

## Wage Indexing and Inflation in Italy

The automatic adjustment of earnings to the cost of living has usually two objectives — to protect wages in whole or in part from the effects of inflation and to avoid a spate of destabilizing wage claims. These objectives have been accepted in Italy as well as in other countries.

However, in Italy there has recently been added a third aim — that of reducing the differences in remuneration. This is an important innovation which constitutes the nub of the agreements reached between the three Trade Union Federations acting jointly and the Italian Federation of Industry (*Confindustria*) at the beginning of 1975.<sup>1</sup> It is in line with the egalitarian principles underlying collective bargaining from the autumn of 1969 on. The reduction in the inequalities between levels of earnings by means of periodical labour agreements is accelerated by the new mechanism of the escalator clause or sliding-scale (the *scala mobile*) which, in a period of substantial inflation, releases a large volume of money wages every quarter. If reliance were placed entirely on the three-year labour contracts it would take a much longer time to obtain the same results.

The decision is an unusual one. Few systems rely on the variable rhythm of inflation to speed up the egalitarian process. But it should be remembered that the spread in wages is far more marked in Italy than elsewhere.<sup>2</sup> An effective means has thus been found

<sup>1</sup> This article deals only with wage agreements in industry and not in trade, handicrafts and agriculture.

<sup>2</sup> In Italy, the differences are most marked between sectors and firms of different dimensions. According to European Economic Community sources, taking 100 as the average industrial wage, the gap between highest and lowest paid workers was 54 in Federal Germany, 62 in the Netherlands, 101 in France, 252 in Italy (with a difference between 298 for credit and 46 for agriculture). The gap between well paid industries (e.g. electricity) and lowest paid (building) was also far wider in Italy. (STATISTICAL OFFICE OF EUROPEAN COMMUNITIES, *National Accounts*, 1960-1970.)

of increasing the real wages of the lowest paid industrial workers and reducing those with the highest income. For the time being, the former do not appear specially aware of, and satisfied with, the resulting benefits, nor do the latter protest, perhaps trusting in slippage and in the increases from the next round of wage negotiations.

The innovation introduced by the agreements between the industrial and labour federations, in addition to producing a redistributive effect among the workers employed, causes conflicting effects on the firms' balance sheets. The egalitarian criterion in fact benefits the larger firms which have a higher capital intensity and a greater productivity, and harms the smaller firms, which have a low capital intensity and are highly labour-intensive. The absolute increase in the cost of labour is the same for all workers, but the relative increase differs from one firm to the other. If it is borne in mind that the average difference in earnings between large and small firms operating in the same sector usually ranges about two to one, an equal money increase, whether resulting from wage agreements or from the working of the sliding-scale, weighs much harder on the smaller firms than on the large ones. In a few years' time, there is a danger that — if the productivity dynamics of the smaller firms are not twice as fast as those of the large ones, and, even in that case, if demand is not sustained — there will be serious consequences for employment.

### How Wage Indexing Works in Industry in Italy

Up to January 1975, the indexing of industrial wages was governed by a system of proportionate adjustment. The mechanism is well known. A fairly extensive "basket" of goods and services is selected whose prices are periodically revised. The weighted average of the indices of these prices forms the "sliding-scale index". Every quarter, and for each percentage point added, the indexed part of the wage is increased by a fixed amount (called the "punto di contingenza").<sup>3</sup> In the agreements operating up to January 1975, there was a different "point" value for each category of worker or employee. The aim was to defend the purchasing power of the various types of workers in proportion to their wages.

<sup>3</sup> "Contingency point" — unit of measure of the cost-of-living-adjustment mechanism.

The agreements signed in 1975 kept the "basket" unchanged and arranged for certain formal modifications such as reducing the sliding-scale index to 100 (in the August-October quarter of 1974, it had gone up to 252), hence revaluing each "point" so that the "new" point (which was also called the "heavy" point) corresponded to the old (or "light") point multiplied by 2.52, i.e. by the ratio of the level of the index in August-October 1974 to the new base.

The main substantial modification was that of raising the average value of the "point" and its gradual harmonization at a single level. In other words, the proportionate system was dropped in favour of the egalitarian criterion. By successive stages, from February 1975 to February 1977, the system moves from the *average* value of 1,235 lire a month to a *single* value of 2,389 lire a month (i.e., to the value of the "point" applied to the top category of employees).

