany, Ireland, Japan, Poland, Czech Republic and the UK continued cutting tax rates. Germany has scheduled tax cuts over the next few years that will drop the corporate tax rate to below 40 percent. ("KPMG Corporate Tax...")

harmonization would also discourage other countries, such as the UK, from joining the EMU. (“Britain, Out of Harmony Again”)

In 1997 EU member states drew up a “Code of Conduct on Business Taxation,” with Ireland playing a significant role in its drafting. The treaty addresses unfairness and harmful competition by identifying areas where tax levels are inappropriately low in a specific industry within the member state, thereby influencing the location of business. The OECD has also tried to help Europe come to a solution regarding this matter, by publishing a report in 1998 that focused on harmful tax competition, which made the distinction between low tax rates and harmful tax competition. The OECD report claimed that low tax rates were not harmful in and of themselves, but were so when combined with other unfair legislative or administrative features, such as lack of transparency in disclosing tax information and lack of information exchange. The report concluded that low tax rates alone were not unfair and that fiscal harmonization or minimum tax levels would not be appropriate. (Revenue, p.73) Despite this report, tax harmonization is still on the table for the EMU.¹³ This is not an immediate concern for Ireland, but it may be soon because its membership in the EMU will force it to comply with whatever tax decisions are made.

High Tech Services: Attaining Global Competence

One of the key factors deciding the economic success of FDI in small, open economies such as Ireland is the country’s ability to learn from and adapt to the research

¹³ The EU has already interfered with Ireland’s fiscal affairs. On February 13, 2001, the European Commission officially reprimanded Ireland for loosening its fiscal policy. Ireland had not broken any rules of the Maastricht treaty, yet the commission still felt the need to try to influence Ireland’s fiscal policy. (“Ireland’s Euro-sins”)

and development of others. (O'Hagan, pp.204-206) The IDA is now targeting investors who will locate their high value-added processes and research and development (R&D) in Ireland. A recent survey has shown that firms that fit these criteria provide better quality employment and are more committed to the Irish economy. (Cassidy, p. 19)

One way to do this is by expanding "backward linkages," in which foreign subsidiaries purchase goods and services from locally owned suppliers. (Battat, Isaiah, and Shen, p.1). Backward linkages have been increasing since service intensive industries such as PC producers have located in Ireland. (Durkan, pp.13-18) Developing backward linkages has advantages for both the foreign company and the host country. The host country benefits from the increase in economic activity, the increase in income, the transfer of technological and the management skills, and international recognition as local companies improve their products and services to meet international standards. MNCs benefit because more interaction and information exchange with the local services sector means cheaper, higher quality products.

Ireland, along with Taiwan, Singapore, and South Korea, is one of the few countries to develop official programs designed to encourage backward linkages. In 1983 Ireland established the National Linkage Program (NLP), whose mission is to assist domestic vendors in becoming competitive, reliable suppliers of goods and services to large buyers, both domestically and internationally. The NLP also works as a matchmaker by researching potential linkage opportunities between Irish suppliers and MNCs. Thus far, the NLP has been a success in Ireland with over 200 foreign affiliates and 83 suppliers participating in the program. Since its foundation, Irish suppliers have seen their sales increase by 83 percent, productivity by 36 percent, and employment by

33 percent. (Battat, pp.30-31) It is estimated that for every job in software there are one or two more jobs in support services. (Burke, “Firms Bask...”) The government also estimates that the service sector will bring in 260, 000 new jobs into the economy by 2010. (Yeates, “Both Sides Try...”)

Enterprise Ireland, a government organization responsible for assisting in the development of Irish companies, is also working towards increasing Ireland’s domestic market share of high-tech manufacturing with its “Commercialization of Research and Development” program founded in 1996. The program involves funding and resources for campus start-up companies within Ireland, ranging from marine technology to web-based genealogical tracing. Already the program has funded 38 healthy companies that employ about 400 people. Enterprise Ireland hopes that these companies will mimic the success of other former campus companies such as Iona Technologies, founded in 1991 by three computer scientists from Trinity College. Iona is now a high tech multimillion-dollar company listed on the NASDAQ Exchange. (“Skills Shortage...”)

