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Wages in Ireland, 1946-62

by

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Wages in Ireland, 1946-62

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PART I: ABSOLUTE WAGES

(a) Wages and earnings

Taken together, wages and salaries are both an important element of cost and a major form of income; their share of the total national income from domestic sources rose from 50 per cent. in 1948 to 56 per cent. in 1960.² It is therefore difficult to discuss wages from one aspect—i.e., as a cost of production—without taking into account their role in the distribution of income. As far as possible, however, this study will concern itself only with wages as a cost; the role of aggregate wages in the overall level of demand and prices will be the subject of a future Institute paper.³

The distinction between wages (or earnings) and wage-rates is one which must be made at the outset. Wage-rates are contractual undertakings, usually negotiated collectively, as to the minimum amount which will be paid to a defined category of employees for a specified period of working time or, in the case of piece-rates, for a specified volume of output. Actual wages, however, are customarily higher than the amounts implied by wage-rates. The most obvious explanation is that employers pay something over the agreed minimum in order to attract or retain labour. This is especially likely at times of full employment and buoyant demand; it may also occur under less favourable conditions, however, if organised labour deliberately refrains from setting the minimum above a level attainable by marginal enterprises and exerts its pressure in

supra-marginal enterprises in a manner which does not involve the raising of negotiated rates.

Another cause of differences between wages and wage-rates is the practice of overtime working. The division of total earnings by total hours worked—i.e., the use of average hourly earnings—can go a long way to allow for this factor, but since overtime rates are almost invariably higher than the corresponding normal rates, overtime working can still cause a divergence between earnings and wage-rates.⁴ Again, the earnings of workers on piece-rates will obviously increase without any change in nominal rates if their average output rises.

Nevertheless, it could be argued that wage-rates and earnings would rise (or, theoretically, would fall) together; when the differential between wage-rates and actual earnings has widened significantly the periodic wage-rate negotiations could be expected to close the gap. This would certainly be the case if collective bargaining on wage-rates played the dominating role in determining labour earnings, the differential between nominal rates and actual earnings being regarded, in the words of an O.E.E.C. expert group, as “little more than a smoothing operation which irons out some of the discontinuities which would otherwise arise with a system under which standard rates are changed at intervals of a year or longer”.⁵

As may be seen from Chart 1, this type of argument is consistent with the Irish experience between

*The author of this paper is a Senior Research Officer of The Economic Research Institute. The paper has been accepted for publication by the Institute. The author is responsible for the contents of the paper including the views expressed therein.

¹I am much indebted to Mr. Garret Fitzgerald and Mr. Donal Nevin for their perceptive and extremely helpful criticisms of an earlier draft of this paper. Neither, of course, is to be taken as being necessarily in agreement with the views expressed in the paper.

²*Statistical Abstract of Ireland, 1953*, (Pr. 1798), Stationery Office, Dublin 1954, Table 203, p. 213 and *Statistical Abstract of Ireland, 1961*, (Pr. 5984), Dublin 1961, Table 243, p. 260.

³The realisation that orthodox partial-equilibrium analysis is on extremely shaky theoretical foundations in assuming the independence of demand curves and cost (or supply) curves is at least as old as Marshall's *Principles*, and the impossibility of treating the two sides of the wages penny in complete separation will become manifest as this study proceeds. The text can be regarded as a description of the broad aim, however, if nothing more.

⁴The average number of hours worked per week in transportable goods industries does not seem to have changed much during the period under review—for males it rose from 46.1 in October 1946 to 47.1 in October 1960, and was unchanged for females. This is not incompatible with increased overtime working if the hours of basic working weeks had been reduced in the meantime, but it does not seem likely that this has happened on a significant scale. For the 23 occupations listed in the annual tables of hourly wage-rates (see, e.g. *Statistical Abstract of Ireland, 1961*, (Pr. 5984), Dublin 1961, Table 346, p. 323), the stipulated hours of working week listed in *Statistics of wages, earnings and hours of work* fell from 44.7 in 1939 to 44.5 in 1951 and 44.3 in both 1956 and 1959. (A weighted average based on the estimated numbers in each occupation in 1951.)

⁵*The problem of rising prices*, O.E.E.C., Paris 1961, Chap. V, Note, p. 67. The view that wage-rates play the purely passive role of merely formalising changes in wages, rather than actively determining them, has been strongly attacked in a recent study of the wage structure of the United Kingdom—L. A. Dicks-Mircaux and J. R. Shepherd, “The wages structure and some implications for incomes policy”, *National Institute Economic Review*, No. 22, November 1962, National Institute of Economic and Social Research, London 1962, especially pp. 42-45.

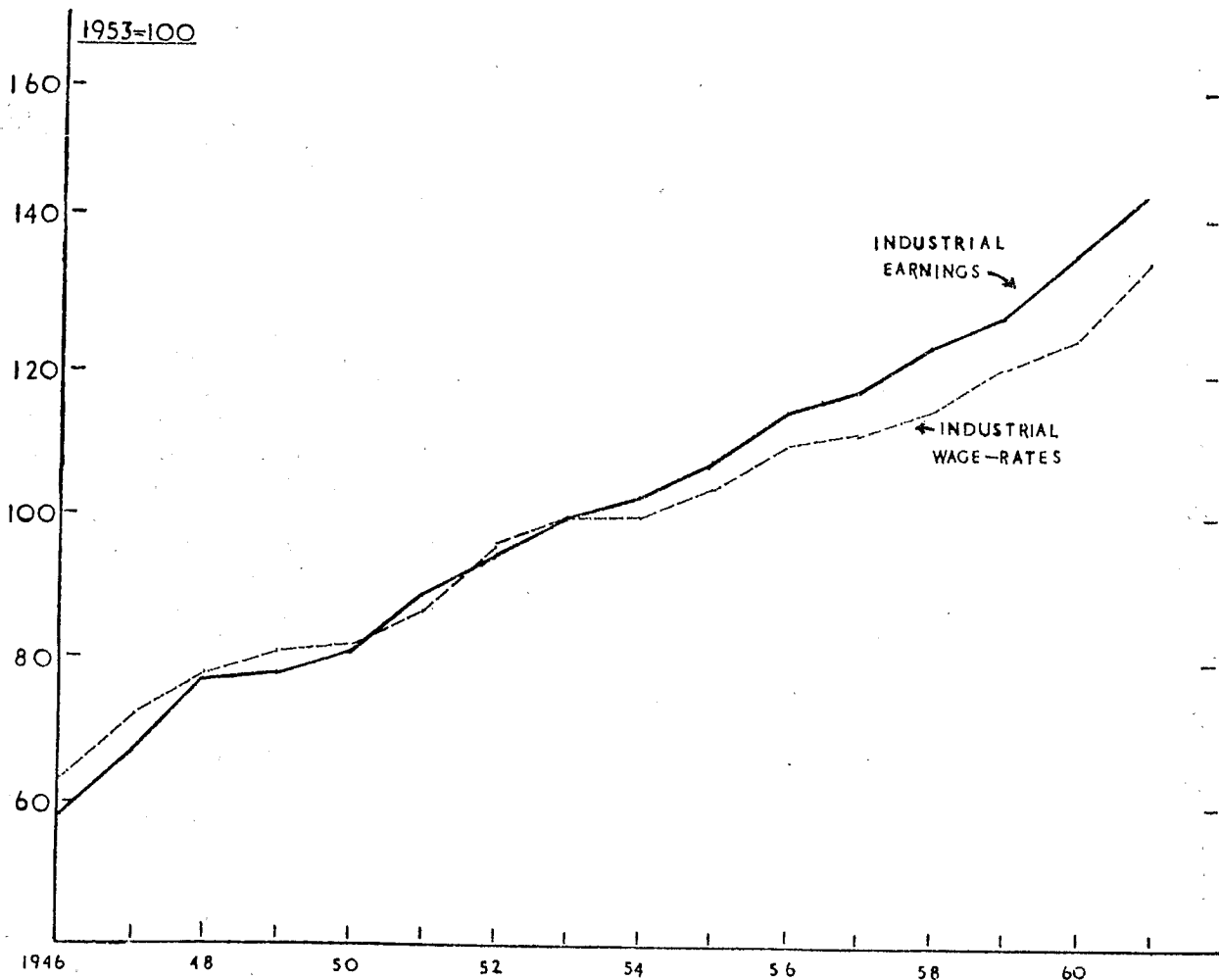


CHART I

1946 and 1953, but is less easy to reconcile with the post-1953 experience.⁶ In the earlier period industrial wage-rates and earnings rose almost identically, the movements of the two curves giving some impression of the leap-frogging sequence adumbrated by the O.E.E.C. experts. From 1953 onwards, however, there was a noticeable divergence between wage-rates and earnings. By 1956 the difference between the two index numbers amounted to 5 points; by 1959, 7 points; by 1961, 10 points.

It does not seem likely that this divergence between earnings and wage-rates can be explained in terms of a continuous pressure of demand on the supply of labour. The state of the labour market is notoriously difficult to measure statistically, but the level of unemployment—presumably some indication of the state of the labour market—has not been very different during the years from 1954 onwards than it was during the years prior to 1953. A more likely explanation of the divergence is that the 23 industrial occupations included in the wage-

rate index have become less representative of the total labour structure than was previously the case. Over a third of these occupations are in fact in the building industry (in which earnings generally rose less than over industry as a whole during this period). Many of the remainder are typical of the old crafts—blacksmith, wheelwright, cooper and so on—rather than of the newer industries, such as chemicals or metal products, where growth has been most pronounced.

Before leaving Chart 1 it is perhaps worth commenting on the lack of evidence it provides of the dominance of the so-called “wage-round”—collective bargaining which tends “to be concentrated in comparatively short periods recurring at fairly regular intervals”, usually associated with “a remarkable degree of uniformity in the size of the increases negotiated during each particular wage-round in different industries”.⁷ Such a dominance would imply a tendency for the wages curve to move upwards by a series of jerks at

⁶Explanatory notes on all the charts and tables used in the text are given in the Appendix.

⁷*The problem of rising prices*, Appx. 4, paras. 15-16, p. 426.

recurring intervals, whereas the curves of earnings and wage-rates shown in Chart 1 in fact proceed upwards fairly smoothly and steadily. There are, however, two plateaux in the wage-rate curve during 1949-51 and 1953-55, with a clear intervening adjustment between them. Further, the path of both series is inevitably smoothed by the use of annual figures; a more discontinuous path is pursued by the quarterly earnings data shown in Appendix Table B. Even so, the broad impression left is one of rather steadier upward movement than might have been expected if wage adjustments had been confined to isolated and uneven adjustments at varying intervals of time.

This is not to deny, of course, that wage-increases, by their effects through both psychology and the price-level, tend to be endemic in any economy; obviously they do, as is indeed shortly to be stressed. The point is, however, that the basic process may be gradual and continuous rather than spasmodic and discrete. After an intensive examination of recent British experience in these matters, it was remarked that

The wage-round is like the flying-saucer: many people are led to believe in its existence, although few would claim to have actually seen it and fewer still to have photographed it.⁸

On the other hand, it seems probable that differences in negotiating machinery place Ireland in a rather special category. Unlike Britain, in which wage agreements are established by a very large number of unco-ordinated and separate bargaining processes, Ireland has a small group of organisations—the Labour Court, the Congress of Trade Unions and the Federated Union of Employers—whose agreements tend to have a more or less predictable effect nationally. While the coverage and timing of the “wage rounds” emerging from these agreements defy precise definition, therefore, it is in fact possible to distinguish nine more or less distinct adjustments in the national wage-level since the war without doing too much violence to reality.

