

Globalization, the Celtic Tiger, and the Electronics Industry

Mgmt 715: Paper 1

by

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From a 1960's standard of living two thirds of that enjoyed in Britain at the time, Ireland leapt "from the Agricultural Age to the Information Age" by the end of the 1990's.¹ Earning the moniker "the Celtic Tiger", Ireland achieved this transformation by aggressively courting foreign direct investment (FDI) to develop an export economy and gain the benefits of globalization.

Globalization Efforts

Ireland's prosperity in the 1990's derives from roots planted in its past.² In 1958, Ireland abandoned protectionism with the adoption of the Programme for Economic Development. At the end of the 1960's, the Industrial Development Agency began targeting pharmaceutical and technology companies that might benefit from Ireland's proximity to Europe, low taxes (augmented by favorable tax treaties), an English speaking workforce, and low wages.³ While Ireland's membership in the European Economic Community from 1973 provided it with significant economic subsidies,⁴ it also facilitated trade with Europe and helped lure multi-nationals looking to establish a manufacturing base to service Europe. Ireland augmented its attractiveness to foreign investment by increasing the abilities of domestic work force⁵ and consistently maintaining its pro-foreign investment stance for over four decades. More recently, Ireland further integrated itself into the common market of Europe by adopting the Euro.

¹ Norton, Rob, "The Luck of the Irish", *Fortune Magazine*, Oct. 25, 1999, p. 194 (at <http://library.northernlight.com/PN19991019040000341.html?cb=13&sc=0#doc>)

² Ibid.

³ See Appendix 2.

⁴ 2-4% of Irish GDP in the 1990's (Norton) or the equivalent of approximately 32B euros (*The Economist* at http://www.economist.com/displayStory.cfm?Story_ID=1390007).

⁵ Ireland adopted universal secondary education as a goal in 1963 and followed this with investments in education. Norton. As of 1997, Ireland paid its teachers more in average earnings than any other OECD country ("Green is Good", *The Economist*, May 15, 1997 at http://www.economist.com/displayStory.cfm?Story_ID=149369).

Impact of Globalization

As the “fastest growing OECD economy in the 1990’s”,⁶ Ireland realized numerous benefits from its globalization efforts, including the following:

- **rising average income** – When it joined the EEC in 1973, Ireland’s income per person was 60% of the community average. Today it is approximately 120%.⁷
- **growing GDP** - Ireland’s GDP growth averaged 8.1% from 1991 to 2001 (compared to 3.6% in the decade prior)⁸ and far more modest growth throughout Europe.
- **more productive labor force** – Between 1993 and 2002, private sector labor productivity in Ireland grew by an average of nearly 4% per year, leading all other European countries.⁹ Employment grew substantially during the 1990’s, reversing high unemployment of the prior decade.
- **growing human capital base** - A “net exporter of people” for two centuries, Ireland began realizing positive inflows of people in the 1990’s to meet the demand for skilled workers. Some speculate that this reverse migration, approximating 45,000 people per year during the 1990’s, results directly from the flow of inward FDI.¹⁰

From 1990 through 2001, Ireland realized total growth in imports of over 350%, exports of approximately 500%, and trade surplus from 2.3 billion to 35 billion (equivalent) Euros.¹¹ Inward

⁶ “Jobs”, *The Economist*, Feb 3, 2000 (http://www.economist.com/displayStory.cfm?Story_ID=1302242)

⁷ “Those Ungrateful Irish”, *The Economist*, Oct. 17, 2002 (available at http://www.economist.com/displayStory.cfm?Story_ID=1390007).

⁸ cf http://www.worldbank.org/cgi-bin/sendoff.cgi?page=%2Fdata%2Fcountrydata%2Faag%2Firl_aag.pdf.

⁹ Appendix 3.

¹⁰ Slaughter, Matthew J., “OECD Technical Paper No. 192: Skill Upgrading in Developing Countries: Has Inward Foreign Direct Investment Played a Role?”, p 22, Aug. 2002 (at <http://www.oecd.org/pdf/M00033000/M00033560.pdf>).

¹¹ Appendix 4.