The effects of the new form of indexing during the transitional phase — which ends in January 1977 — are different from those which will occur after that date. They differ also if we consider the average effectiveness on wage earnings in industry or the specific effect of the "contingenza" in relation to the different wage levels.

A wage-indexing system with fixed cost-of-living "points" and a sliding-scale usually does not ensure complete coverage; indeed it leads to a declining coverage of the losses in the purchasing power of wages.

(a) *Incomplete coverage.* Protection of wages against loss from inflation is complete when the protected part of wages corresponds to actual earnings. In Italy, however, coverage is only partial; and only the protected part is automatically revalued with the sliding-scale index. The degree of coverage afforded by the mechanism — which could be defined as the elasticity of earnings in relation to the cost-of-living — corresponds to the ratio of the protected part to wages as a whole.

(b) *Declining coverage.* The sliding-scale ensures constant coverage over time, provided other factors do not intervene, such as wage increases and variations in the rate of increase in the cost-of-living. Every increase in wages, to the extent that it diminishes the indexed proportion of wages, reduces coverage. Any change in the ratio of inflation causes oscillations in coverage, which *diminishes* when the cost-of-living is rising faster and *increases* correspondingly when the pace slackens.

These characteristics of the method are confirmed by empirical checks. In the near future, however, two types of problem are likely to assume special importance. In the first place, during intense inflation of the kind experienced in 1973-74, upward or downward oscillations are particularly wide; and this situation is likely to be carried over to the coming years if no change is effected in the mechanisms governing the price/wages spiral. In the second place, the new method of indexing provides for a *large band* of wages a coverage which outweighs the losses suffered as a result of inflation, that is, it results in a wage elasticity in relation to the cost of living which is greater than unity.

### The Average Effectiveness of Wage Indexing

From 1956 to 1973 automatic wage adjustment in industry was only partially effective, and was declining in line with expectations. The average rate of inflation at that time was relatively modest. The annual increase in the cost-of-living was 4.3 per cent; wage increases due to the sliding-scale can be put at 2.3 per cent a year. The effectiveness of the sliding-scale was under 60 per cent on average for the period, with a tendency to diminish. Around this trend, there were strong annual oscillations. The factors giving rise to these swings were the instability of prices, the discontinuous nature of wage increases not covered by the sliding-scale, and certain divergences between the consumers price index and the sliding-scale index. However, between 1956 and 1973, although the sliding-scale assured only a partial defence of wages against inflation, labour agreements brought about a substantial real increase in industrial wages on an average exceeding 6 per cent.

Since 1973 and early 1974 the rates of inflation have soared, and the sliding system has had to be made more effective. The 1975 agreements between employers and workers in industry, therefore, provided that, during the transitional phase, the average cost-of-living point should be gradually raised. Hence, between 1974 and 1976, it was possible for industrial workers to recover 70 per cent of their loss of purchasing power. The nominal increases in earnings due to this factor were as much as 12 per cent a year on an average, compared with a decline in purchasing power estimated at 17 per cent. Despite the recession, the power of the trade unions remained

very high; an additional annual wage increase of 7 per cent was thus obtained — 5 per cent to offset the loss of purchasing power and 2 per cent as a wage increase in real terms.<sup>4</sup>

One can conclude that, in the transitional phase, the new method of indexing *per se* did not prove to be particularly effective, nor did it have automatic inflationary consequences. But the prospects for the scheme's effects, once it becomes fully operative from 1977, are very different, and indeed disturbing. The following analysis examines this question and seeks to separate between the roles of the different factors which have a bearing on the effectiveness of indexing.

(a) *The increase in the average value of the "point"*. With the conversion caused by the change in the base of the index, the average monthly value of the point was estimated at 1,235 lire (490 lire by 2.52); it was raised to 1,520 lire from February 1975; to 1,480 lire from February 1976; to 2,100 lire from August 1976; and will go up to 2,389 lire from February 1977. The doubling of the average value of the "point" doubles the effectiveness of the indexing. The guarantee, which covered 125,000 lire a month at the beginning of 1975, when average wages in industry were about 250,000 lire a month, permitted half the wages to be indexed. With the point at 2,389 lire — as will be seen from table 3 — the guaranteed element will rise to about 360,000 lire in 1977, when the index of the sliding-scale will reach the 150 level. Average remuneration in 1977 will be below 360,000 lire a month (that is, 4.7 million lire a year, with the extra month's pay at the end of the year — see Table 1). In that case, the average coverage would be higher than 100 per cent.

