

An Examination of the Northern Irish Sea Fishing Industry

BY P. H. HUGHES

(Read before the Society in Belfast on May 6th, 1968)

The Northern Irish sea fishing industry is of the in-shore type, the boats seldom being absent from port for more than eighteen or twenty hours at a time. In fact it is only within the lives of the present generation of fishermen that the boats even ventured out of sight of land and the fleet began to take its present form in the years immediately preceding World War II when the Northern Irish Government directed grants and loans towards a scheme for modernisation.

Today the main fishing fleet consists of 75 wooden-hulled trawlers ranging in length from 40 ft. to over 70 ft. Each boat has a wheel-house, cabin complete with berths and cooking galley. By almost any standard these boats are up to date and well equipped. I have heard the fleet described by men of experience as the most modern in the United Kingdom. This might be; however, ultimately the success of the fishing must depend on its strength and success as a marketing unit and it will be necessary to look at the fleet both as a catching unit and as a marketing unit, as being equally concerned with demand as it is with supply. The greatest continuing challenge to the Northern Irish fishing industry is that it developed at a time when the market for fresh fish had been evolved or developed by the middle water and distant water fleets operating from ports outside Northern Ireland - Hull, Aberdeen, Fleetwood. This challenge has been at its greatest since World War II because marketing during the war was government-controlled and the time and distance elements of economic rent were removed by a price equalisation scheme.

The removal of this scheme in 1950 brought the industry bang up against the challenge it had been allowed to forget during the war and the fleet which had stood at 92 in 1948 was reduced to 55 in 1956 by the process which the economist can so impersonally regard when he talks about "firms leaving the industry".

By its nature the Northern Irish sea fishing industry must operate mostly in the waters of the Irish Sea from a line running from Rosslare to Fishguard up to another line running from Larne to Stranraer. Mostly I say because the County Down fishermen do fish south of this line - at times - and they do fish quite a lot north of the Larne Stranraer line into Scottish ports but the main fishing effort is inside the lines described and which bear the code number on fishing maps of VIIa.

A comparative notion of what these fishing grounds are like can be gained from statistics published annually by Le Conseil Permanent International pour l'Exploration de la Mer which has its centre in Denmark and is referred to as I.C.E.S., from information published by the Ministry of Agriculture, Fisheries and Food and by our own Minister.

The waters north of the Larne-Stranraer line and off the west coast of

Scotland are known by the code number VIa. Table I shows total yields of selected grounds from the North Atlantic or I.C.E.S. areas including VIa and VIIa for the years 1965 and 1966.

Grounds VIIa

Total landings per year from VIIa (47,000 to 66,000 metric tons) are low as compared with other grounds (e.g. IVa 1,500,000 metric tons or Va 1,400,000 metric tons). Of pelagic and demersal fish the most abundant species at between 12,000 and 16,000 metric tons per year is whiting. Of the second most abundant species, herring, the yield these past few years has varied between 8,000 and 13,000 metric tons. Cod, which normally yields about 2,000 metric tons, reached 9,000 metric tons in 1966. Plaice can vary between 2,000 and 5,000 metric tons, common sole between 1,000 and 2,000 metric tons. Set beside yields from other grounds of cod from 200,000 to 300,000 metric tons, of haddock from 100,000 to 110,000 metric tons and of herring 1,450,845 metric tons, yields of these species of pelagic and demersal fish from grounds VIIa appear to be trifling. Of shell fish there is really only one species of importance to trawlers, nephrops, and these are as a species reasonably abundant, about 3,000 metric tons in the year 1966 out of a total landing from all I.C.E.S. north area of 27,000 metric tons.

Looked at even uncritically the figures for individual species will indicate the stock-in-trade but their true significance will be clearer if they are looked at as part of a whole. Thus the yields of brill by grounds VIIa though small beside whiting account for 7 to 16 per cent of the total of this species landed from the north area, whilst whiting from VIIa is from 6 to 11 per cent of this species from the same area. Gurnard from VIIa accounts for as much as 24 to 27 per cent of the total from the north area; nephrops account for something near 10 per cent

Table II shows gross yields by species for the years 1965 and 1966 grounds VIa, VIIa and all the north Atlantic area.

The fleets using VIIa

Table III shows the various fleets fishing grounds VIa and VIIa, the catches which these fleets make and the percentage catch by each fleet in the grounds for the years 1965 and 1966

The Northern Irish Fleet and the Grounds open to it

In the light of what information is available are the grounds and in particular VIIa open to Northern Irish boats profitable to fish?

Before going into a more detailed theoretical examination of the question of over-fishing and the welfare of the Northern Irish fleet I shall look at some evidence from figures available from I.C.E.S. and the Ministry of Agriculture, Fisheries and Food, London.

Table IV sets out for the English fleet (otter trawl) the average gross tonnage employed, the fishing hours, the yields, the yields per hour in kilograms, the average English price, the value of one fishing hour, the yield per hour related to average gross tonnage and the value (shillings) of

hourly yield related to average gross tonnage for selected grounds for the years 1961 to 1965.¹

Returns from grounds VIIa poor on a gross yield basis are also poor on a yield per hour basis being amongst the lowest of the various North Atlantic grounds, but in terms of value of yield per hour per gross ton of shipping employed in them the grounds are the most productive for the years considered, 1962 to 1966. The in-shore fishing practised in VIIa thus appears to be more remunerative in relation to effort than the middle and distant water fishing practised in other waters.

Additional effort seems to yield proportionate additional yield. Thus relying on figures from the sources quoted, the catches by the English fleet in grounds VIIa for the years 1961 to 1966 were:

<i>Year</i>	<i>Hours Fishing</i>	<i>Catches</i>
1961	137,666	11,583,000 kilograms
1962	157,649	14,190,000 "
1963	144,761	10,915,000 "
1964	145,647	10,839,000 "
1965	122,057	10,748,000 "
1966	104,355	6,451,000 "

The coefficient for correlation of these figures works out at 0.898 which is significant at the one per cent level so that there is a strong presumption that catches respond very much to effort.

But perhaps these catches were obtained at too great a cost? It is necessary to distinguish between biological and economic over-fishing. What I have to say now relies very much on a paper by Scott Gordon of Garston College, Ottawa. Gordon concerns himself with what he calls "bionomics" or economics based on biological data or evidence. The problems of over-exploitation or over-fishing must necessarily present themselves to the biologist in a different light from that of the economist; in fact the economist has no direct interest in the problems of over-fishing or preservation as such which present themselves as aspects of economic rent.

What the bionomist whose interest in assessing the profitability or commercial viability of a fishery is concerned with is the net yield of a fishery which briefly is the difference between the sale value of fish landed and all costs. What is involved can be presented in a comparatively simple diagram using three cost curves:

- (a) a curve representing Average Productivity, that is average value of landings;
- (b) a curve representing Marginal Productivity, that is value added to productivity by the addition of successive single units of fishing effort;

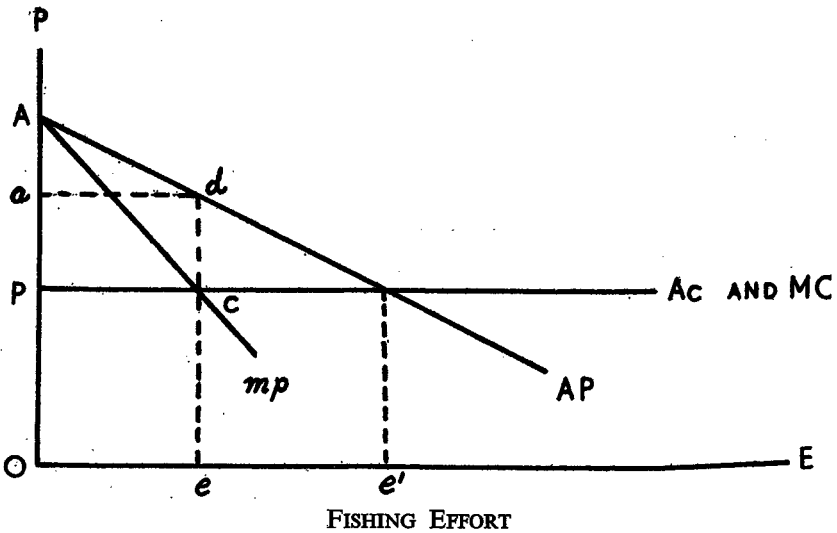
¹*Bulletin Statistique des Peches Maintimes*, Volumes XLVI to L and see Fisheries Statistical Tables 1966, London.