FDI grew from \$32 million in 1970 to over \$24 billion in 2000 (nearly USD5,500 per person)¹² while outward FDI grew from nothing as late as 1985 to almost \$4 billion in 2000.¹³

Costs of Globalization

Numerous concerns are raised regarding Ireland's globalization efforts:

- ***labor issues*** - Irish labor raises concerns about an inequitable split in the benefits arising from foreign investment in Ireland. Labor realizes the continuing low wage rates that represent the first part of Ireland's attractiveness to foreign investment. Additionally, Irish labor claims that it pays a disproportionate amount of its income back in the form of taxes, thereby subsidizing the continuing low corporate tax rates that form the second part of Ireland's attractiveness to foreign investment.
- ***housing costs*** - Between 1996 and 2001, Irish housing prices rose by an average 20% annually,¹⁴ further compounding the impact of constant wage levels.
- ***foreign dependence and sustainability*** – This concern focuses on the manner in which Ireland has pursued globalization. By 1998, US investors accounted for nearly 66% of fixed industrial investments in Ireland.¹⁵ Rather than diversifying its exposure to country specific risk, Ireland's fortunes remain closely tied to those of the US. Some individuals note that growth in the 1990's may be more "catch-up" than real development, suggesting that that slower growth is inevitable.
- ***standard of living v. quality of life*** – Ireland has pursued growth in standard measures of economic prosperity, such as higher GDP and lower unemployment, with less focus on the

¹² Foreign Policy Magazine (http://www.foreignpolicy.com/issue_janfeb_2002/global_index.html).

¹³ Appendix 5.

¹⁴ However, prices rose by a mere 5% in the first half of 2002. *The Economist*, Aug. 29, 2002 (at http://www.economist.com/displayStory.cfm?Story_ID=1302601). Also see Appendix 6.

¹⁵ "The Social Costs of Prosperity: Globalization and the Irish Economy", at http://www.nmhschool.org/ireland/_private/Papers/Anna's%20Paper.doc.

quality of life. This argument addresses the long, “anti-social” hours that the Irish are forced to work (and similar inconveniences required) to earn their new-found prosperity.¹⁶

- *other (less credible) concerns* - Some individuals cite other factors as evidence of the harm caused by Ireland’s new found prosperity, including an increasing gap between rich and poor, rising poverty and homelessness, greater rate of depression and suicide, difficulty of volunteer organizations in recruiting from a populous that prefers wage paying employment, and rampant pollution resulting from industrialization and an increasing volume of automobiles on Irish roads.¹⁷

Overall Assessment

Some claim that corporate taxes could be raised without hurting Ireland’s competitive position, thereby mitigating concerns of erosion of its tax base. In fact, the revenue effect of Ireland’s lower statutory tax rate historically has been offset by a corporate tax base expanding during the 1990’s due to the heavy amounts of FDI.¹⁸ Nevertheless, the Irish government recently agreed to lower personal taxes to avoid labor strife in the near term.

Arguments concerning social changes resulting from Ireland’s globalization efforts seem less related to the effects of globalization and more related to the way Ireland has managed its participation in the globalization process. All parties seem to agree that today’s Ireland with its higher standard of living is a better place today than it was in the preceding decades. To the extent that a majority of Irish citizens see social concerns as real problems, they can exercise their will through the electoral process. Only time will tell if such changes will instigate a flight of foreign investment. Certainly, the entry of Eastern European countries into the EU provides other sources

¹⁶ Ibid.

¹⁷ Gormley, John, “Letter from Ireland, the Celtic Tiger”, *Resurgence*, Issue 200, May / June 2000 (at <http://resurgence.gn.apc.org/issues/gormley200.htm>)

¹⁸ “Ireland: Selected Issues”, *IMF Country Report No. 02/171*, p. 33 (at <http://www.imf.org/external/pubs/ft/scr/2002/cr02171.pdf>).

of even cheaper labor. However, Ireland has many other attractive qualities, such as those relevant to the electronics industry, to incentivize investors to stay.

