Multinational Enterprises Programme

Working Papers

Research on Employment Effects
of Multinational Enterprises

Working Paper No. 22

Employment effects of multinational enterprises: The case of the Republic of Ireland

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Geneva, International Labour Office, 1982

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1. *THE ROLE OF FOREIGN MULTINATIONAL ENTERPRISES IN THE CONTEXT OF INDUSTRIAL EMPLOYMENT IN IRELAND*

1.1 *The Current Perspective Regarding the Generation of Industrial Employment*

1.1.1 *Introductory Remarks*

Promoted by the industrialisation policy of state-sponsored agencies, the share of foreign multinational enterprises (MNEs) in industrial investment, employment, output and trade in the Republic of Ireland has risen in the course of the past twenty years to a level which cannot fail to attract attention. The purpose of this paper is to describe the growth and distribution of employment by foreign MNEs in the light of the available though predominantly unpublished statistics. Explanatory Notes, Bibliographical References and a Statistical Appendix will be found at the end of the paper. Readers who wish to familiarise themselves with broader issues of industrialisation and regional policies in the Irish context are already well-served by a number of reports in which the relevant literature is surveyed (1,2)[1].

1.1.2 *Growth and Distribution of the Population*

Throughout the past twenty years Ireland has displayed a rate of natural demographic increase which is without parallel among its nine partners in the European Economic Community (EEC). In the present EEC, for example, the rate of natural increase per thousand of the population

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[1] Bibliographical references are indicated by figures in brackets at the end of the relevant sentence.

fell from 7.2 in 1960 to 2.0 in 1980, while in Ireland it rose from 9.9 to 12.2 in the same interval (3). By the year 2000 the currently projected population of Ireland is expected to show an increase of 21.2 per cent over the 1980 level, compared with a corresponding increase of 2.3 per cent in the EEC as a whole (4).

The chronic outward migration flow, which affected Ireland since the mid-19th. century, having undergone a dramatic reversal in recent decades - as is shown in Appendix Table 1 - the process of employment generation faces acute problems in all regions of the country. That these problems are particularly severely felt in the western half of the country is suggested, for example, by the following data which relate the number of males in industrial employment per 100 males under 15 years of age in the year 1979 (5):

North West and Donegal	28	North East	46
West	24	East	40
Mid West	35	South East	40
South West	39	Midlands	40

1.1.3 Degree of Penetration and Country of Origin of Foreign MNEs in 1981

At present roughly 35 per cent of manufacturing employment in Ireland is accounted for by foreign MNEs, as the following table shows. The greatest deviation from the national average occurs along the western seaboard north of the Shannon Estuary, where the degree of penetration falls within the range of 45 to 55 per cent. The region comprising County Donegal, which displays an exceptionally low MNE share, is situated very unfavourably between the remote northwest coastline and the border with Northern Ireland.

Table 1 - Share of Manufacturing Employment Accounted for by Foreign MNEs by Region, 1981

Region	*Total Manufacturing*[1] *Employment*	*Employment by Foreign MNEs*[2] *Absolute*	*Percentage*
Donegal	6 536	1 054	16.1
North West	4 883	2 287	46.8
West	15 278	7 344	48.1
Mid West	20 540	10 798	52.6
South West	37 652	14 032	37.3
South East	28 833	7 295	25.3
East	93 673	28 171	30.1
North East	18 180	6 684	36.8
Midlands	14 868	5 463	36.7
IRELAND	240 443	83 128	34.6

1) Approximately 2 per cent of the national total consists of employment in non-manufacturing enterprises which were grant-aided by the Industrial Development Authority (IDA)

2) In the absence of IDA information on this point, it is assumed that the distinction between foreign and indigenous enterprises is based on the country of incorporation of the dominant equity-holder. McAleese, who was guided by the country of incorporation of the ultimate parent company, considered as reasonably valid a comparison between the degree of penetration thus calculated and the results of an OECD study which equated foreign control with over 50 per cent ownership (6). In a forthcoming report prepared for the National Economic and Social Council (NESC), which will be adverted to in the present paper, indigenous industry is said to be composed of enterprises owned in majority by Irish interests (7).

Source: Unpublished material provided by the Industrial Development Authority (IDA) based on its employment survey of 1981

A classification by country of origin of the foreign MNEs yields the following percentage shares of their manufacturing employment in Ireland in 1981 (8):

United States of America	41.2
United Kingdom	25.6
Federal Republic of Germany	11.7
Other European Countries	16.0
Other Non-European Countries	5.5
All Foreign MNEs	100.0

1.2 *The Contribution of Foreign MNEs to Employment Creation Prior to 1973*

1.2.1 *The 1966 Survey*

In May 1966 the IDA commissioned for the first time a report on the industries established or extended with the aid of state grants, which would encompass both foreign and indigenous enterprises[1]. The *projected* employment expected of these grant-aided enterprises at full employment was composed as follows (9):

Country of Origin of Enterprise	*Projected Full Employment*	
	New Projects	*Extensions*
Irish	4 600	4 100
Irish/Foreign	3 300	3 200
Foreign	23 900	1 100
Total	31 800	8 400

[1] There is no explicit mention in the Report of the criterion upon which the distinction between foreign and indigenous enterprises is based.

From this tabulation it appears that three-quarters of the employment in *new* projects were expected to be provided by foreign enterprises, even when one excludes their undefined share in joint ventures. The survey team estimated that all grant-aided enterprises *actually* in operation in 1966 accounted for the following percentage shares of output, exports and employment in transportable goods industries in that year (10):

	Percentage Shares		
	Gross Output	*Exports*	*Employment*
Grant-aided Foreign and Irish Enterprises	11	42	9

The employment provided by the grant-aided enterprises amounted to 17 000 and McAleese subsequently estimated that 13 600 of those jobs were generated in foreign enterprises (11). Thus, 75 per cent of the *projected* and 80 per cent of the *observed* jobs created by grant-aided new industrial enterprises respectively were accounted for in 1966 by foreign enterprises. It may be noted at the same time that just over 90 per cent of total employment in transportable goods industries was still being provided by non-grant-aided enterprises. Included among the latter, as the survey team pointed out, were a number of enterprises with an undefined degree of foreign participation, which had been established in the period 1955-66, and which provided 3 840 jobs in 1966 (12). Pointing out that two-thirds of these non-grant-aided enterprises with foreign participation were located in County Dublin alone, the survey team expressed the opinion that 'their pattern of location could be seen to be a fair indication of what would have happened in the case of new industries generally had the industrial grants scheme not been in operation' (13).