H. Scott Gordon *The Economic Theory of a Common Property Resource: The Fishery*. *Journal of Political Economy*, Volume, LXII, No. 2, April, 1964.

(c) a curve representing Average and Marginal Cost.

Average and Marginal Cost can be taken as coinciding on the assumption that each addition to fishing effort cannot benefit from cost saving in overheads or in economies of scale: there is no distinction between fixed and variable costs. It simplifies presentation to take the curves as straight lines. Diagram 1 represents the exploitation of a particular fishery. We have in mind here Area VIIa. If no fishing takes place the fishery has a potential stock of OA fish. As fishing effort increases the average yield of all the units engaged falls as shown by the line AP and that resulting from the addition of each new unit of fishing effort falls, as shown by the line MP. The most profitable exploitation of this particular fishery will be shown when Oe of fishing effort is devoted to it giving a yield of Oa represented by the rectangle Oeda.

DIAGRAM 1



The net yield is thus $pcda$ and is the maximum which could be obtained from this fishery.

This bionomic ecosystem can be expressed by four equations. Let P be total population of fish in a fishery, L be the landings in value terms, E the intensity of fishing and C the cost of marketing this effort.

- $P = P(L) \dots \dots \dots (1)$
- $L = L(P, E) \dots \dots \dots (2)$
- $C = C(E) \dots \dots \dots (3)$
- $C = L \dots \dots \dots (4)$

Equation (4) is the equilibrium position of an uncontrolled fishery.

Remuneration to labour is included in costs and it is regarded as that remuneration which labour could get in any comparable industry. For example, such remuneration would have been £13/8/4 in 1965, £14/13/8 in 1964, £16/4/1 in 1965 and £17/1/2 in 1966 and £18/7/5 in 1967 for the

fleet in Northern Ireland as these were the average wages in industry in Northern Ireland for these years.

The surplus yield over costs shown on the diagram by the rectangle $pcba$ is in the nature of economic rent since the fishery is common property.

If the exploitation of this particular fishery were under a common authority that authority would find it most profitable to put no further fishing effort into the fishery beyond Oe units. It would of course continue to earn a profit by extending its efforts to Oe' at which point costs would just be met; beyond Oe' an absolute loss would be incurred. But most fisheries are not under a common authority with the result that fishing effort is all the time being pushed beyond the point of maximum return or the greatest net yield and in a bionomic study this is what is meant by over fishing. This is very likely a different concept from the over-fishing of the biologist.

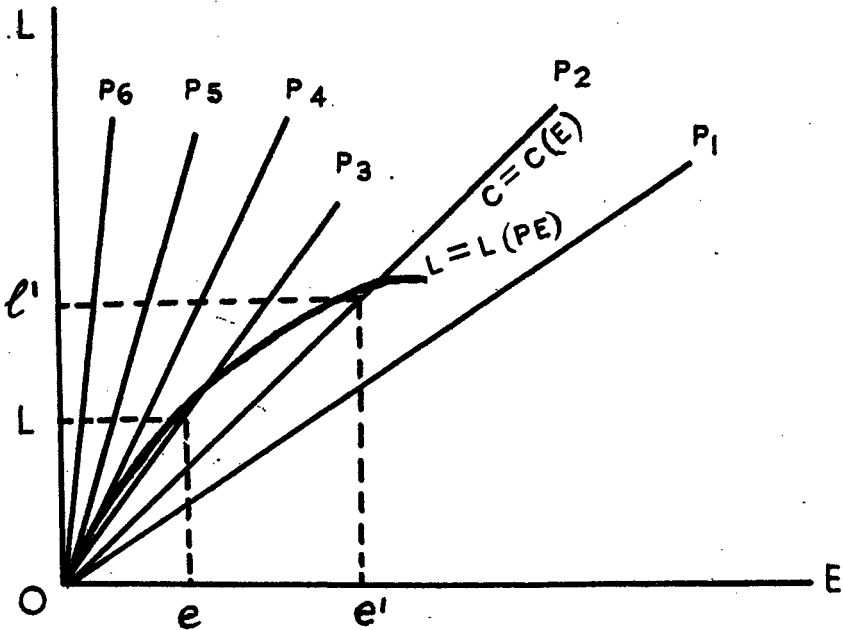
From the diagram it will be seen that once fishing goes beyond what may be termed the optimum commercial level individual units (not necessarily the last one in) will begin operating at a loss – only those with average returns above cost will continue to make any profit since in the real world the average fleet will be composed of varying efficiency. It is this sense possible that whilst the average productivity of the whole fleet may be sufficient to give the fleet as a whole a profit the less productive units will be operating at a loss and this today is the position in the Northern Irish fleet. See Table XI.

But again, in the real world it is likely that given the hunting proclivity of the fisherman the fishing will be pushed beyond Oe' and costs will be covered by the deficiency being taken out of the remuneration to labour. This is almost inevitable given the wage structure in the fishing industry where the fisherman is paid on a sharing basis. The average wage earned will not be as good as in other industries. The fisherman will more likely put up with this fallen income for he is ever committed to the big haul – the day he expects to make a windfall. Judged by Table VI the Northern Irish fisherman is in a chronic state of “exploitation”.

The analysis presented in diagram 1 concerns itself with a somewhat static situation in that it takes no cognisance of the effect on population of fishing effort both direct and indirect. The effects of uncontrolled fishing can be presented on a population map showing in effect various contours of population. This can be superimposed on a landings-effort diagram. In diagram 2 P_1, P_2, P_3 etc. represent population contours.

The various landings associated with effort and population contours will trace a curve shown as $L = L(PE)$. Total cost as before is regarded as linear and on the diagram is drawn to correspond with the population contour P_2 . The aim of a regulated fishery will be to maximise $L - C$ and on the diagram this will be achieved at the point of the curve $L = L(PE)$ which is parallel with the cost curve. On the diagram this point is achieved with Oe effort giving 0 landings. But in an unregulated fishery, fishing effort will most likely be extended beyond e to e' and at this point a proportionately greater effort is required to make the landings $O1'$ and over fishing in the bionomic sense is taking place. The relevance of the analysis

DIAGRAM 2.



to the Northern Irish situation will be clear when we look at the average wage earned in the industry. Table V shows that the average wage earned by the Northern Irish fishermen for the years 1963 to 1967 was below the average wage earned in industry. If this was so then the fishing industry in Northern Ireland was operating in conditions where labour was being "exploited"¹ in the sense described here. Not only this but profits were below what was being earned in most other industries, (Table XI).² From these facts can it be concluded that the Northern Irish fishing industry is operating under conditions which make viability impossible?