Whether these “wage rounds” have in fact *determined* the prevailing level of wages in Ireland, however, is a much more open question. They are probably the machinery, so to speak, by means of which most of the pressures on wages have been allowed to transmit themselves to the actual wages structure. The smoothness of the path pursued by the earnings index in the post-war years, its similarity with that of earnings in the United Kingdom, and the crucial significance for wages of non-institutional factors such as the price-level at

⁸K. G. J. C. Knowles and D. Robinson, “Wage rounds and wage policy”, *Bulletin of the Oxford University Institute of Statistics*, Vol. 24, No. 2, May 1962, p. 270.

home and internationally, however—all these considerations would support a suspicion that the peculiar constitutional arrangements for wage-rate negotiations in Ireland have affected the timing and administration of wage-adjustments rather than their broad character. The question is perhaps best described as an open one.

(b) Real wages and productivity

In view of the dual nature of wages—they are both cost and income—it is inevitable that they should be closely linked with output, on the one side, and the general price level on the other. The nexus between wages and the general level of prices is a fairly straightforward one. In a closed economy, indeed, there would inevitably be a high degree of coincidence between them, wages being the dominating influence on prices from both the cost and demand sides.⁹ The mere fact that imports represent a large proportion of the Irish G.N.P. by no means renders such an inter-relationship impossible, in view of the facts that more than half of those imports originate in the United Kingdom, and that there is a close relationship between the wage-level in that country and that of Ireland.

The actual course of industrial earnings and retail prices in Ireland during 1946-61 is shown in Chart 2. It will be seen that both rose steadily in an almost straight-line fashion, with the slope of the earnings curve almost invariably steeper than that of prices. The difference between the two curves represents the rise in real wages over the period—i.e., the extent to which higher earnings reflect an increased real product going to labour, either because of higher productivity in the usual sense of the term or because of a shift in the distribution of a given real product in favour of labour.¹⁰ Between 1946 and mid-1962 this rise in real earnings was of the order of 60 per cent., representing an average annual increase of about 3 per cent.

To a substantial extent, however, this over-states the rise in the real value of industrial earnings since pre-war. Largely as a result of the wartime statutory control over wages in Ireland, earnings rose some 14 per cent. less than consumer prices between 1938 and 1946, and until the early 1950s

⁹Hence, of course, the resort of anti-Keynesians to the remote fastnesses of Pigou-Patinkin effects in order to preserve the classical argument that productivity and thrift, through the rate of interest, would always tend towards the elimination of a situation of under-employment equilibrium in a world of wage flexibility.

¹⁰From some small investigations of this question the conclusion seems to emerge that during 1953-60 the distribution of industrial product in Ireland has shifted somewhat in favour of labour and against profits, although the contemporaneous capital appreciation on real assets probably offset this. A detailed investigation of this whole question will probably be the subject of a future Institute paper.

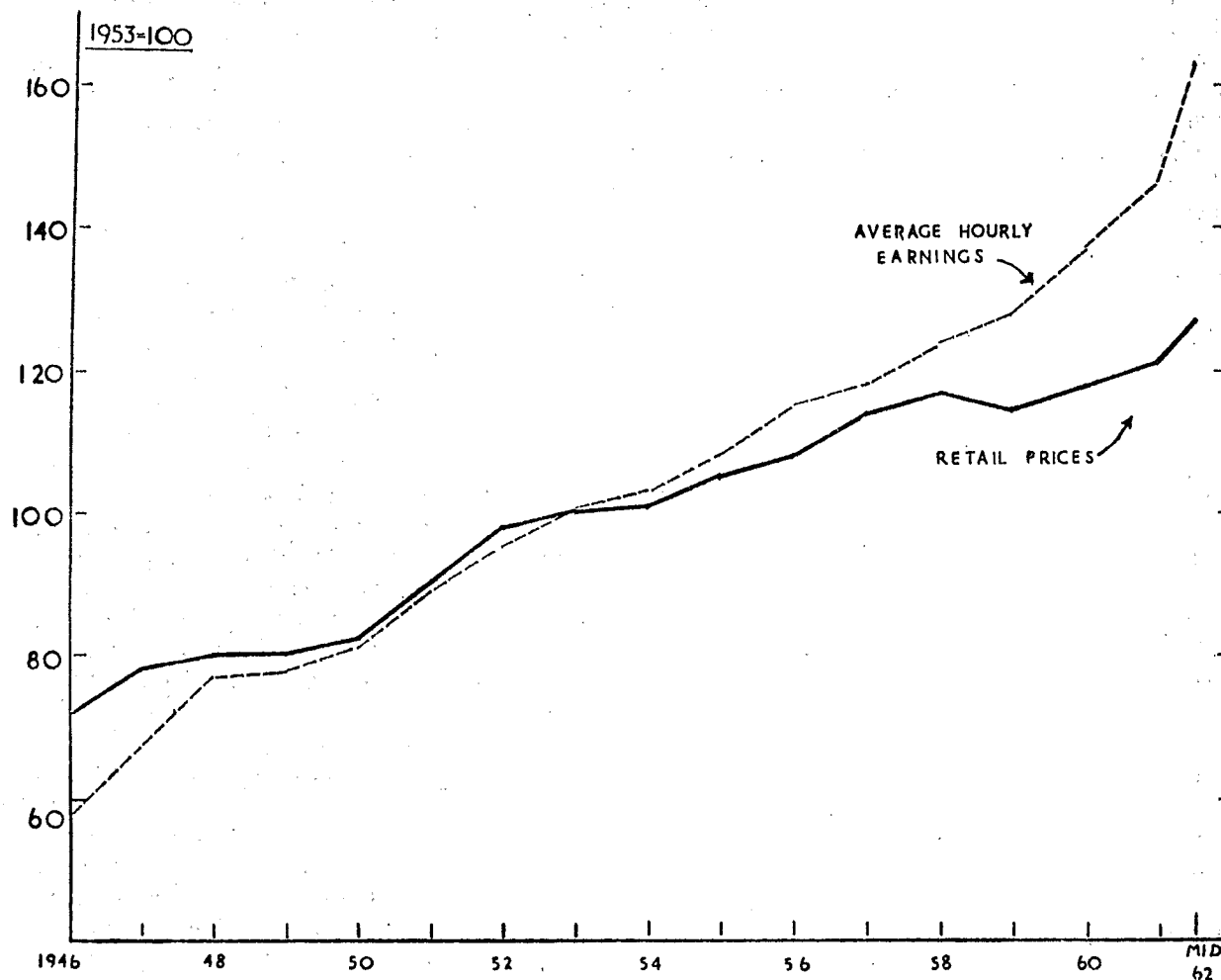


CHART 2

the rise in real earnings was doing no more than recover this wartime erosion of real wages. By mid-1962 the real value of industrial earnings was thus some 40 per cent. greater than in 1938, and the annual average increase over the period 1938-62 as a whole was only about 1.4 per cent.

This leads on to the question of the relationship between real wages and *per capita* output in Ireland during the postwar years. For reasons set out earlier, it is obvious that, as conventionally measured, the two series are almost bound to move together. Earnings and total net output (from which *per capita* output is derived) are manifestly related closely; given the links between prices and wages mentioned earlier, the deflation of net output and wages by apparently separate price indices is to a large extent an optical illusion. The time-lags inherent in adjustments of wages and prices and random influences such as budgetary policies would allow short-run divergences to occur, but the use of annual index-numbers would prevent these from surviving to any great extent. Similarly, divergences could also occur in particular sectors if either the

course of wage movements or entrepreneurial pricing policies differed markedly from those of other sectors in the economy. Again, such divergences are unlikely to be other than exceptional and transient.

Reference was made earlier, however, to the possibility that the high import propensity of the Irish economy might seriously qualify generalisations such as these relating to wages and prices. In fact, as may be seen from the "All sectors" curves in Chart 3, it is notable how little the openness of the Irish economy has disturbed the general relationship between real wages and *per capita* output. On particular occasions, of course, it is clear that the relationship was in fact influenced by marked changes in the terms of trade during the period under review. For example, the terms of trade worsened by 10 per cent. between 1955 and 1957, and during that period average real earnings remained constant despite the fact that *per capita* G.N.P. rose by 1 per cent. On the other hand, the stability of real wages and salaries in relation to *per capita* G.N.P. was disturbed very little, if at all,

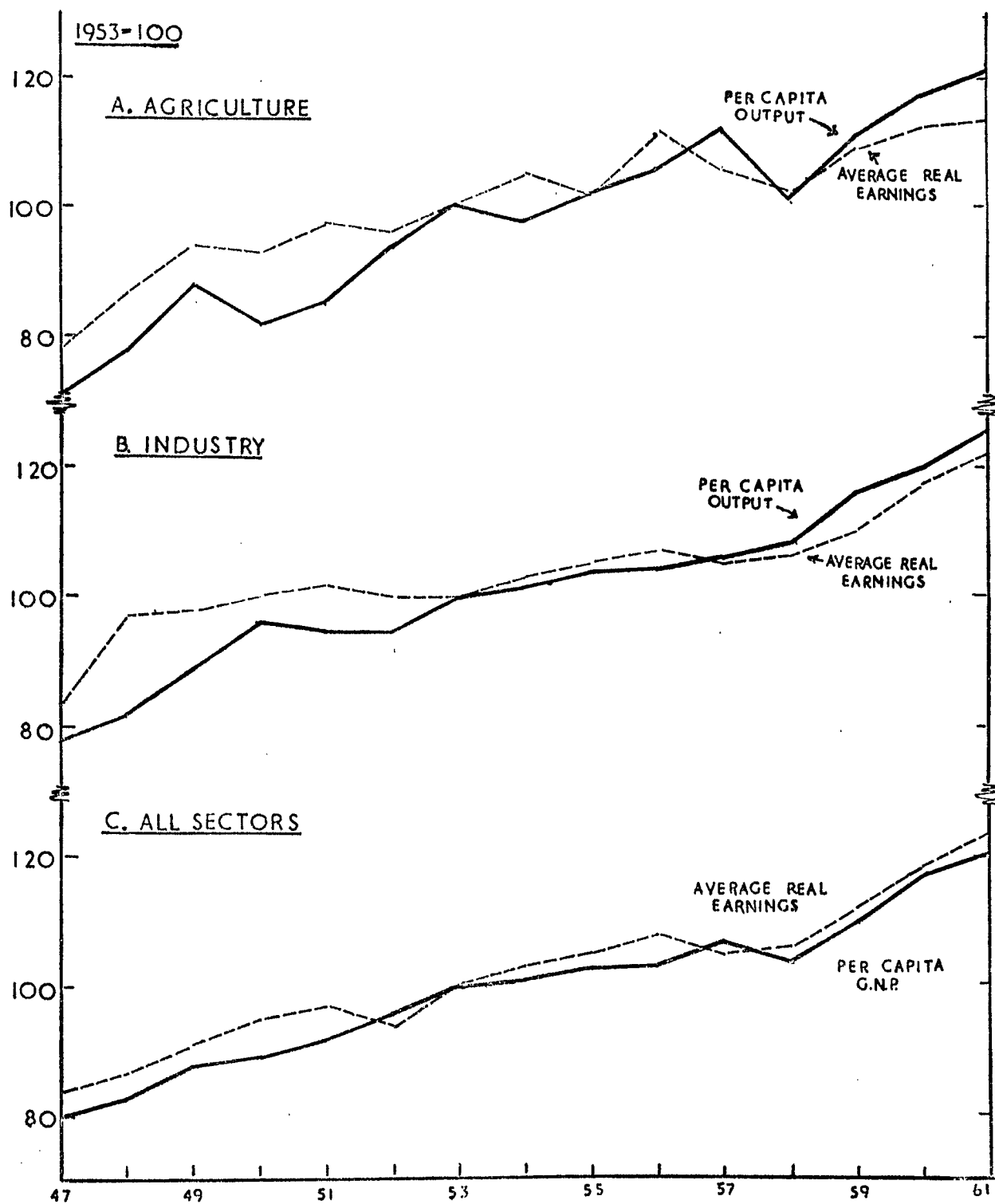


CHART 3

by the astonishing improvement of some 24 per cent. in Ireland's terms of trade between 1947 and 1948. Over 1947-1961 as a whole, however, the terms of trade were almost unchanged—in fact they improved by about 1.5 per cent.—and virtually no change was experienced in the level of average real earnings in relation to real G.N.P. over the same period.¹¹

There is one other aspect of the curves shown in Chart 3 which is of some interest. In the period 1947-53, for the economy as a whole the two curves—average real earnings and real product—moved more or less together, whereas for both agriculture and industry the *per capita* product curve remained for the most part significantly below the average earnings curve. The implication is that unit-wage-cost for the whole economy (in real terms) was prevented from rising by a tendency for the rise in wages in sectors other than agriculture and industry to lag behind rises in output, at least in comparison with agriculture and industry, where the opposite was true. After 1953, however, the situation seems to have reversed itself; in both agriculture and industry the index of real wages tended to stand somewhat below that of output, whereas for the economy as a whole the opposite was true. In other words, the pressure on overall unit costs in the economy since 1953, which had probably been greatest in agriculture and industry during 1947-53, was coming mainly from other sectors—mainly service trades.