1.2.2 The 1973-74 Profile of the Main Subset of Foreign MNEs

About ten years after the 1966 Survey and some years after it had inaugurated its own annual manufacturing employment survey, the Industrial Development Authority (IDA) commissioned McAleese to analyse the contribution to the country's output, employment and exports made by *New Industry*, which by definition comprised all enterprises which had received *new industry* grants from the IDA.

McAleese found that by 1974 *new industry* enterprises accounted for at least[1] 24 per cent of employment in the transportable goods industries compared with 9 per cent in 1966 (14). The contribution of these enterprises to growth is more clearly highlighted when one concentrates on the employment changes that occurred between 1966 and 1974. The fact that the country's total industrial employment rose by only about 11 000, while employment by *new industry* enterprises rose by at least[1] 31 000, implied that there were 20 000 less jobs in the main body of industry untouched by *new industry* grants (15).

McAleese estimated that foreign MNEs provided 22 000 and Irish enterprises 9 000[1] of *New Industry's* contribution of 31 000 more jobs between 1966 and 1974 (16). Those foreign MNEs which had received *new industry* grants accordingly increased their employment from nearly 14 000 in 1966 to 36 000 in 1974. The corresponding total in 1973, according to a forthcoming report prepared for the National Economic and Social Council (NESC), a consultative body set up by the Irish

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1 The words 'at least' imply that maximum allowance is made for job creation attributable merely to re-categorisation of enterprises, e.g. when *new industry* grants were availed of in the course of amalgamation and rationalisation by *existing* production units.

Government, was 34 043[1]. This report shows the following percentage shares of employment by foreign MNEs which were accounted for by the various grant-categories of enterprises: the detailed data are contained in Appendix Table 2.

Manufacturing Employment by Foreign MNEs 1973

Grant Category of Enterprise	*Percentage Share*
New Industry Grant	57.6
Re-Equipment Grant	23.4
Small Industry Grant	1.3
Non-Grant-Aided	17.7
Total	100.0

1.3 Job Losses in Foreign MNEs 1973-80

The gross and net job losses of the various categories of foreign MNEs between 1973 and 1980 are shown in detail in Appendix Table 2. The absolute gain of roughly 39 000 jobs by all foreign enterprises was concentrated to the extent of roughly 34 000 in the *new industry* group. These gross gains were offset to some extent by gross losses of about 17 800 by all foreign enterprises; in particular about 8 800 of these losses arose in the *new industry* enterprises. The gross gain of 34 000 jobs by the latter group represented a doubling of their 1973 employment level. Because of the simultaneous losses *new industry* employment in fact totalled just over 59 000 in 1980. The foreign MNEs which had received

[1] See the Explanatory Notes with regard to the comparability of the data recorded by McAleese and the NESC report respectively.

simply re-equipment grants or no grants at all recorded net job losses amounting to 4 669. The overall efect of these various changes was to leave employment by all foreign MNEs standing at 80 430 in 1980. The degree of regional penetration and the distribution by country of origin of these foreign MNEs was undoubtedly close in pattern to that shown in Section 1.1.3 in respect of 1981.

The next step consists in comparing the experience of job losses in foreign enterprises with that in indigenous enterprises. In addition to the average annual percentage rate of job loss no matter what the cause, the source material also records in particular the rate of job loss due to closure; these will be termed the overall loss rate and the closure loss rate respectively. For the purpose in hand it will suffice to limit ourselves to the five industry groups of most significance[1].

The detailed results of the analysis of job losses are contained in Appendix Table 3. Perhaps the most striking aspect of the outcome is the uniformity of behaviour as regards job losses, at the aggregate level of all industry groups, on the part of enterprises of either indigenous or foreign origin when one contemplates the *new industry* and the *re-equipment grant* categories in turn. This applies equally to the overall loss rate and to the closure loss rate.

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[1] The data source classifies the *new industry* and the *re-equipment grant* but not the other categories under ten broad industry group headings. In order to focus on the five most important groups, which together accounted for 75 per cent of relevant job losses, we excluded groups where the number of jobs lost fell below 200 in the case of either foreign or indigenous enterprises.

The finding that less than half the job losses in foreign enterprises were due to closures deseryes to be underlined. It would, of course, be no less desirable to analyse job gains, distinguishing between gains from new openings and gains from expansions, but this is not at present feasible.

The account set out here confirms the findings of an earlier study by McAleese and Counahan in respect of the period 1973-77. They recorded that employment loss in MNEs during the recession had not been noticeable different from that of indigenous enterprises, that MNEs' propensity to close down their plants was similar to that of their domestic counterparts and that employment recovery after the first recession was greater in MNEs (18).

