Some Characteristics of Italian Economic Development, 1950-1955

1. Introduction.

It has frequently been remarked that the rapid expansion of the national product and the high proportion of total resources devoted to investment purposes, during the last five or six years in Italy, have been accompanied by what appears to be a disappointingly small improvement in the level of employment, and that, despite the special measures taken to encourage industrial development in the Mezzogiorno, where the dual problem of unemployment and excessively low incomes is at its worst, progress in that direction also has been slow.

Since it is on the continuance of high rates of income growth and of investment that the « Vanoni Plan » (1) largely pins its faith as the means of overcoming unemployment and the extremes of poverty within a decade, it seems opportune to take — in so far as the available material allows — a more detailed look at what has actually happened during the past five years or, roughly speaking, since the Italian economy passed out of the stage of « post-war reconstruction » into that of « development ». What kind of development process has this been? And does the answer to this question provide a pointer to changes in direction which the process would need to make in the future in order for the aims of the « Vanoni Plan » to be realised.

(1) Elements of a Programme for Raising Income and Employment Levels in Italy over the Ten Years 1955-64 (Provisional Draft), January 1955.

2. Factors Affecting the Rate of Income Growth.

The official figures for the gross national product at market prices in each of the years 1950 to 1955 are shown in Table 1 (2). It is estimated that over this period the gross product increased in real terms at an average annual rate of over 5 per cent. The rate of growth fluctuated considerably from year to year. The unevenness was, however, mostly due to the large proportion of the total national product which is accounted for by agriculture (see Table 2), and the consequent strong influence of harvest variations (3).

The upward movement in industrial output (excluding construction) taken by itself proceeded, according to the official index, at an average annual rate of some 10 per cent; and the movement (corrected for normal seasonal variations) was uninterrupted by such temporary downturns as were experienced in a number of other countries. Concerning this measure of industrial expansion, however, it should be remarked that the official index is inevitably based on data relating to a limited part of total industrial activity. It relates essentially to the activities which are carried on in medium- and large-scale units of production, and is not necessarily representative of the movement in those sectors — forming

(2) An analysis by industry divisions of the gross product (at factor cost) of the private sector follows in Tables 2 and 3.

(3) The real percentage rates of growth from one year to the next, calculated by valuing 1951 income at 1950 prices, 1952 income at 1951 prices, and so on, were estimated as follows: 1950-51 6.0; 1951-52 3.0; 1952-53 7.0; 1953-54 4.6; 1954-55 7.2. (Cf. *Relazione generale sulla situazione economica del Paese*, 1954 and 1955).

GROSS NATIONAL PRODUCT AND EXPENDITURE AT MARKET PRICES
(Milliards of lire)

TABLE 1

	1950	1951	1952	1953	1954	1955
1. Total consumption expenditure	6,817	7,799	8,509	9,149	9,576	10,213
2. Gross capital formation	1,643	2,058	2,110	2,284	2,489	2,925
3. Total domestic expenditure	8,460	9,857	10,619	11,433	12,065	13,138
4. Exports of goods and services, and income received from abroad (1)	963	1,279	1,160	1,337	1,433	1,620
5. *Less* Imports of goods and services, and income paid abroad (1)	1,033	1,437	1,569	1,677	1,678	1,856
6. Gross national expenditure (=gross national product)	8,390	9,699	10,210	11,093	11,820	12,902
7. Deficit in balance of payments (2) (=5−4)	70	158	409	340	245	236
8. Total resources available for internal use (=6+7) (=total domestic expenditure)	8,460	9,857	10,619	11,433	12,065	13,138
9. Ratio of gross investment to gross national product (per cent)	*19.6*	*21.2*	*20.7*	*20.6*	*21.1*	*22.7*
10. Ratio of gross investment to total resources (per cent)	*19.4*	*20.9*	*19.9*	*20.0*	*20.6*	*22.3*
11. Ratio of item 7 to item 6 (per cent)	.8	1.6	4.0	3.1	2.1	1.8

(1) Includes income on investments, and remittances of temporary emigrants. Does not include gifts, either governmental or private.

(2) Defined in accordance with the description of items 4 and 5.

Calculated in accordance with the OEEC scheme, the gross national product is higher (for the reason given in the footnote to Table 2 below). The resultant figures, with the corresponding investment ratios, are as follows:

Gross National Product at Market Prices, According to OEEC Scheme

	1950	1951	1952	1953	1954	1955
I. Gross national product	8,618	10,009	10,633	11,616	12,409	13,529
II. Total resources available for internal use	8,688	10,167	11,042	11,956	12,654	13,765
III. Investment	1,643	2,058	2,110	2,284	2,489	2,925
Ratio III÷I (per cent)	19.1	20.6	19.8	19.7	20.1	21.6
Ratio III÷II (per cent)	18.9	20.2	19.1	19.1	19.7	21.2

a large part of the total industrial economy — which are predominantly the province of very small firms (4). Indeed, the presence in the Italian economy of a large number of tiny producing units and — what is partly a result of this — the lack of comprehensive fiscal data on incomes, inevitably makes the possible margin of error in Italian national income statistics as a whole a good deal larger than it is likely to be in some other Western countries.

It has been commented in the « Vanoni Plan » that an average rate of growth of 5 per cent in the gross national product is a high one. The rate appears high both in relation to earlier Italian experience, and — even allowing for the difficulties of making precise international comparisons — in relation to the rates registered over the last six years in other Western countries, with the exception

(4) Cf. p. 169 below.

GROSS PRODUCT OF PRIVATE SECTOR AT FACTOR COST BY INDUSTRY OF ORIGIN
(Milliards of lire)

TABLE 2

	1950	1951	1952	1953	1954	1955
1. Agriculture, forestry and fishing	2,234	2,332	2,352	2,678	2,666	2,801
2. Mining	58	97	112	116	132	167
3. Manufacturing	2,438	3,130	3,139	3,335	3,536	3,839
4. Building	234	289	404	531	628	738
5. Electricity, gas and water	180	205	231	255	274	291
6. Transport and communication	479	534	596	643	713	799
7. Distributive trades and miscellaneous services	1,302	1,419	1,558	1,340	1,443	1,546
8. Insurance, banking and finance				321	351	391
9. Ownership of buildings	76	118	148	160	175	201
10. Total	7,001	8,124	8,540	9,379	9,918	10,773
11. Adjustments	427	515	656	779	872	952
(a) for duplications within the private sector	199	205	233	256	283	325
(b) for « intermediate » services rendered by the public authorities to the private sector (1)	228	310	423	523	589	627
12. Adjusted total gross product	6,574	7,609	7,884	8,600	9,046	9,821

(1) By contrast with the schemes used by some other countries and also with that proposed by the OEEC, the Italian national income statistics treat only part of the services rendered by the public authorities as « final ». They distinguish, that is to say, between the services which are « final » in the sense that they directly benefit the citizens, and the services that are « intermediate » in the sense that they benefit, or are used by the various productive sectors. The second group figures among the deductions that have to be made from the value of total output of the private sector in order to obtain the « value added » of that sector.

of Western Germany. And, in the case of the latter, the exceptionally high rate achieved was partly a reflection of the absorption, into the productive system, of additional workers on a scale which is unfortunately far from having been reached in Italy.

The « Plan » drew attention to a number of special factors — of a non-recurrent nature — from which the Italian economy had benefited over the preceding five years, and which help to explain the high rate of income growth. First, both industry and agriculture were catching up with a backlog of technical improvements of which the adoption had been delayed by the war and by the early post-war difficulties; and they were thus able to achieve rates of increase in productivity that were above normal.

Secondly, substantial margins of excess capacity existed in certain lines at the beginning of the period, and part of the subsequent expansion of output came about through the gradual bringing into use of these reserves of plant and equipment.

A third factor was the impact effect of the liberalisation of imports — begun in 1949 and intensified in the two following years — which gave Italian industry access to sources of supply of certain goods (especially of machinery and equipment) from which it had previously been cut off by quantitative restrictions.

All of these factors had the effect of allowing output to expand more than would normally be possible on the basis of a given level of capital formation. All of them are by now more or less fully integrated into the economic system, and cannot be expected to exert the same effect on the future rate of income growth as they did on the past rate.

At least one other factor should be kept in mind as likely to help keep the future statistical rate of income growth in Italy high. It concerns the effect on the national income

TABLE 3

GROSS PRODUCT AT FACTOR COST OF MANUFACTURING INDUSTRIES
(Milliards of lire)

	1953	1954	1955
1. Food, drink and tobacco	632	659	690
2. Textiles	383	389	359
3. Clothing, furnishings, leather, etc.	137	146	134
4. Wood	172	167	177
5. Paper	53	55	62
6. Rubber	55	59	59
7. Metal manufacture	246	276	350
8. Engineering	857	896	979
9. Processing of non-metalliferous minerals	141	150	177
10. Chemicals and allied trades	470	542	636
11. Printing, gramophones, films, and cinematographic, and miscellaneous	189	197	216
12. Total	3,335	3,536	3,839

statistics of the possible decline in the importance of « auto-consumption » in the agricultural sector.

Agricultural output which is consumed by the producers themselves is counted in the gross national product at its value at the farm rather than — as has sometimes been recommended by experts in national income accounting — at the retail price for which it would sell in, say, the nearest market centre. A rough estimate indicates that « auto-consumption » still represented in 1955 close on 30 per cent of total saleable agricultural output in Italy. It will become a declining proportion as workers now engaged in agriculture move away to other sectors (industrial or tertiary). An this shift will lead to an expansion of tertiary activities (transport, and the distributive trades) which represents a « fictitious » element in income growth, in the sense that it causes the national product

TABLE 4

PRICE INDICES, ANNUAL AVERAGES
(1938=1)

	1950	1951	1952	1953	1954	1955	Increase 1950-1955 (per cent)
I. Wholesale prices:							
1. General index (ISTAT)	49.0	55.8	52.7	52.5	52.9	53.2	8.5
2. Food products (ISTAT)	52.3	55.2	54.0	56.7	57.7	58.6	12.0
3. (a) Industrial materials and products (1) (2)	49.4	62.3	56.0	51.4	50.9	50.9	3.0
(b) Industrial materials (3)	55.4	72.5	69.0	60.5	57.2	59.7	7.8
(c) Industrial products (3) (finished and semifinished)	47.8	59.7	52.8	49.2	49.2	48.7	1.9
4. Consumers' goods (1)	51.6	59.6	54.4	55.3	56.0	56.0	8.5
5. Producers' goods (1)							
(a) Investment goods (4)	54.7	68.1	70.3	62.4	60.0	63.7	16.4
(b) Goods for immediate use (5)	40.5	49.1	48.0	44.5	45.0	46.4	14.6
II. Cost of living (ISTAT):							
1. General index	48.5	53.3	55.5	56.5	58.1	59.7	23.1
2. Food	58.8	62.8	65.4	66.8	68.7	70.6	20.1
3. Rent	7.3	12.3	15.6	17.2	18.3	20.9	186.3
III. *Ratio of wholesale food prices to industrial prices 1.2.÷1.3.* (a)	*1.06*	*0.89*	*0.96*	*1.10*	*1.13*	*1.15*	
IV. *Ratio of cost of living (food) to wholesale food prices*	*1.12*	*1.14*	*1.21*	*1.18*	*1.19*	*1.20*	

(1) Elaboration by Bank of Italy of ISTAT wholesale price indices.
(2) All commodities from general index except food products, both raw and processed.
(3) Sub-group of (a).
(4) Metallurgical and engineering products, bricks, cement and other constructional materials.
(5) Chemical materials and products, rubber and fuel.

to be inflated by the costs of marketing produce which previously required no marketing.

Even if the extent to which this factor helped swell the rate of growth in the Italian national product over the past few years was small, it might become more substantial in the future if — in accordance with the aims of the « Vanoni Plan » itself (5) — opportunities for employment in non-agricultural activities were to expand sufficiently to draw large numbers of the « under-employed » off the farms. And it would be one reason for expecting the national income figures to continue showing a relatively high rate of growth, and a reason for supposing that the *statistical* rate might have to be somewhat higher than the 5 per cent assumed by the « Vanoni Plan » in order for the desired *real* rate to be achieved.

3. The Pattern of Investment.

The presumption that it will be possible to prolong the average « real » rate of income growth of 5 per cent per annum over the future occupies a key position in the « Vanoni Plan ». And a primary concern of the Plan is that of securing a future investment level sufficient to achieve this aim, on the presumption that, with the exhaustion of the special factors referred to above, the level required would have to be higher than in the past (6). Our purpose here is not to discuss whether the required *aggregate* volume of investment can in fact be reached, but to call attention — with illustrations from the experience of the recent past — to factors which may influence the *pattern* of investment, and particularly of industrial investment, and which therefore help to determine the employment effects of any given aggregate volume.

The statistics (Table 1) for the five years 1950 to 1955 show gross capital formation as having represented from 20 to 23 per cent of the gross national product (7) or from 19 to 22 per cent of the total resources available for internal use inclusive of the contribution made by the deficit in the balance of payments (8).