(c) Wages and prices

This leads naturally to the related question of whether wages or prices have led in the inflationary process in Ireland during the post-war years—i.e., whether wages have forced up prices or price-increases have led to wage-claims. As has been remarked already, there is a good deal of the chicken-and-egg about this sort of problem, and on both *a priori* and statistical grounds one would not expect to be able to disentangle changes in the two series over any substantial period of time. For example, if the index of average industrial earnings is deflated by the index of *per capita* industrial output, the resultant index can be taken to measure wage changes other than those attributable to increased output—pure wage inflation from the cost side. For the whole period from 1946 to mid-1962 such an index (taking 1953=100) rises from 75 to 124 (i.e., by 65 per cent.), while the retail price index rises from 72 to 126 (i.e., by 75 per cent.). For all

¹¹Between 1938 and 1947 the share of wages in the (domestic) national income fell from 52.3 to 49.7 per cent.; between 1947 and 1960 it rose from 49.7 to 56.7 per cent. Much of this reflects structural changes in the economy itself, of course.

practical purposes, in other words, the two series move to the same extent.¹²

As was mentioned above, however, divergences might be expected to occur in the short run, and for this reason quarterly index numbers of both the “wage push”—i.e., wage increases per unit of quantum output and retail prices are shown in Chart 4.¹³ The results would tend to suggest that even on a quarterly basis it is not possible to distinguish any systematic lag which would justify conclusions concerning the priority in time or causal sequence of either money wages or prices. It is possible to isolate periods such as 1954, when to some extent wage-push occurred despite stability in the retail price-level; conversely, it is possible to identify periods, such as 1957, when wage-push was absent despite a significant increase in the cost of living.

Nevertheless it is clear from the chart that there have been three phases in the period 1951-61 so far as the wage-push is concerned. From the end of 1950 until mid-1953 the wage-push index was consistently higher than the price index, implying that prices were rising more rapidly than unit labour costs and thus that non-wage factors—especially budgetary changes—were playing an important role; between 1953 and 1958 the overall movement in the two series was almost identical, with wage pressure perhaps pulling prices up for most of the period; finally, from the first quarter of 1959 to the end of 1961 unit labour costs were constant and tending to pull prices down. The data for the first three quarters of 1962, however, strongly suggest a sharp rise in unit labour costs in comparison with retail prices generally, and it may well be that the economy has moved into a phase in which the wage-push will again tend to pull prices upwards.

All this is admittedly rather inconclusive. The analysis is useful, however, in that it seems sufficient to cast doubt on any simple and unqualified generalisation to the effect that the overall level of money wages in Ireland can be explained purely in terms of the domestic price level. The similarity of the broad trend in the two curves over the period as a whole provides proof, if proof had been needed, that the two things tend to move together; the various divergences, however, are inconsistent with the view that the one is a necessary and sufficient determinant of the other.

¹²This is merely another way of illustrating the circularity involved in the usual comparisons of real wages and *per capita* output.

¹³The indices are four-quarterly moving averages. The data on which the curves are based are shown in Appendix Table B.

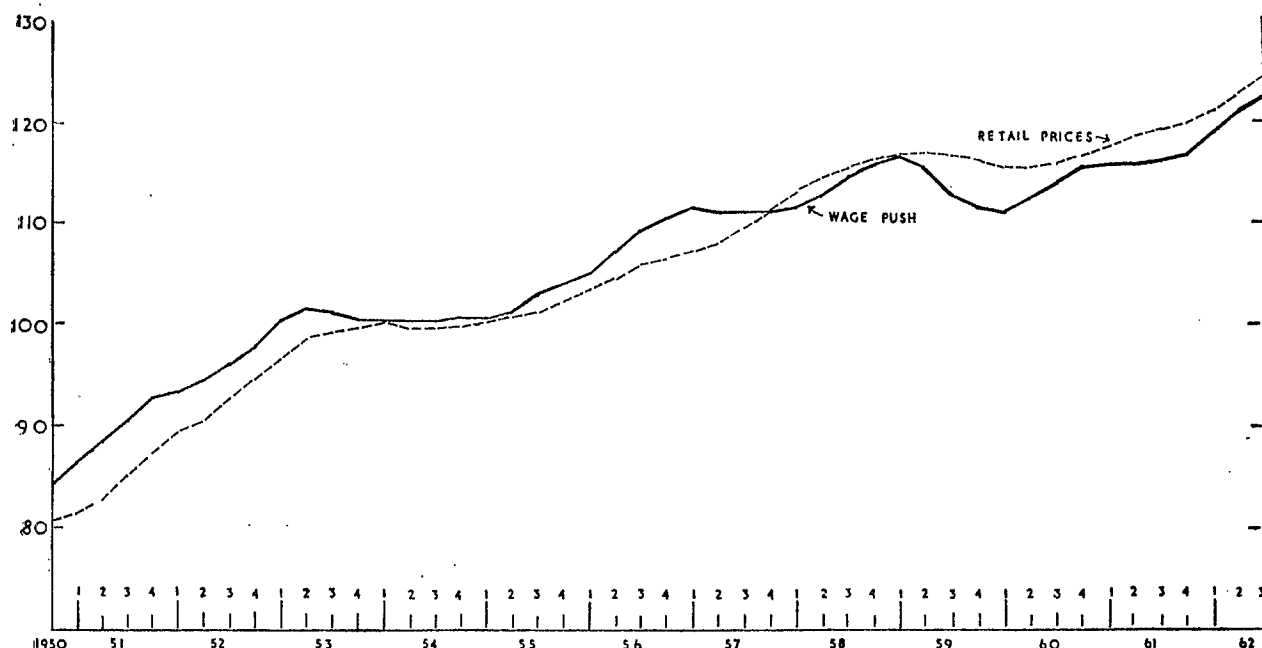


CHART 4

PART II: COMPARATIVE WAGES

(a) Earnings in manufacturing

Because of the limitations of foreign exchange rates as accurate measures of comparative purchasing power, it is not easy to generalise about the height of Irish wage-rates in relation to those of other countries. From the point of view of international trade, however, the exchange rate is more defensible, since it is the means whereby internal production costs are in fact translated into selling prices on foreign markets.

Table 1 may therefore be of interest. It sets out the hourly earnings of employees in manufacturing industry in some 14 countries in both absolute and relative terms in 1952, 1961 and mid-1962. It would appear from this that in 1952 average earnings in Irish industry—at a level of some 25 to 30 per cent. below those of the U.K.—were at approximately the same level as those of France and Germany but significantly higher than those of Italy and the Netherlands. Denmark and Sweden emerge as distinctly high-wage countries. Outside Europe, the North American countries naturally emerge with an extremely high wage-level and Japan displays an almost fantastically low wage-level—little more than half the Irish figure.

Between 1952 and 1962 no very great change appears to have occurred in this ranking except that in the Netherlands wages rose sufficiently to make their level roughly comparable with that of Ireland, while the German wage-level moved much

closer to that of the United Kingdom. The Scandinavian countries of Denmark and Sweden (but not Norway) continued to feature as singularly high-wage countries by European standards.

There are three major limitations on the comparison attempted in Table 1, however, if it is regarded as an assessment of relative labour costs.

TABLE 1: HOURLY EARNINGS IN MANUFACTURING, 1952-1962 (a)

(1)	Pence			U.K. = 100		
	1952	1961	Mid-1962	1952	1961	1962
(2)	(3)	(4)	(5)	(6)	(7)	
<i>All employees :</i>						
Ireland ..	27.6	42.4	46.8	70	67	72
Denmark ..	45.5	84.2	87.9	115	134	136
France ..	29.5	39.4	41.6	75	63	64
Germany ..	31.1	62.0	68.8	79	99	107
Italy ..	22.6	34.2	n.a.	57	54	n.a.
Netherlands ..	22.9(b)	38.4	41.4	58	61	64
Sweden ..	59.9	95.3	97.9	151	152	152
United Kingdom	39.6	62.9	64.6	100	100	100
Japan ..	15.5	27.0	24.0	39	43	37
New Zealand	51.2	97.0	98.0	129	154	152
Canada ..	114.4	150.0	148.3	289	238	230
United States	138.9	198.4	202.2	351	315	313
<i>Men only :</i>						
Ireland ..	34.7	53.3	n.a.	74	65	n.a.
Norway ..	48.9	82.9	86.3	105	102	103
Switzerland	50.6	69.0	n.a.	109	85	n.a.
United Kingdom	46.5	81.5	83.4	100	100	100

(a) For notes to and sources of this and succeeding tables, see Appendix.

(b) 1953.

First and most important, the data do not include supplements to wages—especially social security contributions—payable by employers. Various attempts have been made in recent years to arrive at the magnitude of such additional labour costs. Unfortunately, the definition of the payments involved has varied from time to time, the coverage being variously described as “supplementary labour costs”, “social charges” or “fringe benefits”. The summary of three fairly recent sets of estimates set out in Table 2 must therefore be interpreted with a great deal of reserve. Being drawn from four entirely different sources¹⁴ it is extremely unlikely that the figures are closely comparable over time, although they are probably consistent within each year.

In fact all three sets of estimates give the same broad impression, certainly so far as Ireland is concerned—namely that supplementary labour costs are very much lower than on the continent and somewhat lower than in the United Kingdom. It is difficult to translate this proposition into precise terms, but if the most recent ratios shown in Table 2 were applied to the 1961 hourly earnings shown in Table 1, the result, in index number form, would be as follows:—

Ireland	...	...	100
Netherlands	...	...	104
France	...	...	125
Italy	...	...	125
Switzerland	...	...	147
U.K.	...	...	154
Norway	...	...	167
Germany	...	...	187
Denmark	...	...	200
Sweden	...	...	235

The indications are, therefore (and they can be no more than that), that at the present time labour costs in Ireland are still significantly lower than in

TABLE 2: SUPPLEMENTARY LABOUR COSTS AS % OF HOURLY INDUSTRIAL WAGES

	1955 “Social charges”	1959 “Social charges”	1961 “Fringe benefits”
Ireland	6.3	12.5	13.0
Austria	29.1	n.a.	52.4
Belgium	29.3	31.6	n.a.
Denmark	14.0	n.a.	13.5
France	37.0	51.5	n.a.
Germany	21.5	44.9	44.4
Italy	67.7	75.4	n.a.
Netherlands	26.2	29.9	n.a.
Norway	9.7	n.a.	21.0
Sweden	8.2	14.9	18.1
Switzerland	9.9	14.9	28.2
United Kingdom	8.7	13.6	17.0

¹⁴See Notes to Table 2, Appendix.

most European countries and very considerably below those of the Scandinavian countries.