1.4 *Employment of Foreign MNEs by Country of Origin 1973-81*

The following countries or regions of origin are distinguished in the data source: USA, UK, FR Germany, Other European, and Non-European. Table 2, which now follows, shows that, with the exception of a slight negative development in 1975, the employment provided by foreign MNEs has grown uninterruptedly from 58 892 in 1973 to 83 032 in 1981. During that period MNEs of US origin, whose share of employment stood at 25.3 per cent in 1973, clearly outstripped the MNEs of other countries and had increased their share to 41.3 per cent by 1981. Thus, they are within reach of the position occupied by British enterprises in 1973, when their share stood at 45.7 per cent, but the British firms were unique in displaying a chronic decline from 1974 onwards and by 1981 their share was roughly that from which the US enterprises had started

Table 2 - Employment Shares of Foreign MNEs by Country of Origin 1973-81

	U.S	*U.K.*	*FR Germany*	*Other European*	*Other Non-European*	*TOTAL*
1973	*14 935*	*26 932*	*4 978*	*10 927*	*1 120*	*58 892*
1974	*17 010*	*27 294*	*5 613*	*12 490*	*1 308*	*63 715*
1975	*16 830*	*26 961*	*6 148*	*12 595*	*1 592*	*64 126*
1976	*17 481*	*25 291*	*6 576*	*12 017*	*1 741*	*63 106*
1977	*20 774*	*24 040*	*7 821*	*12 913*	*2 301*	*67 849*
1978	*25 723*	*23 176*	*7 924*	*12 345*	*3 431*	*72 599*
1979	*28 259*	*22 733*	*8 721*	*12 955*	*3 827*	*76 495*
1980	*32 563*	*22 652*	*9 146*	*13 427*	*4 180*	*81 968*
1981	*34 259*	*21 248*	*9 676*	*13 270*	*4 579*	*83 032*
			Percentage Shares			
1973	25.3	45.7	8.5	18.6	1.9	100
1974	26.7	42.8	8.8	19.6	2.1	100
1975	26.3	42.0	9.6	19.6	2.5	100
1976	27.7	40.1	10.4	19.0	2.8	100
1977	30.6	35.4	11.5	19.1	3.4	100
1978	35.5	31.9	10.9	17.0	4.7	100
1979	37.0	29.7	11.4	16.9	5.0	100
1980	39.7	27.6	11.2	16.4	5.1	100
1981	41.3	25.6	11.6	16.0	5.5	100

Source: Unpublished material provided by the Industrial Development Authority (IDA) based on its annual employment survey data

out in 1973, namely, just a little over 25 per cent. A closer scrutiny of the source material shows that the British enterprises were also characterised by an exceptionally high degree of regional concentration; the East Region, which is centred around the capital city of Dublin, accounted in 1973 for 66.4 per cent and in 1981 an almost equally high share of 63.7 per cent of all employment by British enterprises (19). When one recalls that McAleese attributed an employment total of 7 119 to *new industry* enterprises of British origin in 1974, whereas the present Table 2 shows an overall employment total of 27 294 in the same year, then one is probably not very wide of the mark in presuming that the employment losses were mainly associated with enterprises that had been established in the Dublin region in the protectionist period before the IDA incentive schemes were devised. MNEs of German origin were the subject of a recent paper by the present author and accordingly need not be discussed here (20).

1.5 *The Scale of Industrial Operations in Ireland 1974-75*

With scarcely any exception the scale of operation of enterprises in Ireland is measured not in terms of product output but rather in terms of factor input, or to be more precise, in terms of numbers employed. The most recent data published by the Central Statistics Office relate to 1975 - directly comparable figures are available for selected earlier years such as 1963 - and the official data will now be summarised briefly and compared to McAleese's data in respect of all (foreign and Irish) *new industry* in 1974. The detailed figures are contained in Appendix Table 4.

In distinguishing simply between small and large enterprises, an employment level of 200 persons is frequently adopted as the cut-off point: this practice will be followed here for convenience. As the Table shows, in both 1963 and 1975 large manufacturing enterprises in Ireland comprised only about 6 per cent of all enterprises but accounted for 55 per cent of employment in 1975 and 52 per cent in 1963. In 1975 there were 194 762 persons engaged in 3 320 manufacturing enterprises in Ireland, which means an average of just below 60 persons per enterprise.

McAleese recorded 60 161 persons employed by 431 *new industry* enterprises in 1974, which yields an average of 140 persons: he found that this conformed quite well to the average size of foreign MNEs in OECD countries other than the U.K. (21). In his case 16 per cent of the enterprises which could be considered large according to the accepted criterion were found to employ 60 per cent of the workforce of *new industry* as a whole. *New Industry* enterprises of Irish origin displayed a mean employment size of 147; if one excluded both these and the joint ventures from the population of *new industry* enterprises, one was left with an average size of 137 employees for the foreign MNEs. In terms of average numbers employed, therefore, it can be stated that the proportion of enterprises which can be classified as large (i.e. with 200 or more employees) is quite low in both new and traditional enterprises. *Large* enterprises in Irish manufacturing industry as a whole displayed an average workforce of 468 (91 194 persons shared among 195 enterprises) in 1975, while large enterprises of the *new industry* sector recorded an average workforce of 526 persons. The difference was by no means striking.

2. *EMPLOYMENT TRENDS IN THREE IMPORTANT INDUSTRIES WITH VARYING DEGREES OF PENETRATION BY FOREIGN MNEs*

2.1 *Introductory Remarks*

In this chapter it is proposed to take a closer look at three important industries. The first of these is the *Electronics Industry* in which employment is said to have risen from 5 000 in 1973 to 10 000 in 1979 and is expected by the Industrial Development Authority to reach a level between 25 000 and 30 000 by 1985 (22). Foreign MNEs at present provide nearly 90 per cent of employment in this industry.

The point of departure of the second study is the combined *Textiles* and *Clothing, Footwear and Leather Industry*. Employment in the former section of this industry stood at just over 21 000 in 1973 and by 1981 had fallen by a quarter. Foreign MNEs succeeded in increasing their employment from just over 4 300 in 1973 to roughly 6 000 in 1981 and their degree of penetration accordingly rose from 20 to 37 per cent. In the latter section, consisting of Clothing, Footwear and Leather, employment fell from about 28 000 to about 22 000. In this case, while the degree of foreign penetration rose to just over 28 per cent, the foreign MNEs experienced a net loss of employment that just exceeded the total industry's average net loss of 22.2 per cent.

Employment in the third industry, the *Food Industry*, remained stable at a level of about 47 000 between 1973 and 1981, while the share of foreign MNEs never exceeded 15 per cent.