Between 1950 and 1955 gross *fixed* capital formation, taken alone, rose in money terms by close on 80 per cent. The increase in real terms was perhaps of the order of 55 per cent (9), equivalent to an average annual rate of growth of about 10 per cent.

One of the questions to which it would be important to be able to give an answer is why this comparatively high rate of investment did not so far succeed in making much of a dent in the unemployment problem.

The effect which the increase in total fixed capital formation could be expected to have in creating permanent additions to employment and income naturally depends on the qualitative composition of the total. A good part (see Table 5) did in fact take the form of housing (partly state-aided), public works and land reclamation projects, which either have no direct effect in increasing the productive capacity of the economy or else begin to show significant effects only in the much longer run. In 1955 housing investment alone accounted for about 26 per cent of gross fixed investment, and housing plus public works (10) for 35 per cent. The proportion taken by these two categories in 1955 was thus substantially above the comparable figure (27 per cent) for 1950. By contrast, industry,

(5) The « Plan » envisages an exodus from agriculture, within the decade 1955-64, of up to 900,000 workers (at present unemployed or « under-employed »).

(6) The ratio of gross investment to total resources available would, the « Plan » assumes, rise to 25 per cent by 1964.

(7) These proportions again appear high in comparison with the figures, in the neighbourhood of 15 per cent, found in most Western countries, even though they fall considerably below the levels reached in Western Germany.

(8) The contribution from this source (equivalent, insofar as it was not covered by foreign grants, to dissaving in the form of drawings on foreign assets or of additions to foreign indebtedness) was particularly important in 1952 and 1953 when it reached 4 and 3 per cent respectively of the gross national product (see Table 1).

(9) The price-level of « investment goods » rose (see Table 4) by an estimated 16 per cent.

(10) Some of these public works expenditures are probably to be considered as more in the nature of unemployment assistance than of investment in any strict sense.

which had absorbed from 37 to 38 per cent of the total in each of the three years 1950-1952, took only 33 per cent in 1953, and 31 per cent in each of the two years 1954 and 1955.

TABLE 5

GROSS CAPITAL FORMATION
AT MARKET PRICES BY SECTOR
(Milliards of lire)

	1950	1951	1952	1953	1954	1955
1. Agriculture . . .	180	265	270	310	337	370
2. Industry	570	700	780	740	750	846
3. Transport and communication . . .	270	270	310	358	414	422
4. Housing	280	320	409	466	579	701
5. Public works (1) .	130	165	231	260	242	250
6. Other	90	115	120	120	132	146
7. Total fixed capital formation	1,520	1,835	2,120	2,254	2,454	2,735
8. Movement in stocks	+123	+223	— 10	+ 30	+ 35	+190
9. Total gross capital formation	1,643	2,058	2,110	2,284	2,489	2,925

(1) Excludes that part of public construction work which relates to the other sectors indicated, such as work carried out on land reclamation and improvement (which is entered under « agriculture »), work relating to the permanent way of railways (which is included under « transport »), and housing built by, or with financial aid from the public authorities (which is included under « housing »).

Source: Research Division of the Bank of Italy.

Even though the proportion of total gross investment taken by industry declined between the beginning and the end of the period, the absolute expansion in gross industrial capital formation was considerable. As near as we can tell, the growth in real terms between 1950 and 1955 must have been not far short of 30 per cent.

In order to explain why the employment effects were so small, we should need to make a further qualitative distinction within the investment total. In an economy where the level of employment is — for structural reasons — far short of full, the growth in productive capacity may be more or less concentrated in either of two directions, corresponding to two alternative types of development process:

(a) It may provide the additional plant and equipment required to absorb into productive employment the unemployed along with the current increment in the labour force; i.e. it may serve to broaden the employment base.

(b) It may provide the already employed workers with on the average more, or more elaborate equipment; i.e. it may serve to increase the « capital-depth » of a constant (or even declining) employment base.

This second process may in turn manifest itself in two different ways. It may take the form of the installation of increasingly elaborate equipment, in the existing plants. And/or it may take the form of a growth in the relative weight, within the total complex of industrial activities, of the more capital-intensive as opposed to the less capital-intensive sectors.

The available statistical material on industrial capital formation is too limited to allow any direct estimates to be made of the quantitative importance, in recent years, of these different forms of investment. The official data are at present confined to the annual totals for industry as a whole, no attempt being made to divide them up between individual industries or industry groups. It is thus impossible to estimate how the investment totals were distributed between the more capital-intensive and the less capital-intensive industries respectively. And, although a certain amount of fragmentary information drawn from company reports and other sources indicates that, in individual instances, a large part of the investment of the period under review went into modernising and re-equipping existing plants rather than into establishing or equipping new plants or plant extensions, no comprehensive statistical measure of the relevant proportions is at present available.

Direct evidence, in the form of actual investment figures, showing which type of investment process — the « deepening » or the « broadening » type — predominated during the period under review is thus lacking. Indirect evidence must therefore be sought in the employment and output statistics.

4. Changes in the Employment Level.

Under present conditions in Italy almost any statistical measurement of the volume of unemployment contains an element of arbitrariness, owing to the difficulty of drawing a clear demarcation line between unemployment and « under-employment », or between those above the « poverty-line » and those below. One reason for this is that in a country where family allegiances are strong, and the small, family-business is still preponderant in large sectors of the economy, the total volume of « unemployment » tends to get spread over large numbers of persons. The movements up and down in the figures of the number of persons registered as unemployed at the Labour Exchanges are, for this reason alone, an unreliable guide to the deterioration or improvement of employment conditions.

These figures are, moreover, vitiated by errors of both under- and over-registration. On the one hand, they inevitably omit large numbers of unemployed who fail, for various reasons, to register. On the other hand, the technical impossibility of keeping a continuous check over the genuineness of the registrations means that some of them are likely to be « illegal », i.e. to be made by employed persons who seek to share in benefits which are allocated from time to time to the unemployed. For these and similar reasons, weekly or monthly fluctuations in the figures for registered unemployment have small significance.

The annual averages of the monthly figures show an upward, rather than a downward trend over the five years (see Table 6). Even this fact, however, as has already been observed in the « Vanoni Plan », does not necessarily signify that the growth in employment — defined in a very broad sense — failed even to keep pace with the natural increment in the labour force net of emigration. It may merely mean that, increasing numbers of the « under-employed » in agriculture, in the small handicraft industries and in commerce, were actively seeking full-time employment and more adequate levels of earnings.

TABLE 6

UNEMPLOYED REGISTERING AT LABOUR EXCHANGES (1)
(Thousands)

	Class I (2)	Class II (3)	Class III (4)	Total (I + II + III)	Class IV (5)	Class V (6)
1950	1,190.1	424.8	156.1	1,771.0	31.5	57.6
1951	1,212.4	508.7	135.7	1,856.8	30.9	50.6
1952	1,260.9	588.8	132.4	1,982.1	39.4	51.9
1953	1,282.0	664.6	133.1	2,079.6	47.8	53.8
1954	1,304.8	653.9	136.6	2,095.3	54.9	47.1
1955	1,303.3	610.1	138.4	2,051.8	59.7	49.5

(1) Annual averages of end-of-month data.
(2) Formerly employed persons.
(3) Young persons below age of 21 and others in search of first job or released from armed forces.
(4) Women engaged in domestic duties in the home and in search of first job.
(5) Pensioners in search of work.
(6) Employed persons seeking change of job.

Source: *Relazione generale sulla situazione economica del Paese* (Annual).

Note: In this, and subsequents tables discrepancies between totals and the sums of constituent items are due to rounding.

On the other hand, as will emerge more clarly from what follows, there is no sure indication that, over industry and commerce as a whole, the volume of « under-employment », or the number of people working at average rates of productivity and real income which are below the « poverty-line », actually decreased over the period.

For a significant measure of the extent to which the Italian economy moved closer to, or further away from a situation of « full employment », we should need, for the reasons given, to look at the employment, rather than the unemployment figures, and — more exactly — to look at the figures for those employed at levels of earnings above a certain

minimum, rather than at the figures for employment in the broadest sense of all those engaged in « gainful » activity no matter what the level of remuneration. Only fragmentary information is available, however, even concerning the movement in employment in this broad sense.

The only continuous series of employment figures obtained by direct investigation, and doubtless the most accurate series for the area — admittedly a limited one — which they cover, are the industrial employment figures collected at monthly intervals by the Ministry of Labour.

The Ministry's sample has long been suspected of being unrepresentative not only of the absolute level of aggregate industrial employment, but even of its percentage movement. The reasons for this are several: First, the sample omits many sectors of manufacturing industry, as well as construction, gas and water. Secondly, it does not register employment of those outside the category of « workers ». Thirdly, it takes no account of establishments employing less than 10 workers, thus almost automatically excluding the large zone of Italian industry which is predominantly in the hands of very small units (11) frequently of the artisan type. Even the percentage growth in industrial employment might thus be underestimated by these figures in certain circumstances, e.g. if the industries not covered had expanded more rapidly than those covered; or if the number of employees in the self-employed, and supervisory and clerical categories had risen more than in proportion to the number of « workers » (12); or, finally, if the very small establishments had been growing in numbers and in employment faster than the larger ones (13).

(11) Cf. Table 8 below.

(12) This might happen either within individual sectors or, over industry as a whole, by virtue of a change in the relative weight of sectors with different proportions.

(13) An increase, within an establishment, of the number of workers from 9 to 10 (or a decrease from 10 to 9) may, of course, cause some exaggeration in the movement of employment by pushing the whole establishment within (or without) the employment figures.

It seems opportune to analyse in some detail the nature, and extent of the zone of industry which the Ministry of Labour does cover, and for which the data may probably be regarded as giving a reasonably close approximation, at least to the *percentage movement* in employment from year to year. This may be done by making a sector-wise comparison between the Ministry's figures for the month of November 1951 and the presumably more or less complete data registered by the Industrial and Commercial Census for approximately the same date (5th November, 1951).

The Census also provides the only fairly complete instantaneous picture recently taken of employment in non-agricultural activities exclusive of the public administration, the armed forces and the professions. The employment registered in the various branches of activity covered (i.e. industry, transport, commerce, finance and services) is shown in Table 7. Employment in all these branches combined totalled 6.8 millions. This figure is probably on the low side, for at least two reasons: First, in the month of November, employment is seasonally low in the important sector of construction, as well as in some sectors of the food industry, so that the Census figures may fall short of those reached, in the same year, at dates of maximum, or average activity. Secondly, the figure for employment in construction seems to be very low, even for the month of November, and must probably be regarded as having failed to register a good part of the construction work carried on in « labour and reafforestation camps » (14).

In industry taken by itself, the Census figures for employment *in all grades* (managerial staff, self-employed and family associates, supervisory and clerical staff, and workers including apprentices) reached a total of 4.2 millions. The Ministry of Labour figures for the month of November 1951 registered employment of *workers* totalling

(14) Cf. *Informazioni SVIMEZ*, May 23, 1956, p. 455.

1.7 million. They thus appear to have covered at that date just over 40 per cent of the total industrial employment *in all grades* as registered by the Census. Related to the Census figure for employment of *workers* (including apprentices) taken alone the coverage by the Ministry was of course higher — about 57 per cent (15).

TABLE 7

INDUSTRIAL AND COMMERCIAL EMPLOYMENT
NOVEMBER 1951
(Thousands of persons employed)

1. Industry	4,241.9
2. Transport and communication	579.3
3. Commerce (1)	1,589.6
4. Insurance, banking and finance	162.4
5. Miscellaneous activities and services (2)	208.0
6. Total	6,781.1

(1) Includes wholesale and retail trade; hotels and restaurants and analogous establishments; and auxiliary commercial activities. Wholesale and retail trade together accounted for 1,202.0.

(2) Includes: entertainments and analogous activities; services relating to personal care; cleaning services; health services provided by Public Administration and by various social institutions (*e. g.* hospitals, pharmacies, etc.).

Source: *III Censimento generale dell'industria e del commercio*, 5th November 1951.

The unit adopted as the basis of classification of activities is here the « local unit », and not the firm. Where a unit exercises more than one activity, it is treated as belonging to that branch of activity which is the predominant one. The same holds true for the sector divisions used in the tables that follow.

In Table 8 are shown the two sets of industrial employment figures classified by sector. An analysis of the two sets has suggested a division of the various sectors into two groups.

Group I, taken as a whole, may be regarded as constituting the zone of Italian industry which — at the Census date — was well covered by the Ministry of Labour. For each sector within this zone, the Ministry's figures (for workers) represented a high percentage not merely of the Census figure for workers only, but also of the Census figure for employees of all grades. Group II, by contrast, represents the zone of industry over which the coverage by the Ministry of Labour was low, both for the zone as a whole and for each sector within it.