Conclusion

Ireland does not have the large population, high levels of local capital, or abundant natural resources necessary to promote intense capitalism or large national industries that can compete at a global level. But Ireland does not need these things to be successful. Ireland has used what it does have -- a low tax rate, the English language, EU membership, a highly educated population, and plenty of job openings – to attract the foreign investment necessary for strong economic performance. When Ireland’s golf courses, friendly pubs, beautiful scenery, and its traditions in music, literature, and the

theatre are added to this list of commercial incentives, foreign companies do not have to be asked twice to locate there.

References

- Altshuler, R., H. Grubert, and T.S. Newlon. "Has US Investment Abroad Become More Sensitive to Tax Rates?" NBER Working Paper No. 6383, 1998.
- Barry, Frank and John Bradley. "FDI and Trade: The Irish Host-Country Experience." *The Economic Journal*, November 1997.
- Barrett, A. and F. Trace. "Who Is Coming Back? The Educational Profile of Returning Migrants in the 1990's." *Irish Banking Review*, Summer: 38-52.
- Battat, Joseph, Frank Isaiah, and Xiaofeng Shen. "Suppliers To Multinationals." FIAS Occasional Paper #6. Washington D.C.: The World Bank, 1996.
- Bergsman, Joel. *Advice on Taxation and Tax Incentives for Foreign Direct Investment*. FIAS. Washington D. C.: The World Bank, 1999.
- Breathnach, Poilin. "Euro Region's Jobless Rate Seen Falling to 9.1%." Bloomberg Professional. July 31, 2000.
- "Britain, Out of Harmony Again." *The Economist*. Online. www.economist.com. November 28, 1998.
- Burke, Sandra. "Firms Bask in the Success of the Software Industry." *Irish Times*. Online. <http://www.ireland.com/education/business2000/index51.html>.
- Burke, Sandra. "Sparring Partners Put Pay at Risk." *Irish Times*. Online. <http://www.ireland.com/business2000>.
- Cassidy, Mark. "The Irish Economy: Recent Experience and Prospects." Conference Paper, "Ireland Open for Business: Success, Problems, and Prospects." Lehigh University, March 7-9, 2001.
- Central Statistics Office. External Trade. April 2000

- Cunningham, William T. "Ireland – Incentives & Inward Investment." Remarks to the Martindale Group, May 25, 2000. Dublin: Arthur Andersen.
- "Cutting Edge." *The Economist*. Online. www.economist.com. February 22, 2001.
- Durkan, J. "Foreign Direct Investment: The Case of the Electronics and Pharmaceuticals Industries." Conference Paper, "Ireland Open for Business: Success, Problems, and Prospects." Lehigh University, March 7-9, 2001.
- "Foreign Direct Investment In the United States: 1992 Benchmark Survey, Final Results." Washington: U.S. Department of Commerce, 1995.
- Gropp, R. and Kostial, K. "The Disappearing Tax Base: Is Foreign Direct Investment Eroding Corporate Income Taxes?" Working Paper No. 31. European Central Bank, September 2000.
- Guisinger, S. & Associates. *Investment Incentives and Performance Requirements*. New York: Praeger, 1985.
- Industrial Development Agency (IDA). "Investments by Origin." Online. <http://www.ida.ie/docs/fio.html>.
- Industrial Development Agency (IDA). "Why Ireland – Competitive Costs." Online. <http://www.ida.ie/docs/wicc.html>.
- Industrial Development Agency (IDA). "Why Ireland – Taxation." Online. <http://www.ida.ie/docs/wit.html>.
- Industrial Development Agency (IDA). "Vital Statistics." Online. <http://www.idaireland.com/yframes/faivsy.html>.
- "Ireland – Overview and Introduction to Income Taxes." KPMG. Online. www.tax.kpmg.net. 1999.

“Ireland’s Euro-sins.” *The Economist*. Online. www.economist.com. February 15, 2001.

“Irish Banks’ Lending Rises at Annual Rate of 24.5%.” Bloomberg Professional. June 30, 2000.

“KPMG Corporate Tax Rate Survey.” KPMG. Online. www.tax.kpmg.net. January 2000.

“Level-headed.” *The Economist*. Online. www.economist.com. December 5, 1998.

Lewis, Jeffrey T. “ECB’s Domingo Solans on Tax Harmonization in Europe.” Bloomberg Professional. June 22, 2000.