(b) *The path of inflation*. The degree of coverage depends on the value of the "point" in the sliding-scale index, but also on the degree of inflation. The indexed part of wages is adjusted only after the increase in prices has reduced purchasing power. There is a period of three months between the increase in prices and the corresponding increase in the cost-of-living allowance; and there is usually another month before the increase is reflected in the size of the pay packet. Because of this delay, when the increase in prices is greater than in the previous year, the effectiveness of the automatic

<sup>4</sup> Table 1 examines the structure of the cost of labour per worker from 1972 to 1977. The data on the text are taken from this table.

adjustment is diminished (i.e. the "coverage" of the sliding-scale is reduced).

But, when prices slow down, the efficacy of the automatic adjustment increases in the same proportion as the diminution when prices accelerate. Paradoxically, there would be a higher coverage on the theoretical hypothesis of a pause in inflation [hypothesis 1977 C in Table 3] which would not trigger off any point of the value of 2,389 lire.

TABLE 1  
STRUCTURE OF THE COST OF LABOUR PER WORKER IN INDUSTRY 1972-77 (\*)  
(Absolute values in thousands of lire)

	1972	1973	1974	1975	1976	1977 (A)	1977 (B)	1977 (C)
1. Gross earnings . .	1,714	2,107	2,577	3,109	3,665	4,567	4,417	4,094
2. Gross social security contributions . .	746	917	1,159	1,400	1,649	2,055	1,988	1,842
3. Cost of labour . .	2,460	3,024	3,736	4,509	5,314	6,622	6,405	5,936
4. Cost-of-living index 1970=100 . . . .	110.9	122.4	146.2	171.3	200.0	240.9	230.9	212.0
5. Real earnings . .	2,218	2,471	2,555	2,632	2,657	2,749	2,774	2,800

(\*) The data on labour costs (line 3) are taken, for the years 1972-75, from the *National Accounts*; those for 1976 and 1977 are estimated. For 1976, the estimates are as follows: 23 sliding-scale points (3+6+7+1); average increases of earnings of 156,000 lire per worker. For 1977, on the basis of three hypotheses, the average increase in earnings is assumed to be as equal to 130,000 lire per worker, i.e. (A) 27 sliding-scale points (6+7+7+7); (B) 18 points (5+4+4+5); (C) nil points. For the period of 1972-75, the values correspond to the cost of labour for hours actually worked on average; for 1976 and 1977 cost of labour is calculated for the same number of hours as in 1975.

The time lag in question therefore leads to a gap between the average value of the preceding year and the initial value of the year in question. This legacy of the previous year — or "delayed effect" — contributes to a modest degree to the efficacy of the sliding-scale, when the cost-of-living is accelerating; but it is decisive when price dynamics are losing momentum.

(c) *Wage increases flowing from labour agreements*. Statistics show that increases in the wage items other than the indexed part have reduced the impact of indexing, to the extent that there has

been a reduction in the indexed proportion of total earnings. This can be seen in 1970 and 1973; but, in 1976, on the basis of provisional estimates, the reduction should be much less. Wage increases are due much more to the sliding-scale mechanism than to labour agreements. From 1977, when the indexed part of wages will be very close to (if not greater than) the average wage, the margin for increases in earnings will be almost entirely confined to automatic increases. Negotiations will be conducted within the limits set by productivity, since there is little hope of an increase in the share of the product going to labour (in view of the fall in self-financing and of investment by the firms themselves).

