

GIORGIO FUA'

LAGGED DEVELOPMENT AND ECONOMIC DUALISM

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1. A Hypothesis on Productivity Differentials in Lagging Economies

In a recent interpretation of the present state of employment in Italy, I made use, among other things, of the hypothesis that "today's lagging economies are not completely lacking in firms capable of achieving high productivity, but have not enough of them for absorbing more than a small proportion of the potential supply of labour".¹ In that work the hypothesis was only hinted; here I intend to go deeper into it.

To begin with, I shall imagine a country in which all the entrepreneurial and organizational forces in operation present an equal capability in switching from one production and technology to another, and have to compete with each other for the supply of capital and manpower. In such a situation, I expect the profit and the wage rates of the various firms to tend to level off, which amounts to a levelling off of the net product per each factor unit employed,² namely — in jargon — of total factor productivity (obviously, in the present context, net and at current prices).

There are three points to be stressed. First, the total factor productivity to which I refer, far from being a physical quantity, is a value dependent on the relative prices of commodities and

¹ G. FULÀ, *Occupazione e capacità produttiva*, 2nd edition, Bologna, 1976, p. 51; see however the whole sections 7 and 9. For an abridged English version see this *Review*, No. 122, pp. 215-244.

² I refer to the formula $\frac{Y_x}{w \cdot L_x + i \cdot K_x}$ where Y_x , L_x , K_x , represents respectively the product obtained and the number of units of labour and capital used by the x^{th} firm, while w and i denote respectively the *average* earnings of labour and capital calculated for the whole of the firms. For further explanations, see G. FULÀ, *Formazione, distribuzione e impiego del reddito dal 1861: sintesi statistica*. ISCO, Rome, 1972, methodological note E.

on the distribution of income between wages and profits. Indeed, the levelling mechanism of productivity operates precisely through, among other things, a readjustment of prices and distribution.

Second the levelling in question is only *tendential* and is affected by disturbances due to phenomena of rent, quasi-rent, risk and uncertainty. Third, it is to be expected that the tendential leveling of productivity among the firms will operate within a country, but not necessarily between countries, even if they are all countries with access to the same store of technological knowledge. Indeed, there may be decisive differences between one country and another in other respects: for example, the firms in one country may have a more favourable institutional set-up and better social infrastructures. Or there may be differences between countries as regards resource endowment, relative prices and income distribution, in which case the question of the international levelling of productivity is even meaningless, since the countries concerned have no common system of values.

The tendential levelling of productivity between firms, in the sense defined above, corresponds (although as a highly simplified model) to the situation found in the most advanced economies. I am referring to those economies in which there has been a long and successful process of quantitative growth and qualitative development of the entrepreneurial forces and the organizational structures, with the result that there is now a plenty of "modern" firms (that is, firms able to operate on the whole range of material and social technologies offered by the present worldwide store of knowledge), which form a front wide enough for absorbing all, or almost all, the supply of labour and capital.

We shall now examine the lagging economies. In these too, generally speaking, we find certain firms able to take advantage of the whole of modern technology (just think of multinational companies, which make their way even into those countries which are still without any local modern concern). If the conditions are favourable, these nuclei of modern productive organization will expand and spread bit by bit until they cover the whole economy, but in any case this process is gradual and subject to various constraints, including the fact that the organizational structures need a certain physiological time before they grow. Meantime, the front of the modern firms will remain small, and will be able to absorb only a fraction of the supply of labour and capital, thus leaving ample room to the pre-modern firms.

It may therefore be expected that the distribution in the lagging economies of technological capacity among the operating firms is not approximately uniform (as in the more developed economies) but distinctly dualistic. And there is no special reason to suppose that this difference between lagging and advanced economies as regards the distribution of technological capacity is offset by some other factor in influencing productivity. I would therefore expect the lagging economies to be characterized — vis-à-vis advanced economies — by a marked dualism of total factor productivity of individual firms.³

2. An Evidence: High Number and Low Productivity of Micro-Firms

Can the hypothesis set out in the preceding section be tested against the statistics? Of the sources now available, those coming nearer to meeting the requirement are the industrial censuses and the returns of gross product of industrial firms. But even these data are not fully adequate. In the first place, they provide information on the average productivity of labour and also on wage levels, but not on total factor productivity, and this gap is bound to remain, since measuring capital input is too questionable an operation. Another shortcoming of the official sources indicated is that they do not take adequate account of that part of industry which has recourse to irregular labour, so that this gap has to be made good by conjectures on the part of the user. Lastly, when the results are published, the data collected are not elaborated in the form best suited to deal with our problem. What we need is to know the distribution of the firms or establishments by productivity (or wage) level. The published statistics on the contrary show the distribution of the firms by size, defined on the basis of the number of persons engaged; and the average productivity (or wage) for each size.

Until we succeed in obtaining unpublished basic data in order to re-elaborate them, we can however extract some interesting evidence from the published elaborations. From these the following

³ Certain phenomena of dualism in productivity are admittedly present in advanced economies, but with very different characteristics and dimensions. The most notable examples concern the lower productivity found in agriculture and in the activities using immigrant manpower, or at any rate labour drawn from underprivileged racial groups.

indications emerge as regards the whole universe of the manufacturing firms:

— In almost all the countries on which we have information, the small size class shows distinctly lower levels of average labour productivity and wages than the intermediate and large size classes;

— The inferiority in productivity and wages affecting the small size class is generally greater in those countries which have a higher proportion of employees in this class;

— The proportion of employees in the small size class is inversely correlated with the country's level of development, as indicated by per capita income.