From Table VI it will be seen that the Northern Irish fleet has actually been increasing its physical productivity at a very commendable rate. Thus physical productivity or catch per hour increased from 37.35 kgs. in 1961 to 96 kgs. in 1962 and increases for the years 1962, 1964 and 1965 were phenomenal. Unfortunately increases in financial productivity were not commensurate with the increases in physical productivity. Looking at the table it will be seen that whereas the English fleet did not increase its physical productivity in any substantial manner over the years examined and the Northern Irish fleet on the other hand did increase its productivity as shown, the financial productivity of the English fleet improved considerably whilst the Northern Irish financial productivity did not show a corresponding improvement. The reason for this discrepancy is to be found in price. Thus the average English price increases over the years from 0.67 shillings per kilogram to 2.18 shillings whilst the average Northern Irish price remains substantially the same from 1961 to 1965 though it does increase somewhat in 1966 and in 1967. Thus the price in 1967 rose to 0.64

¹i.e. by impersonal economic forces.

²But see footnote.

shillings which was slightly better than the 1966 price. Figures for fish tonnage employed in 1967 are not yet available. However, catch per hour went up from 77.5 to 96 kilograms and with price slightly up on 1967 it is most likely that financial productivity rose also in 1967.

Just how low the prices for fish landed in Northern Ireland have been will be seen from Table VII. The causes for the situation are numerous but to revert to what I said at the start and to enlarge on it, the main cause has most likely been the fact that the market in the United Kingdom and this is true for Northern Ireland, also has been developed by cross-Channel fishing, depending for the most part on middle water and distant water fishing. It will be remembered that the distant waters have constant and abundant supply of cod and this is not true for area VIIa on which most Northern Irish fishing has depended. The Northern Irish fishing could not, owing to the seasonality of cod, hope to supply even the small market here. Indeed if markets and marketing were unchanging and unchangeable the hope for Northern Irish fishing would not be bright but marketing is changing very rapidly. With more and more services being added to fish at wholesale level and with frozen prepackaged fish gaining more of the market the squeeze today is coming on the middle water fleet and conditions are beginning to favour in-shore fishing. It is possible that in the future the traditional fishmonger will have for the most part disappeared. Indeed, according to the first report of the 1966 census of distribution the number of fishmonger-poultry shops in Britain fell from 8,108 to 5,557 between 1951 and 1966.¹ There will be a place for the very fresh fish on the market which the in-shore fishing can supply and with so much fish being sold from the deep frozen cabinet shopkeepers will be able to find a place on the market more easily for seasonal supplies of fresh fish. Moreover, thanks to a great deal of initiative shown by a few merchants, especially in Ardglass, Northern Irish whiting, the most abundant species here, (embarrassingly so at times) has taken over a very large slice of the fried fish trade. There are approximately 486 fried fish shops in Northern Ireland and these are capable of absorbing somewhere between 600 and 700 cwt. of fish per week. 1967 has shown an improvement in the price of locally landed fish and whilst it would be wrong to conclude too much from the movement of one year more especially as conditions for the Northern Irish fishermen were especially kind, still the signs are that improvement will continue in the years to come. The fleet, especially if it be reorganised and not substantially enlarged, could improve on its record of increasing landing without to any great extent increasing its fixed costs (Table V).

There would also appear to be some scope for a more efficient employment of labour. Thus for example in 1963 in Nova Scotia the average crew of the 60 ft. Danish seiner was 3, that of the 65 ft. trawler was 4. In New Brunswick the same year the average crew of a 60 ft. trawler was 4.1, that of a 65 ft. trawler 4.4, that of a 48 ft. Danish seiner 3. In Quebec again in the same year the average crew of the 60 ft. trawler was 4.2, that of the 65 ft. trawler was 4.3 (Cost and Earnings of selected fishing enterprises.

¹Board of Trade Journal, Volume 194, No. 3701, 23rd February, 1968.

Atlantic Provinces, 1963; John Proske, Economic Service, Department of Fisheries of Canada, Ottawa, 1966). Over these same years the average crew of the 40 to 50 ft. boat in a Northern Irish fleet was 4.5, that of the 50 to 60 ft. boat was 5 and that of the 60 to 70 ft. boat was 5.5. These figures have remained substantially the same since then.

It is to marketing of course that the industry must look for any substantial expansion.

That there is room for development of marketing in Northern Ireland can hardly be doubted. A close examination of the physical and financial aspects of port wholesaling indicate that the physical home landings at 1967 level when they stood at 179,752 cwt. had potential for employing 130 more people in processing.

Physical home landings could have supported 130 more people in wholesaling than were actually employed but the gross margin with difficulty supported only the actual numbers employed. With the trend in landings upwards the physical supplies of fish could employ 173 more people in wholesaling than at present by 1972. It is to be hoped that the value of landings and the value of final products will increase both to improve the income of the men employed in the fleet, owners and crew, and to provide a sufficient margin to realise the full potential of shore employment. It is felt that these two are complementary and that increased shore processing can enable the fleet to get the maximum from its capacity.

It is felt on the strength of the analysis that certain sections of the fleet are certainly not making the profits which enable them to be healthy economic units. It is also felt that certain sections of the fleet are extra-marginal in the sense of optimum profitability. The fleet as a whole has not been viable, especially without the support of operational subsidy. As this subsidy may well be removed in the not too distant future¹ the aim of those concerned with the industry should be to have the fleet viable without the aid of this subsidy in the shortest possible time. There has been a shift towards viability over the years and it is perhaps not too much to hope that improved marketing, increased efficiency and additional landings will leave the fleet as a whole in a viable state within the next 5 to 10 years.

There are then reasons peculiar to the fleet itself which explain "exploitation"² of labour and low profits. The Northern Irish fleet is of course only one of the numerous fleets which fish VIIa and whilst the theoretical treatment of over-fishing was concerned with all the fleets considered as one large fleet fishing the area, the performance of 75 boats can be taken as a fair sample of overall performance. This is especially so when the performance of those 75 boats can be compared with that of another important group of boats fishing the area as was done when the Northern Irish fleet was compared with that of the section of the English fleet using VII a.

At any rate, over-fishing in these waters has not been proved either by the comparatively low wages obtained or the low profits made by the Northern Irish fleet. How near, either way, present total fishing effort is to the opti-

¹Sixth report from the Estimates Committee, Session 1966-67 to the Fishing Industry, London, H.M.S.O., Paragraph 22.

²In the sense explained.

mum level could hardly be even guessed at, but the high level of financial productivity measured in terms of shillings per ton hour of fishing and the very high degree of correlation between fishing effort and yield both displayed by that section of the English fleet (an in-shore section) which fishes area VIIa and again the progressive improvement in physical productivity displayed by the Northern Irish fleet in the area all suggest that at least for in-shore fishing there is scope for further profitable fishing in the area.

Possible Target

The fishing fleet must justify itself in the economy. It should have as its immediate objective viability with subsidy and as its ultimate but not distant objective in the light of possible developments, viability without the support of subsidy. This aim can only be achieved by reducing costs and increasing the value of sales. In many instances these two methods may amount to the same thing. An analysis of sales, running costs, fixed costs, and total costs of the sea fishing fleet 1963 to 1967 shows (a) increasing sales and (b) decreasing percentage ratios between both categories of costs and sales and therefore between total costs and sales (Table X).¹

Taking the fleet as a whole there appears to be scope for increasing efficiency and reducing losses by reorganisation. Thus on the figures submitted for 1964 to 1967 by the owners of seven individual boats, overall losses would be cut by at least £10,000 per year by not having these seven boats in the fleet. They had very substantial losses in all four years. It is more than likely that if a fleet of 70 efficient boats were operating the ratio of fixed costs to sales could be cut well below the percentage figures of 31.0 which (the lowest for five years 1963 to 1967) obtained in 1967.

Increasing the value of sales demands action on two fronts:

(a) increasing existing price obtained for home landed fish;

(b) increasing landings.