TABLE 2

LABOUR COST PER INDUSTRIAL WORKER (YEARLY CHANGES)  
AND ITS COMPONENTS IN % (1)

	1973	1974	1975	1976	1977 (A)	1977 (B)	1977 (C)
1. Gross earnings . . . . .	16.0	15.5	14.2	12.3	17.0	14.1	8.1
2. Social security charges . .	6.9	8.0	6.5	5.5	7.6	6.4	3.6
3. Labour cost . . . . .	22.9	23.5	20.7	17.8	24.6	20.5	11.7
4. Cost of living, of which: .	10.4	19.4	17.2	16.8	20.4	15.5	6.0
4.1 "delayed effect" . . .	3.7	5.5	10.6	4.9	9.2	8.3	6.0
4.2 increase during the year	6.7	13.9	6.6	11.9	11.2	7.2	—
5. Real earnings . . . . .	11.4	3.4	3.0	0.9	3.5	4.4	5.4

(1) For absolute values and for notes, see Table 1.

To sum up, the model of the sliding-scale as a method of indexing with partial and decreasing coverage runs the risk of becoming outdated. From 1977 on, the mechanism, will cease to be simply a means of defending the purchasing power of earnings and will begin to function perversely as an automatic inflationary mechanism. This is because the value of the point is too high, and hence average earnings are completely covered against inflation. If, of course, the rate of inflation continues to rise, the mechanism would for a time become weaker because of the "delayed effect". But, if the rate were to slacken, owing to a fall in import prices or

TABLE 3  
DEGREE OF COVERAGE BY THE SLIDING-SCALE: ANALYSIS BY COMPONENTS  
(Absolute values in thousands of lire)

	1973	1974	1975	1976	1977 (A)	1977 (B)	1977 (C)
1. Gross earnings (a) . . . .	2,107	2,577	3,109	3,665	4,567	4,417	4,094
1.1 of the preceding year	1,714	2,107	2,577	3,109	—	3,665	—
1.2 increases due to agree- ments . . . . .	265	279	215	168	—	130	—
1.3 increases due to index- ing . . . . .	128	191	317	388	772	622	299
2. Increases due to sliding- scale indexing (1.3)							
— with "point" unchanged	128	191	282	262	424	347	180
— with "point" revalued .	—	—	35	126	348	275	119
2.1 "delayed effect" . . .	41	60	130	90	299	299	299
2.2 "points" accruing dur- ing the year . . . . .	87	131	187	298	473	323	—
3. Reduction due to increase in the cost-of-living .	178	409	443	519	748	568	220
3.1 due to "delayed effect"	115	293	273	153	220	220	220
3.2 due to increase during the year . . . . .	63	116	170	366	528	348	—
4. Degree of coverage . . . .	71.9	46.7	71.6	74.8	103.2	109.5	135.9
4.1 Sliding-scale effect with "point" unchanged (b)	71.9	46.7	63.7	50.5	56.7	61.1	81.8
Revaluation "point" effect (b) . . . . .	—	—	7.9	24.3	46.5	48.4	54.1
4.2 "Delayed" effect (b) .	23.0	14.7	29.4	17.4	40.0	52.7	135.9
Due to "points" ac- crued in the year (b)	48.9	32.0	42.2	57.4	63.2	56.8	—
4.3 Due to wage agree- ments (c) . . . . .	-9.8	-1.6	-4.1	-4.3	-3.4	-3.7	-4.8

(a) Earnings in previous year, plus increases due to agreements and indexing (sliding-scale).

(b) In % of line 1; the sum of the two components corresponds to line 4.

(c) Reduction of coverage (line 4) due to contractual wage increases.

as a result of a sound economic policy, the sliding-scale would automatically generate increases in earnings disproportionate to the increases in the cost-of-living, thus compromising the efforts to stabilize the economy.

### The Specific Effectiveness of the Method of Indexing Related to the Unified Value of the Point

We have so far examined the average effectiveness of the new sliding-scale mechanism in industry. But, as a result of the egalitarian twist given to it in 1975, the mechanism also produces redistributive effects which are not brought out by average estimates. The conclusions arrived at above can at most be applied to levels of earnings close to the average. For levels substantially above or below, the conclusions are different.

We have seen that in 1977 (that is, when the value of the "point" will be 2,389 lire a month and the index of the sliding-scale 150), earnings which are completely indexed will reach the level of 360,000 lire a month (or 4.7 million a year). All those workers with less than average earnings will benefit from inflation (Table 3). For example, those earning between 270,000 and 300,000 lire a month will receive, for every 100 lire of purchasing power lost as a result of inflation, from 120 to 130 lire. As against this, those workers earning from 500,000 to 600,000 lire a month will receive 60 to 70 lire as compensation for a similar loss.