2.2.1 The Principal Sectors of the Electronics Industry

Towards the end of 1979 the National Board for Science and Technology (NBST) commissioned six consultancy firms in Ireland as well as the State-sponsored Institute for Industrial Research and Standards to prepare a comprehensive report on the implications of microelectronic technology for the Irish economy in the 1980s. The three-volume report, which will be referred to as the NBST Report, was published in 1981. It recorded that approximately 15 000 persons were employed in the Electronics Industry in 1980. While detailed data on employment by sector is contained in Appendix Table 5, it will suffice to concentrate here on the four main sectors, viz. Consumer Electronics, Computers and Peripherals, Components, and Telecommunications.

Consumer Electronics gave employment in 1980 to approximately 4 400 persons. Products of this sector include electronic games, high-fidelity equipment, cassettes, domestic appliances, alarms, clocks and hair driers. Many though not all of these products incorporate microelectronics. In general the enterprises are foreign-owned and the products are exported. The production process is predominantly assembly and testing.

Computers and Peripherals provided employment for roughly 4 000 persons in 1980. The sector consists exclusively of foreign MNEs. The parts and components are bought in, assembled, tested and exported. Research and development are not carried on in Ireland, with the exception of some product development for the printer subsector. In common with

Consumer Electronics, this sector exports practically all of its output.

The production of *Components* resulted in the employment of roughly 3 000 persons in 1980. This sector accommodates both indigenous and foreign firms. Most of the output is exported, but in the case of printed circuit boards the Irish markets accounts for up to 55 per cent of sales.

Finally, there were 2 200 persons engaged in the *Telecommunications* sector. While there are a few indigenous enterprises involved, the majority are multinational. While a substantial share of the output is exported, sales to the Department of Posts and Telegraphs in Ireland are also of considerable importance.

The NBST Report, upon which this brief profile of the industry is based, accepted that the industry's strength lay in its ready access to and ability to cope with modern technology but at the same time underlined the fact that it is largely an assembly-type industry and that with few exceptions foreign enterprises have shown little tendency to set up any research and development facilities in Ireland (23).

2.2.2 *Current Employment and Size Distribution of Enterprises in the Electronics Industry*

A more recent study undertaken for the National Board for Science and Technology records an employment level of 13 368 in the Electronics

Industry in 1981 (24). The share of foreign MNEs amounted to roughly 87 per cent, as the following tabulation shows (25):

Sector	*Percentage of Employment 1981*	
	Foreign Enterprises	*Irish Enterprises*
Computers, Peripherals and Office Equipment	28.8	0.3
Components	22.1	1.2
Consumer Electronics	13.2	4.0
Industrial Electronics	11.2	0.7
Telecommunications	11.5	7.0
Total	86.8	13.2

Almost three-quarters of the foreign-controlled employment were provided by 40 American enterprises with a mean employment of just over 200 persons. Second place in terms of employment was occupied by 12 German enterprises with a total workforce of 850. These were followed by Swedish enterprises with 709, U.K. enterprises with 506 and Dutch enterprises with 486 employees respectively (26).

In terms of employment the scale of operation in this industry was quite large, not only in the case of foreign but also of Irish enterprises. Five foreign enterprises accounted for 35 per cent of all foreign MNE-controlled employment, while on a cumulative basis 61 per cent was accounted for by the top 15 enterprises. In the case of Irish enterprises, as little as two enterprises (employing 800 and 272 persons respectively) provided 60 per cent of all Irish-controlled employment (27):

Size Distribution of Enterprises in terms of Employment	*Percentage of Employment*	
	Origin of Enterprise	
	Foreign	*Irish*
501 or more	35	45
201 - 500	26	15
101 - 200	20	-
1 - 100	19	40
Percentage Total	100	100
Absolute Total	*11 592*	*1 776*

2.3 The Textile and Clothing Industry

2.3.1 Employment Maintenance in the Industry 1978-82

Substantial net job losses were experienced in this industry in 1974, 1975 and 1980, while the intervening years displayed a more stable pattern, as can be seen from Appendix Table 6. The extent of job losses would have been greater were it not for the operation since April 1978 of employment support schemes.

The first of these was the Employment Maintenance Scheme, which continued until March 1980 and under which a subsidy of £5 per week per worker was paid in circumstances of need as indicated by redundancies, short-time working, trading losses etc. Following the termination of the initial Government-sponsored scheme, employer and industry organisations and the Irish Congress of Trade Unions agreed to finance a temporary scheme along the same lines until December 1980. A third similar scheme to cover the period from April 1981 to April 1982 then

followed. Known as the Employers' Employment Contribution Scheme, it was administered by trustees representing the Confederation of Irish Industry and the Federated Union of Employers.

The number of employees covered by the first and the second schemes respectively was as follows (28):

Sector	*First Scheme*	*Second Scheme*
Clothing	18 200	14 900
Textiles	8 700	8 300
Footwear and Tanneries	4 600	3 800
Total	31 500	27 000

The most recent scheme, which was initially intended to terminate in April 1982, appears to have covered about 25 000 employees (29). It may be noted that the snthetics division of the textile sector was excluded from these schemes.

The relative importance of the unaltered subsidy of £5 per week can be gauged from the following data on the weekly earnings per industrial worker in these sectors (30):

Sector	*Subsector*	*Average Weekly Earnings (£)* Dec. 1977	Dec. 1980
Textiles:	Woolen	58.68	82.51
	Knitting	43.18	64.12
Clothing, Footwear, Leather:	Clothing	36.61	69.92
	Footwear	47.68	75.26

2.3.2 *Decline and Re-Structuring in the Textile and Clothing Industry*

This section seeks to get beyond the aggregate data in Appendix Table 6, which distinguished between Irish and foreign enterprises and has already been dealt with briefly. Because of data constraints, attention must be switched for the moment to the industry as a whole.