(a) Prices can only be raised by improved marketing. The prices of home landed demersal and pelagic fish at £1.09, £0.98, £1.52 and £1.61 per cwt. in 1964, 1965, 1966 and 1967 respectively were much lower than those obtaining elsewhere in Britain and the Republic of Ireland. At the very least it must be the aim of improved marketing to add 10/- per cwt. to these prices at 1967 values. (b) In the context of fishing it is foolhardy to say that landings can be increased by this amount or that. Possibilities are all that may be allowed. In pelagic and demersal fish it is safe to say that landings of both sprats and whiting from area VIIa could be increased where they are fished for specifically. Landings of other species, herring, cod, haddock, skate and so on, could be increased by increasing the effort in area VIa. Unless new uses can be found for sprats there is only occasional inducement to fish them. The market for whiting is expanding. The other species are always in demand.

In the realm of shell fish judged by the increase between 1960 and 1967 landings of nephrops should on present trend reach 45,200 cwt. in 1972 and 59,300 cwt. in 1977; scallops, if functionally fished for, have also very considerable possibilities – and here only area VIIa is being considered.

Increased effort in VIIa would most likely increase landings of nephrops therefrom above the trend; extension of the effort to VIa has even greater potential.

Accepting the restrictions which experience imposes on setting targets in the landings of fish it is nevertheless necessary to say that expansion of the value of sales and reduction of costs/sales ratio is essential if the sea fishing industry is to be a worthwhile unit of the economy. It is permissible to outline the kind of expansion which is necessary to achieve this goal and also to say whether this expansion is feasible. This can be set out in tabular form.

<i>Expansion</i>	<i>How Achieved</i>	<i>Amount</i>
Increase in price of sales sales	10/-per cwt on 1967 sales of pelagic and demersal fish – 140,000 cwt.	£70,000
Increase in landings, demersal and pelagic fish	60,00 cwt. at £2.1 per cwt. Functional fishing in VIIa, extra effort in VIa	£126,000
Increase in landings, nephrops	12,000 cwt. The projected increase in 1972, 5,000 cwt. plus additional effort in VIa	£60,000
Increase in scallops and increase in price	Functional fishing in VIIa, better marketing, 35,000 dozen	£24,000
		<hr/> £280,000 <hr/>

Date of achievement, 1972.

Assuming a fleet of 70 boats in 1972 this would add £4,000 to the gross sales of each boat. Extra running costs on the 1967 figures, estimated at £820 per boat would give £3,180 for division between boat and crew, that is, £1,590 each. Again taking the 1967 figure, at £104 per boat fixed costs, would leave £1,486 on an average for addition to net profits. If the returns for 1967 are taken there would on existing figures have been an average net profit of £406 per boat if subsidy had been removed. An addition of £1,486 to the average figure given of £406 in 1967 would have given a positive net profit of £1,892 which would have represented 13.5 per cent on average insured valuation.

Again with the same reservations – £1,590 extra for wages per boat would have given £318 per year extra per worker, a sum which would have brought the average wage in sea fishing well above the average industrial wage for manual workers in Northern Ireland in 1967 – £4.3 – per week better in fact.

These results seem capable of achievement.

Footnote on Wages and Profits

The tables showing wages and profits were prepared from the material provided in the costs and earnings statement supplied by the owners of boats. A close examination of these leaves a strong impression that a

number of them, possibly seven, are not reliable over the years shown, their unreliability most likely springing more from inflated fixed costs than from inflated running expenses or depressed earnings. By this fact, by the nature of the calculations involved, and by the fact that the number of the crew is at least five times that of the boats the resultant effects of possible error would be more manifest in average and individual profits than in those for average and individual wages. On the other hand no allowance has been made for certain prerequisites in fishing which raise actual wages above book wages.

The figures on profits and wages are then presented with reservation though I do not think that the possible distortion will have been so very great as to affect the general argument. Certainly there is no gainsaying the low prices and the financial productivity which over the years have been so much lower than that of the English fleet, though it should be noted that these figures are based only on pelagic and demersal fish and do not include fish sold (at a much higher price) at cross-Channel ports.

TABLE I
SHOWING DISTRIBUTION OF CATCHES (ALL SPECIES) 1964-1966
OVER VARIOUS FISHING GROUNDS ('000 KILOS)

Fishing Ground	1964		1965		1966	
IVc, North Sea					} 2,886,316	30.7
South	115,661	1.5	96,254	1.1		
IVb, North Sea						
Central	921,108	11.7	896,453	10.2		
IVa, North Sea						
North	1,109,529	14.1	1,604,336	18.2		
VIa, N.W. Coast						
Scotland						
N. Ireland	199,773	2.5	203,764	2.3	206,948	2.2
VIIa, f. Irish Sea,						
Bristol Channel	63,173	.8	66,390	.8	50,263	0.6
IIa, Norwegian						
Sea	1,286,167	16.3	1,593,390	18.1	2,042,460	21.7
Va, Iceland						
Grounds	1,399,095	17.8	1,417,899	16.1	1,253,149	13.3
Total: N. Atlantic						
Grounds	7,861,943	100	8,779,430	100	9,401,831	100

SOURCE: Bulletin Statistique des Pêches Maritimes Vols. XLVI, XLVII, XLVIII, XLIX, L.

TABLE II
 QUANTITIES IN METRIC TONS OF VARIOUS SPECIES LANDED FOR GROUNDS VIa, VIIa, VIIg, AND TOTAL FOR
 GROUNDS I-XV

Species	1965						1966					
	VIa		VIIa		Total I-XV		VIa		VIIa		Total I-XV	
Brill ...	55	5.0	178	16.2	1,101	100	48	2.2	276	12.4	2,216	100
Common Dab	195	2.1	220	2.3	9,474	100	158	1.7	183	2.0	9,366	100
Common Sole	48	0.2	2,281	8.6	26,623	100	54	0.1	1,522	3.7	41,191	100
Flounder ...	27	0.3	75	1.0	7,717	100	32	0.4	130	1.8	7,240	100
Halibut ...	311	1.1	—	—	27,496	100	252	1.5	—	—	17,336	100
Lemon Sole	826	5.2	1,060	6.6	16,015	100	871	5.4	1,457	9.1	15,995	100
Megrim ...	790	4.3	741	4.0	18,379	100	892	5.2	568	3.3	17,215	100
Plaice ...	1,695	1.2	4,217	2.9	144,117	100	1,886	1.3	4,744	3.3	143,527	100
Turbot ...	131	1.9	307	4.6	6,739	99.9	96	1.5	225	3.5	6,351	100
Witch ...	256	8.9	11	0.4	2,887	100	266	4.6	16	0.3	5,801	100
Various Pleuro nectiforms	36	0.1	70	0.2	38,956	99.9	38	0.1	42	0.1	44,884	100
Cod ...	23,033	1.8	7,107	0.6	1,288,785	100	17,129	1.2	9,159	0.7	1,388,822	100
Haddock ...	32,467	6.6	804	0.2	490,001	100	29,881	7.7	1,122	0.2	520,615	100
Hake ...	7,432	6.2	1,423	1.2	120,624	100	5,534	5.2	1,123	1.0	107,230	100
Ling ...	7,944	12.9	310	0.5	61,690	100	7,974	16.3	288	0.6	49,041	100
Pollock ...	898	12.1	311	4.2	7,412	99.9	630	8.5	399	5.4	7,446	100
Saithe ...	18,323	4.8	1,336	0.4	379,254	100	11,389	2.9	1,034	0.3	399,247	100
Tusk (Torsk) (Cusk) ...	2,091	5.5	—	—	37,841	99.9	1,352	4.8	—	—	28,177	100
Whiting ...	19,179	10.3	14,723	7.9	186,603	100	15,542	6.8	6,527	2.9	227,187	100