Electronics Industry

With approximately 20% of exports from Ireland with a value of approaching USD 15 billion,¹⁹ foreign electronics manufacturers have invested heavily in Ireland. Intel alone has invested over USD 2.5 billion in manufacturing capacity in adopting Ireland as its base for servicing Europe.²⁰ Furthermore, foreign investors in the electronics market generate approximately 1/3 of Ireland's exports and employ approximately 35,000 people.²¹

To attract investment in the electronic industry, Ireland has leveraged a number of factors beyond the combination low wages, low taxes and location:²²

- ***generous incentives*** – The Irish government endows the Investment Development Agency endowment annually (164 million Euros in 2001) to make investor grants.
- ***large numbers of (young) skilled workers*** – Having skilled workers as a resource makes leveraging Ireland's low wage structure a practical possibility.
- ***infrastructure*** – Strong IT infrastructure, such as digital telephony, combined with ready supply of electricity have proven important to foreign investors.
- ***transport*** - An established base of transport companies, such as the recently joined Maersk and Sealand, allows the easy shipment from Ireland to Europe.
- ***clean water*** – Intel cited this as one of the five main reasons for locating in Ireland.

¹⁹ See the United Nations Conference on Trade and Development (“UNCTAD”) World Investment Report 2002, p. 174 at <http://r0.unctad.org/wir/pdfs/fullWIR02/pp143-184.pdf>.

²⁰ See the Investment Development Agency (IDA) of Ireland's electronics industry brochure at <http://www.ida.ie/pdf/electronic.pdf>. Other foreign companies with substantial Irish investments include Dell Computer, Hewlett Packard, IBM, Motorola, 3Com and Lucent.

²¹ http://irisheconomy.free.fr/introductionDEA.html#_ftnref4.

²² UNCTAD World Investment Report 2002, p. 173.

Investments in the electronics industry benefits Ireland for a number of reasons. First, foreign investments have been largely Greenfield in nature. As of 1999, Ireland realized nearly 25% of Greenfield investment in the European electronics industry, despite having only about 1% of the EU total population.²³ As such, this investment has historically caused little displacement of existing Irish businesses. Beyond macroeconomic direct effects, Ireland realizes indirect “spillover” effects²⁴ as foreign investors establish linkages with indigenous firms.²⁵ Spillover effects benefit Ireland through the transfer of technology and an increase in the market for related products manufactured by local Irish firms. One study noted that this effect is particularly magnified in the electronics industry due to “fragmentation”²⁶ of the electronics manufacturing process, thereby allowing indigenous firms greater opportunities to assume responsibility for contributing components to the final manufactured (and exported) electronic product.²⁷

Concerns regarding the type of technology invested in Ireland have subsided in recent years as companies such as Intel have invested in chip manufacturing plants and increased the sophistication of their operations beyond simple assembly and packaging. Nevertheless, Ireland’s past focus on foreign investment in the electronics industry has resulted in current negative economic effects due to the recent economic downturn. During 2002, output in the electronic industry has reportedly fallen 40% and layoffs have started to occur.²⁸ Given the changing world economy, it remains to be seen if Ireland can continue its unprecedented growth of the 1990’s in the new millennium.

²³ <http://www.entemp.ie/press99/080999.htm>.

²⁴ Ugur, Ali, “Foreign Direct Investment and Productivity Spillovers in the Irish Manufacturing Industry”, p. 1 (at <http://econserv2.bess.tcd.ie/pgseminars/ugura.PDF>).

²⁵ Gorg, Holger and Ruane, Frances (2000b): “An analysis of Backward Linkages I in the Irish Electronics Sector”, *Economic and Social Review*, Vol 31 (2000), pp215-235 (at http://www.esr.ie/vol31_3/2Gorg&Ruane.pdf).

²⁶ “Fragmentation” is the propensity for vertically integrated production processes to be broken up into smaller sub-processes.