Any such grouping contains, of course, an element of arbitrariness concerning where the line is to be drawn, and as to how finely broad industrial sectors should be divided into narrower sub-sectors. We have introduced one such sub-division. We have, that is to say, divided up the Census figures for « engineering » so as to exclude from Group I the whole of the category classified as *officine*, on the grounds that these consist of odd-job, and repair shops lying entirely outside the part of engineering covered by the Ministry of Labour, and falling more appropriately under Group II. In some cases, also, the individual sector divisions are only approximately co-extensive as between the two sets of data, owing to discrepancies in the system of industry classification (16).

The difference between the ratios shown by the two groups is, however, sharp enough to make the division chosen appear a significant one. And the inexactitude due to the lack of perfect homogeneity of the sub-groups as between the two sets of data, though not negligible, is probably small (17).

Within Group I, the ratio of the Ministry of Labour figure *for workers* to the Census figure *for all employees* in the individual sectors ranges from a minimum of 40 to a

(15) This ratio may be too high if the Census figure for industrial employment in some sectors (especially construction) is recognised, for the reasons given, as being too low. A very small additional exaggeration is caused by the exclusion from the Census figures of « repair shops » belonging to the railways (see footnote 17 below).

(16) One such difficulty — within Group I — relates to the classification of the item « artificial and synthetic textile fibres ». The production (chemical stage) of these is treated as part of the chemical industry by the Census, and as part of the textile industry by the Ministry.

(17) In one case — that of « engineering I » — the lack of homogeneity in the method of classification cuts across the division between « industry » and « transport ». Repair shops for railway equipment are listed by the Ministry under « industry » (in the sub-sector « vehicles ») while those belonging to the railways are listed by the Census under « transport ». The effect of this discrepancy is slightly to overstate the true ratio of the Ministry's figures to the Census figures in « Group I - engineering » and, to a smaller extent, in Group I as a whole.

TABLE 8

INDUSTRIAL EMPLOYMENT: CENSUS AND MINISTRY OF LABOUR FIGURES, NOVEMBER 1951

	Census		Ministry of Labour	Ratio III/II	Ratio III/I	Census		
	I Employees	II Workers (1)	III Workers	(per cent)	(per cent)	Per cent of employees working in small units (2)	Per cent of employees (3) working in artisan units	Ratio of «workers» to employees (per cent)
	(Thousands)							
GROUP I								
A. Mining	118.7	101.6	60.4	59.4	50.9	15.8	Nil	85.6
B. *Manufacturing*:								
1. Textiles	650.9	571.7	529.6	(b)	(b)	8.7	6.4	87.8
2. Paper (and paper-working)	63.4	55.4	37.0	66.8	58.3	8.2	3.0	87.2
3. Printing and publishing	74.5	51.4	35.1	68.3	47.1	26.8	12.8	69.0
4. Leather (and skins)	38.6	26.9	15.3	56.9	39.6	34.1	24.9	69.7
5. Rubber	40.1	32.4	32.0	98.8	79.8	8.6	5.9	80.8
6. Chemicals	148.7	111.7	110.7	(b)	(b)	10.5	3.7	75.1
7. Petroleum and coal derivates	18.7	12.8				3.9	0.7	68.4
8. Cellulose and artificial and synthetic fibres for textiles	32.4	29.4	(a)			Nil	Nil	91.0
9. Non-metalliferous minerals	206.7	168.7	105.5	62.5	51.0	20.2	10.7	81.6
10. Metallurgical	145.1	128.2	100.6	78.5	69.3	1.1	0.4	88.4
11. Engineering I (4)	669.8	552.0	516.5	93.6 (84.8)	77.1 (75.9)	7.7	3.0	82.4
Total B (4)	2,088.9	1,740.5	1,482.3	85.2 (82.4)	71.0 (70.5)	9.0	5.4	83.3
C. Electricity	67.1	44.2	34.9	79.0	52.0	18.9	Nil	65.9
TOTAL GROUP I (4)	2,274.6	1,886.4	1,577.6	83.5 (81.1)	69.4 (68.9)	9.6	5.0	82.9
GROUP II								
B. *Manufacturing*:								
1. Food and allied	360.1	209.5	84.2	40.2	23.4	51.3	22.3	58.2
2. Tobacco	52.5	48.8	—	—	—	21.3	Nil	92.9
3. Clothing and furnishings	411.5	142.4	36.3	25.5	8.8	76.1	73.8	34.6
4. Wood, furniture, etc.	293.6	128.4	21.7	16.9	7.4	69.3	56.1	43.7
5. Engineering II	227.1	78.3	—	—	—	80.7	69.3	34.5
6. Photo-phono-cinematographic	11.1	2.5	1.5	60.0	13.5	81.2	67.0	22.5
7. Miscellaneous manufactures	53.6	43.3	—	—	—	18.2	9.7	80.8
Total B	1,409.4	653.1	143.8	22.0	10.2	64.3	51.2	46.3
C. Water	11.8	7.6	—	—	—	48.0	Nil	64.4
Gas	14.1	9.9	—	—	—	3.4	Nil	70.2
D. Construction	532.1	457.8	—	—	—	18.0	5.8	86.0
TOTAL GROUP II	1,967.3	1,128.5	143.8	12.7	7.3	51.6	38.1	57.4
TOTAL GROUP II (excl. construction)	1,435.2	670.7	143.8	21.4	10.0	63.6	50.1	46.7
Total Groups I and II (4)	4,241.9	3,014.9	1,721.4	57.1 (56.5)	40.6 (40.2)	28.1	20.4	71.1
Total Groups I and II (excl. construction) (4)	3,709.8	2,557.0	1,721.4	67.3 (66.2)	46.4 (46.0)	29.5	22.4	68.9
Total manufacturing industries only (4)	3,498.2	2,393.6	1,626.1	67.9 (66.9)	46.5 (46.0)	30.1	23.8	68.4

(1) Includes: *operai e manovali*; *sorveglianti, custodi, addetti ai servizi interni*; *apprendisti*.

(2) Represents ratio of employees working in « operating » establishments with 10 or fewer employees to total of all employees in « operating » establishments. The denominator, since it excludes « administrative » establishments, is not identical with the figure of Column I.

(3) The total number of employees is here taken inclusive of those in « administrative » establishments, *i.e.* is identical with the figure given in Column I.

(4) The entire item « railway and tramway rolling stock » in the Census returns accounted for 27.9 thousand employees, of whom 23.0 thousand were « workers ». And the entire item « railway equipment construction and repair shops » in the Ministry of Labour figures accounted for 29.0 thousand workers. The exclusion of the whole item in each case from « engineering I » brings the affected ratios down to the figures shown in brackets.

(a) Cf. footnote 16 above.

(b) For « chemicals and allied trades » (6+7+8) and « textiles » taken together the percentages were 88.2 (for workers to all employees) and 75.3 (for workers to workers).

maximum of 80 per cent; and for the group as a whole the ratio is nearly 70 per cent. Within Group II, the individual sector ratios range from nil to 23 per cent. Construction (which in the Census data accounted for over half a million employees), since it is not covered at all by the Ministry, is of course a heavy item helping to make the average ratio low [7 per cent (18)] in Group II taken as a whole. Even if the comparison is confined to the manufacturing sectors alone, however, those included under Group I are together covered to the extent of some 70 per cent by the Ministry, whereas those in Group II are covered only to the extent of 10 per cent.

The relative size, in terms of total employment, of the two industrial groups — at the Census date — was nearly 2.3 millions for Group I, as against nearly 2.0 millions for Group II. *The grouping thus divided Italian industry roughly into two halves — in terms of employment.*

The primary criterion followed in grouping the sectors in the manner of Table 8 was that of determining what part, and how large a part of industry might be considered as fairly well covered — at the Census date — by the Ministry of Labour data on employment. Certain further characteristics on which the degree of coverage partly depends, and which are again derived from the Census figures, are shown in the last three columns of the same table. Broadly speaking the sectors in Group I show the following characteristics: First, a small proportion of total employees is attached to very small establishments (with ten or fewer employees). Secondly — what is in most cases partly the same thing — a small proportion of the total employees is attached to units of the artisan type. Thirdly, the proportion of workers to total employees in all grades is high. In Group II, on the other hand, it is generally true — though there are several important exceptions relating to some of the sectors [construction, tobacco, miscellaneous manufactures (19) and gas (20)] which the Ministry does not cover at all — that the proportion of total employees attached to very small establishments is high, and that the proportion attached to artisan units (21) is also high. And partly as a consequence of the latter feature, which implies a high proportion of persons in the self-employed and family associates category (22), the proportion of workers to total employees is — again with certain exceptions in the sectors not covered at all by the Ministry — relatively low.

The analysis of the two sets of figures makes it appear highly probable that the percentage movement in the Ministry of Labour's monthly data for employment of workers gives a fair approximation to that in total employment in the zone of industry which has been described as Group I, and which comprises most of the industries that are run predominantly on the basis of medium- and large-scale units. The Ministry's figures would be unlikely seriously to understate the actual percentage growth of employment in this zone, *unless*: (a) in the larger establishments the ratio of employees in the supervisory and clerical grades to those classified as «workers» had substantially increased; and/or (b) the proportion of very small, or artisan establishments had appreciably increased. Some movement of the first kind may quite well have taken place during the last few years, in consequence partly of the introduction of the most modern methods of factory organisation, increased mechanisation, etc. It is also possible that there was some movement of the second kind, due perhaps to the increased « putting out » of certain jobs by the larger

(18) Or still less if allowance is made for the fact that the figure for construction is too low.

(19) These comprise: electric wiring material; electric lighting equipment; musical instruments; articles made of plastics; other articles not elsewhere classified.

(20) « Gas » in the Census includes: (a) « production » as well as « distribution of coal gas »; and (b) « transport and distribution of natural gas by gas ducts ». The « production » of natural gas is classified under « mining ».

(21) Very few artisan units employed more than 10 persons according to the Census.

(22) Cf. Table 20 below.

complexes to units of the artisan type, where labour was cheaper. It seems improbable, however, that the relevant proportions can have changed so sharply as to make an appreciable difference to the percentage increase in employment in the first zone.

For the second zone — *accounting in 1951 for not far from half of total industrial employment*, and largely consisting of industries which are predominantly in the hands of artisan, and other very small producing units — the Ministry of Labour figures cannot be regarded as giving any reliable clue to the measure in which employment expanded.

ESTIMATES FROM VARIOUS SOURCES OF MOVEMENT IN EMPLOYMENT — TABLE 9

	1950	1951	1952	1953	1954	1955
I. *Ministry of Labour*:						
A. All industrial sectors covered:						
1. No. of workers ('000)	1,722.3	1,738.7	1,733.6	1,737.6	1,758.2	1,774.5
2. Index	*100*	*101.0*	*100.7*	*100.9*	*102.1*	*103.0*
B. Group I sectors						
1. No. of workers ('000)	1,571.9	1,587.2	1,579.6	1,580.6	1,594.1	1,600.5
2. Index	*100*	*101.0*	*100.5*	*100.5*	*101.4*	*101.8*
II. *INAIL* (1):						
A. Industry (excl. of construction):						
1. No. of workers ('000)	2,301.4	2,390.4	2,422.0	2,507.2	2,634.5	
2. Index	*100*	*103.9*	*105.2*	*108.9*	*114.5*	
B. Construction:						
1. No. of workers ('000)	506.5	524.1	605.1	692.7	743.4	
2. Index	*100*	*103.5*	*119.5*	*136.8*	*146.8*	
C. Transport (2)						
1. No. of workers ('000)	181.3	203.7	216.1	230.5	263.7	
2. Index	*100*	*112.4*	*119.2*	*127.1*	*145.4*	
D. Total A+B+C:						
1. No. of workers ('000)	2,989.2	3,118.2	3,243.2	3,430.3	3,641.6	
2. Index	*100*	*104.3*	*108.5*	*114.8*	*121.8*	
3. Variation ('000)		+ 129.0	+ 125.0	+ 187.1	+ 211.3	
III. *Relazione economica* (1955):						
Employment in all non-agricultural activities:						
Variation ('000)				+ 280	+ 300	+ 300
IV. *ISTAT sample investigation* (3):						
Employment in all activities:						
('000) (4)					17,353	18,299
Variation ('000)						+ 946

(1) Number of « man-years » insured.
(2) Excluded are groups (State Railways, merchant marine, post and telegraph) which are insured by bodies other than INAIL.
(3) The sample covered, in 1954, 64,335 families with 250,046 members, selected at random from 635 *comuni*, and in 1955, 68,861 families (largely the same as those of the previous year) with 263,486 members selected from 639 *comuni*. The sample was thus about 5 per mil. The enquiry was made on the 8th May in each year. *Source*: *ISTAT, Compendio Statistico Italiano*, 1956.
(4) Excluding those who did « occasional » work during the week in which the date of the enquiry fell.

The annual averages of the Ministry's monthly employment figures (see Table 9) show an increase — for Group I taken alone — of only 1.8 per cent in five years (23).