TABLE II
 QUANTITIES IN METRIC TONS OF VARIOUS SPECIES LANDED FOR GROUNDS VIa, VIIa, VIIg, AND TOTAL FOR
 GROUNDS 1-XV

Species	1965						1966					
	VIa		VIIa		Total I-XV		VIa		VIIa		Total I-XV	
Various												
Gadiforms	1,067	1.9	84	0.1	56,836	100	693	1.2	63	0.1	57,707	100
Herring ...	66,383	1.9	10,079	0.3	3,575,637	100	92,032	2.5	10,305	0.3	3,610,571	100
Pilchard												
(Sardine)	—		139	0.1	228,876	100	4	—	158	0.1	217,524	100
Sprat ...	687	0.4	4,355	2.6	164,765	100	149	0.1	1,652	0.9	188,712	100
Skipjacks	—		—		—		—		—		—	
Mackerel ...	5,699	2.0	1,617	0.6	291,867	100	3,073	0.5	1,368	0.2	621,735	100
Bream ...	240	.9	256	1.1	25,336	100	372	1.4	13	0.1	25,759	100
Conger Eel	360	4.7	424	5.6	7,611	99.9	359	4.7	287	3.8	7,560	100
Gurnards ...	289	10.3	663	23.6	2,805	99.9	267	11.1	443	18.4	2,407	99.9
Monk (Angler fish) ...	956	5.4	582	3.3	17,563	100	1,096	6.5	546	3.3	16,761	100
Picked Dogfish	2,915	10.4	42	0.1	27,987	100	4,043	15.0	49	0.2	26,883	100
Dogfish and												
Hounds ...	2,777	12.1	1,624	7.1	22,957	100	1,442	15.2	483	5.1	9,490	100
Rays and Skates	3,366	7.8	6,510	15.0	43,321	100	3,478	9.0	4,417	11.5	38,538	100
Unidentified fish ...	2,601	0.9	4,059	1.4	298,100	100	2,601	1.2	241	0.1	208,362	100

SOURCE: *Bulletin Statistique des pêches Maritimes* Vols. XLVI, XLVII, XLVIII, XLIX, L.

NOTE: Figures in brackets represent the percentage each quantity is of the total catch of individual species.

TABLE III

NORTHERN IRELAND'S CATCH FROM AREAS VIa AND VIIa IN METRIC TONS FOR 1964-1966 IN RELATION TO LANDINGS OF OTHER COUNTRIES FISHING THESE AREAS

Country	1965				1966			
	Area VIa		Area VIIa		Area VIa		Area VIIa	
		%		%		%		%
Belgium	138	0.1	7,035	10.6	880	0.4	4,986	9.9
France	29,561	14.5	20,724	31.2	12,522	6.0	9,026	18.0
Germany	6,155	3.0	-	-	16,084	7.8	-	-
Ireland	13,237	6.5	11,361	17.1	13,231	6.4	13,304	26.5
Netherlands	795	0.4	179	0.3	263	0.1	470	0.9
Norway	6,941	3.4	-	-	7,292	3.5	-	-
Poland	-	-	-	-	-	-	-	-
Sweden	575	0.3	-	-	715	0.3	-	-
England	28,286	13.9	16,891	25.4	22,848	11.0	16,070	32.0
N. Ireland	139	0.1	8,903	13.4	1,543	0.8	5,551	11.0
Scotland	117,937	57.8	1,297	2.0	131,570	63.5	856	1.7
Non-member countries	-	-	-	-	453	0.2	-	-
	203,764	100	66,390	100	207,401	100	50,263	100

NOTES: There are marginal but compensating errors in the figures (even corrected) for Northern Ireland, Scotland and England in relation to the two areas owing to a simplifying assumption which was necessary. It was assumed that all Northern Ireland landings in Scotland came from VIa and all Northern Ireland landings in England came from VIIa. Apart from the figures mentioned in Note I the total of Northern Ireland landings are correct though there possibly is the marginal error mentioned in this allocation as between VIa and VIIa.

SOURCES: I.C.E.S. Vols. XLVI, XLVII, XLVIII and records from M.A.A.F.

TABLE IV

SHOWING FOR YEARS 1961, 1962, 1963, 1964, 1965 AND 1966, AVERAGE TONNAGE, FISHING HOURS, TOTAL YIELDS, YIELDS PER HOUR, AVERAGE PRICES, GROSS VALUE OF 1 HOUR OF FISHING, YIELD PER FISHING HOUR RELATED TO AVERAGE GROSS TONNAGE- AND VALUE OF YIELD PER FISHING HOUR RELATED TO AVERAGE GROSS TON, FOR VESSELS FISHING CERTAIN GROUNDS

Area	A						B					
	Average Gross Tonnage						Fishing Hours					
	1961	1962	1963	1964	1965	1966	1961	1962	1963	1964	1965	1966
S. North Sea (IVc) }	n.a.				41		61,102	37,798	42,586	26,673	33,369	} 683,219
C. North Sea (IVb) }	n.a.	168	159	152	84	81	444,994	516,560	561,945	573,808	564,454	
N. North Sea (IVa) }	n.a.				339		40,699	40,301	40,578	44,774	40,969	
N. W. Scotland	n.a.	325	293	278	285	279	78,930	84,637	96,095	105,528	103,800	89,090
N. Ireland (VIa)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Irish Sea (VIIa, f)	n.a.	53	57	58	51	48	137,666	157,649	144,761	145,761	122,057	104,355
Norwegian Sea (IIa)	n.a.	718	706	682	725	748	6,715	12,542	13,705	15,748	13,798	27,475
Faroese Grounds (Va)	n.a.	345	318	316	327	328	42,200	55,390	43,936	45,658	37,697	33,611

TABLE IV

SHOWING FOR YEARS 1961, 1962, 1963, 1964, 1965 AND 1967, AVERAGE TONNAGE, FISHING HOURS, TOTAL YIELDS, YIELD PER HOUR, AVERAGE PRICES, GROSS VALUE OF 1 HOUR OF FISHING, YIELD PER FISHING HOUR RELATED TO AVERAGE GROSS TONNAGE- AND VALUE OF YIELD PER FISHING HOUR RELATED TO AVERAGE GROSS TON, FOR VESSELS FISHING CERTAIN GROUNDS

Area	C						D						E					
	Yield ('000Kgs)						Yield per hour (Kgs.)						Average Price (shgs.) per Kg.					
	1961	1962	1963	1964	1965	1966	1961	1962	1963	1964	1965	1966	1961	1962	1963	1964	1965	1966
S. North Sea (IVc)	4,474	2,426	3,594	3,297	5,960	66,450	88	81	94	104	178.6	97.30	1.05	1.21	0.96	1.46	.925	2.28
C. North Sea (IVb)	32,250	35,072	46,727	51,122	52,906						94						1.619	
N. North Sea (IVa)	11,655	10,572	10,216	12,740	13,055						319							
N. W. Scotland	17,921	18,437	20,146	25,530	27,581	19,508	227	218	210	242	266	219.0	1.07	1.15	1.09	1.19	1.657	1.69
N. Ireland (VIa)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Irish Sea (VIIa,f)	11,583	14,190	10,915	10,839	10,748	6,452	84	90	75	74	88	61.8	1.28	1.28	1.28	1.57	1.731	2.17
Norwegian Sea (IIa)	5,662	11,298	12,120	12,605	11,293	22,455	843	901	884	800	818	817.3	0.81	0.94	0.78	0.90	1.414	1.42
Faroese Grounds (Vb)	10,222	13,897	12,902	13,977	13,283	10,110	242	251	294	306	352	300.8	1.10	1.04	1.08	1.09	1.31	1.64

TABLE IV

SHOWING FOR YEARS 1961, 1962, 1963, 1964, 1965 AND 1966, AVERAGE TONNAGE, FISHING HOURS, TOTAL YIELDS, YIELDS PER HOUR, AVERAGE PRICES, GROSS VALUE OF 1 HOUR OF FISHING, YIELD PER FISHING HOUR RELATED TO AVERAGE GROSS TONNAGE- AND VALUE OF YIELD PER FISHING HOUR RELATED TO AVERAGE GROSS TON, FOR VESSELS FISHING CERTAIN GROUNDS