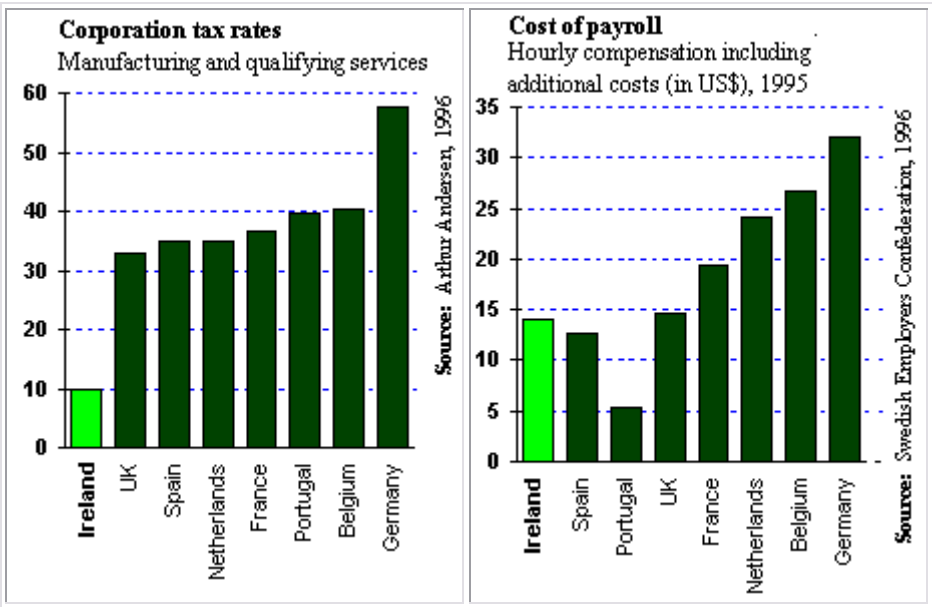
²⁷ Ruane, Frances, et al, “Globalisation and fragmentation: Evidence for the Electronics Industry in Ireland”, *Trinity Economic Paper Series*, Paper No. 99/11 (at <http://econserv2.bess.tcd.ie/TEP/TEPNo11HG99.PDF>).

²⁸ Galway, “Ireland: the demise of the Celtic Tiger?” *Workers Power Global*, Sep 15, 2002 (at <http://www.workerspower.com/wpglobal/IrelandCelticTiger.html>).

Appendix 1 - Ireland's Growth in Real GDP (after inflation) – 1994-1998²⁹

	<u>% Growth in Real GDP</u>
1994	5.8
1995	9.5
1996	7.7
1997	10.7
1998	8.9

Appendix 2 – Tax and Wage Rates Applicable in Ireland – 1995³⁰

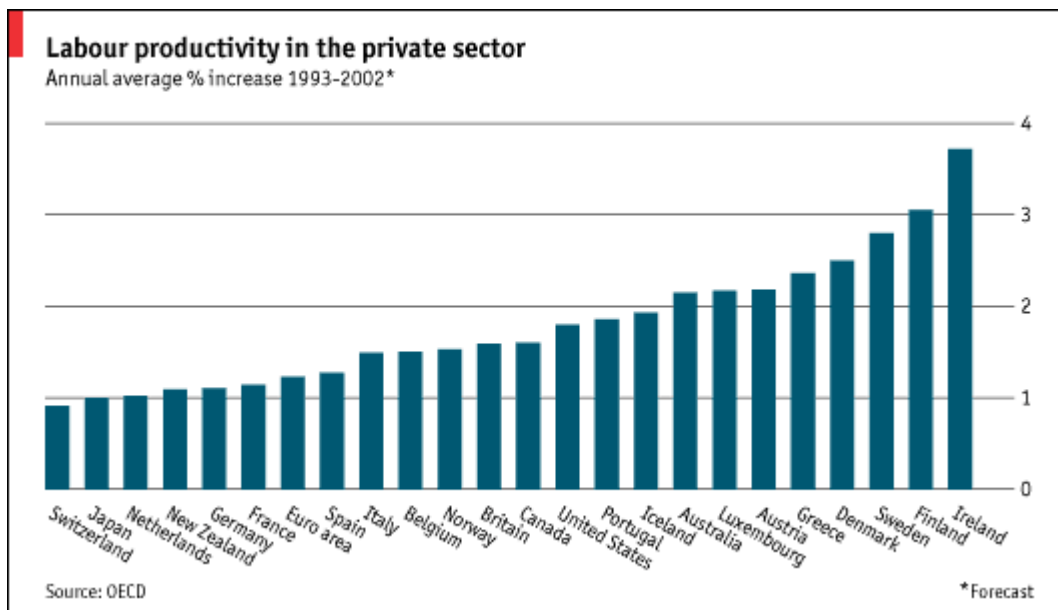


²⁹ Norton.