(23) The employment figure of 1,600 thousand registered by the Ministry for this Group in 1955 was, it may be noted, still below that (1,626 thousand) registered in 1948, when, however, industry still had on its payrolls excess personnel which in some sectors was a legacy of war production, and in others had been hired for political reasons during the period of occupation, and which in view of the difficulty of making dismissals could be worked off only gradually in the following years.

The expansion of employment in this Group may thus have been sufficient to take up not many more than 40,000 (24).

Various attempts have been made to piece together information about the level and movement of employment over a wider area than that covered by the Ministry of Labour. The results of the main enquiries are also summarized in Table 9.

Among the three sets of figures shown following those of the Ministry, the first consists of indirect calculations based on the annual payroll figures reported to the INAIL (25) for purposes of accident insurance. The INAIL has converted these payroll figures, for the various industry groups and geographical regions, to « man-years » worked by dividing them by the average daily wage (26), resulting from the pay-slips of accident victims, multiplied by a conventional « working year » of 300 days. Methodological difficulties (27) make it doubtful in principle whether the INAIL employment estimates can come very near to the true movement.

(24) This estimate rests on the assumption that the ratio of « workers » registered by the Ministry of Labour to total employment, in Group I, was the same in both years as at the Census date (see Table 8).

(25) *Istituto Nazionale per l'Assicurazione contro gli Infortuni sul Lavoro*.

(26) The average daily wage received by the accident victim during the preceding fifteen days is reported when benefits are claimed. In common with the total payroll figures, it includes over-time pay and a *pro-rata* allowance for occasional or annual gratuities, but excludes family allowances.

(27) The method of calculating the number of « man-years » has been described by the INAIL itself (see its *Notizie statistiche 1950, 1951*, p. 28) as containing a systematic bias in two directions: In the first place it tends to give an employment figure which is *below* the true one because, in any given industry, accident frequency is higher among the older, and hence higher-paid workers than among the younger ones, so that the average wage calculated is higher than the true figure and the employment figure correspondingly lower. On the other hand, within the same age-group in any given industry, the higher paid workers are often those in higher positions (more specialised workers, superintendents, foremen, etc.) among whom the risk of accident is smaller. The INAIL (*ibid.*) regarded the first bias as being only partly offset by the second.

Superficially at least the INAIL figure for total « man-years » worked in industry, exclusive of construction, in the year 1951 (2,390 thousand) comes very close to that for « workers » (2,557 thousand) given by the Census. Several considerations, however, warn against concluding that this near-coincidence was more than a chance phenomenon:

1) The category of employees subject to compulsory accident insurance is broader than that of « workers » in receipt of fixed contractual remuneration. It extends also to those (i.e. family associates and members of co-operatives) who, though « dependent » in the sense of being subject to the orders of the employer (e.g. artisan or co-operative), are not remunerated on a fixed contractual basis.

2) On the other hand the INAIL data automatically exclude an undetermined number of workers, family associates, and « co-operators », employed on tasks not classified as subject to accident risk, and therefore not coming under the compulsory insurance regulations.

3) The INAIL figures also exclude workers (e.g. porters, and groups employed under sub-contracting systems, as in the sulphur mines) whose remuneration could not be ascertained directly from the employer but had to be set at « conventional rates » calculated indirectly (28).

4) The definition of « industrial activity » adopted for purposes of accident insurance is broader than that used by the Census: Under the food industries group it includes, so long as they are associated with the use of mechanical appliances, activities (stock-raising, forestry, processing of produce, and other work on the farm), which the Census regards as belonging to « agriculture ».

A comparative analysis of the INAIL figures for 1951 and the Census data for November of that year is given in Table 10. When the totals are divided between the two

(28) It was guessed (cf. INAIL, *Notizie statistiche 1950, 1951*, p. 29) that 170,000 or 180,000 workers in industry *together with transport* might fall within this category.

main geographical regions — the North and the Mezzogiorno — it appears that for the North the INAIL figures for employment in industry, exclusive of construction and of the food and tobacco sectors, represented an almost 90 per cent coverage of the Census figure for workers, family associates, etc. in the same group of industries. This coverage is suspiciously high, especially in view of the probability that, even in the North:

(a) some workers were not legally liable to accident insurance; and

(b) there was some evasion with respect to those that were.

figures for the much narrower industrial zone which they cover. The 8-group industrial classification adopted by INAIL cuts across the sector divisions used by the Ministry, and across our division between Groups I and II. It is thus impossible to compare the two sets of data for the whole group of sectors (Group I) for which it was concluded earlier that the Ministry figures ought to be fairly representative. Two of the eight INAIL groups, one comprising chemicals, paper, printing, leather, and rubber, and the other mining, mineral processing (29), ceramics and glass, should, however, be closely comparable with sub-groups of Group I. For these two

CENSUS AND INAIL DATA: INDUSTRIAL EMPLOYMENT (Exclusive of that in Construction), 1951 (Thousands)

TABLE 10

	Census Figures of Categories of Employees Liable to Insurance (1)			IV Census Figure for all Employees	V INAIL Figures (4)	Ratio (per cent)	
	I Workers (2)	II Family Associates, etc., (3)	III Total I+II			V/III	V/IV
A. All groups:							
North	2,241.9	131.5	2,373.4	3,087.6	2,136.2	90.0	69.2
Mezzogiorno	315.1	64.4	379.5	622.2	254.2	67.0	40.9
Italy	2,557.0	195.9	2,752.9	3,709.8	2,390.4	86.8	64.4
B. All groups except « food and allied » (5):							
North	2,081.7	108.3	2,190.0	2,839.0	1,946.9	88.9	68.6
Mezzogiorno	217.0	44.4	261.4	458.2	190.3	72.8	41.5
Italy	2,298.7	152.7	2,451.4	3,297.2	2,137.3	87.2	64.8

(1) Except when working in jobs not considered as subject to accident risk: the number of persons in this class is not determinable.
(2) Including *sorveglianti*, etc., and *apprendisti*.
(3) Includes « co-operators ».
(4) Excludes an undetermined number of workers whose wages are calculated « indirectly ».
(5) Excluded are « food and allied » plus « tobacco » in the Census figures, and the group « food, forestry, stock-raising and agrarian industries, etc. » in the INAIL figures.

The growth, between 1950 and 1954, in total industrial employment (outside of construction) given by the INAIL figures was 14 per cent. This partly reflects an increase in hours worked per man. It compares with a rise of only 5 per cent (again including the increase in hours) in the Ministry of Labour's

important groups, the INAIL figures showed increases of 13.4 and 26.2 per cent respectively as against 10.0 and 13.9 per cent (including the effect of the longer hours) given by the

(29) Includes metallurgy in the narrow sense of the treatment of the minerals to extract the metal.

Ministry figures for approximately the same sector groupings. The discrepancy is large. It is difficult to believe, on the other hand, that *for these sectors* the method of indirect calculation used by the INAIL would give results nearer the truth than the method of direct enquiry used by the Ministry of Labour. Probably, it must be concluded that, over the past years at least, the INAIL data were strongly affected by the reduction in evasion of the compulsory insurance regulations.

The third set of figures shown in Table 9 are the estimates — admitted to be extremely rough — given by the *Relazione economica* (30) for the annual increases in total em-

culture, made by the ISTAT in May 1954 and May 1955. The result — an increase in employment in one year of 946,000 — is so violently out of harmony with the picture obtained from other statistical sources as well as from general impressionistic evidence that we must evidently dismiss these figures altogether. The sampling methods were probably inadequate to give results even approximately representative of the highly variegated Italian situation.

It is thus impossible to establish with any approach to certainty how great the increase in employment was during the period, or where the bulk of it went. An indirect, and extremely rough calculation gives some idea,

TABLE 11

NATURAL POPULATION INCREASE, EMIGRATION, AND INCREASE IN POPULATION OF WORKING-AGE (a) (Thousands)

	1950	1951	1952	1953	1954	1955 (b)
1. Natural increase in population	457	379	369	366	429	422
2. Net emigration	126	92	134	147	181	239
3. Increase in population net of emigration (1-2)	331	287	235	219	248	183
4. Natural increase in population of working-age (c)	*320*	*342*	*371*	*379*	*380*	*330*
5. Net emigration in working-age groups (c)	*95*	*69*	*100*	*110*	*140*	*180*
6. Natural increase in population of working-age less emigrants of working-age (4-5)	225	273	271	269	240	150
7. Population present (at end of year)	46,921	47,208 (d)	47,442	47,661	47,909	48,092

(a) Between 14th and 65th birthdays.
(b) Provisional.
(c) Estimates very rough.
(d) The population present at the Census date (4th November, 1951) was 47,144,000 (provisional figure).
Sources: *Annuario statistico*, 1954 and 1955; and *Relazione generale sulla situazione economica del Paese*, 1953, 1954 and 1955; except for figures in italics which have been estimated independently in order to complete the table. Net emigration in the working-age groups has for this purpose been assumed to represent 75 per cent of total net emigration. The population figure for 1950 is obtained from the old ISTAT series rectified in accordance with the 1951 Census figure.

ployment in *all non-agricultural activities*. For the three years 1953-1955 the annual increase has been put at between 280,000 and 300,000.

The final set of figures — which are included for completeness of the record — are those obtained from the sample investigations of employment in *all* activities, including agri-

(30) *Relazione generale sulla situazione economica del Paese* (relating to the year 1955).

however, of the order of magnitude of the number of persons who must have found employment somewhere. A tentative estimate of the growth between 1950 and 1955 in the population of working-age puts it at some 1,200,000 (see Table 11). Allowing for the increased proportion of women who were evidently seeking gainful employment, the ratio of the increment in the labour force employed or seeking employment to that in

the population of working-age may perhaps be put at 60 per cent, giving an addition to the labour force of over 700,000. It is believed also that between two and three hundred thousand persons left their former places of residence and work in the countryside, in search of employment in non-agricultural activities. The addition to the labour force seeking employment outside of agriculture may thus have been of the order of 900 thousand or a million.

Although the Labour Exchange figures for registered unemployment (see Table 6 above) showed an increase of nearly 300,000, this figure does not — as was remarked earlier — necessarily signify a corresponding addition to the numbers totally without work: indeed the addition to unemployment in this strict sense may have been nil or even negative. Possibly, then, the increase in non-agricultural employment during the period may have been sufficient to absorb close to a million persons.

Where these people found work must remain partly conjectural. What seems to be clear is that only a very small number was absorbed by Group I of industry, and that the bulk must therefore have gone into Group II of industry, and into transport and commerce.

Our next task is to examine in more detail what happened in Group I of industry.

5. Employment, Output and Productivity in Group I of Industry.

We have seen that the annual averages of the monthly employment figures given by the Ministry of Labour show an increase, between 1950 and 1955, for Group I of the modest dimensions of 1.8 per cent. At the same time an increase occurred in the average length of the working week. In 1955 the average number of hours worked per man in Group I was 2.4 per cent above the 1950 figure. This increase taken in conjunction with that in employment gives a rise in the total number of man-hours worked of 4.2 per cent.

The increase in the volume of employment in the broader sense was thus due more to an increase in hours worked per man than to an increase in the number of workers. This fact is partly ascribable to special circumstances. The first of these was the substantial proportion of the total number of workers who were on short time in 1950 — a proportion which, as the following table indicates, was subsequently reduced.

LENGTH OF WORKING WEEK
(Ministry of Labour Sample) (31)

	1950	1951	1952	1953	1954	1955
	Average of monthly data					
Percentage of workers working:						
a) Less than 40 hours	15.2	13.0	15.3	12.9	11.2	12.6
b) 40 hours	19.4	16.1	16.3	14.7	13.3	12.7
c) More than 40 hours	65.4	70.9	68.4	72.4	75.5	74.7

The second was the preference among employers — given the difficulty under the prevailing conditions in the labour market of making dismissals in slack times — for resorting to overtime work (32) rather than to extra shifts which involve the hiring of additional workers (33). This movement towards increasing use of overtime also has a natural limit, however, and seems already to have been on the wane during the last year.

The index of industrial production (excluding building) compiled by the ISTAT indicates that over the five years aggregate output in all the sectors covered increased by 56 per cent. We have again divided the sectors into two groups: those belonging to Group I and those belonging to Group II (see Table 14 below).

(31) In this table Group II sectors have not been eliminated from the total.

(32) The « normal » working week — for hours in excess of which overtime rates are paid — is generally 48 hours, although in many cases it is fixed by collective contract at a lower figure (in some instances as low as 40 hours).

(33) The advantage to the employer is magnified by the fact that the extra costs due to the overtime rates are largely offset by the savings in social insurance charges.

It may be assumed that an approximate (34) coincidence of frontiers exists between our Group I employment figures and our Group I output figures.