Area	F						G					H				
	Value (Shgs.) 1 Fishing Hour						Yield per hour related to average gross tonnage					Value (Shgs.) of hourly yield related to average gross tonnage				
	1961	1962	1963	1964	1965	1966	1962	1963	1964	1965	1966	1962	1963	1964	1965	1966
S. North Sea (IVc)					165					4.356					4.029	
C. North Sea (IVb)	92	98	90	152	205	221	0.48	0.59	0.68	1.119	1.2	0.58	0.57	1.00	2.444	2.70
N. North Sea (IVa)					516					0.941					1.523	
N. W. Scotland	243	251	229	288	441	370	0.67	0.72	0.87	0.933	0.8	0.77	0.78	1.04	1.546	1.33
N. Ireland (VIa)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Irish Sea (VIIa, f)	108	115	96	116	152	133	1.70	1.32	1.28	1.725	1.3	2.17	1.68	2.00	2.986	2.83
Norwegian Sea (IIa)	683	847	690	720	1157	1157	1.25	1.25	1.17	1.128	1.1	1.18	0.98	1.06	1.595	1.58
Faroese Grounds (Vb)	266	261	318	334	461	494	0.73	0.92	0.97	1.076	0.9	0.76	1.00	1.06	1.406	1.5

SOURCES: Bulletin Statistique des Peches Maritimes Vols. XLVI-XLIX
Sea Fishing Statistical Tables, 1966 H.M.S.O., London

TABLE V
NORTHERN IRELAND FLEET: NUMBDRS OF CREW MEMBERS EARNING INCOMES IN GIVEN RANGES, 1963-1967
(of boats which fished 150 or more days in the year)

Size of Boat (ft.) Wage	1963				1964				1965				1966					1967				
	40-49.9	50-59.9	60 and over	Total	40-49.9	50-59.9	60 and over	Total	40-49.9	50-59.9	60 and over	Total	40-49.9	50-59.9	60-69.9	70 and over	Total	40-49.9	50-59.9	60-69.9	70 and over	Total
Under £250 (£400)	21	30	6	57	12	6	-	18	-	6	-	6	-	5	5	-	10	-	-	-	-	-
£250-£499 (£400-£649)	34	110	48	192	32	68	47	147	27	55	12	94	16	65	16	6	103	15	54	11	-	80
£500-£749 (£650-£899)	-	27	19	46	6	57	15	78	-	57	35	92	20	70	35	-	125	21	44	15	-	80
£750-£999 (£900-1,149)	-	-	6	6	-	15	18	33	-	11	23	34	-	14	17	6	37	-	38	41	6	85
£1,000 & over (£1,150 & over)	-	-	6	6	-	-	7	7	-	5	11	16	-	10	35	6	51	6	15	30	6	51
Total	55	167	85	307	50	146	87	283	27	134	81	242	36	164	108	18	326	36	151	97	12	296
Arithmetical Average	£311 (£461)	£350 (£500)	£514 (£664)	£388 (£538)	£344 (£494)	£514 (£664)	£598 (£748)	£509 (£659)	££384 (£534)	£518 (£668)	£714 (£864)	£568 (£718)	£500 (£650)	£552 (£702)	£802 (£952)	£707 (£857)	£638 (£788)	£475 (£675)	£667 (£867)	£926 (£1,126)	£946 (£1,146)	£740 (£940)
No. boats in sample	10	31	14	55	10	28	15	53	5	25	14	44	7	32	19	3	61	7	29	18	2	55
Average yearly industrial earn- ings for manual workers in Northern Ireland (male)	£695				£764				£843				£887					£955				

NOTE: Figures in brackets represent actual wages plus estimated allowances, £150 in years 1963-1966; £200 in 1967.
SOURCE: Costa and Earnings Statements. Digest of Statistics, Northern Ireland No. 26.

TABLE VI
COMPARISON BETWEEN FISHING EFFORTS, ENGLAND AND NORTHERN IRELAND FOR AREA VIIa
(Otter Trawl)

Year 1	Fleet 2	Average gross tonnage 3	Hours Fishing 4	Catch (⁰ 000 Kgs) 5	Av. Price per kg. in shillings 6	Catch per hr. (kgs.) 7	Av. Value I hour's catch (shillings) 8	Av. Catch per hr. per Gr. Ton (kgs) 9	Av. Value of 1 ton- hour Catch 10
1961	England N. Ireland	n.a.	137,666	11,583	1.28	84.14	107.70	n.a. 1.01	n.a. 0.36
		37	33,197	1,240	0.35	37.35	13.10		
1962	England N. Ireland	50	114,787	11,391	1.28	99.24	127.03	1.98	2.53
		38	26,168	2,753	0.34	105.20	35.80	2.77	0.95
1963	England N. Ireland	54	106,776	8,677	1.28	81.26	104.00	1.50	1.92
		42	37,294	2,392	0.38	64.13	24.30	1.50	0.58
1964	England N. Ireland	50	114,393	8,901	1.57	77.80	122.16	1.56	2.44
		43	41,921	4,794	0.29	114.33	33.20	2.66	0.77
1965	England N. Ireland	51	122,057	10,750	1.73	88.07	152.36	1.73	2.99
		44	29,876	6,244	0.35	209.00	73.20	4.75	1.67
1966	England N. Ireland	48	104,355	6,453	2.18	61.84	134.81	1.28	2.79
		46	49,926	3,867	0.61	77.50	47.28	1.68	1.03

NOTE: The figures for Northern Ireland relate only to the landings in Northern Ireland.

SOURCE: I.C.E.S. Vols. XLVI, XLVII, XLVIII, Ministry of Agriculture, Fisheries and Foods (Whitehall and Ministry of Agriculture (Northern Ireland)).

TABLE VII

PORT PRICES PER CWT. OF SELECTED SPECIES OF FISH, YEARS 1960-1967
 ENGLAND AND WALES (E. AND W.), SCOTLAND (SCOT), NORTHERN IRELAND (N.I.)* AND REPUBLIC OF IRELAND (R.I.)

Species	1960				1961				1962				1963				
	E. & W.	Scot	N.I.	R.I.	E. & W.	Scot	N.I.	R.I.	E. & W.	Scot	N.I.	R.I.	E. & W.	Scot	N.I.	R.I.	
	s. d.	s. d.	s. d.	s. d.	s.d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Herring	34 9	21 4	38 10	18 11	32 0	25 0	54 7	16 9	47 1	28 2	26 5	27 9	31 8	24 8	17 2	23 4	
Mackerel	54 5	26 2	—	31 4	53 1	23 0	—	31 10	63 11	30 10	21 7	47 8	61 8	33 2	18 9	45 1	
Sprats	16 0	12 1	—	13 3	14 1	10 5	—	7 3	13 2	8 9	6 8	7 3	13 6	3 9	5 6	8 8	
Brill	185 2	134 6	146 0	186 9	177 9	126 9	—	202 3	184 2	142 4	91 4	204 4	157 6	140 9	88 9	220 10	
Cod	66 1	73 7	56 10	107 6	67 3	74 4	55 6	121 6	59 10	68 3	43 3	132 2	67 7	71 9	45 2	113 3	
Haddock	75 1	70 0	73 1	76 4	77 4	73 6	49 4	105 9	73 7	68 5	49 11	127 1	87 3	68 10	60 0	73 4	
Hake	221 5	140 2	28 10	152 7	211 0	127 8	41 11	120 9	195 7	113 4	62 1	157 11	217 7	155 6	76 3	148 2	
Plaice	136 2	122 8	88 11	162 8	137 11	123 8	87 0	165 1	132 1	119 0	85 10	178 11	122 1	113 4	82 1	154 10	
Ray or Skate	78 9	57 6	30 4	76 4	79 10	57 2	24 2	67 5	84 10	61 10	26 8	71 11	85 6	67 0	24 0	73 7	
Saithe or Coalfish	40 4	30 10	32 9	—	46 10	32 11	28 0	—	44 6	35 1	28 9	—	39 0	27 8	28 4	—	
Soles	327 7	175 11	—	286 0	340 4	162 11	—	306 5	350 6	177 8	—	329 2	244 2	191 10	20 0	355 4	
Whiting	50 2	53 9	26 9	34 8	48 11	47 3	18 7	39 11	45 1	49 0	13 3	39 4	41 7	49 8	17 6	41 1	
Roe	70 4	99 5	—	—	77 7	105 1	—	—	88 9	110 9	26 6	—	89 7	106 8	16 5	—	
All Pelagic and Demersal	32 8	52 4	17 8	36 2	74 11	55 4	21 1	41 9	66 8	53 5	19 3	54 2	70 9	49 7	21 4	53 1	
Lobsters	521 4	549 8	456 0	620 0	527 5	562 7	496 0	712 9	605 11	626 2	406 0	861 0	608 8	679 0	674 0	874 0	
Norway Lobsters	n.a.	135 5	70 11	72 8	148 0	131 8	79 9	44 10	182 3	141 6	80 10	71 10	166 9	147 1	83 9	68 9	