The first task is to exclude footwear and leather and to proceed to more homogenous subdivisions of the industry: this is done in Appendix Table 7. Employment in the four sectors identified here totalled just over 40 000 in 1973, compared to the aggregate total of roughly 49 000 shown in Appendix Table 6.

The first striking point is that the absolute job losses experienced in the three major sectors bore roughly the same relationship to the 1973 employment level. Thus, the corresponding percentage loss in clothing was 51.6, while that in textiles was 54.8 and that in knitwear was 54.4 per cent. Only in the case of textiles did the offsetting tendency of gross job gains prove nearly adequate to the task of stabilising employment in the sector. The impact of gross gains was much weaker in the case of clothing and weakest of all in the case of knitwear. The small household textile sector was unique in recording a positive net change in employment.

An alternative source of employment data, having *inter alia*[1] excluded knitwear from the textile industry , shows that, following an initial decline in the early 1970s, employment in the industry actually

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1 See Explanatory Notes

rose between 1975 and 1979, thanks to growth induced in the synthetics sector by foreign direct investment, while the remaining sectors were characterised by stability of employment. This development is summarised as follows (31):

Total Employment in the Main Sectors of the Textile Industry

	1975	*1977*	*1979*
Synthetics	4 712	6 253	6 854
Cotton	3 440	3 210	3 409
Woollen	2 554	2 617	2 610
Carpets	2 702	2 769	2 761
Total	13 408	14 849	15 634

The NBST study, which was described at the beginning of Section 2.2.1, and from which the foregoing data are derived, considered that the substantial problems of structural change and adjustment, which came with trade liberalisation in the early 1970s and had beset the industry throughout the decade, have by now been overcome (32). Before leaving an industry whose overall decline in employment seems to be diminished only to the extent that new foreign enterprises enter into it, it is worthwhile placing the resulting direct employment gain in juxtaposition to the potential that these enterprises offer for indirect employment gains via their contribution to the balance of international payments in general and through their fostering of linkages in particular. Here we revert briefly to McAleese's study once again.

2.3.3 *Net Foreign Exchange Earnings and Capital Cost per Job in the Textile Industry*

An upper bound estimate of the net foreign exchange earnings of any given industry can be obtained by deducting foreign exchange outlay on imported materials and services from export earnings. A further deduction in respect of repatriated profits, payments abroad in respect of overhead costs etc. yields a lower bound estimate. McAleese provides the following estimates for 1974 (33):

Industry	*Exports £ Mio*	*Estimated Net Foreign Exchange Earnings £ Mio*	
		Low	*High*
Total New Industry	579.9	274.5	357.7
of which:			
Foreign Enterprises	383.6	147.8	222.4
Irish Enterprises	196.3	126.7	135.3
Textile Industry	*35.0*	*1.3*	*6.1*

From this brief account it will be clear that the export earnings of foreign enterprises in *New Industry* tended on average to be offset to the extent of roughly 40-60 per cent by expenditure on imported materials and services. Much of the apparently better foreign exchange earning capacity of Irish enterprises is attributable to the performance of the food industry in which they dominated. The weakness of the textile industry in this field is quite staggering. While it is not possible to give separate data for the foreign and indigenous enterprises in this industry in respect of their net export earnings, it is known that the import content of raw materials expenditure in 1974

amounted to 96,5 per cent in the foreign and 90,4 per cent in the indigenous enterprises (34). It appears, in any case, that the extent of value added to the imported materials was exceptionally small in the case of the textile industry. This is all the more surprising when one adverts to the fact that in no other industry - not even in the chemical industry - was the capital grant per job as high as it was in the textile industry. In making this latter comparison, which is summarised below, it has been possible to focus on the foreign MNEs (35):

Foreign MNEs by Industry	*Capital Grant £ Mio*	*Fixed Assets £ Mio*	*Capital Grants as Per Cent of Fixed Assets*	*Per Capital Grant £*	*Job Fixed Assets £*
Total New Industry	91.990	232.832	39.5	2 583	6 537
Textiles	14.855	29.799	49.9	7 794	15 634
Chemicals	11.825	31.545	37.5	5 918	15 788

The employment level in the two industries singled out here was roughly equal in 1974: foreign MNEs in Textiles employed 1 906, while those in Chemicals employed 1 998 (36). The two industries differed greatly as net earners of foreign exchange: the textile industry retained at best 17 per cent, while the chemical industry retained at best 63 per cent of their corresponding export earnings - the rest was expended on materials and factor rewards abroad. Thus, their indirect contribution to employment creation by relaxing the country's foreign exchange varied greatly. At the same time, the capital cost in terms of IDA new industry grant per job was substantially higher in textiles than in chemicals.

2.4 *The Role of Foreign MNEs in the Food Industry*

2.4.1 *Employment in the Food Industry*

Gross gains and losses of employment in the food industry between 1973 and 1981, of the order of magnitude of about 12 000, just cancelled each other out and left the industry employing roughly 47 000 persons. As Appendix Table 8 shows, most regions recorded a positive net change in employment while the East Region experienced a substantial decline from roughly 18 400 to about 15 800.

About one-seventh of the jobs in this industry are provided by foreign, mainly British, enterprises. The *New Industry* share of this employment amounted to only 36 per cent in 1973, thus it seems safe to conclude that the presence of foreign MNEs pre-dates the era of IDA grants for the greater part (37). The actual distribution of employment by all foreign MNEs was as follows (38):

	Employment	
	1973	*1981*
MNEs of British origin	4 741	4 382
of which: in East Region	(3 827)	(3 307)
MNEs of other origin	1 237	2 351

Many of the world food industry's multinational enterprises are represented in the Dublin area, which is the centre of the East Region (39).This applies in particular to such enterprises as Beatrice Foods

Co. (US), the Beecham Group (UK), Cadbury Schweppes (UK), CPC International Inc. (US), Nestle (Switzerland), Ranks Hovis McDougall (UK) and Unilever (UK/Netherlands), detailed information concerning which will be found in the directory compiled by Stopford et al. (40).The scale of operation of some of these enterprises, in terms of employment, seems to be quite small. In the East Region as a whole in 1981 employment by foreign MNEs in the food industry totalled about 3 800 (41). Given the fact that Cadbury Ireland account for about 2 000 and CPC Ireland for a further 300, it appears that the other enterprises are small by comparison (42).