Under Group II the ISTAT index covers a somewhat broader range of products than is covered by the Ministry of Labour figures for employment: thus it gives a much fuller coverage to food and allied trades (including tobacco), and it extends to the furniture industry. Otherwise it is weak in some of the same spots as the Ministry of Labour data, e.g. the clothing industry (under which it covers only footwear), small engineering, and miscellaneous manufactures. Even in the food, and the wood and furniture sectors, the fact that the ISTAT is obliged to compile the sector indices from returns made by a few, i.e. the larger firms amongst the vast number of which these sectors are constituted, means that those indices are not necessarily representative of the movement in total production in the relevant sectors. Thus a large part of Group II is again either too poorly represented or not represented at all even in the production index.

Table 12 summarizes (in index form) the movement between 1950 and 1955 in production, in employment, and in hours worked, in Group I of industry.

TABLE 12

OUTPUT, EMPLOYMENT AND PRODUCTIVITY IN GROUP I OF INDUSTRY (1)
(Indices)

	Output (2)	Employment	Total man-hours worked	Output per man-hour
1950	100	100	100	100
1954	150	101.4	104.6	143
1955	164	101.8	104.2	157

(1) The indixe of output relates to annual figures, and the indices of employment and hours to averages of monthly figures.

(2) Original base 1938.

(34) The production index, however, omits « printing and publishing » which is included in the Group I employment figures.

The growth in output — obtained with an increase of only 1.8 per cent in the number of persons employed and 4.2 per cent in the number of man-hours worked — was 64 per cent. It obviously came for by far the major part from a rise in average productivity per man-hour worked, and only to a small extent from an increase in the volume of employment, either in the narrower sense of the number of workers or in the broader sense of the number of hours worked (35). The average productivity *per man-hour* appears to have risen by some 57 per cent.

Tables 13 and 14 reproduce the movements in employment and output by sector (36). They allow us to examine two aspects of the small absorption of labour. The first is the exiguousness of the growth in employment in proportion to that in output in individual sectors. The second is the decline in the relative importance — in terms of both employment and output — of the more labour-intensive sectors as against the less labour-intensive ones.

The percentage movements in output for individual sectors in Group I are set out side by side with those in employment in Table 15. In some sectors the number of workers actually decreased. This is true not only in textiles, where in the most important branch — that of cotton — production declined, and in leather where output likewise fell. It is true also for steel where the increase in production was very large (127 per cent). And in the chemicals, and petroleum and coal derivates sectors, where the increase in production was also exceptionally high (108 and 204 per cent respectively), the increase in employment was comparatively small (15 per cent for the two sectors combined); similarly

(35) There was actually a slight decline in the hours worked between 1954 and 1955.

(36) Group II sectors are included in both tables for the sake of completeness, though the employment figures and, in most sectors also, the production figures cannot, for the reasons already given, be depended upon to give a reliable indication of the true movement.

TABLE 13

INDUSTRIAL EMPLOYMENT (WORKERS)
MINISTRY OF LABOUR SAMPLE, BY SECTOR (1) (2)

	1950	1955	1955 Index (1950 = 100)
	(Thousands)		
GROUP I			
A. *Mining*	57.2	54.7	95.6
B. *Manufacturing*:			
Textiles	525.3	448.9	85.5
of which:			
cotton	(249.0)	(204.4)	(82.1)
wool	(115.7)	(108.4)	(93.7)
Paper	35.3	37.0	104.8
Printing	34.5	40.2	116.5
Leather	16.6	14.3	86.1
Rubber	33.0	32.8	99.4
Chemicals and allied trades	108.6	125.3	115.4
Processing of non-metalliferous minerals	103.4	129.9	125.6
of which:			
bricks	(34.6)	(55.0)	(159.0)
cement	(16.5)	(18.3)	(110.9)
Metal manufacture	98.8	99.2	100.4
of which:			
iron and steel	(82.6)	(81.3)	(98.4)
Engineering:			
Re-smelting	33.9	43.5	128.3
Non-electric	283.8	331.1	116.7
Electric	55.7	64.4	115.6
Transport equipment	151.9	141.9	93.4
of which:			
motor vehicles and aircraft	(72.8)	(76.1)	(104.5)
Total engineering	(525.3)	(580.9)	(110.6)
C. *Electricity*	33.9	37.3	110.0
Total Group I	1,571.9	1,600.5	101.8
GROUP II			
B. *Manufacturing*:			
Food	92.8	106.3	114.5
Clothing (footwear and hats)	36.5	39.2	107.4
Wood	19.5	26.7	136.9
Gramophones and films	1.5	1.8	120.2
Total Group II	150.3	174.0	115.8
Total all industries covered	1,722.3	1,774.5	103.0

(1) The Ministry's data related to 16,419 establishments (of which 1,602 were « inactive » in June 1950, and to 17,488 (of which 619 were « inactive ») in June 1955. At the first date 12,019 of the « active » establishments belonged to Group I, and 2,798 to Group II. At the second date the corresponding figures were 13,894 and 2,975 respectively.

(2) Annual averages of monthly data.

TABLE 14

INDICES OF INDUSTRIAL PRODUCTION

	1938 = 100			Converted to base 1950 = 100	
	1950	1954	1955	1954	1955
GROUP I					
A. *Mining*	*103*	*200*	*241*	*194*	*234*
1. Metalliferous minerals	79	115	130	146	165
2. Fuels	200	665	872	332	436
3. Various non-metalliferous minerals	90	121	130	134	144
B. *Manufacturing*	*121*	*180*	*198*	*149*	*164*
1. Textiles	109	117	104	107	95
(cotton)	119	115	100	97	84
(wool)	123	164	147	133	120
2. Paper and paper-working	105	134	144	128	137
3. Leather, skins	90	91	82	101	91
4. Rubber goods	132	194	202	147	153
5. Chemical and allied trades	140	278	313	199	224
(chemicals)	130	240	270	185	208
(coal and oil derivates)	258	733	784	284	304
(artificial textile fibres)	100	114	118	114	118
6. Processing of non-metalliferous minerals	120	174	207	145	172
7. Metal manufacture	104	173	213	166	205
(iron and steel)	102	180	232	176	227
8. Engineering	129	178	203	138	157
(non-electric machines)	133	166	195	125	147
(electric machines)	112	108	109	96	97
(transport equipment)	132	214	244	162	185
(of which: motor vehicles)	149	277	298	186	200
C. *Electricity*	*159*	*228*	*245*	*143*	*154*
Total Group I	*125*	*187*	*205*	*150*	*164*
GROUP II					
B. *Manufacturing*:					
1. Food and allied trades, including tobacco	136	158	163	116	120
2. Clothing (footwear)	77	92	89	119	116
3. Wood, furniture and fixtures	123	173	176	141	143
C. *Gas*	153	157	148	103	97
D. *Construction*	123	282	326	229	265
Total Group II, excl. construction	*130*	*158*	*161*	*122*	*124*
Total Group II, incl. construction	*128*	*189*	*202*	*148*	*158*
Total Groups I and II, excl. construction	*126*	*181*	*196*	*144*	*156*
Total Groups I and II, incl. construction	*126*	*187*	*204*	*148*	*162*

Source: ISTAT, *Annuario Statistico*, 1955, and *Bollettino mensile di Statistica* 1956, No. 6; except for « construction » which comes from the Research Division of the Bank of Italy.

in the automobile industry, where output doubled, the addition to employment was very modest (4.5 per cent).

TABLE 15

COMPARISON OF MOVEMENTS IN OUTPUT AND EMPLOYMENT IN GROUP I OF INDUSTRY 1950 TO 1955

	Output	Employment
	Percentage increase (+) or decrease (—)	
A. Mining	+ 134	— 4.4
B. Manufacturing:		
1. Textiles	— 5	— 14.5
of which:		
cotton	— 16	— 17.9
wool	+ 20	— 6.3
2. Paper	+ 37	+ 4.8
3. Printing	n. a.	+ 16.5
4. Leather and skins	— 9	— 13.9
5. Rubber	+ 53	— 0.6
6. Chemicals	+ 108	+ 15.4
7. Petroleum and coal derivates	+ 204	
8. Cellulose and nat. and syn.-fibres	+ 18	n. a. (1)
9. Non-metalliferous minerals	+ 72	+ 25.6
10. Metallurgical	+ 105	+ 0.4
of which:		
iron and steel	+ 127	— 1.6
11. Engineering	+ 57	+ 10.6
of which:		
motor vehicles	+ 100	+ 4.5
C. Electricity	+ 54	+ 10.0

n.a. = not available.
(1) Partly included under textiles.

Even if part of the apparent high increase in productivity (37) in certain sectors is imputable to other factors than additional investment (e.g. to the fuller utilisation of previously under-employed man-power as well as plant and equipment, and to technical innovations and improvements in plant outlay and organisation not associated with extra capital expenditures), the table hardly leaves any doubt that in almost every sector taken individually, whatever additional capital investment took place during the period (38) must have gone very largely into raising the capital-labour ratio of a constant, or declining labour force rather than into equipping an expansion to that force.

The raising of the average capital-labour ratio over Group I as a whole seems to have been partly accomplished, however, through a shift in the relative weight of different sectors. On balance the sectors with high capital-coefficients expanded proportionally more than the sectors with lower capital-coefficients. This tendency is illustrated by Table 16 which attempts to make a triple grouping of the various sectors according to whether they have high, medium, or low capital-labour ratios. Almost all of our Group I sectors fall into the first two categories. The table shows that the structure of output changed considerably over the period. A very rapid expansion occurred in those sectors where capital-labour ratios are high, e.g. in the hydro-carburates sector (mostly natural gas), in chemicals, in petrol refining and in steel. An actual decline, or comparatively modest increase took place in the two sectors, textiles and engineering respectively — both sectors with relatively low capital-labour ratios — which have traditionally formed the backbone of Italian industry and the two largest areas of industrial employment (39).

(37) The comparison of the output with the employment figure somewhat overstates the increase in productivity in the case of most sectors since it does not allow for the change (mostly upwards) in hours worked per man. The annual averages of the Ministry of Labour figures for hours worked per month per worker in the sectors mentioned moved as follows:

	1950	1954	1955
Cotton	155	153	140
Wool	154	162	156
Leather	157	167	160
Steel	178	183	184
Automobiles	173	179	177
Chemicals and allied	176	181	179

(38) As was indicated earlier, no statistics are available which allow us to measure what part of the industrial capital formation of the period was absorbed by Group I of industry. Certainly, however, it must have absorbed a major part.

(39) It should be observed that the output figures for most of the sectors comprised in the lowest of the three groups, and

TABLE 16

INDICES OF INDUSTRIAL PRODUCTION AND OF EMPLOYMENT FOR SECTORS GROUPED (1) ACCORDING TO DEGREE OF CAPITAL INTENSITY
(1950 = 100)

	Output		Employment	
	1954	1955	1954	1955
I. *High capital-intensity*:				
Mining: fuels	332	436	n. a.	n. a.
Chem. and allied (2)	199	224	111.1	115.4
Rubber	147	153	97.3	99.4
Metal manufacture	166	205	98.9	100.4
Electricity and gas (3)	139	147	108.3	110,0
TOTAL I (4)	172	194	104.7	107.4
II. *Medium capital-intensity*:				
Textiles (2)	107	95	90.9	85.5
Paper	128	137	105.7	104.8
Construction materials	145	172	119.7	125.6
Engineering	138	157	106.0	110.6
Mining: metalliferous minerals	146	165	n. a.	n. a.
Mining: various non-metalliferous minerals	134	144	n. a.	n. a.
TOTAL II (4)	126	133	100.5	100.6
III. *Low capital-intensity*:				
Leather and skins	101	91	89.8	86.1
Food and allied	116	120		
Clothing (footwear)	119	116		
Wood and furniture	141	143		
TOTAL III	121	123		

(1) The grouping is essentially in accordance with the figures of average fixed capital per employee calculated by Prof. Guidotti.
(2) Output and employment figures are only approximately comparable owing to different classification of artificial textile fibres.
(3) Employment figures for electricity only.
(4) Employment figures exclude mining.
n.a. = not available.

Part of the higher than average growth of output in the sectors with high capital-intensity came, it is true, from the fact that the productivity increases in those sectors were above the average for Group I as a whole.

belonging to our Group II of industry, are, for reasons already given, probably less reliable than those of the top and middle groups.

Part did, however, derive from the heavier expansion in employment. Complete figures of the percentage movements in employment in the high, and medium capital-intensity groups, respectively, are lacking owing to the impossibility of separating out employment in the fuels (natural gas) sector of mining from that in other mining sectors. Exclusive of mining, however, the high capital-intensity group shows an increase in employment of 7.4 per cent, and the middle group one of only 0.6 per cent. The inclusion of the relevant mining sector in each group would certainly widen this gap. Indeed, it is most probable that while employment in the highly capital-intensive group increased by appreciably more than 7 per cent, that in the moderately capital-intensive group actually declined. What seems almost certain, then, is that the additional employment in Group I of industry went, on balance, entirely into the sub-group where the capital required per man is very high.

In the search for an explanation of the double source of increase in the average capital-labour ratio several factors need to be taken into account.