*Refers only to fish marketed at point of first sale in Northern Ireland

SOURCE: Figures supplied by respective Ministries and Departments, England and Wales, Northern Ireland, Republic of Ireland, Scotland.

TABLE VII—(Continued)

Species	1964				1965				1966				1967			
	E. & W.	Scot	N.I.		E. & W.	Scot	N.I.		E. & W.	Scot	(10 mths)		E. & W.	Scot	(10 months)	
			s. d.	s. d.			s. d.	s. d.			N.I.	R.I.			N.I.	R.I.
Herring	41 8	24 10	23 11	19 4	41 3	28 0	19 5	23 11	35 1	24 0	29 11	27 3	36 10	25 4	21 10	21 5
Mackerel	59 7	31 8	16 2	29 7	59 4	35 5	13 8	22 10	62 0	28 3	17 6	31 4	59 11	30 8	20 11	22 9
Sprats	9 9	6 1	8 0	8 3	12 4	8 0	9 0	8 4	13 2	7 6	8 11	8 3	10 6	7 4	—	11 7
Brill	185 1	160 8	96 6	215 10	243 1	186 11	95 11	213 10	197 4	194 11	89 2	217 4	187 1	184 7	88 2	200 11
Cod	77 3	84 4	47 2	77 4	79 8	84 3	52 10	81 8	77 9	82 1	58 4	78 11	72 5	77 2	55 8	72 3
Haddock	88 9	55 7	35 6	49 3	88 5	52 0	45 9	61 10	87 10	63 5	38 9	73 0	95 0	75 6	35 0	74 6
Hake	252 6	217 4	80 11	119 4	263 3	204 11	37 10	132 1	302 0	175 4	46 0	204 1	279 9	186 9	82 4	183 4
Plaice	134 9	111 2	65 5	147 2	149 3	125 11	60 5	152 5	153 1	136 2	73 0	158 4	130 0	122 1	80 5	155 0
Ray or Skate	90 7	67 9	20 5	73 2	98 8	75 3	30 4	82 8	108 10	80 1	30 7	80 5	109 11	82 8	29 9	83 1
Saithe or Coalfish	36 8	27 10	29 6	—	37 4	28 5	27 11	—	37 2	28 10	27 8	53 5	36 10	28 8	26 7	47 1
Soles	531 8	110 7	125 9	374 7	560 9	203 3	133 7	452 1	544 8	213 8	129 7	464 11	427 4	206 11	142 0	433 4
Whiting	42 8	45 2	19 10	37 1	37 9	37 0	17 6	39 1	44 5	49 7	21 2	43 5	49 1	64 11	26 9	38 7
Roe	88 9	104 9	18 3	—	79 5	79 4	16 10	—	87 9	100 0	20 3	—	92 10	144 1	24 9	—
All Pelagic and Demersal	76 8	50 7	21 10	44 6	79 4	47 8	20 6	45 1	79 1	46 11	30 5	46 5	74 1	56 8	32 4	45 4
Lobsters	752 10	745 4	549 0	947 5	847 10	903 9	780 0	100 0	920 4	970 8	n.a.	113 0	934 5	964 1	134 0	106 0
Norway Lobsters	172 1	150 10	82 10	79 8	183 9	171 1	81 6	79 0	221 3	178 8	93 3	67 4	234 11	195 7	110 8	76 8

TABLE VIII

THE EFFECTS OF OPERATIONAL SUBSIDY ON AVERAGE PROFIT PER BOAT FOR VARIOUS CLASS SIZES 1963-1967

£ and percentage

Boat Size		1963	1964	1965	1966	1967
40-49.9 ft.	1 Average income per boat	4,800	4,619	4,301	6,019	6,477
	2 Average subsidy per boat	1,244	1,061	924	985	610
	3 Operating profit per boat	683	498	305	801	840
	4 Net profit per boat	387	220	20	465	497
	5 Subsidy as % of income	25.9%	22.9%	21.5%	16.3%	9.5%
	6 Operating profit without subsidy	61	32	-157	309	535
	7 Net profit without subsidy	-235	-310	-442	-27	192
50-59.9 ft.	1 Average income per boat	5,329	6,712	7,419	7,794	9,518
	2 Average subsidy per boat	861	1,218	1,300	825	692
	3 Operating profit per boat	735	1,111	1,262	1,459	1,943
	4 Net profit per boat	217	601	624	680	1,066
	5 Subsidy as % of income	16.2%	18.2%	17.6%	10.6%	7.3%
	6 Operating profit without subsidy	305	502	612	1,047	1,596
	7 Net profit without subsidy	-213	-8	-26	268	720
60-69.9 ft.	1 Average income per boat	9,052	10,604	11,086	11,576	13,274
	2 Average subsidy per boat	941	1,062	1,012	851	842
	3 Operating profit per boat	1,121	1,527	1,693	2,046	2,245
	4 Net profit per boat	-152	333	84	524	652
	5 Subsidy as % of income	10.4%	10.0%	9.1%	7.3%	6.3%
	6 Operating profit without subsidy	651	996	1,187	1,620	1,824
	7 Net profit without subsidy	-622	-198	-422	98	231
70 ft. and over	1 Average income per boat	n.a.	n.a.	5,146	10,113	16,063
	2 Average subsidy per boat	n.a.	n.a.	477	736	1,092
	3 Operating profit per boat	n.a.	n.a.	1,358	1,037	3,002
	4 Net profit per boat	n.a.	n.a.	658	-823	-1,373
	5 Subsidy as % of income	n.a.	n.a.	9.3%	7.3%	6.7%
	6 Operating profit without subsidy	n.a.	n.a.	1,120	669	2,456
	7 Net profit without subsidy	n.a.	n.a.	420	-1,191	-1,919
All	1 Average income per boat	6,201	7,388	7,902	9,004	10,607
	2 Average subsidy per boat	948	1,145	1,121	844	745
	3 Operating profit per boat	826	1,109	1,234	1,560	1,945
	4 Net profit per boat	151	454	364	506	778
	5 Subsidy as % of income	15.3%	15.5%	14.2%	9.4%	7.0%
	6 Operating profit without subsidy	352	537	674	1,138	1,573
	7 Net profit without subsidy	-323	-118	-196	84	406

SOURCE: Ministry of Agriculture, (Northern Ireland).