What is the significance of this? It is widely believed that the effect of allowing for wage supplements in this way is to emphasise the comparative advantage Ireland enjoys in the matter of labour costs over its European competitors. This is manifest over-simplification. In the first place, these differences in “social” benefits to labour could be interpreted as reflecting the extent to which labour costs would be *raised* in Ireland in the event of its joining the E.E.C. Both the spirit and the letter of the Treaty of Rome imply a steady reduction in fiscal differences between the member countries¹⁵ and the probability is that both the extent and the financing of social security benefits will tend towards a common average much closer to the current European position than to that of Ireland. Any discrepancy between Irish and European labour costs arising from social security and similar charges could therefore be regarded as, so to speak, a wasting asset. From the point of view of Irish industry, a reduction of, say, 20 per cent. on the tariff against its exports to Germany might be a dubious exchange for a rise of, say, 30 per cent. in its labour costs arising from the harmonisation of social security systems.

On the other hand, the whole treatment of wage supplements as if they were a net addition to production costs is unsatisfactory. In the last resort, all the benefits concerned—social security and otherwise—must be paid for from the community’s current output of goods and services. To assume that they enter into cost only if financed by employers’ contributions but not if financed by taxation, including employees’ contributions, is unduly ingenuous. In the long run, labour has a not entirely irrational habit of basing wage claims on its net purchasing power after deductions, so that a tax imposed on labour is liable to reappear in costs in the shape of higher wages; entrepreneurs, not being unaware of the taxes to which gross profits are subject, have been known to adjust their concepts of acceptable profit margins accordingly. It is a bold man who looks for dogma in the matter of the incidence of taxation, whether the taxation be labelled as such or disguised as contributions to social security systems.

All this is not to deny the importance of wage supplements in production costs. It does seek, however, to emphasise the superficiality of treating

¹⁵Thus Article 117 of the Rome Treaty speaks of the equalisation of labour conditions which “will result not only from the functioning of the Common Market which will favour the harmonisation of social systems, but also from the procedures provided for under this Treaty and from the approximation of legislative and administrative provisions.” *Treaty establishing the European Economic Community and connected documents*, Brussels 1957, p. 113.

them (in Ireland's case) as costs to which the unhappy foreigner is subject but from which Ireland is—and will continue to be—miraculously free.

A second reason why only limited significance can be attached to the earnings data of Table 1 is that they can make no allowance for differences in the productivity of labour. This can—and in the case of the North American economies manifestly does—transform a high-wage country into a low labour-cost country, and *vice versa*. No allowance can be attempted for this factor in this paper.

Finally, an average for manufacturing as a whole can conceal the effects of significant differences in the industrial structures of the countries in question and in the age/sex pattern of their labour forces. That these may be of some importance was illustrated in a comparison of hourly labour costs in 1955 based on a study by the E.E.C. Statistical Office.¹⁶ This suggested that while for manufacturing as a whole hourly labour costs were some 50 per cent above those of Ireland in Germany, France, Belgium and the U.K., the difference was of the order of only 3 per cent in the brewing industries of France and the U.K. but more than 70 per cent in the paper and shipbuilding industries of Belgium. Similarly, although labour costs overall were some 25 per cent higher in Italy than in Ireland, they were actually lower in the particular cases of the brewing and cement industries.

(b) Ireland and the U.K. : industrially

The comparison with the U.K. in Table 3, although more restricted in geographical coverage, takes account of these structural difficulties. The comparison is restricted to the earnings of adult males in each country¹⁷ while the industrial classification is a good deal more detailed. The trades listed are those of greatest importance in the Irish industrial sector, judged on the admittedly arbitrary basis of employing 4,000 or more persons in 1960. The comparison suggests that between 1948 and 1960 overall average earnings in Ireland have fallen quite substantially in comparison with those of the U.K.—from 73 per cent. of the U.K. average in 1948 to 64 per cent in 1960.

It will be seen, however, that this was far from being a smooth, continuous process. Between 1948 and 1953 the relative levels of earnings were, on average, more or less unchanged : similarly, between 1957 and 1960 little change occurred. The decline in relative wages in Ireland, in other words, was

¹⁶ "International comparisons of labour costs—1", *Trade Union Information*, No. 16, Irish Congress of Trade Unions, Research Department, October 1962, p. 3.

¹⁷ There is a small difference in the definition of this term. For Ireland the figures relate to males of 18 years and over while for the United Kingdom they refer to males of 21 years and over.

TABLE 3: WEEKLY EARNINGS OF ADULT MALES DURING OCTOBER—IRELAND AS % OF U.K.

Industry	1948	1953	1957	1960
1. Mining and quarrying	65	74	64	66
2. Manufacturing :—				
2. 1 Bacon factories	84	85	71	72
2. 2 Milk products	59	61	56	57
2. 3 Grain milling	74	70	65	60
2. 4 Bread, biscuits, etc. ..	91	83	70	73
2. 5 Chocolate and sugar confectionery	80	79	72	78
2. 6 Brewing	105	102	90	92
2. 7 Woollen and worsted	70	71	66	66
2. 8 Linen and cotton	86	82	75	68
2. 9 Hosiery	77	72	70	69
2. 10 Boots and shoes	88	83	77	82
2. 11 Men's and boys' clothing ..	75	83	72	74
2. 12 Women's and girls' clothing ..	81	78	73	63
2. 13 Paper and paper products ..	85	75	69	68
2. 14 Printing and publishing ..	82	72	63	60
2. 15 Metal trades	73	73	62	64
2. 16 Electrical machinery	71	69	58	65
2. 17 Vehicles	72	68	56	58
2. 18 Miscellaneous	77	67	76	76
3. Construction	89	81	72	69
4. Electricity	87	79	67	66
5. Laundries and dry cleaning	95	81	77	78
ALL INDUSTRIES	73	71	63	64

concentrated almost wholly on the period 1953–57. Nor was the overall decline universally experienced. In mining and quarrying, milk products, sugar confectionery, men's clothing and miscellaneous manufacturing there was virtually no change in the relative wage-level over the period as a whole, although in most cases the same trend towards a relative decline during 1953–57 was discernible.¹⁸ The decline seems to have been particularly marked in some of the older trades within manufacturing—bread and flour confectionery, linen and cotton and women's clothing—and in the non-manufacturing activities of construction and electricity supply.

Of more interest, perhaps, is the distribution of relative wages around the overall average. In 1960, the average for all Irish industries was roughly two-thirds of the corresponding U.K. average. In several of the food industries, however, and in footwear, men's clothing and miscellaneous manufacturing it was well above this fraction whereas in milk products and vehicle manufacture or assembly it was well below it. In other words, the decline in relative wages has tended to be greatest amongst trades where relative earnings were above average in 1948, and *vice-versa*, so reducing the dispersion around the average. The difference between the highest and lowest index numbers shown in Table 3 was 46 in 1948 but only 35 in 1960.

¹⁸ It should be noted that the U.K. average for mining excludes coal, the average earnings of all workers in which is some 20–25 per cent. higher than that of adult males in other mining and quarrying. This exclusion does not significantly affect the relative movement over 1948–60.

(c) Ireland and the U.K. : through time

The decline of earnings in Ireland in comparison with those of the U.K. naturally raises once again the question of the precise degree of interaction between wage changes in the two countries. Table 3 has shown that over the period 1948-60 as a whole the relative movement has been by no means identical, either for overall average earnings or between different industrial groups. The curves shown in Chart 5, however, indicate that the broad relationship may in fact be closer than this would suggest.

The curves of wage-rates and earnings would suggest at first sight that until 1953 the correlation between Irish and British wages was virtually complete, but that since 1953 both series have diverged in the two countries. Further inspection suggests, however, that the period 1948-61 breaks into roughly the same three phases as were noted earlier in connection with Table 3 above—namely, 1948-53, 1953-58 and 1958-61. The three periods are clearly discernible from the curves of *per capita* industrial product; in the first and third, the curves for the two countries move in a similar way, whereas in the second period they diverged fairly significantly.¹⁹

If the course of Irish and British wages are considered separately for each of these three periods it becomes clear that the 1953-58 period was an exceptional one—as the divergence of the *per capita* product curves would lead one to expect—and that in the remainder of the post-war period the movement of wages in the two countries was virtually identical. Taking the index number for the first year of each period as 100, the index numbers for the end of each of the three periods are as follows :—

	Ireland	U.K.	(1) as % of (2) (3)
	(1)	(2)	
(a) <i>Wage-rates</i>			
1948-53	133	131	101.5
1953-58	113	130	86.9
1958-61	112	109	102.8
(b) <i>Earnings</i>			
1948-53	131	134	97.8
1953-58	124	137	90.5
1958-61	118	119	99.2

This leads to the interesting proposition that the tendency towards an automatic annual increase of industrial wages in Ireland, varying between

¹⁹The index numbers for 1961 appear to indicate a break in this close relationship, but until data for two or three more years become available it will not be possible to say whether this marks the beginning of a new relationship or is merely a temporary aberration from the old.

relatively narrow limits²⁰ is of greater influence in determining industrial earnings in Ireland than not only the internal price-level but also either the level of *per capita* industrial output or temporary divergences from this 5-6 per cent. annual rate of increase in wages in the U.K. Were *per capita* output the determining factor, one would have expected the relative earnings gap opened up between Ireland and the U.K. from 1953 onwards to have disappeared by 1958, when relative *per capita* output in Irish industry had caught up with the U.K. But in fact the gap was *not* closed; from 1958 on it ceased to grow wider, but the ground lost between 1953 and 1958 was not recovered.²¹

Nor does the slowing-down in the growth of *per capita* output appear to have had more than a small effect on this rate of annual increase of earnings. In 1953-58, it is true, the annual rise of earnings in Irish industry averaged 5 per cent., rather than the 6 per cent. of the periods on either side. This is a relatively small change, however, in view of the fact that during 1953-58 the annual average rise in *per capita* output was substantially less than half that of the periods on either side.

On the other hand, during 1953-58 the index of Irish industrial earnings did not follow the corresponding U.K. index as closely as one would have expected if there was a simple one-for-one relationship between the two. In that period the annual average increase in U.K. industrial earnings was unusually high—about 7½ per cent. compared with the 6-7 per cent. characteristic of the periods on either side.²² The main impression emerging from this examination of the comparative level of Irish wages is therefore that the tendency in recent years for annual wage increases in Ireland to lie within a range of 3½ to 6½ per cent. is probably an outcome of the general trend in the United Kingdom, which is generally of the same order of magnitude. Changes in relative *per capita* industrial output in Ireland have probably done no more than to determine at which end of this range the increases of any particular period have tended to settle. Relative *unit* wage-costs in Ireland and the U.K. respectively have therefore been determined by relative changes

²⁰The percentage increases of relative earnings in col. 3 above for 1948-53 and 1958-61 show clearly that these limits are closely related to the broad trend of wage increases in the U.K. It is not easy to believe that the similarity of movements is coincidental; nor is it likely that the train of causation is in the opposite direction.

²¹It seems likely that some narrowing of the gap will have occurred during 1962 as a result of a somewhat above-average increase in Irish industrial earnings, but the relevant data are not yet available.

²²This seems to have been due mainly to a particularly sharp rise in earnings during 1953-57, which was, in turn, probably a lagged reaction to the rapid rise in *per capita* output during 1953-55, a rise which was not sustained in 1956-58.