It is likely that the tendency for investment in individual sectors to be directed towards improving the equipment of existing plants would have been particularly marked during the period, owing to the need, which was mentioned earlier, for catching up with the technical advances in which Italy had previously fallen behind, as well as for keeping pace with current changes. And no doubt the shift in the structure of industrial employment and output can in part be ascribed, as in the case of textiles, to changes in demand or, in the case of the fuels sector, to the discovery of new resources. It is no less true, however, that the « capital-deepening » process must have been enhanced by another factor, namely increasing wage costs.

Even if it is open to doubt — and this is a point which we shall not discuss here — whether in practice rising wage levels exert a strong influence on the « capital-deepening »

process in the sense of increased mechanisation in individual sectors, there is still good reason for supposing that they will encourage that process in the other sense — that of a shift in the structure of industry towards a heavier relative weight of the capital-intensive sectors. For, by affecting the *relative* costs of different sectors, the wage rise stimulates the expansion of the sectors with high capital-coefficients, and therefore relatively low wage-sensitivity, at the expense of those with low capital-coefficients and high wage-sensitivitiy (40). In this second way, even if not in the first, higher wage rates will lead to a higher average capital-labour ratio than would otherwise occur.

In an economy which is highly dependent on foreign trade an important part of the effect of wage movements will be on the composition of exports and imports. Rapidly rising wage rates will diminish the tendency which would otherwise exist for Italy to export the products of the industrial sectors with relatively low capital-coefficients, and to import those of sectors with relatively high capital-coefficients.

An impression that something of this kind actually took place is given by an examination, for some of the principal commodity groups, of the way in which Italy's relative position in world export markets has moved over recent years.

In textiles it appears that Italy's sensitiveness to the « crisis » after 1951 greatly exceeded that of other countries. According to OEEC figures, the value of her textile exports in 1955 was, despite the slight revival since the previous year, not much more than half what it had been in the peak year 1951, and only about 80 per cent of the level of 1950.

(40) In the theoretical literature a certain ambiguity surrounds the explanation of the influence of wage levels on the method of production in individual lines (when that is variable), and on the structure of employment and output as between different lines. The formulation used in the text above must be regarded as a shorthand expression for a much more complicated causal nexus which we cannot discuss on this occasion.

The sharpness of this drop meant that she lost ground relative to all the principal exporting countries for which OEEC figures are available (see Table 17). Part of this phenomenon has been ascribed to her lack of protected colonial, or commonwealth markets such as are enjoyed by the United Kingdom, Belgium, France and the Netherlands. An examination of the OEEC figures for textile exports from the individual countries by destination (41) seems, however, to indicate that although this factor may have helped the United Kingdom, and still more France, it played a minor role in the cases of Belgium and the Netherlands — both countries which, along with Western Germany, improved their relative position at the expense of other countries in the group. It appears highly probable, therefore, that a large part of the decline in Italy's relative, as well as absolute position as a textile exporter was due to the cost factor.

Evidence pointing in the same direction is derived from an examination of her share of the world export market for engineering products, a market which, unlike that for textiles, was a rapidly expanding one during the years under review. Here it appears, again according to OEEC figures, that up to 1954 Italy ranked (along with the United Kingdom and Canada) among the group of countries whose exports showed the smallest percentage expansion, though she seems to have made a long stride forward in 1955.

It thus looks as though the two relatively labour-intensive sectors of industry which have held first place among Italian exports in the past and which would, it might appear, need to gain an increasing share of the world export market in the future if the goal of full employment were to be quickly approached, were in recent years actually in danger of losing ground to Italy's competitors.

The picture was different in the heavy industries where the degree of labour-intensity

(41) Not reproduced here.

TABLE 17

MOVEMENTS, FOR SELECTED COUNTRIES, OF EXPORTS OF TEXTILES, ENGINEERING PRODUCTS, AND CHEMICALS, 1950 TO 1955

Exporting Country	Values (Millions of dollars)		Indices of values (1950=100)		
	1950	1955	1951 (3)	1954	1955
A. *Textiles* (1):					
Belgium-Luxembourg	272.1	294.2	136	107	108
France	500.1	469.2	126	100	94
Italy (2)	*340.1*	*275.2*	*155*	*77*	*81*
Netherlands	132.0	202.6	135	146	153
United Kingdom	1,005.9	870.1	131	91	86
United States	397.0	454.9	159	115	115
Western Germany	95.1	299.6	221	282	315
B. *Machinery* (4) *and Transport Equipment*:			(5)		
Belgium-Luxembourg	155.2	308.3	175	167	199
Canada	215.4	284.5	189	130	132
France	441.5	786.1	160	162	178
Italy (2)	*213.1*	*371.5*	*137*	*140*	*174*
Netherlands	166.6	415.5	158	231	249
Sweden	251.1	382.4	142	148	152
United Kingdom	2,174.4	3,033.4	124	126	140
United States	3,207.7	5,394.1	158	162	168
Western Germany	472.4	2,456.5	309	432	520
C. *Chemicals*:					
Belgium-Luxembourg	135.0	186.5	151	129	138
Canada	109.6	245.6	137	182	224
France	220.6	360.2	161	153	163
Italy (2)	*46.4*	*127.4*	*193*	*239*	*275*
Netherlands	107.9	192.5	147	159	178
Sweden	23.5	45.4	147	164	193
United Kingdom	403.7	651.9	128	141	161
United States	712.9	1,120.7	138	144	157
Western Germany	220.9	680.4	192	274	308

(1) Includes yarn, fabrics, made-up articles and related products.
(2) 1950 figure is an estimate.
(3) For most of the countries 1951 was a peak year for exports of textiles.
(4) Including electrical machinery, apparatus and appliances.
(5) 1952 figures.
Source: *OEEC Statistical Bulletins, Foreign Trade*, Series IV.

is low. In chemicals, starting from small beginnings, Italy's exports expanded over the five years at a pace which, among those countries for which OEEC figures are available, was exceeded only by Western Germany. Even in steel Italy had by 1955 made an appreciable incursion into the export field. And the same was true of another capital-intensive branch — petrol refining.

The extent to which industrial wages (in Group I) actually rose during the five years is examined in the following section.

6. Industrial Wage Rates.

An approximation (42) to the movement in average wage rates in Group I of industry is given by the wage data published by the Ministry of Labour for exactly the same industrial sample as that underlying the Ministry's data for employment and hours. The figures shown in Table 18 relate to wages actually paid, inclusive of all elements. They represent the average hourly rate for all workers (married and unmarried) together, inclusive that is of family allowances. And they make a *pro rata* allowance for: paid holidays (public and annual); overtime pay, and extra pay for night shifts and for working on public holidays; and Christmas and other bonuses. The annual averages for this series indicate an increase in hourly wage rates between 1950 and 1955 of nearly 36 per cent (43).

TABLE 18

MOVEMENTS IN WAGE RATES OF INDUSTRIAL WORKERS, MINISTRY OF LABOUR SAMPLE (1)

	1950	1951	1952	1953	1954	1955
1. Average hourly rates (Lire)	185.9	204.7	220.3	229.3	237.5	252.0
2. Index	100.0	110.1	118.5	123.3	127.8	135.0

(1) The figures are the annual averages of the monthly data. They refer to all the sectors covered by the Ministry. (Group II sectors have not, that is to say, been eliminated).

(42) A more exact measure of the movement of wages in Group I of industry would be obtained by eliminating from the figures the items relating to Group II sectors. The difference is doubtless slight, however.

(43) This index fails to take account of whatever change may have taken place in the proportional incidence of social insurance charges (other than family allowances) borne by the employer. The *Confindustria* publishes an index of the « cost of labour », or cost of a day's work of eight hours. The cost is adjusted to include paid holidays, Christmas and other bonuses, and family allowances in addition to other social insurance charges. It is, however, based on the minimum contractual rates for the « direct » wage instead of the effective rates. This index shows an increase between 1950 and 1955 of 34.4 per cent, but it fails to take account of the increase which apparently occurred in the gap between the contractual rates for the « direct » wage and the rates actually paid (Cf. footnote 44 below).

The levels of earnings (based, however, on the minimum contractual rates of pay for the « direct » wage, which were appreciably below the effective rates) (44) and of the « cost of labour » (inclusive of social insurance charges) which prevailed in 1945 (45) in Northern Italy in three of the most important industries are shown in Table 19.

TABLE 19

AVERAGE DAILY (1) RATES OF PAY AND COST OF LABOUR AMONG SKILLED WORKERS IN SELECTED, INDUSTRIES, 1955
(Lire)

	Textiles (2) (Biella)	Engineering (Turin)	Chemicals (Milan)
1. Earnings (excluding family allowances, etc.)	1,410	1,590	1,652
of which:			
(a) Direct earnings (3)	1,190	1,336	1,389
(b) Indirect earnings (4)	220	254	263
2. Amount retained for contributions payable by worker and income tax	71	84	88
3. Family allowances and social insurance contributions paid by employer	545	698	676
of which:			
(a) Family allowances	258	309	310
(b) Social insurance charges	287	389	366
4. Cost of labour (1+3)	1,956	2,288	2,328

(1) Relating to eight-hour day.
(2) Women, first category.
(3) These are the minimum contractual rates.
(4) *Pro-rata* allowance (over total number of working days) for paid holidays, and Christmas and other annual bonuses.
Source: *Compendio Statistico Italiano*, 1956.

(44) A calculation made by the *Confindustria* shows that actual hourly earnings (taken from the Ministry of Labour sample) were on the average 25.3 per cent higher than contractual hourly wages in 1950 and 28 per cent higher in 1955.

Since the price level increased between 1950 and 1955, the rise in money wage rates during that period reflects a more modest rise in real wage rates. A very important distinction has, however, to be made here on account of the dissimilar movements of different sectional price levels, some of which have been shown in Table 4 above.

The official (ISTAT) cost of living index shows (on the basis of the annual averages) a rise of 23 per cent. This index, though in process of revision, is at present still based on the 1938 weights, and a more appropriate index to take is probably that which is used for purposes of the sliding scale. The index underlying the latest sliding scale agreement (introduced in the spring of 1951) gives a somewhat lower weight to food expenditures, and a higher weight to clothing, than does the ISTAT index. Over the years (1951-55) for which both indices are available the sliding scale index rose considerably less than the ISTAT index, as is shown by the following comparison:

MOVEMENT IN COST OF LIVING
(Annual averages)

	1950	1951	1955	Percentage Increase 1951 to 1955
ISTAT (national) index (1938=1)	48.5	53.2	59.7	*12.2*
Sliding scale (national) index (November-December 1950=100)	...	106.9	115.8	*8.3*

Probably we may take the increase in the cost of living between 1950 and 1955 as having amounted to at most 20 per cent. And if we deflate the 36 per cent rise in money wages correspondingly, it appears that the increase in the average real rate of earnings of the industrial worker — in terms of the

The Ministry of Labour figures used here are the series for « direct » earnings *exclusive* of the accessory elements due to holiday pay, bonuses, and family allowances.

(45) The figures are the averages for the year.

goods bought by him — was 12 per cent or higher.

Though this may be a relevant figure to take for purposes of measuring the improvement in the real standard of living of the average industrial worker, it is not an adequate index of the change in the average real *cost* of labour to the industrial employer. For the cost of living index includes items which are irrelevant to the price level of industrial output, and which did not move in the same proportion during the period under review.

In the first place, food prices, which have a heavy weight in the cost of living index, rose more than did the prices of industrial products (46). In the second place, a partial upward adjustment was made in rents, which had previously been controlled at extremely low levels — an adjustment which represented a redistribution of final income in favour of house-owners rather than an addition to the price level of current output (47).

For purposes of measuring the increase in the rate of remuneration of workers in Group I of industry *in terms of the output of that group*, it would be necessary to use an index of the wholesale prices of the collection of goods produced by the group. It is, however, difficult to obtain a sufficiently representative index. The nearest approach is probably the elaboration, made by the Bank of Italy, of the ISTAT indices of wholesale prices, eliminating all the food items (raw and processed). This index of industrial prices (see Table 4 above) shows a rise of only 3 per cent. An obvious defect of the index is that, like most indices of its kind, it relates primarily to raw materials and semi-finished goods, and is weak in finished products.

The correction of the 36 per cent rise in money wage rates for a 3 per cent rise in prices gives the result that real wage rates (in the sense of the cost of labour in terms of output) increased, in Group I of industry, by about 32 per cent. This estimate is, owing to the imperfect representativeness of the price level used, subject to a very considerable margin of error.

One further aspect of the recent movement in wage rates merits attention; it concerns the part played by the sliding scale system under which wages move up automatically with the cost of living.

Expenditures on food, drink and tobacco still account for a very high proportion of total expenditure in the average consumer's budget, and they have a correspondingly heavy weight (66 per cent) in the cost of living index underlying the sliding scale. The movement in the index is thus dominated by the movement in food prices. Since the terms of trade between food products and industrial output went against the latter over the five years, the sliding scale by itself was an important factor increasing the real wage burden *in terms of industrial output*. Or, putting the same thing in another way, it appears that even if real industrial wage rates measured in terms of the average collecton of goods consumed by the industrial worker had just remained constant (i.e. if money wage rates had merely, but fully, kept pace with the rise in the cost of living), real wage rates in terms of the average collecton of goods produced by him — in Group I of industry — would still have increased quite substantially.