Lynn, Matthew. “Ireland Will Be the Euro’s Testing Ground.” Bloomberg Professional. June 28, 2000.

McCoy, Daniel, David Duffy, Jonathan Hore, and Conall MacCoille. “Quarterly Economic Commentary, December 2000.” Economic and Social Research Institute (ESRI). Online. <http://www.esri.ie/CurEconSit.htm>.

McCourt, Frank. *Angela’s Ashes: A Memoir*. Scribner: New York, 1996.

Murphy, Antoin and Ian Cafferky. “The Celtic Tiger -- An Update.” MMI Stockbrokers, 1998.

National Economic and Social Council. “Opportunities, Challenges, and Capacities for Choice.” Dublin: NESC, November 1999.

O’Donnell, Rory. “Europe: The Irish Experience.” Institute of European Affairs: Dublin, 2000.

O’Hagan, J.W. *The Economy of Ireland; Policy and Performance of a Small European Country*. New York: St. Martin’s Press, 1995.

Quigley, D.B. “Paperless Trading – Where Are We Going?” Speech Given at EAN
Ireland’s Conference on Paperless Trading, June 16, 1999.

Revenue. *Annual Report 1998*. Dublin: The Stationary Office, 1999.

Robinson, H. J. *The Motivation and Flow of Private Foreign Investment*. Menlo Park,
California: Stanford Research Institute.

“Skills Shortages Creating Problems for Employers.” *Irish Times*. Online.

<http://www.ireland.com/education/business2000/index30.htm>.

Suiter, Jane. “Minister’s Package Should Ensure Partnership Continues.” *Budget’99*

Online. <http://www.ireland.com/special/budget/1999/bud6.htm>.

Sullivan, Bob. “Nursing Ireland’s Golden Goose.” *CNBC & Wall Street Journal*.

Online. www.msnbc.com/news/31991asp. October 11, 1999.

“Taxidermy.” *The Economist*. Online. www.economist.com. October 25, 1997.

Yeates, Padraig. “Both Sides Try to Match People with Jobs.” *Irish Times*. Online.

<http://www.ireland.com/recruit/news/1999/08/news4.htm>. August 9, 1999.

Yeates, Padraig. “Employers Back Plan to Bring 200,000 into State.” *Irish Times*.

Online. <http://www.ireland.com/recruit/news/2000/03/news1.htm>. March 1,
2000.

“World Competitiveness Yearbook.” Institute for Management Development. Online.

<http://www.imd.ch/wcy>.

Appendix A

Foreign Companies Located in Ireland.¹⁴

Europe	Santens	Uchiya Thermostat
3Com	Schlumberger	Yamanouchi
ABN- Amro	Schneider	
Alcatel CIT	Silicon Electronik	Germany
Ampafrance	Seagull Holdings	ABS
AND Ireland	Telenor	Assmann
Bertelsmann	UAP / New Ireland Ins.	Bayer Diagnostics
Billiton	Unilever	Bayerische Vereinsbank
BNP	Wavin	Beiersdorf
Citco Data Processing	Yves Rocher	Bertelsmann
Services		Beru
CMG Ireland	Far East	Braun
Douwe Egberts	Benesse	Brugmann
Electrolux	Brother	Bruss
Ericsson	Creative Technology	Commerzbank
Essilor International	CSK	DePfa Bank
Gaia Trust	Daiwa	DER
Groupe Pernod Ricard	Fujisawa Pharmaceutical	Dresdner Bank
Heineken	Fujitsu Microelectronics	Duscholux
Honing Beheer	Fujitsu Isotec	GEA
Huhtamaki	Grelan Pharmaceutical	GFT Software
ING Bank	Hitachi Koki	Groschopp
Interpolis	Hitachi Maxell	Henkel
Janssen Pharmaceutica	Itochu	Henniges
Kabi Pharmacia	KAO Infosystems	Hoechst
Kon. Van Leer	Korea Exchange Bank	Karl Schaeff
Kredietbank	Korean Air	Kostal
Legrand	LG Group	Lapple
Logstrup Steel	Matsushita-Kotobuki	Leonische Drahtwerke
Mees Pierson	Mitsubishi Trust	Liebherr
Moulinex	Mitsui	Max Mauch
Option Wireless Limited	Munekata	Microtherm
Oriflame International	NEC	POINT Information
Pauwels International	Ohshima	Systems
Philips	Olympus	Porsche
Puratos	Saehan Media	Schaefer
Rabobank	Sumitomo	Schwabe
Rotarex Ireland	Softbank	Schwartz
Royal Dutch Shell	Toshiba Ceramics	Sennheiser
Royal Nijverdal-Ten Cate		Siemens Nixdorf

¹⁴ Source: IDA Ireland – Investments by Origin.