This has two consequences. First, as the sliding-scale index rises, the indexed proportion of wages is upvalued. When the sliding-scale index rises to, say, 200, the indexed proportion (with 100 per cent coverage) will be close to 480,000 lire a month. This will be the line of demarcation between those earnings benefiting from inflation and those being harmed by it. Hence, the phenomenon concerns not only 1977, but the whole of the future period in which the value of the "point" is such as to ensure for a substantial range of earnings a coverage which is more than proportionate to the damage.

Secondly, the unification of the point gives a double impetus to inflation. There is an automatic impetus caused by the wage increases greater than the corresponding losses in purchasing power. An induced impetus may be produced among those for whom the egalitarian method results in a fall in real earnings relatively to the

other groups. For it is not at all proved that the anti-egalitarian tendencies have lost their force. In the past, supplementary wage agreements *at the level of the firm* have shown a tendency to recreate the differences attenuated by the *national* labour agreements. For these reasons, if the average level of the unified point causes preoccupation because of the inflationary tensions to which it gives rise, the opposite treatment accorded to different workers' groups can have even more disturbing consequences.

DEGREE OF COVERAGE BY THE SLIDING-SCALE  
WITH A POINT/MONTH OF 2,390 LIRE

TABLE 4

Index of sliding-scale	% increase in cost of living sufficient to trigger off one point in the sliding-scale	Degree of coverage of point/month of lire 2,390							
		130%	120%	110%	100%	90%	80%	70%	60%
		corresponding to monthly earnings (in thousands of lire)							
100	1.00	180	199	217	239	265	299	341	398
110	0.91	202	219	239	263	292	328	375	438
120	0.83	211	240	262	288	320	360	411	480
130	0.77	239	259	282	310	345	368	443	517
140	0.71	259	280	306	337	374	421	481	561
150	0.67	274	297	324	357	396	446	509	594
160	0.62	296	321	350	385	428	482	551	642
170	0.59	312	337	368	405	450	506	579	675
180	0.55	334	362	395	434	483	543	621	724
190	0.53	347	376	410	451	501	564	644	751
200	0.50	368	398	434	478	531	597	683	797

The inflationary effects which may be created in this way on the demand side are added to those stemming from the variation in the cost structure. The problem may be approached by analyzing three different situations.

Let us first of all see what happens in those firms in which the cost per worker is close to the average in Italian industry. The egalitarian method may lead to internal tensions when the levelling out of earnings is such as to disrupt the organization of the firm

and destroy the incentives for those workers of whom a greater degree of responsibility is expected. In these circumstances, the firms may on their own initiative grant promotions and other measures permitting improved earnings to those workers most affected by the egalitarian method. The firms will also try to offload their increased costs on to prices as far as the market situation allows.

The situation is different in those firms where average earnings are well above those of Italian industry as a whole. For them the egalitarian method produces modest increases in the cost of labour, and, other things being equal, allows a greater margin for self-financing. The wage rises proportionately lower than the cost of living and the greater financial resources combine to reinforce the requests for wage increases (egalitarian or not within the firm and anti-egalitarian for industry as a whole) and enable the firm to grant them.

The opposite situation can arise in those firms in which the average wage level is significantly lower than that in Italian industry as a whole. For these firms, the egalitarian method produces proportionately much heavier additions to the cost of labour. The reactions to the deterioration in their profitability depend mainly on whether or not firms have the possibility of transferring the higher costs to prices. Types of production with a high labour-intensity in particular might call for rises in prices greater than the increase of the cost-of-living which had led to increases in the cost-of-living allowance. In these circumstances, the sliding-scale would automatically have direct inflationary effects on costs.

Other reactions in an opposite direction are likely if the firm does not have a strong market position, or is not able to transfer the higher costs to prices. The reduced margins for self-financing, especially at a time when the cost of money is high and the prospects of expansion uncertain, prevent firms from carrying out those investments which would raise productivity. The upshot will be an emphasis on changes in organization to save labour or the decentralization of production by subcontracting or by having certain jobs done at home or by individual craftsmen. Thus, the advantages of egalitarian policies turn into disadvantages in the form of greater unemployment and the fragmentation of the labour market, and firms recover the flexibility curtailed by the trade unions' policy.