(46) According to the available price indices (see Table 4 above), this discrepancy was due to two principal causes: The first was the movement, after the temporary dip of 1951, in the terms of trade between foodstuffs and industrial goods in favour of the former (cf. line III of Table 4). Some part of this movement must have reflected the adaptation of the price structure to the liberalisation of imports of industrial goods, which meant the removal of the protection from foreign competition which had previously been enjoyed by certain sectors of industry; and since the adaptation is by now presumably complete no further movement from this source is to be expected in the future.

The second cause was the increase, most of which took place between 1950 and 1952, in retail margins in the food trade (cf. line IV of Table 4).

(47) The upward adjustment of rents played, however, a minor role during the period under review, owing to the small weight of rents — up till now — in the cost of living index. It is possible that this factor might become more important in the future as rents rise further and as — what seems probable — their weight in the cost of living index is raised.

7. Productivity, Wages and Profits in Group I of Industry.

When the estimate of 32 per cent for the rise in real wage costs is set against that of 57 per cent for the increase in productivity in Group I — both figures being very broad approximations it should be remembered — it appears that the proportion of the increase in productivity absorbed by higher wages may have been between a half and two-thirds. A good deal of attention has been focussed on what appears to be such a wide gap between the increase in industrial productivity and the rise in real wage rates; and it may be worth while therefore to look somewhat more closely at the practical significance of this gap.

Even if the above measure of the gap could be regarded as sufficiently accurate, several qualifications would need to be made to the conclusion which is commonly drawn that it is indicative of an unduly large increase in profits.

The main qualifications are three: First, it should be remarked that Group I of industry — the only part of the Italian economy for which relatively reliable data are available concerning movements in all the three elements of: production, employment and labour remuneration — is too small a part of the whole Italian economy, and too highly dependent on purchases of goods and services from outside the group, to allow the application, even as a first approximation, of the equation according to which increases in productivity are wholly reducible to increases in wages and profits. This equation is based on the simplified model of the « self-contained » productive system, which is nowhere near characteristic of Group I. Even apart from the latter's high dependence on imports from abroad, the very fact that it is the sector of the Italian economy in which productivity certainly increased fastest, creates a presumption that its « terms of trade » with other domestic sectors (such, for example, as transport and construction), which were less able to offset comparable increases in wage costs by increases in productivity, deteriorated. On the other hand, the impossibility of broadening the area of the calculation to include the whole economy, or even the whole of industry, so as to obtain a closer approach to the « self-contained » system in which inter-sector price differences are cancelled out in the general average, is obvious from the fragile nature of the data available for the area outside Group I of industry.

Nor is it possible to obtain an index which is representative of the prices of the goods and services (raw materials, fuel, equipment, transport, building, etc.) purchased by Group I from sources, either domestic or foreign, *outside the group*, an index, that is to say, which would allow us to estimate the change in the « terms of trade » for this group. We are thus unable to say how great a part, if any, of the group's increase in productivity was absorbed by a change of this kind.

A second consideration further invalidates the inference that a positive difference between the increase in productivity and the increase in real wage rates in Group I is necessarily indicative of swollen profits in the sense of profits *per unit of capital* invested. This is the fact that we do not know what happened to the average capital-output ratio in Group I: in the case that it rose, a given increase in the absolute share of profits in output might fail to coincide with an increase in the rate of profit per unit of capital invested.

A third point to keep in mind is that if it is true that in 1950 industry still had on its payrolls labour which was in excess of what was required but which could not be dismissed, and that many sectors were working not only below their labour-capacity but also below their plant-capacity, the proportion of output absorbed by wages at that time may have been abnormally high, and profits for the group as a whole abnormally low. It would then follow that the apparent smallness of the proportion of the increase in output since 1950 that was taken by wages may

be due in part to the restoration of more normal conditions.

No comprehensive figures are available concerning the movement which actually took place in industrial profits (48). Doubtless the movement in profit rates varied widely from sector to sector, with individual sectors probably enjoying substantial increases from initial levels that were already high. The point to stress here is that the extent of this phenomenon over Group I as a whole cannot — for the reasons given — be deduced from a simple comparison between the productivity and wage statistics for that group.

In any case it should be noticed that, if it is true that monopoly power has in some sectors been used to keep profits unduly high, this must be regarded as an added factor leading to high selling prices and setting a brake on the expansion of Group I of industry. Both factors, i.e. rapidly rising wage rates as well as a large monopoly element in pricing policy, will tend to slow down the employment absorption capacity of Group I.

8. Areas of Labour Absorption Outside Group I of Industry.

Group I of industry — referring it may be repeated to only about a half of industrial employment at the Census date, and accounting over the five years for an addition to employment of perhaps no more than 40,000 persons — is, as we concluded earlier, the only part of the whole economy for which approximately reliable figures are regularly available for the percentage movement, at least, in employment.

Group II of industry is, as we saw, poorly documented not only as regards the movement in employment but also — over many sectors — as regards the movement in output. Nor can we be sure, for a large part of it at least, that average levels of earnings moved in accordance with the wage data applying to Group I. The prevalence of self-employed persons and of family associates and others not in receipt of contractual remuneration, and of tiny establishments which in many cases escape union attention, means that levels of earnings in this zone of industry are largely independent of those set by union contracts. In Group II, exclusive of construction, the total of self-employed artisans, « family associates » attached to artisan and other units, and « co-operators », registered by the Census, reached 615 thousand (see Table 20), thus accounting for over 40 per cent of all employees in the group; and the proportion of all employees working in establishments with 10 or fewer employees was about 64 per cent (see Table 8 above).

TABLE 20

CATEGORIES OF SELF-EMPLOYED (ARTISANS) (1), AND OF DEPENDENT EMPLOYEES NOT IN RECEIPT OF CONTRACTUAL REMUNERATION: CENSUS DATA
(Thousands)

	Heads of artisan units (2)	Family associates of artisan and other units	« Co-operators »	Total
Group I . . .	63.6 (3)	39.2	.8	103.6
Group II (excl. construction)	459.5 (3)	154.8	1.1	615.4
Construction .	14.9	12.0	3.6	30.5
Total . .	538.0	206.0	5.5	749.5

(1) The titular heads of non-artisan units are not separately distinguishable.
(2) Taken as equivalent to « number of artisan units ».
(3) The following sectors had no « artisans »: mining; artificial and synthetic textile fibres; water; gas; tobacco.

In the non-industrial branches of activity — including transport and commerce — direct evidence about the movement in employment is likewise lacking. And, in commerce, information about the movement in earnings levels is again poor, since here also a very large part of total employment is doubtless independent of the conditions established by union contracts. According to the Census, no less than 1.3 million persons out of a total of 1.6 million (or that is nearly 80 per cent) were attached to firms employing 5 or fewer persons.

(48) No attempt is at present made — for obvious reasons — in the national income statistics to give figures for « personal income » divided up according to the source (employment, dividends and interest, etc.), or for « corporate » income.

The answer to the question of where and at what levels of income, the bulk of the additional employment of the period 1950-1955 took place remains a matter for conjecture. Within Group II of industry, construction was obviously responsible for a large increase — reaching several hundreds of thousands. Transport probably absorbed a smaller but still substantial number. And since both of these branches of activity are mostly in the hands of medium- or large-scale units to which presumably collective wage contracts apply, it is also fairly certain that the great majority of the employees in these branches enjoyed the wage increases which were established in those contracts, and which were comparable in magnitude with the increases enjoyed by Group I of industry (49).

It seems evident also that other sectors in Group II of industry (besides construction, that is) must have expanded — in terms of employment — a good deal faster than did the sectors in Group I. It is probable, therefore, that an increase rather than a decrease took place in the numbers attached to artisan-type enterprises and to other small establishments. Most likely there remained in this part of industry large zones of « under-employment », low productivity, and very low earnings per head. Similar conditions probably prevailed in commerce.

These conjectures if true would signify a marked unevenness in the development process of the period 1950 to 1955. Part of the employed labour force, attached especially to Group I of industry, to certain sectors of Group II, and to transport, certainly enjoyed substantial gains, amounting to 12 per cent or more, in real earnings per head. At the other end of the scale, not only did the number of the unemployed fail to diminish to any appreciable extent, if at all (it probably remained somewhere between 1.5 and 2 million). But it is quite likely, also, that the so-called « under-employment » problem was not substantially relieved, i.e. that a large part of the employed labour force — in the « artisan sectors » of Group II of industry, in commerce, and in agriculture — remained at very low levels of earnings per head.

(49) The contractual rates in construction rose, according to the ISTAT indices, by more than the average for the whole group of industrial sectors, while those in transport rose a little less than the average.

9. Industrial Development in the Mezzogiorno.

The special importance of the problem of industrial development in the Mezzogiorno may justify a brief excursion into some of the evidence which the same source material as we have used for Italy as a whole provides for the Mezzogiorno taken separately.

A grouping of the Census data for industrial employment in the Mezzogiorno in the manner adopted previously for all Italy gives the results shown in Table 21.

At the Census date the Mezzogiorno had not many more than 200,000 employees in what we have called Group I of industry; and of these, nearly a quarter, were in mining. In Group II, including construction (50) on the other hand, it had over 530,000. In Group I the Mezzogiorno thus had only 9 per cent of the total for the country as a whole, whereas in Group II it had 27 per cent. Within Group II the proportion was particularly high in the food and tobacco sectors.

There was thus a heavy concentration in those industrial activities which are conducted predominantly by artisan, and other very small-scale units. In industry exclusive of construction, nearly 60 per cent of all employees in the Mezzogiorno were attached to units with 10 or fewer employees, the comparable figure for the North being less than one-quarter.

(50) The figure for construction is probably too low. See p. 160 above.

By far the greater part of the industrial activity of the Mezzogiorno — as it was towards the end of 1951 — thus fell outside the field of activity for which the Ministry of Labour statistics can be regarded as giving an even approximate guide to the movement in employment.

A regional analysis of the Ministry of Labour and the Census data gives the result that the Ministry's figure (of November 1951) for employment in Group I of industry, in the Mezzogiorno, represented between 55 and 60 per cent of the Census figure for that area. This was a lower coverage than that (of nearly 70 per cent) obtained for Italy as a whole. The difference is no doubt due to the greater importance, even in Group I of industry, of very small establishments in the Mezzogiorno (see Table 21).

Nonetheless, the movement in the Ministry's figures for the Mezzogiorno doubtless gives an approximate idea of how far Group I of industry expanded, in terms of employment, in that area. The figures for June 1950 and June 1955 are shown in Table 22 (51). They indicate that Group I as a whole expanded employment by 18 per cent. This movement is very much higher than that, of only about 1.5 per cent (between the June dates), recorded for the North.

Group I thus seems to have made some strides in the Mezzogiorno — even though they are small in absolute terms. Indeed the absolute increase in employment was probably fully as high there as in the North. The most important sectors of expansion in the Mezzogiorno, in terms of absolute numbers, appear to have been mechanical engineering, and construction materials. The latter depended, it should be noted, on a local demand which was stimulated by the high public works expenditures of the period.

It would appear then that, of the small increase in employment which took place in

(51) The June figures instead of the annual averages have been used here because the employment figures are not available on a regional basis for all months of the year 1950. The June-to-June increases for the whole country are slightly higher than those resulting from the annual averages.

TABLE 21

CENSUS FIGURES FOR INDUSTRIAL EMPLOYMENT IN MEZZOGIORNO, NOVEMBER, 1951

	Employees in Mezzogiorno (Thousands)	Ratio to Total Employees in all Italy (1) (per cent)	Per cent of employees working in small units (2)
Group I			
A. Mining	48.7	41.0	14.0
B. Manufacturing:			
1. Textiles	23.5	3.9	30.9
2. Paper and paper-working	4.6	7.3	17.2
3. Printing and publishing	7.6	10.2	51.0
4. Leather and skins	5.0	12.9	65.4
5. Rubber	.7	1.8	75.3
6. Chemicals	13.8	9.3	25.3
7. Petroleum and coal derivates	3.3	17.4	4.1
8. Cellulose, and artificial and synthetic fibres, for textiles	.9	2.7	—
9. Non-metalliferous minerals	36.4	17.6	40.2
10. Metallurgical	10.1	7.0	0.9
11. Engineering I	30.9	4.6	15.0
Total B	138.6	6.6	28.3
C. Electricity	14.2	21.1	25.1
Total Group I	201.5	8.9	24.7
Group II			
B. Manufacturing:			
1. Food and allied	139.2	38.7	65.6
2. Tobacco	24.7	47.1	3.4
3. Clothing and furnishings	113.8	27.7	94.1
4. Wood, furniture, etc.	78.3	26.7	82.3
5. Engineering II	53.7	23.6	90.0
6. Photo-phono-cinematogr.	2.4	21.5	99.4
7. Miscellaneous manufactures	2.2	4.0	47.4
Total B	414.2	29.4	76.2
C. Water	4.7	39.6	42.4
Gas	1.8	12.7	1.8
D. Construction	111.5	21.0	15.6
Total Group II	532.2	27.1	63.4
Total Groups I and II	733.7	17.3	52.9
Total Groups I and II (excl. construction)	622.2	16.8	59.3

(1) Denominator taken from column 1, Table 8 above.
(2) Cf. footnote 2, Table 8 above.