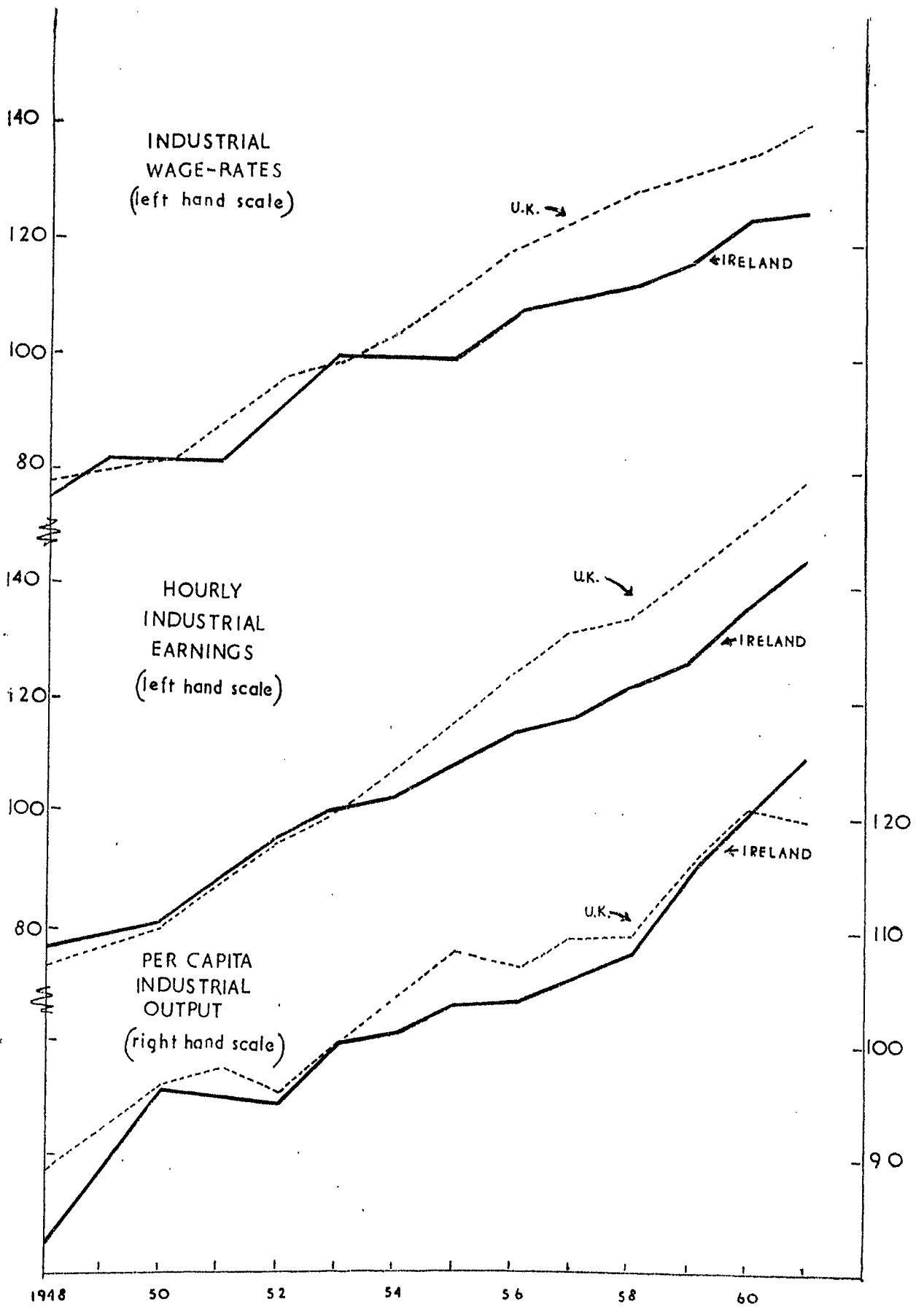


CHART 5

in *per capita* output, rather than by differential increases in wages.

PART III : DIFFERENTIALS

(a) Sex differentials

The structure of wage differentials, reflecting differences of productivity, skill, sex and age, has been subject to two conflicting sets of forces in recent years. On the one hand, the continuous rise of prices and wages has tended to sharpen the awareness of organised labour of the need for positive action if transitional differentials are to be maintained. On the other hand, a group of forces associated with inflation and full employment²³ have tended to narrow these differentials—the growth of the practice of lump-sum adjustments on cost-of-living grounds, the incentive to substitute capital and semi-skilled labour for skilled labour in a situation of labour scarcity, and the whole trend of modern technology away from the old craft skills and towards standardised, repetitive processes in which the relative importance of labour quality has tended to diminish. To all this should be added the modern awareness of the severe limitations of the market-place as a welfare mechanism and the consequent need for the requirements of social justice to be taken into account in wage matters. Hence the almost universal acceptance of the concept of the minimum wage.²⁴

Given the highly open-ended character of the labour market in Ireland it is perhaps not surprising that the net impact of these different forces has been relatively limited. Considering first the relative earnings of men and women, the extent of the narrowing has been small but not entirely insignificant. Between 1946 and 1960 the average hourly earnings of men in transportable goods industries rose by 115 per cent., while those of women rose by 136 per cent. Put alternatively, whereas in 1946 the average hourly earnings of women in Irish transportable goods industries amounted to 53 per cent. of those of men, by 1960 this proportion had risen to 58 per cent.²⁵

To some extent, however, an index number of this kind is influenced by changes in industrial structure and in age-differentials rather than sex-differentials alone. If the comparison is confined to adult males and adult females in particular indus-

²³Perhaps not in Ireland; but as already shown, the prevailing situation in the U.K. is probably the operative factor.

²⁴Belatedly the theoreticians (and perhaps even the politicians) have thus been driven by the force of their own reluctant logic to discover the essential validity of the scholastic doctrine of the just wage. The process is best recorded, in all its mathematical splendour, in J. de V. Graaf, *Theoretical Welfare Economics*, Cambridge University Press, London, 1957. See also M. P. Fogarty, *The Just Wage*, Chapman, London, 1961.

²⁵See Appendix Table A, series 4.1 and 4.2.

tries, the narrowing of the differential is seen to be very much smaller than the gain of nearly 20 per cent. implied by the overall index numbers. For six industries comprising major employers of female labour in Ireland the comparison of average weekly earnings is as follows—adult female earnings as per cent. of those of adult males, the overall averages being obtained by weighting by the numbers of women employed in 1951:—²⁶

	1948	1960
Sugar confectionery, etc. ..	48	49
Hosiery	48	48
Boots and shoes	62	61
Men's and boys' clothing ..	55	57
Women's and girls' clothing ..	48	59
Printing	43	43
AVERAGE ..	50	53

This suggests a considerably more limited narrowing of the differential than the overall index numbers referred to above.

Similarly, it would be expected that over the past 25 years the narrowing of the sex-differential in Irish industry would have been greater than the 6 per cent. implied by this calculation. In Table 4

TABLE 4: AGE AND SEX DIFFERENTIALS IN IRISH INDUSTRY, 1938-60
(Average hourly earnings, October of each year)

	1938=100		
	1948	1953	1960
1. Males			
(a) Under 18 years ..	195	291	383
(b) 18 years and over ..	179	226	328
(c) (a) as % of (b) ..	109	129	117
2. Females			
(a) Under 18 years ..	187	229	371
(b) 18 years and over ..	188	233	353
(c) (a) as % of (b) ..	99	98	105
3. Sex differential			
2 (b) as % of 1 (b) ..	105	103	108

a comparison is made over the period embracing the war. The data relate to industry as a whole, and therefore include the effects of industrial redistribution as well as those of sex-differential changes. As the previous calculation has shown, structural changes in the pattern of female employment have had a far stronger influence on the relative level of female wages than any narrowing of differentials as such. Nevertheless, Table 4 brings out the importance of the wartime period in this narrowing of differentials in comparison with the post-war period, and especially of the statutory prevention of anything other than flat-rate cost-of-

²⁶Numbers employed from *Statistical Abstract of Ireland*, 1961, (Pr. 5984), Table 48, pp. 57-8, earnings from *ibid.* and *Irish Trade Journal and Statistical Bulletin*, Vol. XXXVII, No. 3, September 1962.

living increases in most cases during the war years. Between 1948 and 1953, indeed, some of the wartime narrowing of the gap between the wages of men and women seems to have been reversed.

It may be of interest at this point to compare the gap between the wages of men and women in Ireland with that in other countries, as is done in Table 5. With the single exception of Belgium, Ireland occupies the lowest position in the list of nine European countries shown, and it seems to have lost ground slightly in relation to the overall average between 1952 and 1959. From the earlier discussion, however, it will be appreciated that the averages, relating as they do to all manufacturing industry, may conceal important differences in industrial structure as well as in the sex-differential as such.

Nevertheless, it seems certain that the imposition of a policy of equal pay for men and women—laid down as an early objective by the Rome Treaty²⁷

TABLE 5: AVERAGE HOURLY EARNINGS OF WOMEN IN MANUFACTURING INDUSTRY AS % OF THOSE OF MEN

	1952	1959
Belgium	57.2	57.0
Denmark	65.3	67.0
Germany	62.2	64.5
Ireland	57.3	57.7
Netherlands ..	58.1	61.8
Norway	68.9	67.5
Sweden	69.6	68.8
Switzerland ..	70.9	68.8
United Kingdom ..	59.4	58.0
AVERAGE	61.4	61.9

would affect Ireland's labour costs to a greater degree than those of most existing E.E.C. members.²⁸ The European average would be considerably

²⁷Treaty establishing the European Economic Community and connected documents, (Eng. trans., Brussels, 1957), Article 119.

²⁸This is an ambiguous statement. What is meant here is that total labour costs in Ireland would rise in a greater proportion than elsewhere *apart from* differences in the sex structure of working forces. If women form a smaller proportion of the labour force in Ireland than elsewhere, of course, the equal pay doctrine would have the opposite effect on relative labour costs in Ireland. Data on the sex structure of European working forces are not easy to come by. Hence the following figures, showing the percentage of females in the economically active population in some European countries (at the dates shown) may be of interest:—

Austria (1951) ..	39
Belgium (1947) ..	24
Denmark (1952) ..	34
W. Germany (1950) ..	36
Great Britain (1951) ..	31
Ireland (1951) ..	26
Italy (1951) ..	25
Netherlands (1947) ..	24
Norway (1950) ..	24
Sweden (1950) ..	26

Except for the Netherlands and Ireland, the above ratios were calculated from data given in *Annuaire Statistique de la France*, 1954, (Imprimerie Nationale, Paris, 1955), 2e Partie, Tableau 1 pp. 38-40. For the Netherlands, data from *Statistical Yearbook of the Netherlands*, 1957-58 (Zeist, 1960), Table 119, pp. 84-5. For Ireland, *Statistical Abstract*, 1961.

higher than Ireland's (in 1959, 65.2 per cent. compared with 57.7 per cent.) were it not for the depression of the average by the United Kingdom, in which the position in 1959 was very similar to that of Ireland. The progress towards equality of pay for men and women in the United Kingdom during recent years, however, may have modified this position since 1959.

(b) Age differentials

A second form of differential which inflation and full employment have tended to narrow in many countries is that in respect of age. The decline of craft occupations and the shift towards simple repetition work has generally had the effect of increasing the value-productivity of young workers in relation to that of adults. Has this happened in Ireland?