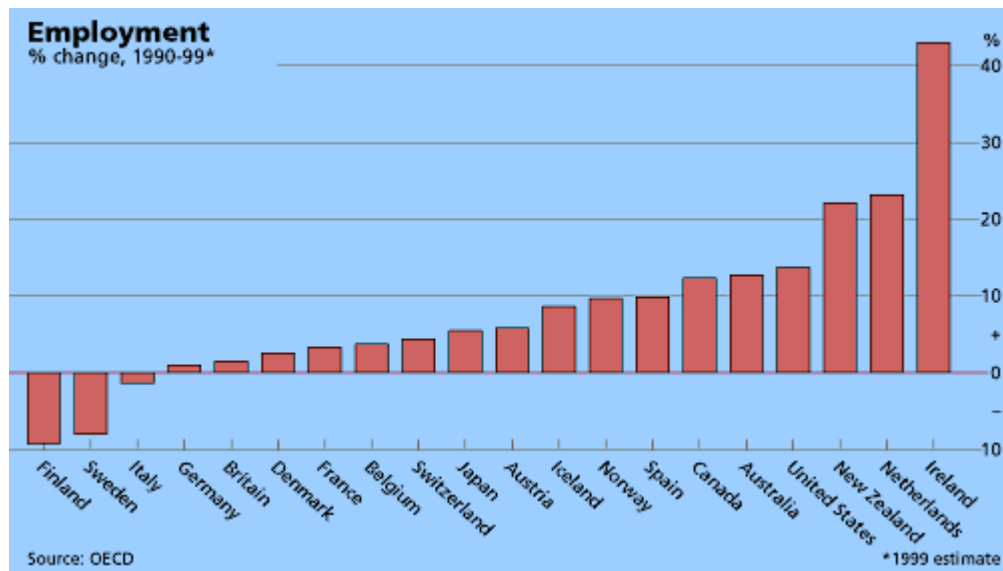
³⁰ Flood.

Appendix 3 – Labor Changes in the 1990

A) Labor Productivity³¹



B) Employment³²



³¹ Available at http://www.economist.com/displayStory.cfm?Story_ID=1302242.

³² Available at http://www.economist.com/displayStory.cfm?Story_ID=329104.

Appendix 4 – Irish Foreign Trade Figures³³

Balance of Trade (€m)			
Year	Imports	Exports	Trade Surplus
1990	15,832	18,204	2,372
1991	16,317	19,070	2,753
1992	16,754	21,260	4,506
1993	18,900	25,179	6,279
1994	21,945	28,891	6,946
1995	26,181	35,330	9,149
1996	28,480	38,609	10,129
1997	32,864	44,868	12,004
1998	39,715	57,322	17,607
1999	44,327	66,956	22,629
2000	55,909	83,889	27,980
2001	57,177	92,523	35,346

Main Trading Partners 2001		
Country	Imports	Exports
€m		
Great Britain and Northern Ireland	20,266.2	22,160.8
Other EU Countries	13,539.3	35,041.7
USA	8,711.9	15,695.6
Rest of World	14,660.1	19,625.2
Total	57,177.5	92,523.3

Volume, Price and Terms of Trade Indices					
Period	Volume Index		Price Index		Terms of Trade Index
	Imports	Exports	Imports	Exports	
1990 Year	100.0	100.0	100.0	100.0	100.0
1991 Year	100.8	105.6	102.3	99.3	97.0
1992 Year	105.6	121.1	100.2	96.6	96.4
1993 Year	113.0	133.4	105.4	103.9	98.6
1994 Year	127.9	153.2	108.1	103.8	96.0
1995 Year	146.3	184.0	112.7	105.7	93.7
1996 Year	160.9	202.2	111.4	105.1	94.3
1997 Year	184.8	232.4	112.0	106.3	94.9
1998 Year	218.3	289.2	114.6	109.1	95.2
1999 Year	236.5	336.5	118.0	109.5	92.8
2000 Year	275.2	401.4	128.0	115.0	89.9
2001 Year	273.5	421.6	131.8	120.9	91.7

³³ Published by Central Statistics Office of Ireland (available at <http://www.cso.ie/principalstats/pristat4.html>).