## Conclusions

It is extremely difficult to obtain three different ends by means of automatic wage indexing, and it is impossible to work out a compromise when the three objectives clash. The defence of all the workers' purchasing power calls for indexing proportionate to their wage levels, in contrast to the egalitarian approach. The policy of avoiding a spate of uncoordinated wage claims is bound to fail, during a period of strong inflation, if, in the negotiations at the firms' level, the anti-egalitarian tendencies are allowed to emerge after they have been suppressed in the national wage negotiations. The plan to narrow wage differentials in a brief period of time leads to a process of redistribution which in its turn feeds inflation.

However, we must distinguish between experience and prospects. The 1975 agreements have proved satisfactory in the first two years of operation. They have reduced the damage done by inflation, especially to lower paid workers, and introduced some degree of order into the complex picture of wage claims. However, for the near future, the situation is extremely disturbing. The devaluation of the lira has completely distorted the working of the system.

To contain the inflationary effects of the new mechanism, various proposals have been put forward, such as:

(a) Fixing a ceiling for the number of "points" registered every quarter;

(b) Delaying the payment of points above a predetermined ceiling.

These two proposals would introduce a device to prevent the excessively rapid transfer of cost increases to prices and the creation of widespread and lasting tensions as a result of sudden rises in the price of certain items;

(c) Excluding workers in the highest paid industries for a given period from the benefits of the sliding-scale mechanism. This proposal aims at attenuating the inflationary effects of the sliding-scale and at the same time strengthening the strategy for levelling wages. It would entail not so much a real modification of the 1975 agreements as the introduction of a clause providing for the partial and temporary suspension of these agreements in the case of certain categories of employees. To obtain significant results, however, a

provision of this kind would have to affect a large number of people. If it merely hits a few small groups, it becomes irrelevant;<sup>5</sup>

(d) Fixing a "point" with a value in inverse proportion to wage earnings. In this way, the redistributive character of the indexing system would be strengthened and its inflationary effects limited, while not completely excluding from the sliding-scale system categories whose adherence is necessary;

(e) Reviewing the "basket" on which the sliding-scale is calculated to guarantee against inflation only that part of consumption considered to be "essential". If the point of 2,389 lire a month is retained, the modification in the composition of the basket is of no great importance in determining the cost-of-living allowance. It is not the composition of the basket but price dynamics which triggers off new "points". The proposal, however, becomes meaningful if indexing is limited to essential goods and services and the value of the point is reduced. The last of the five proposals is therefore the most innovative, effective and coherent.

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The above analysis has been restricted to the sliding-scale in industry. However, certain more general remarks are called for.

In particular, there are numerous factors combining to keep prices in Italy rising at a faster rate than in other industrial countries. Decisive results can not be expected if only one factor is tackled.

In the second place, while industrial costs must clearly be contained, it is not realistic to ask for sacrifices by industrial workers alone, without dealing with privileged sectors and categories. For example, for the general effects on the economy, to reduce the huge differentials in earnings between the various sectors is perhaps more important than concentrate on the more modest gaps within a particular sector.

<sup>5</sup> By a decree issued in October 1976, as part of a series of anti-inflationary measures, the Italian Government, after consulting the trade unions, "froze" the payment of the new cost-of-living "points" for all categories of workers with a gross annual labour income of above 8 million lire, and half of the new cost-of-living increases for workers with a gross income of from 6 to 8 million lire a year. The amounts frozen are to be invested in treasury bonds. This measure affects medium-high incomes and has only a slight impact on inflation from demand pull. Since in any case firms will continue to pay the same costs, it does not at all damp down the spiral of cost inflation.

In this perspective, the three objectives of the indexing system might be more easily reconciled if the content of the basket was reviewed, and the value of the "point" in industry reduced correspondingly, and if remuneration arrangements involving more favourable indexing systems than those operating in industry were revised. For example, a point worth 1,800 lire a month could be fixed for all sectors. The lower wage levels would be fully protected, and the medium and higher ones would be protected to a decreasing extent as earnings rise. Thus, it would be possible to avoid automatic inflation and to preserve some room for collective bargaining.

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