2.4.2 The Development of Indigenous Resources in the Food Industry

This section concludes with a brief consideration of the raison d'etre of foreign enterprises in the dairy industry and the related question of the competitiveness of indigenous enterprises vis-a-vis foreign MNEs, which affects in particular the vegetable processing industry.

Legislation dating back to the foundation of the State precludes enterprises other than farmer cooperatives from acquiring milk for separation directly from the milk producers. Twenty years ago these cooperatives constituted an exceedingly decentralised, small-scale industry, almost exclusively devoted to the production of butter and seeking with the aid of a recently-introduced deficiency payments scheme to re-gain a foothold at least in the British market (43). The scope for improved efficiency offered by technological advances in the

transport and processing of milk but also uncertainty regarding the adequacy of their resources in diversifying production and marketing new products now left the cooperatives confronted with basic questions concerning the nature of their future role. Similar questions faced a number of British enterprises which, attracted by the country's rapidly rising milk supplies, the scope for encroching upon the U.K. market share formerly held by New Zealand and, last but by no means least, the IDA programme of investment incentives, quickly developed a reciprocal interest in joint ventures or simple trading arrangements with the cooperatives. Generally speaking, to the extent that the cooperatives substantially increased the scale of their operations through amalgamation and rationalisation, they proved that they could forego or in time dispense with joint venture links with the British enterprises. This applies to a number of joint ventures in which a major MNE, Unigate, was involved on a 20:80 basis and where the product range did not stretch beyond the traditional confines of the dairy industry.

In contrast, there were two areas where the cooperatives found themselves inadequately equipped to challenge the MNEs. The first of these areas was the interface between the dairy and the alcohol industry and here the dairy division of the British-based Grand Metropolitan Group, which was the major partner - on an 80:20 basis - with a number of small Irish cooperatives in two joint ventures, was able to draw upon exceptional resources of technology and marketing ability from within the Group. The second area was the interface between the dairy and the pharmaceutical industry and here the baby food divisions of two U.S. MNEs, Abbott Laboratories and American Home Products can engage in an intra-enterprise global division of labour without any links stronger than normal trading relations with both large and small

Irish dairy cooperatives.

In the vegetable processing industry great hopes of attaining a viable competitive position alongside the MNEs were entertained about twenty years ago when the State-sponsored Irish Sugar Company set up its Erin Foods Division. This was to undertake the dehydration, freezing and canning of vegetables and the manufacture of formulated products such as soup mixes. The ability of the enterprise to handle its chosen technology was beyond doubt: in 1970 it won the Innovation Award of the National Science Council for its achievements in this field. With the gift of hindsight it appears that the technology of dehydration was not well-chosen.

The domestic market now accounts for the bulk of Erin Food sales. The enterprise competes successfully in this market against competitors such as Royco (Unilever) and Knorr (CPC): it enjoys a significant brand share in the market for dried soups, sauce mixes, instant beverages etc. (44). Once one leaves this market two major problems arise. The market for dehydrated products is characterised by stagnant demand and surplus production capacity, with major competition coming from Israel and Kenya (45). In the market for frozen foods, the enterprise sees itself as being handicapped in particular by a very narrow product range and for this and other reasons failing to reach profitability in a market characterised by keen competition among multinational enterprises (46). The accounts of the Sugar Company, whose Research and Development Division, according to a report prepared for the National Board for Science and Technology in 1979, employed over 60 research graduates, technologists and other specialised staff, never showed a profit in the 1970s (47,48).

3. *CONCLUSIONS - A RETROSPECTIVE VIEW*

Employment by foreign MNEs in Ireland consists of a contracting and an expanding sector. The contracting sector encompasses enterprises which were apparently attracted to Ireland during the protectionist era which ended about twenty years ago. It is perhaps reasonably accurate to say that the majority of these enterprises are of British origin and that they gravitated predominantly towards the East Region, in which the capital city and about 37 per cent of the country's population are located. Although many of these older foreign enterprises benefitted during the 1970s from IDA re-equipment grants, their employment as a whole declined from 25 000 in 1973 to 21 000 in 1980.

The expanding sector encompasses foreign enterprises in what has been termed *New Industry*. In terms of origin, location and sector they present a stark contrast to the older foreign enterprises. Their employment increased from about 14 000 in 1966 to around 36 000 in 1973 and by 1980 had reached almost 60 000. The incentives which attracted these enterprises to Ireland were availed of to a much lesser extent by indigenous enterprises, whose employment in the *New Industry* category increased by only 3 per cent between 1973 and 1980.

Given the rate of population growth in Ireland, the magnitude of the problem of employment generation is quite unique among the relatively more industrialised countries. Proponents of a science policy based approach to industrialisation strategy have argued that the state should take measures to correct the imbalance between the economy's supply

of educated and skilled human resources and the demand for such resources by the foreign enterprises upon which industrial development in Ireland has tended to depend (49). That the imbalance is left uncorrected by conventional IDA policies should be clear from the account of the electronics industry. But that a serious misallocation of resources can also occur when the state seeks to pursue an alternative course is shown in the case of the food industry.

The appropriateness of the IDA strategy was the subject of two reports, neither of which has been published, commissioned by the National Economic and Social Council (NESC). The first of these, which related to the period up to 1974, provided an affirmative answer. The authors emphasised in particular that policy-induced industrial development had increased net exports and, by lifting the balance of payments constraint, had allowed aggregate demand to be expanded to the benefit of employment in other sectors (50). It appears, however, that McAleese's study was not available at the time when this report was being prepared and accordingly its findings need to be re-considered in the light of what McAleese said concerning net foreign exchange earnings. Both the electronics and the textile industries illustrate this point clearly.