Appendix 5 - FDI Flows³⁴

FDI inflows, selected years (millions of dollars)

INDICATOR	Inflows							
YEAR	1970	1975	1980	1985	1990	1995	2000	2001
COUNTRY/GROUP								
Austria	113	79	239	169	653	1,904	8,840	5,909
Belgium and Luxembourg	314	955	1,545	1,051	8,047	10,689	245,561	50,996
Denmark	104	267	52	124	1,132	4,177	32,289	6,969
Finland	18	68	28	110	787	1,063	8,834	3,615
France	622	1,564	3,283	2,595	9,049	23,676	42,930	52,623
Germany	770	689	333	494	2,962	12,025	195,122	31,833
Greece	50	24	672	447	1,005	1,053	1,089	1,560
Ireland	32	158	286	164	627	1,447	24,117	9,775
Italy	624	645	577	1,072	6,411	4,842	13,377	14,873
Netherlands	633	1,232	2,278	1,505	10,514	12,301	52,453	50,471
Portugal	29	115	157	274	2,610	685	(a) 6,464	(a) 6,017
Spain	222	683	1,493	1,968	13,984	6,161	37,523	21,781
Sweden	108	80	251	430	1,971	14,448	23,367	12,734
United Kingdom	1,488	3,319	10,123	5,476	30,460	19,968	116,552	53,799

FDI inflows, selected years (millions of dollars)

INDICATOR	Outflows							
YEAR	1970	1975	1980	1985	1990	1995	2000	2001
COUNTRY/GROUP								
Austria	9	26	101	44	1,701	1,131	5,740	2,961
Belgium and Luxembourg	174	238	196	296	6,314	11,603	241,997	67,307
Denmark	29	79	(a) 94	255	1,482	3,070	24,359	8,951
Finland	52	26	137	341	2,708	1,497	24,030	7,272
France	374	1,338	3,095	2,243	27,097	15,755	175,504	82,814
Germany	1,070	2,178	4,702	5,298	24,235	39,049	49,793	43,257
Greece	-	-	-	-	11	(a) 42	2,102	-607
Ireland	-	-	-	-	365	820	3,973	5,396
Italy	114	343	740	1,736	7,394	7,024	12,319	21,476
Netherlands	1,317	2,519	5,918	2,705	13,658	20,182	71,346	44,020
Portugal	-	8	14	22	163	688	7,674	7,898
Spain	43	170	311	250	3,522	4,076	54,675	27,805
Sweden	213	434	625	1,827	14,746	11,215	40,578	7,170
United Kingdom	1,678	3,001	7,881	11,068	17,947	43,560	253,929	39,462

³⁴ Per the UNCTAD (see <http://stats.unctad.org/fdi/eng/ReportFolders/Rfview/explorerp.asp>). The Euro closed at \$1.0093 vs the USD on Friday, Nov. 15. This paper assumes a very approximate Euro / USD conversion ratio of 1 to 1.

Appendix 6 - Housing Price Changes³⁵

The Economist house-price indices									
Nationwide average									
	% change 1980-2001		% change in 2001		% change 1980-2001		% change in 2001		
	Nominal	Real*	Nominal	Real	Nominal	Real	Nominal	Real	
Spain	726	124	15.4	11.4	Dublin	767	207	14.6	9.2
Ireland	451	95	14.0	8.6	Madrid	819	149	19.3	15.2
Britain	389	89	10.5	8.5	New York	356	112	11.5	8.4
Netherlands	181	66	8.7	4.0	London	427	103	11.2	9.3
Belgium†	140	23	5.6	3.0	Sydney	419	83	18.1	13.1
US	158	20	8.6	5.6	Brussels‡	210	58	6.7	4.1
France	155	15	6.9	5.1	Paris‡	250	58	10.4	8.6
Japan	52	15	-4.1	-3.6	Stockholm	312	54	10.2	7.5
Canada	152	13	2.7	0.2	Tokyo	72	30	-5.8	-5.3
Italy‡	343	13	7.9	5.0	Amsterdam	103	20	6.1	1.5
Australia	213	10	11.2	6.6	Frankfurt	69	nil	1.5	-1.0
Sweden	183	6	7.9	5.3	Toronto	80§	-9§	2.4	-0.1
Germany‡	33	-21	1.6	-0.9	Milan	na	na	9.8	6.8
Global index	148	19	5.4	3.2					

*Adjusting for consumer-price inflation
 †2001 based on Q1-Q3 data ‡Provisional
 §% change since 1981

³⁵ Available at http://www.economist.com/displayStory.cfm?Story_ID=1057057.