The data shown in Table 4 throw some light on the question. They suggest a marked narrowing of the gap between the wages of adult and juvenile males in Ireland between 1938 and 1953—so that the latter had risen some 29 per cent. in relation to the former—but a significant widening of the gap again between 1953 and 1960. Overall, the differential seems to have narrowed by about 10 per cent. during the war, and to have further diminished since by a similar amount. Curiously enough, hardly anything of this sort appears to have happened as between adult and juvenile females, presumably because the increased relative demand for less-skilled labour, which under-lies the phenomenon, has been operating on the relative wages of adult women as much as on those of juveniles.

(c) Occupational differentials

The influence of changes in industrial structure, rather than changes in occupational differentials as such, in averages of the kind used in Table 4 make it difficult to trace out changes in differentials between the earnings of skilled and relatively unskilled labour. For this purpose, therefore, the data shown in Table 6 have been assembled. Here the wage-rate of a *relatively* unskilled type of labour in each industry or occupation is shown as a percentage of that of skilled labour in the same occupation. The comparison is based, of necessity, on the available data, so that the differences of skill being compared varies considerably in degree from one occupation to another. The fact that the unskilled rate in railways, for example, was only 47.6 per cent. of the skilled rate in 1939 does not necessarily imply that the skill differential in that industry was wider than in, say, paint manufacture where the corresponding proportion was nearly 94 per cent. Primarily, the contrast between the two industries arises from the fact that the skill difference was

TABLE 6: OCCUPATIONAL DIFFERENTIALS, 1939-62

Industry or occupation	Weight	Less-skilled rate as % of skilled rate			
		1939	1948	1953	1962
1. Bacon factories ..	5	86.0	88.8	91.9	90.0
2. Building ..	75	70.1	75.5	81.1	85.9
3. Bus services ..	32	86.7	94.8	96.0	97.1
4. Cinemas ..	7	37.5	62.4	65.6	74.2
5. Coachbuilding ..	26	81.7	83.3	86.2	94.1
6. Druggists and Chemists	1	80.0	80.2	83.0	84.7
7. Dyeing and cleaning	5	88.3	89.9	92.4	94.5
8. Engineering ..	39	77.1	72.2	77.7	80.9
9. Flour milling ..	11	78.1	85.4	88.6	90.9
10. Paint manufacture ..	1	93.8	95.9	97.1	98.0
11. Railways ..	8	47.6	65.1	71.6	73.2
12. Structural steel workers	4	73.6	72.2	78.5	83.3
13. Woollen manufacture	13	61.5	76.0	82.2	87.6
TOTAL ..	227	74.0	78.9	83.3	87.4

substantial in the one case (engine drivers on maximum rates compared with station porters) and relatively small in the other (semi-skilled and unskilled workers). Factors such as the receipt of tips by station porters also complicate the comparison.

Bearing this in mind, the broad trend emerging from Table 6 confirms the expectation that occupational differentials, like those arising from sex or age, have narrowed perceptibly in Ireland during the last quarter-century or so. The overall average of relatively unskilled rates rose between 1938 and 1962 from 74 per cent. of the corresponding skilled rates to 87 per cent.—a fall of exactly a half in the differential. It will be observed that this narrowing continued steadily between 1939 and 1962, so that it is in no sense a legacy of the special circumstances of the war years.

(d) Industrial differentials

Finally, it is relevant to consider whether this narrowing in differentials within particular occupations has been reflected in the relative earnings of different industrial groups. The data shown in Cols. (3) and (5) of Table 7 throw some light on this. To eliminate the effect of changes in the structure of the labour force of each industry, the wages comparison is based on the earnings of adult males during a week of October in the two years concerned.

For industry as a whole the *range* of variation increased rather than diminished during the period 1948-60. In the earlier year, average earnings ranged from 91 to 130 per cent. of the average, a range of 43 per cent., whereas in 1960 the range was 87 to 129, or 48 per cent. This slight widening of the range may be deceptive, however, since a somewhat greater degree of bunching is discernible in the averages for 1960 than in those for 1948. In 1960 eight of the thirteen averages were in the central range of 95-109, whereas in 1948 the thirteen

TABLE 7: INDUSTRIAL DIFFERENTIALS, 1948-60

Industry	1948		1960	
	Per capita net output % of average (2)	Adult male earnings % of average (3)	Per capita net output % of average (4)	Adult male earnings % of average (5)
(1)				
1. Bread, flour, etc.	116	119	91	104
2. Bricks, pottery, glass, etc. ..	117	102	82	101
3. Chemicals ..	125	92	122	95
4. Metals ..	104	111	98	105
5. Electrical machinery ..	101	105	100	106
6. Vehicle assembly	123	121	116	129
7. Woollen and worsted ..	103	91	82	92
8. Leather ..	115	97	68	109
9. Clothing (Women's) ..	68	123	59	97
10. Wood and cork	94	93	73	87
11. Printing ..	127	130	105	128
12. Construction ..	100	115	79	103
13. Railway workshops ..	78	108	62	89
ALL INDUSTRIES ..	100	100	100	100

averages were much more dispersed, with only four in the central range of 95-109. In a sense, therefore, the conclusion to be drawn depends on the measure of dispersion adopted. It would seem realistic to regard the distribution around the average as more significant, and in this sense it can be said that, in general, industrial differentials narrowed significantly over the decade.

It is natural to enquire whether the ranking of the different industries has been substantially changed during this process of bunching. The movement of their relative positions is best shown in the following schedule in which the numbers indicate the ordering of the industries listed in Table 7 by their average-earnings index numbers:—

Industry	Position 1948	Position 1960
Printing	1	2
Clothing	2	9
Vehicles	3	1
Bread, flour ..	4	6
Construction ..	5	7
Metals	6	5
Railway workshops ..	7	12
Electrical machinery ..	8	4
Bricks, etc. ..	9	8
Leather	10	3
Wood and cork ..	11	13
Chemicals	12	10
Woollen and worsted ..	13	11

Nine of the thirteen moved only one or two ranking positions between 1948 and 1960. Of the four remaining industries, clothing moved down seven positions and railway workshops moved down five,

while electrical machinery moved up four positions and the leather industry moved up seven. In both years two industries—printing and vehicle assembly—were amongst the top three, while in both years wood manufactures and the woollen and worsted trade—representing textiles—were amongst the bottom three. The only really drastic changes were therefore that women's clothing fell from second to ninth place, while leather goods shot up from tenth to third place.

Given the close statistical connection between net output on the one hand and wages on the other, it would be expected that there would be a fairly close similarity between this earnings ranking and that of *per capita* net output, data on which are shown in cols. (2) and (4) of Table 7. The top industries from the point of view of average-earnings in both 1948 and 1960—printing and vehicles—also had *per capita* output well above average, but in general it is extremely difficult to establish any clear relationship between relative output and relative earnings per head. The chemical industry, for example, had the highest net output per head in 1960 and the second highest in 1948, yet in terms of average wages it ranked tenth in 1960 and twelfth in 1948. Conversely, the *per capita* net output in the women's clothing trade was only about two-thirds of the average for all industries in both years, but its average wages were well above average in 1948 and only slightly below in 1960.

Similarly, changes in the wage-ranking tend, of necessity, to be linked to changes in the *per capita* output ranking. Thus, *per capita* output rose more than the average for the trades shown in Table 7 in five of the eight industries whose position in the wages league improved and rose less than average in four of the five industries whose position in the wages league deteriorated. The tendency for relative wages and relative *per capita* output to move together is hardly surprising. Whether one interprets this to mean that higher relative wages are *caused* by higher productivity or that the higher productivity—i.e., as emerging from the statistical processes involved—results from the increased wages is largely a matter of taste.

PART IV : CONCLUSION

Given the openness of the Irish economy to the impact of developments externally, and especially in the United Kingdom, through the movement of goods, capital and people, it is not surprising that the behaviour of its wage-structure has closely resembled that of most of Western Europe. The inflationary pressures of the post-war era have left their mark both within and outside Ireland. The rise of money earnings by employees has been very

marked indeed—one of nearly 150 per cent. between 1946 and 1961—while the rise of real earnings—50 per cent. in the same period—is virtually equal to the contemporaneous rise in real national product per head. Like the wage-structure in other countries, the Irish wage-pattern has experienced some narrowing of differentials in the process of this inflationary rise—the differentials in respect of age, sex, skill or industry. Most of this narrowing seems to have taken place during the second World War, however, when the needs of social justice in the face of a rapidly rising cost of living were accorded an especially high priority.

To lament this inflation of the money-wage in Ireland without reference to similar developments elsewhere, however, would clearly be absurd. To maintain a low level of wages in a world of rising prices would merely involve gratuitous gifts to other countries in the form of (to them) improved terms of trade which would be advantageous from Ireland's point of view only if increased exports (assuming a positive real elasticity of demand for them) were regarded as an unmitigated good; alternatively, it would involve a redistribution of income in the form of rising profit margins. Looked at in the European context, it would be difficult to argue that the Irish wage-level has risen dangerously rapidly in absolute terms. Irish wages are still distinctly low by European standards; by British standards they were even lower in 1961 than in 1953, despite a roughly equal rise in *per capita* product in the two countries during recent years. This is even more strikingly the case if wages are taken to include the social and other benefits paid to labour, although, as was argued earlier, the implications of this fact are by no means unambiguous.

Perhaps the most striking feature of the post-war development of Irish wages is the strong suggestion (during the past decade, at any rate) of a tendency towards a regular rise of the order of 5 per cent. in money wages, without any necessary regard to contemporaneous changes in either *per capita* product (which might neutralise the cost consequences) or in the cost of living (which might be held to necessitate them from the point of view of distributive justice). Provided that wages abroad—and especially Ireland's main trading partners—are rising as rapidly in relation to real product, this automaticity of wage-increases can do no particular harm, or at least cannot worsen the relative situation previously obtaining. Admittedly the general distributive arguments concerning the position of rentiers, pensioners, etc., apply; on the other hand, so do those concerning the stimulant effects of gently rising prices and demand on economic growth. The argument is somewhat finely balanced

The real significance of any built-in trend in the level of money wages is therefore the restriction it places on the freedom of policy choice in a country—such as Ireland—seeking economic growth and needing international trade simultaneously. If it is assumed that the exchange rate of the Irish pound is fixed, and if the development of productivity in real terms is taken as exogenously determined by technological and other factors, freedom of the money wage level is compatible with external equilibrium only if *either* the domestic price level or the level of population is allowed to find its own level. Control over domestic prices, through tariff protection and quantitative control, can permit the maintenance of international price disparities. Conversely, unhampered movement of international trade will be consistent with freedom of the money wage-level only if the logical consequence—a rise or decline of industry and population—is wholly accepted. But something, so to speak, has to give in such a situation.

In the post-war years, the ability to insulate domestic markets to some degree has reduced the extent to which an automatic rising tendency in money wages, not fully compensated by real productivity changes, has involved the consequences for the size of population which would otherwise have been inevitable. If the control over tariffs and quotas were to be sacrificed, however, those consequences would need to be squarely faced and a relative valuation placed upon them. Reduced to its essentials, the situation would then be that the size and aggregate real income of the community would depend on the rate at which productivity in Irish industry could be raised in relation to that of the most efficient foreign producer seeking to take advantage of open access to the Irish market, due allowance being made for any cost advantage or disadvantage under which Ireland may be operating at the time when that access is first given. This, in one sentence, is the problem of the destiny facing the Irish economy in the years ahead.

STATISTICAL APPENDIX

Table A : Wages, earnings, prices and output : Ireland 1946-61.

Table B : Industrial wage-drift and prices, 1950-61.

Table C : Wages, earnings and production : U.K., 1948-61.