In the second report, which is known as the Telesis Report and publication of which is still awaited, the following key questions are posed in an attempt to evaluate the programme of attracting foreign enterprises: (1) to what extent will the jobs and the net export earnings be long-lasting, and (2) to what extent will these

enterprises assist Ireland to overcome the investment barriers to successful participation in what the report terms complex factor businesses (51). Qualification under the criterion of viability turned on the question of profitability; in order to satisfy the second criterion the enterprises should be seen to contribute significantly to the general fostering and extension of both white and blue collar skills and to the dissemination of development impulses by means of linkage effects. A close scrutiny of the foreign enterprises engaged in the electronics, mechanical engineering and fine chemical and pharmaceutical industries led to the conclusion that the enterprises scored well under the first criterion but were generally deficient when subjected to the second criterion. Backed by mainly circumstantial evidence, the Telesis team concluded that Ireland may be paying more than is necessary to attract foreign enterprises and that development policies may not be making full use from a national point of view of the foreign enterprises in Ireland (52).

It is probably accurate to say that the standing of foreign enterprises in Ireland is judged on pragmatic grounds. The fact that almost the entire increase in *New Industry* employment between 1973 and 1980 was provided by them is obvious to all. The question is not so much whether this experience will be repeated between 1983 and 1990 but whether the prevailing package of incentives can be modified so as to harness in particular trade benefits that have up to now been conspicuously neglected and thus achieve what would seem to be a more equitable distribution of the reciprocal advantages flowing from foreign direct investment in Ireland.

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EXPLANATORY NOTES

Summary of the Industrial Development Authority's Incentive Scheme 1981

Tax Incentives: A maximum rate of 10 per cent Corporate Tax is payable on profits earned on the sale of goods manufactured in Ireland, irrespective of whether they are sold on home or export markets. This will continue until the year 2000. Enterprises which qualified for export profits tax relief before 1980 may continue with this until 1990; they will then be eligible for the 10 per cent rate mentioned. 100 per cent depreciation allowances against tax, including accelerated depreciation, is available to manufacturing industry for buildings, plant and machinery.

Financial Incentives: Non-repayable cash grants towards the cost of fixed assets up to a limit of 60 per cent in the so-called designated areas (mainly in the West of Ireland) and a limit of 45 per cent elsewhere.

Statistical Definitions

The classification of industry by both the Central Statistics Office and the Industrial Development Authority now conforms to the General Industrial Classification of Economic Activities within the European Community (NACE). The data specially provided to the present author by the IDA is in accordance with NACE. The data used in the study on job losses undertaken for the NESC and that used by McAleese was classified in accordance with the preceding nomenclature, the UN system known as ISIC, and this may result in some disagreement based on NACE. Obvious difficulties arise (e.g. in the case of electronics) when a particular industry is not identified as such in any official classification system. A distinct problem arises when industries are grouped according to a criterion such as grant category. The NESC study on job losses classifies as *New Industry* those enterprises which received a new industry grant and a re-equipment grant and classifies under *Re-Equipment Industry* any enterprise which received a re-equipment but not a new or small industry grant. Given that McAleese encompasses

under *New Industry* those enterprises which received new industry grants, it is difficult why there is a major disagreement between his data on employment by indigenous *new industry* enterprises and that of the NESC study (McAleese records 24 120 in respect of 1974, while the NESC records 64 320 in respect of 1973), while the data in respect of foreign enterprises are compatible with one another.

In the NESC report Job Losses consist of the negative difference between employment in the terminal year (1980) and that in the base year (1973). Accordingly any enterprise which commenced operations after the base year is excluded. Where closure occurred between the base and the terminal years, the job loss by closure is the full extent of the base year employment, since the terminal year employment in that case is zero.

There is some overlapping associated with the official NACE delimitation of the textile (NACE 43) and the clothing and footwear (NACE 45) respectively. The former includes the knitting industry (NACE 436), while the latter includes household textiles such as curtains, soft furnishings etc. (NACE 455), for example. The official Industrial Training Authority AnCO (An Chomhairle Oiliuna) maintains detailed records, for the purpose of training levies and grants, of employ-levels and composition in industrial enterprises. AnCO data by industry are not in accordance with official statistical usage. For example in Section 2.3.2, where AnCO data were used in the preparation of the NBST report, the knitting industry is excluded from textiles.

APPENDIX

Table 1

Components of Population Change 1951-66 and 1966-81 by Region (Per Cent)

	1951 - 1966			*1966 - 1981*		
	Natural Increase	*Migration*	*Actual Change*	*Natural Increase*	*Migration*	*Actual Change*
Donegal and North West	+ 6.3	-26.5	-20.2	+ 8.2	+ 0.6	+ 8.8
West	+10.8	-24.3	-13.5	+10.7	- 2.5	+ 8.2
Mid West	+13.2	-18.6	- 5.4	+15.3	- 0.2	+15.1
South West	+11.1	-14.4	- 3.3	+13.6	+ 1.2	+14.8
South East	+13.1	-19.5	- 6.4	+15.6	+ 0.2	+15.8
East	+19.9	- 9.2	+10.7	+21.2	+ 5.1	+26.3
North East	+11.8	-23.6	-11.8	+14.6	- 1.3	+13.3
Midlands	+12.2	-21.8	- 9.6	+12.4	- 3.4	+ 9.0

Source: Calculated from data in Census of Population of Ireland, compiled by the Central Statistics Office, various issues.

Table 2

Employment Gains and Losses in Foreign MNEs by IDA Grant Category Between 1973 and 1980

IDA Grant Category	*Employment*		*G r o s s*		*N e t*
	1973	*1980*	*Gain*	*Loss*	*Change*
New Industry	34 043	59 419	34 257	8 881	+25 376
Re-Equipment	13 800	11 200	816	3 416	- 2 600
Small Industry	784	1 456	1 225	553	+ 672
Other Industry	10 424	8 355	2 856	4 925	- 2 069
Total	59 051	80 430	39 154	17 775	+21 379

Source: Forthcoming Study on Job Losses commissioned by National Economic and Social Council (NESC): Tables A.1 and A.3 of Draft Report provided by NESC.