TABLE 22

INDUSTRIAL EMPLOYMENT (WORKERS), IN GROUP I OF INDUSTRY, IN MEZZOGIORNO
(Ministry of Labour Figures) (1)

	June 1950	June 1955
	(Thousands)	
Group I		
A. Mining	31.3	28.1
B. Manufacturing:		
Textiles	13.9	14.5
Paper	2.4	2.8
Printing	1.9	2.8
Leather	1.0	1.1
Rubber	0.3	0.2
Chemicals	9.6	10.9
Non-metalliferous minerals	10.6	16.8
Metallurgical	4.4	8.4
Engineering	25.6	34.2
C. Electricity	6.7	7.5
Total	107.8	127.3
Total Group I for all Italy	1,569.5	1,610.2

(1) June figures instead of annual averages have been used here, owing to lack of availability of regional figures for all months in 1950.

Group I over the country as a whole, the Mezzogiorno obtained at least as large an absolute share as the North. And the conclusion might be drawn that it was the failure of Group I appreciably to expand employment at all, rather than any special reluctance vis-a-vis the Mezzogiorno, that was responsible for the slow progress towards « industrialisation » of that region — if industrialisation is interpreted in the sense of the development of the industries of Group I.

How far « industrialisation » proceeded in the sense of the expansion of those small-scale manufacturing industries which have been much more typical of the Mezzogiorno in the past — the food trades, clothing, wood and furniture — is not, of course, reliably documented by the Ministry of Labour statistics. The same reasons as were set out in earlier sections of this article make it seem likely, however, that these manufacturing industries (of Group II, that is), along with construction, transport and commerce, took off the brunt of the labour pressure.

10. Summary of Conclusions.

From among the conclusions, some of them tentative in character, that may be drawn from the analysis of the development of income and employment during the period 1950 to 1955, the following seem to merit particular attention.

1. A high rate of gross investment, estimated as amounting annually to between 20 and 23 per cent of the gross national product, supplemented by the bringing into operation of reserves of unused capacity, failed to draw into employment an additional number of workers large enough perceptibly to reduce the volume of unemployment. Even allowing for some swelling of the lists of the unemployed by increased registrations from the « under-employed » who were desirous of obtaining fuller employment and more adequate incomes, it appears that the period ended more or less as it began with between 1.5 and 2 million unemployed.

2. A very rough indirect estimate — it is not much more than a guess — would indicate that total employment in agricultural and non-agricultural activities combined may have expanded by some 700 to 800 thousand persons. Assuming that the total employed labour force at the beginning of the period was in the neighbourhood of 18 millions (52) — though this is again only a very rough figure — the increase in employment would be less than 5 per cent.

If this figure is anywhere near the truth, it means that the percentage increase in employment over the five years hardly exceeded

(52) The « active » population, or population of 10 years and above claiming to exercise a trade or profession, registered by the Census of 4th November, 1951 was 19,659,000 (provisional figure). This included the unemployed, other than those in search of their first job.

that which took place during the same period in some « full employment » economies.

3. The experience of the period thus strongly suggests that the continuation in the future of high rates of income growth and of investment will not, by itself, be an adequate guarantee of a sufficiently rapid solution of the unemployment problem. It is essential besides that the investment process should take the appropriate direction.

4. Between the beginning and the end of the period under review, housing, public works, and land improvement, of which the effect in increasing productive capacity is slight or else long-delayed, absorbed an increasing proportion of the total gross fixed capital formation; while industry absorbed a declining proportion. Nonetheless investment in the industrial sector probably brought the 1955 figure for gross fixed industrial capital formation to some 30 per cent in real terms above the 1950 level. A large part of this additional industrial capital must have gone into what was called above « Group I » of industry.

5. Group I — covering such important sectors as textiles, engineering, metallurgy, chemicals, and construction materials — employed some 2.3 million persons at the Census date (November 1951) thereby accounting for rather more than half of total industrial employment. This industry-group is predominantly one of medium- and large-scale units of production; and, over the major part of it, levels of remuneration of labour are governed by collective wage contracts and are protected by the sliding scale.

It is the best documented part of the Italian economy as regards movements in employment, output, and earnings.

6. Although output in Group I expanded by over 60 per cent between 1950 and 1955, the group absorbed only a very small increase in employment — about 2 per cent. In absolute terms the number of additional employees (workers plus other grades) was probably no more than 40,000. Average hours worked per man increased, in response to the elimination of short time in some cases and to the working of over-time in others; but even so the rise in the total number of man-hours worked was only about 4 per cent. The increase in average productivity per man-hour in Group I of industry was consequently high: of the order of 57 per cent in the space of five years.

7. Evidently, then, the additional investment in Group I of industry served primarily to increase the « capital-depth », and the average productivity per head, of a constant occupied labour force, and only in a very limited degree to broaden the employment base. The increase in « capital-depth » was due partly to increased mechanisation, but partly also to the faster expansion of the more capital-intensive sectors as compared with the less capital-intensive ones.

8. Given the smallness of the addition to employment in Group I over the country as a whole it is not very surprising that the progress made in this group in the Mezzogiorno was also slight. Indeed, the Mezzogiorno appears to have obtained a comparatively high share of the total gain.

9. The movement towards increasing « capital-depth », part of which was due to technological factors, to the exploitation of new resources, and to changes in demand, was enhanced by rising wage costs. Money wage costs in Group I of industry rose by about 36 per cent. The price-level of the output of the group rose by perhaps 3 per cent — although in the absence of a truly representative group price index, this figure must be regarded as very rough. It would imply that *real* labour costs — measured in terms of the output of Group I — increased by some 32 per cent.

10. It thus appears that only between one half and two-thirds of the growth in productivity in Group I was absorbed by wages. There are a number of reasons why no reliable inference can be drawn, from this calculation, concerning the movement in profit rates. Nevertheless, it is likely that certain monopolistic positions in Group I yielded high, and perhaps growing rates of profit during the period.

11. Comparable to Group I of industry as regards wage levels and movements is part of Group II (i.e. construction and some smaller sectors), and transport. These branches are again predominantly in the hands of medium- or large-scale units to which it may be presumed that collective wage contracts apply. No direct information is available concerning the number of additional employees that were absorbed by these activities; but indirect evidence suggests that construction and transport absorbed several hundreds of thousands.

12. These branches of activity along with Group I of industry belong by virtue of their average income levels — both wages and profits — to an upper layer of the non-agricultural part of the Italian economy.

13. From it may be distinguished a second layer which, though part of it doubtless enjoys income levels comparable with those of the first layer, is as a whole almost certainly characterised by lower average earnings per head as well as by less uniform earnings. To this second layer — which is far less well documented statistically than is the first — belong the larger part of Group II of industry along with commerce. The relevant part of Group II of industry includes the food, clothing, and wood and furniture sectors, and the small engineering shops doing repair and odd-job work. Aside from isolated instances of large producing units, it consists of very-small scale, highly competitive, and usually labour-intensive industry. It contains substantial numbers of self-employed (artisans) and family associates, who draw their income in the form of profits rather than of contractual wages; and a large proportion even of the wage-earners are working in firms too tiny to come under the discipline of collective wage contracts. Similarly situated is most of commerce.

Into this zone at present falls by far the greater part of the industry of the Mezzogiorno.

14. It is impossible to establish with any certainty what movements took place in output, employment, and earnings in this second layer. Quite probably, however, it absorbed during the five year period substantial numbers of additional employees, many of them at very low income levels. A large part of this layer probably remains a zone of « underemployment », low productivity, and low earnings, hardly distinguishable at the fringes from the lowest layer of all — that of unemployment in the strictest sense. Many of its members are likely, moreover, to be registered as unemployed at the Labour Exchanges.

15. It is in order to relieve pressure on the middle and lower layers that the upper layer would need to expand more rapidly. The pivot of the upper layer is, however, Group I of industry; and the small labour-absorption power of this group stands out — it may be repeated — as one of the striking features of the period.

16. In agriculture, increased mechanisation, the more extensive use of fertilisers, and other improvements in methods, were reflected in an upward trend in output. Other advances made during the period — particularly in the field of land reclamation — must be expected to show their full results in raising agricultural income only at a much later date. The low level of productivity and earnings at present prevailing among a large section of the existing agricultural population leads, however, to the view that agriculture must be expected to release, rather than absorb man-power in any development process which is aimed at eradicating the extremes of poverty.

17. Our sketch of what happened to employment and incomes during the recent past

— even if it is partly based on conjecture — focusses attention on the hard terms of the choice which faces the Italian economy in the future. Three alternative types of development process are in principle possible.

The *first* is a process which aims predominantly at development *in depth* of the « upper layer » of the economy, and which allows living standards in that layer to continue improving at a rate comparable with that of recent years, and comparable with that which can be afforded in countries which have already reached full employment. This process would, however, be bought at the cost of prolonging the disparity between a narrow « upper layer » and a wide, or perhaps widening « lower layer », in which a large part of the total labour force remained either completely outside the productive system, or else on the fringes where earnings are extremely low.

18. The *second* process is one which conduces more largely to development *in breadth* of the « upper layer », thus relieving the pressure of the labour supply on the « lower layers ». This implies: (a) a policy of « profit restraint » on the part of business in those sectors where technical conditions inevitably impose a few large business units capable of exercising monopoly power; and (b) a policy of « wage restraint » on the part of organised labour, until such time as a level of employment not far short of full has been reached.

« Profit restraint », implying less monopolistic price policies in the relevant sectors, would help speed up the expansion of Group I of industry, especially by making its products more competitive in export markets. « Wage restraint », during the period of transition from an under-employment to a full employment economy, besides affecting the general level of costs, would influence the cost *structure* of Group I of industry, and hence the pattern of future expansion within that group. It would, that is to say, lead to a heavier concentration in the sectors of relatively low capital-intensity, thus causing the available capital resources to be spread over a larger employment base (53).

In particular, it is probable that a slowing down in the rate of increase in wage costs would help to accelerate the rate of expansion or slacken the rate of contraction respectively, in the two industries, engineering and textiles, which have traditionally been Italy's major manufacturing branches, and (along with agriculture) her most important export sectors.

19. The events of recent years also call attention to certain limits on the width of the margin within which a policy of wage restraint can operate, under the condition that the principle of the « sliding scale » should not be infringed, and given the heavy weight, at the present stage of Italy's economic development, of food expenditure in the average worker's budget.

The change between 1950 and 1955 in the « terms of trade » between foodstuffs and industrial goods meant that the rise in the cost of living appreciably exceeded that in the price level of the output of Group I of industry. Hence even if the real wages of the workers in that group had remained constant in terms of the goods they *consumed*, they would still have risen quite substantially in terms of those they *produced*.

While some of the factors which were responsible for this situation are likely to be weaker in the future than they were in the recent past, it is important to recognize, over the longer run, that the tie-up between wages and the cost of living means that food prices have for all practical purposes become a direct cost of industry. It follows that industrial expansion and agricultural protection are to

(53) It may be noted that this is quite a different point from that which is sometimes raised in current discussions, and which looks to some form of « wage restraint » as a means of limiting the growth of consumption in the interests of an intensified investment programme. The point raised in the text above would clearly not be met by a scheme under which wage rates, and therefore industrial wage costs, continued rising at the same pace as before, but workers henceforth received the increase (or part thereof) in the form of some kind of « savings certificate ». For, though such a scheme might possibly serve the purpose of inducing additional saving, it would certainly not serve that of influencing the cost-structure in the direction indicated.

a certain extent mutually exclusive aims. Agricultural protection, were it to be pursued, might constitute for industry as a whole a limiting factor similar to that which steel protection once implied for the engineering sector.

20. The *third* type of development process, which is one that would permit rapid strides to be made in both directions at once — i.e. *both* in raising incomes per head of those already in the « upper layer » of the economy *and* in raising levels of income and employment among those at present in the « lower layers » — would require a much vaster investment programme than that which is at present contemplated as being within the realm of practical possibilities.

21. While the above considerations call attention to certain characteristics of the cost and price structure which would be an essential part of the mechanism driving the development process in the particular direction at which the « Vanoni Plan » is aimed, they do not signify that the Plan's broad objectives of narrowing the present wide disparities in income levels between economic groups and geographical regions, and of making the transition to something approaching a full employment economy, within say the next ten years, are impossible of realisation. Our considerations are, that is to say, essentially variations on the original theme rather than a new one.

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