Sonopress
Steiner
Theo Benning
Wilo

USA

3Com
A O Smith
A T Cross
Abbott Laboratories
Aldus
Allergan
Allied Signal
America OnLine
American Airlines
American Home Products
AIG
American Power
Conversion
AMP
Analog Devices
Apple Computer
AST
AT & T
Avid Technology
Avon
Bankers Trust
Bausch & Lomb
Baxter
Becton Dickinson
Best Western
Bose
Boston Scientific
Bourms
Bristol-Meyers Squibb
Cabletron
Cambridge Technology
Chase Manhattan Bank
Citibank
Compaq
Computer Associates
C R Bard
DEC
De Royal Industries
Dell
DSC Communications
Eastman Kodak
EDS
EG & G
Elan
Eli Lilly

EMC
Fidelity
FMC
Gateway 2000
General Electric
General Semiconductor
Gillette
Harris
Hasbro
Hewlett-Packard
Howmedica
IBM
Informix
Intel
Iomega
Isocor
IVAX
Jacobs Engineering
Johnson & Johnson
M/A COM
Merrill Lynch
Microsoft
Millipore
Morgan Grenfell
Motorola
National Instruments
Novell
Oracle
Pepsi
Pfizer
Pioneer Group
Procter & Gamble
Puritan Bennett
Quarterdeck
Quintiles
Rubbermaid
Schering-Plough
SCI Systems
Sea Ray Boats
Sensormatic
SmithKline Beecham
SRAM
Starwood Hotels &
Resorts
Stratus
Stream
Sun Microsystems
Symantec
Teradyne
ThermoKing
Unifi

UPS
US Robotics
Warner Lambert
Whirlpool
Xilinx

World

Alcan Aluminium
Bank of Bermuda
Bank of Nova Scotia
Corel
Eicon Technology
Merfin Hygenic Products
National Australia Bank
Northern Telecom
Old Mutual
Peerless Rugs
Saturn Solutions
Saville Systems
Solution 6

UK

Admiral Computing
Allied Lyons
Austin Reed Group
Barclays Bank
Bowater Packaging
Bridisco
Cadbury-Schwepps
Coats Viyella
Cognotec Services
Courtaulds Film &
Packaging
Dalgety
Eagle Star
Evode
Grand Metropolitan
Guardian Royal Exchange
Guinness
ICI
ICL
Imperial Group
International Distillers
JBA Software Products
Kleinwort Benson
Lafferty Group
Madge Networks
Maid
Menvier Swain
Midland Bank
Misy

National Westminster
Bank
Northern Foods
Portable Software
Solutions
Premier Brand
Procut

Rawlinson & Hunter
Reckitt & Colman
Renishaw
RHM Ingredients Supplies
Royal Dutch Shell
Scottish Amicable
Sedgwick Dineen

Simon Engineering
SmithKlein Beecham
Smith & Nephew
Thomson Financial
Services
Vitalograph
Wiggins Teape

Abstract

U. S. foreign direct investment has been a key factor in Ireland's recent economic growth. Ireland's high skilled- low cost labor force, government tax and regulatory incentives, and EU integration are often cited as the primary incentives for U.S. investment. This article discusses the relevance of each of these factors in Ireland's past and future growth.

Biography

Rebekah Berry graduated with highest honors from Lehigh University in June 2000 with Bachelor of Arts degrees in economics and Asian studies. While at Lehigh, Rebekah was inducted into Phi Beta Kappa and Omicron Delta Epsilon honor societies and participated in the Roy Eckerdt College Scholar program. She wrote for Lehigh's student newspaper, *The Brown and White*, and has had a paper published in *The Lehigh Review*, a student academic journal of the liberal arts. Rebekah was selected as a Presidential Scholar and during her fifth year won three first place Williams Prizes for papers in philosophy, business, and international relations. She is currently working as a financial consultant for Deloitte and Touche in New York.