Table 3

Employment Loss Rates in Indigenous and Foreign Enterprises between 1973 and 1980 by IDA Grant Category (Average Annual Rate Per Cent)

	New Industry Grant		*Re-Equipment Grant*	
Industry Group	*Indigenous Enterprise*	*Foreign Enterprise*	*Indigenous Enterprise*	*Foreign Enterprise*
*Overall Loss Rate**				
All Industry Groups	4.1	4.2	5.1	4.0
Food	2.5	2.5	4.6	3.0
Textiles	8.2	2.8	9.3	8.8
Clothing and Footwear	5.5	8.5	13.0	3.2
Chemicals	2.6	3.1	7.7	7.1
Metals and Engineering	3.1	5.0	9.0	5.5
*Closure Loss Rate**				
All Industry Groups	1.7	1.9	2.0	1.8
Food	0.8	0.4	1.6	0.6
Textiles	3.5	1.3	3.7	5.5
Clothing and Footwear	2.1	7.4	9.9	0.6
Chemicals	2.5	0.02	2.4	6.5
Metals and Engineering	1.3	2.6	2.3	3.4

**See text for explanation*

Source: Forthcoming Study on Job Losses commissioned by National Economic and Social Council: Tables 3.3 and 3.4 of Draft Report provided by NESC.

Table 4

Size Distribution of Manufacturing Enterprises by Employment 1963 and 1975 and Size Distribution of New Industry Enterprises 1974 by Employment*

All Manufacturing Enterprises

Employment Size Group	*Average per Enterprise*		*Percentage Share of Enterprises*		*Percentage Share of Employment*	
	1963	*1975*	*1963*	*1975*	*1963*	*1975*
3-99	23	24	87.3	86.6	35.4	35.3
100-199	139	139	6.7	7.5	16.5	17.9
200-499	296	301	4.5	4.3	23.2	22.1
500+	929	926	1.5	1.6	24.9	24.7

New Industry Enterprises

0-99	43	63.8	19.8
100-199	138	20.2	20.0
200+	526	16.0	60.2

**The term Enterprise is used here to denote Establishment or Plant*

Source: Central Statistics Office: Analysis of the Census of Industrial Production 1963, Supplement to the Irish Statistical Bulletin, March 1968, Table 9, p. 32; Analysis of the Census of Industrial Production 1975, Supplement to Irish Statistical Bulletin, September 1981, Table 8, p. 21:
McAleese, D.: A Profile of Grant-Aided Industry in Ireland, IDA Publication Series Paper 5, Dublin 1977, Table 3.3, p. 21.

Table 5

Distribution of Enterprises and Employment in the Electronics Industry by Subsector, 1980

Subsector	*Enterprises*	*Employment*
Computers and Peripherals	13	4 072
Components	35	3 029
Business Electronics	2	315
Industrial Electronics	16	955
Consumer Electronics	15	4 394
Telecommunications	8	2 219
R & D Consultancy	6	64
Total	95	15 048

Source: National Board for Science and Technology: MicroElectronics - The Implications for Ireland, Dublin 1981, Volume B, Table 6.3, p. 49.

Table 6

Employment in the Textile Industry and the Clothing, Footwear and Leather Industry by Origin of Enterprise 1973-81

	Textile Industry			*Clothing etc. Industry*		
	Total	*O r i g i n*		*Total*	*O r i g i n*	
		Irish	*Foreign*		*Irish*	*Foreign*
1973	21 318	17 012	4 306	27 958	22 019	5 939
1974	21 467	16 725	4 742	28 276	22 273	6 003
1975	19 816	15 238	4 578	26 570	21 521	5 049
1976	17 693	13 141	4 552	24 488	19 951	4 537
1977	18 309	12 655	5 654	23 278	19 055	4 223
1978	17 947	12 394	5 553	23 360	18 633	4 727
1979	18 112	11 922	6 190	23 348	18 387	4 961
1980	18 214	11 726	6 488	23 384	17 682	5 702
1981	16 049	10 051	5 998	21 759	15 584	6 175

Source: Unpublished material provided by the Industrial Development Authority (IDA) based on its annual employment survey.

Table 7

*Employment Gains and Losses in Selected Subsectors of the Clothing and Textile Industry between 1973 and 1981**

Subsector	*Employment*		*Gross Gains*	*Gross Losses*	*Net Change*
	1973	*1981*			
Clothing	18 763	14 432	5 358	9 689	-4 331
Household Textiles	2 005	2 478	1 335	862	+ 473
Textiles	10 244	9 061	4 428	5 611	-1 183
Knitting	9 017	5 228	1 119	4 908	-3 789
Total	40 029	31 199	12 240	21 07o	-8 830

**See Explanatory Notes in relation to classification of these subsectors*

Source: Unpublished material provided by the Industrial Development Authority (IDA) based on its annual employment survey.

Table 8

Employment Gains and Losses in the Food Industry by Region between 1973 and 1981

Region	*Employment 1973*	*Employment 1981*	*Gross Gains*	*Gross Losses*	*Net Change*
Donegal	1 065	1 452	680	293	+ 387
North West	686	796	268	158	+ 110
West	1 721	2 150	815	386	+ 429
Mid West	4 555	4 331	1 014	1 238	- 224
South West	8 763	9 610	2 382	1 535	+ 847
South East	6 603	7 200	1 862	1 265	+ 597
East	18 449	15 846	3 634	6 237	-2 603
North East	3 103	3 706	1 152	549	+ 603
Midlands	1 806	2 298	943	451	+ 492
Total	46 751	47 389	12 750	12 112	+ 638

Source: Unpublished material provided by the Industrial Development Authority (IDA) based on its annual employment survey