Notes to Charts

Notes to Tables

TABLE A: WAGES, EARNINGS, PRICES AND OUTPUT: IRELAND, 1946-61

All index numbers 1953=100

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1. CONSUMER PRICES ..	72	80	79	80	81	87	95	100	100	103	107	112	117	116	117	120
2. WAGE-RATES																
2. 1 Industrial occupations ..	57	68	75	81	81	82	92	100	100	100	108	111	113	117	124	126
2. 2 In real terms (2. 1/1) ..	79'2	85'0	94'9	101'3	100'0	94'3	96'8	100'0	100'0	97'1	100'9	99'1	96'6	100'8	106'0	105'0
2. 3 Agricultural ..	56	63	69	75	75	84	91	100	105	105	119	119	119	126	131	135
2. 4 In real terms (2. 3/1) ..	77'8	78'8	87'3	93'8	92'6	96'6	95'8	100'0	105'0	101'9	111'0	106'3	101'7	108'6	112'0	112'5
2. 5 Transport ..	60	70	76	81	82	85	94	100	100	101	111	111	119	120	130	131
2. 6 In real terms (2. 5/1) ..	83'3	87'5	96'2	101'3	101'2	97'7	98'9	100'0	100'0	98'1	103'7	99'1	101'7	103'4	111'1	109'2
3. ANNUAL EARNINGS (£)																
3. 1 Agriculture ..	111	127	144	159	159	168	188	209	221	227	246	252	252	265	277	288
3. 2 Mining and quarrying ..	174	203	206	231	256	284	316	316	331	377	404	425	433	481	481	
3. 3 Manufacturing ..	187	212	232	242	251	267	293	312	323	334	354	369	389	406	431	
3. 4 Construction ..	201	245	269	287	293	309	335	355	364	375	388	403	429	446	471	
3. 5 Gas, electricity, water ..	291	305	325	332	330	385	408	423	419	436	470	488	522	545	582	
3. 6 Other sectors ..	201	227	219	226	241	263	270	313	323	345	372	383	393	411	410	
3. 7 All sectors ..	176	202	208	221	233	252	268	301	309	326	349	356	374	392	416	445
3. 8 Index, all sectors ..	58	67	69	73	77	84	89	100	103	108	116	118	124	130	138	148
3. 9 In real terms (3. 8/1) ..	81	84	87	91	95	97	94	100	103	105	108	105	106	112	118	123
4. AVERAGE HOURLY EARNINGS (TRANSPORTABLE GOODS INDUSTRIES)																
4. 1 Males (pence) ..	23'2	25'5	28'1	29'0	29'8	32'7	34'7	36'7	37'8	39'5	42'0	43'7	45'2	46'7	49'0	
4. 2 Females (pence) ..	12'3	14'3	15'5	16'2	16'9	18'6	19'9	21'0	21'5	22'6	23'9	24'6	26'0	27'2	29'0	
4. 3 All workers (Index) ..	58'2	67'2	76'5	78'2	80'9	89'0	94'5	100'0	102'9	108'0	114'7	117'8	123'6	127'9	137'1	145'9
4. 4 In real terms (4. 3/1) ..	80'8	84'0	96'8	97'8	99'9	102'3	99'5	100'0	102'9	104'9	107'2	105'2	105'6	110'3	117'2	121'6
5. OUTPUT AND EMPLOYMENT																
5. 1 Industrial output ..	60.8	65'2	71'3	80'6	91'4	94'0	91'6	100'0	103'3	107'5	105'3	104'5	106'5	117'3	125'6	136'8
5. 2 Per capita output ..	76'9	78'2	82'1	89'0	95'6	95'0	95'0	100'0	101'2	103'5	103'8	106'0	108'0	116'4	120'2	125'7
5. 3 Agricultural output ..	94'7	86'1	93'1	100'6	91'8	91'6	98'4	100'0	97'9	101'0	102'6	106'6	94'6	102'3	106'4	108'0
5. 4 Agricultural Employment (000's)	520	508	500	481	470	453	441	421	421	418	409	399	395	389	383	380
5. 5 Employment Index ..	123'5	120'7	118'8	114'3	111'6	107'6	104'8	100'0	100'0	99'3	97'1	94'8	93'8	92'4	91'0	90'3
5. 6 Per capita output ..	76'7	71'3	78'4	88'0	82'3	85'1	93'9	100'0	97'9	101'7	105'7	112'4	100'9	110'7	116'9	119'6
5. 7 Per capita real GNP ..	n.a.	80	83	88	89	92	96	100	101	103	103	107	104	110	117	120
6. UNEMPLOYMENT																
6. 1 Mid-year live register (000's) ..	45'7	40'5	45'3	45'5	39'9	37'1	45'9	63'6	53'6	47'6	49'5	56'0	54'3	49'0	41'8	38'2
6. 2 Vacancies notified (000's) ..	53'4	54'6	43'6	50'4	54'8	47'6	43'3	42'0	46'0	48'7	38'0	38'9	36'3	34'5	37'5	
6. 3 Ration 6. 2/6. 1 (%) ..	121	135	96	111	137	128	94	66	86	102	77	69	67	70	90	

TABLE B: INDUSTRIAL WAGE-PUSH AND PRICES, 1950-62

(All index numbers 1953=100)

			<i>Per capita output</i>	<i>Average earnings</i>	<i>Wage push</i>	<i>Retail prices</i>
1950	1	..	92'3	79'2	85'8	80'0
	2	..	100'6	80'1	79'6	81'6
	3	..	95'6	81'3	85'0	80'0
	4	..	96'5	83'3	86'3	81'6
1951	1	..	90'8	85'4	94'1	82'4
	2	..	101'1	88'9	87'9	87'2
	3	..	94'4	88'6	93'9	88'8
	4	..	96'5	92'1	95'4	90'4
1952	1	..	93'4	89'0	95'3	91'2
	2	..	97'2	90'2	92'8	92'0
	3	..	93'5	94'1	100'6	97'6
	4	..	98'0	100'5	102'6	98'4
1953	1	..	93'3	97'8	104'8	98'4
	2	..	102'2	100'5	98'3	100'8
	3	..	101'2	100'7	99'5	100'0
	4	..	103'2	102'6	99'4	100'1
1954	1	..	95'2	99'6	104'6	99'4
	2	..	102'4	100'2	97'9	99'5
	3	..	102'5	102'0	99'5	101'1
	4	..	101'9	103'5	101'6	100'5
1955	1	..	99'0	103'6	104'6	101'2
	2	..	106'3	105'7	99'4	102'0
	3	..	102'5	108'9	106'2	102'7
	4	..	107'6	114'7	106'6	105'0
1956	1	..	104'1	113'0	108'5	105'5
	2	..	106'4	114'0	107'1	107'5
	3	..	99'5	114'9	115'5	107'8
	4	..	104'0	115'9	111'4	107'5
1957	1	..	101'0	114'0	112'9	107'7
	2	..	109'7	115'4	105'2	110'4
	3	..	101'8	117'3	115'2	114'1
	4	..	110'3	122'7	111'2	113'8
1958	1	..	105'7	121'8	115'2	115'4
	2	..	111'8	123'1	110'1	116'6
	3	..	102'7	125'2	121'9	116'9
	4	..	108'5	126'3	116'4	116'9
1959	1	..	105'0	124'0	118'1	117'7
	2	..	119'7	127'8	106'8	117'6
	3	..	116'7	129'2	110'7	115'6
	4	..	119'6	133'7	111'8	114'9
1960	1	..	114'9	132'5	115'3	115'4
	2	..	123'1	137'1	111'4	117'2
	3	..	117'3	137'9	117'6	117'2
	4	..	121'1	142'4	117'6	118'1
1961	1	..	119'9	139'9	116'7	118'9
	2	..	129'1	143'9	111'5	120'3
	3	..	122'3	144'7	118'3	120'5
	4	..	127'4	153'5	120'5	120'5
1962	1	..	122'3	153'6	125'6	123'7
	2	..	133'6	158'5	118'7	127'0
	3	..	139'6	162'1	123'5	126'1

TABLE C: WAGES EARNINGS, PRODUCTION, U.K., 1948-61

All index numbers based on 1953=100

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1. CONSUMER PRICES ..	77.2	79.3	81.5	90.2	97.8	100.0	102.2	106.5	110.9	115.0	118.5	119.2	120.4	124.5
2. WAGE-RATES														
2. 1 Money rates	76.5	79.1	80.5	88.1	95.7	100.0	104.1	110.9	110.4	125.4	129.6	132.8	136.1	141.6
2. 2 In real terms (2. 1/1) ..	99.1	99.7	98.8	97.7	97.9	100.9	101.9	104.1	107.7	109.0	109.4	111.4	113.0	113.7
3. ANNUAL EARNINGS (£) ..														
3. 1 Agriculture	212	219	219	230	241	255	264	273	293	305	320	323	332	345
3. 2 Mining and quarrying ..	377	380	395	441	497	511	543	576	632	676	681	662	693	728
3. 3 Manufacturing	277	294	311	339	373	394	446	446	48	509	532	559	592	626
3. 4 Construction	301	320	336	366	397	432	459	491	557	563	579	614	648	691
3. 5 Gas, electricity, water ..	335	365	377	417	435	464	495	538	588	615	645	671	730	760
3. 6 Other sectors	279	297	311	346	368	378	399	435	471	516	504	526	568	593
3. 7 All sectors	280	297	310	342	368	386	407	441	477	501	518	542	576	611
4. HOURLY EARNINGS														
4. 1 Weekly earnings (shillings) ..	116.8	120.8	127.4	139.8	150.8	159.3	170.8	185.8	198.5	211.2	215.3	227.3	240.2	254.1
4. 2 Index	73.3	75.8	80.0	87.8	94.7	100.0	107.2	116.7	124.6	132.6	135.2	142.7	150.8	159.5
4. 3 Hours worked	44.9	45.0	45.7	45.6	45.7	45.9	46.3	46.4	46.0	45.8	45.3	46.1	45.6	45.1
4. 4 Index	97.8	98.0	99.6	99.3	99.6	100.0	100.9	101.1	100.2	99.8	98.7	100.4	99.3	98.3
4. 5 Hourly earnings (4. 2/4. 4) ..	74.9	77.3	80.3	88.4	95.1	100.0	106.2	115.4	124.4	132.9	137.0	142.1	151.9	162.3
4. 6 In real terms (4. 5/1) ..	97.0	97.5	98.5	98.0	97.2	100.0	103.9	108.4	112.2	115.6	115.6	119.2	126.2	130.4
5. INDUSTRIAL OUTPUT														
5. 1 Production index	82.5	87.7	93.7	97.7	94.1	100.0	106.7	113.5	113.0	115.6	114.1	120.9	130.6	130.9
5. 2 Employment index	93.7	95.4	97.8	100.0	98.5	100.0	102.2	105.2	105.9	105.9	104.4	104.7	108.8	110.2
5. 3 Per capita output (5. 1/5. 2) ..	88.0	91.9	95.8	97.7	95.5	100.0	103.8	107.8	106.7	109.1	109.2	115.5	120.0	118.8

NOTES TO CHARTS

- CHART 1: Industrial earnings, see Table A, line 4.3; industrial wage-rates, see Table A, line 2.1. Since the official wage-rate index relates to January, the index used in the Chart for wage-rates is an average of the figures for January of the year concerned and January of the succeeding year.
- CHART 2: Average earnings, Table A, line 4.3. Retail prices, as for Table A, line 1; the index used relates to the last quarter of each year.
- CHART 3: Agriculture—real wages, Table A, line 2.4; per capita output, Table A, line 5.6. Industry—real wages, Table A, line 4.4; per capita output, Table A, line 5.2; All sectors, real wages, line 3.9; per capita output, Table A, line 5.7.
- CHART 4: Wage drift and retail prices from Table B. In order to eliminate the marked seasonal oscillations in the "wage-drift" series (the inverse of corresponding oscillations in per capita output) both are shown as four quarterly moving averages.
- CHART 5: (a) Wage-rates—Ireland, Table A, series 2.1; U.K., Table C, series 2.1.
 (b) Earnings: Ireland, Table A, series 4.3; U.K., Table C, series 4.5.
 (c) per capita product—Ireland, Table A, series 5.2; U.K., Table C, series 5.3.