Note: Since income (less running expenses) is divided roughly equally between boat owner and crew it is necessary to deduct only half the amount of subsidy from the figures for operating and net profits with subsidy, to arrive at those for operating and net profits without subsidy.

TABLE IX

OVERALL MARGINS (AUCTION - RETAIL) OCTOBER 1966-DECEMBER 1967

Price	1966			1967											
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Northern Ireland Cod and Haddock sold retail in Northern Ireland														
Auction Price (N. IRELAND)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Retail Price <i>Cod</i>	742	740	742	737	748	767	890	733	868	718	717	713	494	733	636
Retail Price <i>Haddock</i> ...	1,525	1,525	1,146	1,497	1,150	1,197	1,537	903	1,508	1,130	1,517	1,144	922	1,138	943
Scottish Cod and Haddock sold retail in Northern Ireland October 1966-December 1967															
Auction Price (SCOTLAND)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Retail Price <i>Cod</i>	742	740	636	553	561	460	556	489	542	616	717	611	494	550	494
Retail Price <i>Haddock</i> ...	458	458	417	408	460	435	512	564	754	753	569	572	419	506	472

TABLE X

RUNNING COSTS, FIXED COSTS, AND TOTAL COSTS AS PERCENTAGE
OF SALES FOR YEARS 1963-67

Year	Boat Size Category	* Running Costs as % of total sales	Fixed Costs as % of total sales	* Total Costs as % of total sales
1963	40-49.9 ft.	41.8	34.3	76.1
	50-59.9 ft.	39.8	33.9	73.7
	60-69.9 ft.	42.4	34.4	76.8
	All	41.1	34.1	75.1
1964	40-49.9 ft.	35.8	36.5	72.3
	50-59.9 ft.	34.7	31.4	66.1
	60-69.9 ft.	39.9	31.0	70.9
	All	37.0	31.8	68.8
1965	40-49.9 ft.	38.9	38.2	77.1
	50-59.9 ft.	37.3	30.6	67.9
	60-69.9 ft.	38.7	32.3	71.0
	70 ft and over	35.5	19.2	54.7
	All	38.0	31.6	69.6
1966	40-49.9 ft.	29.6	26.7	56.3
	50-59.9 ft.	31.5	29.9	61.4
	60-69.9 ft.	33.2	30.8	64.0
	70 ft. and over	33.0	44.1	77.1
	All	32.3	31.3	63.6
1967	40-49.9 ft.	32.3	27.9	60.2
	50-59.9 ft.	32.9	24.3	57.2
	60-69.9 ft.	34.6	28.0	62.6
	70 ft. and over	36.6	42.0	78.6
	All	33.8	27.0	60.8

*Exclusive of crew's remuneration.

TABLE XI

AVERAGE INSURED VALUATION, OPERATING PROFITS AND NET PROFITS PER BOAT, NORTHERN IRELAND 1963-67* (ALL BOATS)

£ AND PER CENTAGE

	40 ft.—49.9 ft.					50 ft.—59.9 ft.					60 ft.—69.9 ft.					70 ft. and over			Summaries				
	1963	1964	1965	1966	1967	1963	1964	1965	1966	1967	1963	1964	1965	1966	1967	1965	1966	1967	1963	1964	1965	1966	1967
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
(1) Average Insured Valuation	2,960	2,782	3,011	3,357	3,429	5,183	4,999	7,167	7,783	8,767	12,733	11,650	18,594	15,333	15,932	21,000	22,200	43,750	6,753	6,413	10,372	10,855	11,676
(2) Operating Profit	683	498	305	801	840	735	1,111	1,262	1,459	1,943	1,121	1,527	1,693	2,046	2,245	1,358	1,037	3,002	826	1,108	1,234	1,560	1,945
(3) Net Profit	387	220	20	465	497	217	601	624	680	1,066	-152	333	84	524	652	658	-823	-1,373	151	454	363	506	778
(4) (2) as % of (1)	23.1	17.9	10.1	23.9	24.5	14.2	22.2	17.6	18.7	22.2	8.8	13.1	9.1	13.3	14.1	6.5	4.7	6.9	12.2	17.3	11.9	14.4	16.7
(5) (3) as % of (1)	13.1	7.0	0.7	13.9	14.5	4.2	12.0	8.7	8.7	12.1	-	2.8	0.5	3.4	4.1	3.1	-	-	2.2	7.1	3.5	4.7	6.7
No. in Sample	10	11	9	7	7	33	31	27	32	30	15	16	16	21	19	2	5	2	58	58	54	65	58

*Date for years 1961 and 1962 not available.

SOURCE: Costs and Earnings statements.

TABLE XII

NORTHERN IRELAND FLEET: NUMBERS OF BOATS MAKING NET PROFITS IN GIVEN RANGES, 1963-1967
(Boats which fished 150 or more days in the year)

Size of Boat ft.	1963					1964					1965					1966					1967				
	Net Profit (£)	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over
Loss	-	5	3	-	8	4	6	6	-	16	1	8	6	1	16	2	9	9	3	23	1	8	7	1	17
0- 499	6	14	2	-	22	5	7	2	-	14	3	3	2	-	8	2	5	1	-	8	4	6	-	-	10
500- 999	2	7	4	-	13	1	6	1	-	8	-	7	1	-	8	2	8	3	1	14	-	1	3	1	5
1,000-1,499	3	4	-	-	7	-	4	3	-	7	1	3	-	-	4	-	5	2	1	8	2	4	1	-	7
1,500-1,999	-	3	1	-	4	-	4	2	-	6	-	2	3	1	6	-	2	1	-	3	-	3	-	-	3
2,000-2,499	-	1	1	-	2	-	-	-	-	-	-	1	1	-	2	-	1	-	-	1	-	2	1	-	3
2,500-2,999	-	-	2	-	2	1	-	1	-	2	-	-	1	-	1	1	1	3	-	5	-	-	1	-	1
3,000 and over	-	-	1	-	1	-	1	-	-	1	-	1	-	-	1	-	1	2	-	3	-	5	4	-	9
Total	11	34	14	-	59	11	28	15	-	54	5	25	14	2	46	7	32	21	5	65	7	29	17	2	55

SOURCE: Cost and Earnings Statements.

TABLE XIII

NORTHERN IRELAND FLEET: NUMBERS OF BOATS MAKING OPERATING PROFITS IN GIVEN RANGES, 1963-1967
(Boats which fished 150 or more days in the year)

Size of Boat ft.	1963					1964					1965					1966					1967				
	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over	Total	40- 49.9	50- 59.9	60- 69.9	70 and over	Total
Loss	-	5	2	-	7	2	-	-	-	2	1	-	-	-	1	1	-	3	1	5	-	-	2	-	2
0- 499	6	7	4	-	17	6	6	5	-	17	3	4	4	-	11	1	4	1	1	7	3	3	3	-	9
500- 999	2	12	3	-	17	1	6	2	-	9	-	6	1	1	8	3	9	2	-	14	2	8	1	-	11
1,000-1,499	1	3	1	-	5	1	7	1	-	9	1	5	1	-	7	1	5	5	1	12	1	1	1	-	3
1,500-1,999	1	3	1	-	5	-	4	1	-	5	-	5	1	1	7	-	7	2	1	10	1	3	2	1	7
2,000-2,499	-	2	1	-	3	-	3	4	-	7	-	2	2	-	4	1	3	2	1	7	-	5	-	-	5
2,500-2,999	-	1	-	-	1	1	1	-	-	2	-	2	-	-	2	-	-	-	-	-	-	4	1	-	5
3,000 and over	-	-	3	-	3	-	1	2	-	3	-	1	5	-	6	-	4	6	-	10	-	5	7	1	13
Total	10	33	15	-	58	11	28	15	-	54	5	25	14	2	46	7	32	21	5	65	7	29	17	2	55

SOURCE: Costs and Earnings statements.