NOTES TO TABLES

In what follows, source references are given to *Statistical Abstract*, 1961 (Pr. 5984), Stationery Office, Dublin, 1961, and the *Irish Trade Journal and Statistical Bulletin*, Vol. XXXVII, No. 3, September, 1962, although it will be appreciated that for years earlier than those covered by these publications reference was made for the series concerned to the corresponding tables of previous issues.

TABLE 1

Source: *Statistical Yearbook*, 1961, (62. XVII. 1), United Nations, New York, 1962, Table 160, and *Monthly Digest of Statistics*, Vol. XVI, No. 11, November, 1962, United Nations, New York, 1962, Table 45.

For Japan, the rate given was for monthly earnings. Table 7 of the *Statistical Yearbook* and Table 5 of the *Monthly Digest* given an average working week in Japanese manufacturing of 48.2 and 50.0 hours in 1952 and 1961 respectively. Multiplying by 52/12 gives average months of 208.9 and 216.7 hours respectively. The monthly rates were divided by these figures to arrive at hourly rates.

For New Zealand only a weekly rate given for 1952. An average week of 40 hours was assumed (the first published figure of average hours gives 39.9 for 1957).

The conversion to pence was based on the exchange rates given in Table 168 of the *Statistical Yearbook* and Table 50 of the *Monthly Digest*. The Irish, New Zealand and U.K. pence were taken to be equal.

TABLE 2

- 1955: Certain social charges expressed as percentages of wages in manufacturing industries, *Social Aspects of European Economic Co-operation*, International Labour Office, Geneva, 1956, Appx. I, Tables E and G.
- 1959: For European countries, "Les Coûts de main-d'œuvre dans l'industrie manufacturière des pays européens et des États-Unis, May, 1959", *Etudes et conjonctures*, L'Institut National de la Statistique et des Etudes Économiques, Paris, 1960. For Ireland: "Labour costs in Ireland and Europe", *Trade Union Information*, Irish Congress of Trade Unions Research Department, Nos. 8-9, February-April, 1961, p. 4.
- 1961: For European countries, *Report from Germany*, Deutsches Institut, Cologne, Vol. V, No. 36, September 7th, 1962, p. 3. For Ireland: "International Comparison of labour costs-2", *Trade Union Information*, Irish Congress of Trade Unions Research Department, No. 16, October, 1962, p. 5.

TABLE 3

Average earnings of adult males during a pay week in October of each year. The following industrial groups for the U.K. were used in the categories shown:—

1. 1948-57, Stone quarrying and mining; 1960, Stone and slate quarrying and mining.
- 2.1 1948-57, Meat and meat products; 1960, Bacon curing, meat and fish products.
- 2.4 Bread and flour confectionery—all firms.
- 2.8 1948-57, Linen and soft hemp; 1960, weaving of cotton, linen and man-made fibres.
- 2.10 1948-57, Manufacture of boots, shoes, slippers and clogs; 1960, Footwear.
- 2.11 1948-57, Ready-made and wholesale bespoke tailoring; 1960, Men and boys' tailored outerwear.
- 2.12 1948-57, as for 2.11; 1960, Women and girls' tailored outerwear.
- 2.13 Paper and board.
- 2.15 1948-57, Iron foundries; 1960, Iron castings, etc.
- 2.17 Motor vehicle manufacturing.
3. 1948-57, Building.
5. Laundries.

Sources: U.K. *Ministry of Labour Gazette*, Vol. LVII, No. 3, March, 1949; Vol. LXII, No. 3, March, 1954; Vol. LXVI, No. 3, March, 1958 and Vol. LXIX, No. 2, February, 1961. Ireland: *Statistical Abstract*, Table 122 and *Irish Trade Journal and Statistical Bulletin*, Vol. XXXVII, No. 3, September, 1962.

TABLE 4

Based on data given in Statistics of wages, earnings and hours of work, Pr. 840, 1951; Pr. 3989, 1956; Pr. 5235, 1959; Pr. 6774, 1962; and *Irish Trade Journal and Statistical Bulletin*, Vol. XXXVII, No. 3, September, 1962.

TABLE 5

Earnings from *United Nations Statistical Yearbook*, 1961, Table 160. The weights used for averaging were the female populations at the most recent census—*ibid.*, Table 1.

TABLE 6

The wage-rates are taken from *Statistics of Wages, etc.* (see the sources cited for Table 4), while the weights used are the numbers (in thousands) classified in what appear to be comparable occupations in the 1951 census (*Statistical Abstract of Ireland*, 1961, Table 43, pp. 50-54). The pairs of trade classifications and census heading used in each case were as follows:

Skilled men	Unskilled men	Census category
1. Class 1 skilled men	Other male workers	Makers of foods: bacon curers, slaughter-house workers and other skilled workers.
2. Plumbers	Building labourers	Workers in building and contracting.
3. C.I.E. double-deck drivers	Conductors, double-deck	Road transport workers.
4. First operator: Class A House	Fourth operator: Class A House	Persons engaged in entertainment and sport.
5. Smiths	Smith's helpers	Workers in wood and furniture.
6. Qualified chemist	Unqualified assistant	
7. Dyer and cleaner	Dyer and cleaner's assistant	Laundry workers and dry cleaning.
8. Fitter and turner	Engineering labourer	Workers in metals and engineering excluding blacksmiths.
9. Roller man	Labourer	Makers of foods, ex. 1.
10. Semi-skilled worker	Unskilled worker	
11. Engine driver (max)	Station porter	Railway workers.
12. Blacksmiths	Labourers	Blacksmiths.
13. Class 1 workers (male)	Class 4 workers (male)	Textile workers.

TABLE 7

Per capita net output from *Statistical Abstract of Ireland*: 1950, (Pr. 124), Table 88, pp. 73-75 and *Irish Trade Journal and Statistical Bulletin*, Vol. XXXVII, No. 3, September, 1962. Adult male earnings in October of each year: see Table 3 above.

TABLE A

- Line 1:* From *Statistical Abstract* (SA), Table 333, p. 314, and *Irish Trade Journal*. For 1947-52, previous index (based on August 1947=100) linked back. For 1946, this in turn linked back to earlier index based on July 1914=100.
- Lines 2.1, 2.3, 2.5:* Current series (SA, Table 345, p. 323) linked back to previous series based on 1953=100. Index of industrial rates refers to wage-rates in twenty-three industrial occupations.
- Line 3.1:* Annual equivalent of minimum wage in agriculture from Central Statistics Office.
- Line 3.2:* Average earnings from annual *Census of Production* data (SA Table 109, p. 123). Total employment from "labour force" (SA, Table 40, p. 48), minus estimate of working proprietors and self-employed persons (taken as 6,000 throughout) based on 1951 Census data. Employment during 1947-50 estimated by interpolation with the aid of *Census of Production* employment data. Total wages and salaries calculated by multiplying average earnings by estimated total employment.
- Lines 3.3-3.5:* As for 3.2. Self-employed persons in construction assumed to be 2,000 throughout.
- Line 3.6:* Total earnings taken as total non-agricultural wages and salaries (including employers' contributions) shown in national income estimates (SA, Table 243, p. 260) minus estimated total earnings under lines 3.2-3.5. Employment taken as total at work in non-agricultural activity (SA, Table 40) minus total employment under lines 3.2-3.5, with allowance for self-employed persons (65,000) on same basis as 3.2.
- Line 3.7:* Total wages and salaries from national income (SA, Table 243) divided by total employment (see lines 3.2 to 3.5) plus estimated agricultural employment. This taken as total males employed in agriculture other than members of family (SA, Table 75, p. 97) plus 1,000 to allow for female employees on the basis of the 1951 Census (SA, Table 42, p. 49).
- Lines 4.1-4.2:* Average earnings per hour in Transportable goods industries in October—SA, Table 120, p. 136.
- Line 4.3:* Quarterly index for October each year of average earnings per hour in transportable goods industries (SA, Table 121, p. 136). Linked back to previous index from October, 1949.
- Lines 5.1-2:* Transportable goods industries, SA, Table 112, p. 129. Data for 1960-61 from Quarterly Industrial Enquiry: subject to revision.
- Line 5.3:* Volume of net output including turf and changes in stocks (SA, Table 67, p. 91).
- Line 5.4:* Total males engaged in farm work, SA, Table 41, p. 48.
- Line 5.7:* Data provided by the Central Statistics Office.
- Line 6:* Total numbers on the live register, last Saturday in June of each year. SA, Table 171, p. 215.

TABLE B

1. *Per capita output:* Quarterly output of transportable goods industries (see Table A, line 5.1) fitted to annual totals shown in Table A, line 5.2. Divided by index of numbers of persons engaged in industries producing transportable goods: quarters ended March, June, September and December of each year. SA, Table 115, pp. 132-3, and *Irish Trade Journal and Statistical Bulletin*, 1961, data from Quarterly Industrial Enquiry.
2. *Average earnings:* Quarterly index of average weekly earnings in transportable goods industries, SA, Table 121, p. 136 and *Irish Trade Journal*.
3. *Wage push:* 2 divided by 1.
4. *Retail prices:* Cost of living index (all items) SA, Table 333, p. 314, and *Irish Trade Journal*.

TABLE C

(References are to *Annual Abstract of Statistics*, (AA), No. 97, 1960, H.M.S.O., London, 1960, and *Monthly Digest of Statistics* (MDS), No. 201, September, 1962, but many series required reference to the corresponding series in earlier issues of these publications.)

1. *Retail prices:* All items, index of retail prices, AA, Table 355, p. 296 and MDS, Table 156, p. 129. Linked back to previous series (January, 1952=100) from January, 1956 and earlier series (June, 1947=100) from January, 1952. The whole recalculated to 1953=100.
- 2.1 *Wage rates:* Weekly wage-rates of all workers in manufacturing AA, Table 150, p. 126 and MDS, Table 153, p. 125. Linked back to previous series (June, 1947=100) from 1955 back. The whole recalculated to 1953=100.
3. *Annual earnings:* wages and salaries (excluding employers' contributions) for each sector from *National Income and Expenditure*; numbers employed from AA,—see 5.2 below.
- 4.1 *Weekly earnings:* average weekly earnings of all operatives in manufacturing industry in shillings—AA, Table 148, p. 123. 1960-61 calculated from percentage increase in April over April, 1956, in average weekly earnings of all operatives in manufacturing industry, MDS, Table 150, p. 123.
- 4.3 *Hours worked:* average hours worked by all operatives October each year, all manufacturing industries, AA, Table 149, p. 124. 1960-61 calculated from percentage change in hours worked by adult males in manufacturing industries between October 1959 and October, 1960 and 1961 respectively—MDS, Table 151, p. 123.

- 5.1 *Production index*: index of industrial production: total manufacturing industries, AA, Table 155, p. 130, and MDS, Table 42, p. 40. Current series linked to previous series (1954=100) from 1958 back, and this to earlier series (1958=100) from 1950 back. The whole recalculated on 1953=100.
- 5.2 *Employment index*: total employed in manufacturing in June of each year, AA, Table 132, p. 104 and MDS, Table 13, p. 12. Present series, based on 1958 S.I.C. linked with previous series (1948 S.I.C.) from 1959 back. The whole recalculated on 1953=100.

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