These results, which were summarily set out in my 1976 book,⁴ are given general confirmation and greater precision by a subsequent study carried out with greater methodological rigour and on more disaggregated data by R. Mazzoni.⁵ I refer the reader to these works for an adequate statistical illustration of the statement above; however, to give here a first hint, I reproduce on the opposite page a few data regarding the differences in wage levels (Table 1).

The statistical findings which I have summarized above lend themselves to the following interpretation. We can assume that modern entrepreneurial forces — that is, those able to operate on the whole range of technologies — will always adopt the size of firm, large or small, most suited to the particular case. The pre-modern forces, on the contrary, will in many cases be forced to work on a small scale, since a larger scale would be out of reach of their rudimentary organizational structure based on tradition or on family ties. Hence, the lagging economies, which still have a high proportion of pre-modern firms, have a higher proportion of small firms than the advanced economies which have mainly modern firms. In addition, small firms' average level of productivity as compared with that of the large ones will be particularly low in the lagging economies as there, and only there, the small firms are at the same time largely pre-modern (while the large firms are mainly modern).

⁴ G. FUA, *Occupazione e capacità produttiva*, op. cit., p. 52.

⁵ R. MAZZONI, "Dimensioni delle aziende e produttività," in a work by various hands, *Retribuzioni, produttività e prezzi*, ed. P. Alessandrini, at present in the press (Il Mulino, Bologna).

TABLE 1

WAGE PER EMPLOYEE IN MANUFACTURING ESTABLISHMENTS
CLASSIFIED BY NUMBER OF PERSONS ENGAGED

Size class		Wage level index (level in firms with 200-499 persons engaged=100)			
		Italy 1972	Federal Germany 1967	United Kingdom 1968	United States 1967
I	1 - 19 persons engaged	—	53	92	95
II	20 - 49 » »	65	85	95	96
III	50 - 99 » »	77	90	94	96
IV	100 - 199 » »	88	96	97	97
V	200 - 499 » »	100	100	100	100
VI	500 - 999 » »	113	106	108	107
VII	1000 - » »	127	117	117	131

Elaboration by R. Mazzoni based for Italy on returns of gross product in industry (Supplement to *Bollettino mensile di Statistica*, 1975, No. 1) and for the other three countries on industrial censuses.

For the United Kingdom the upper limit of the first size class is 24, and not 19. For the United States, the upper limit of the fourth size class is 249, and not 199.

The different endowment in entrepreneurial capacity not only implies that the lagging countries, in order to obtain a given output, will have to use entrepreneurial structures less modern (on an average) than advanced countries, and hence in general smaller, and what matters more, with a lower productivity, but has also another consequence. The lagging countries will concentrate on those products in which the pre-modern firm is at a smaller disadvantage in terms of productivity vis-à-vis the modern firm (for example, certain branches of the clothing and footwear industry), while advanced countries will specialize in products with the opposite characteristics. The latter products, since they are almost a monopoly of the advanced countries, can fetch relatively favourable prices, while the former suffer from the pressure of competition which comes from the mass of less developed countries.

My observations on the concentration of employment in small firms with a low productivity as a connotation of the lagging economies have been subjected to criticism, not always very

clearly expressed. It seems to me that it contains two interwoven strands.

A first line of criticism consists in denying that in today's Italy the small firms are on an average less productive than the larger ones. It seems that those who make this point mean by productivity the capacity to make profits. I, too, recognize that the small firms, thanks to certain characteristics of flexibility, but thanks also to their greater ability to avoid or escape fiscal and social charges and burdens imposed by legislation and collective agreements, have proved more vital in recent years than the large ones. But, if they have made a larger profit per unit of capital and/or labour employed, that does not necessarily imply that they have produced a greater value added per worker. And this is the point at issue. The ISTAT statistics which I have used show that up to the present time the small firms are far behind the larger ones as regards added value per worker (and also average wages). The official statistics of other countries yield similar results. It may be that all these official data are wrong, but that is what my critics ought to prove, but have not done.

Another line of criticism consists in denying that the minimum size is, *per se* and inevitably, a factor making for low productivity. A careful reader will find that I have simply affirmed that at the present time in lagging economies the average small firm (but not every single small firm) has a low productivity. And I have explained this by advancing the hypothesis that, in these countries, a large part of the small firms are premodern. I do not at all deny thereby that we could find individual cases in which highly productive firms operate on a small scale, or indeed individual cases in which the small scale conditions the high productivity. Not only so, but I consider that serious attention should be devoted to a tendency which is gaining ground in the most advanced economies and which seeks to get round certain obvious degenerative aspects of mature capitalism by resort to decentralization.⁶ I therefore regard as legitimate the hypothesis that our future progress might to a large extent consist not in substituting large units for the present small premodern

⁶ I recommend the highly stimulating and imaginative review by N. MACRAE, "The Coming Entrepreneurial Revolution: a Survey," *The Economist*, Vol. 261, No. 6956 (25 December 1976), pp. 41-65. See also the subsequent debate in the following issues: 8 January, 5 and 12 March 1977.

units, but in replacing the latter with units likewise small but stronger in technology and organization. However, a substitution (or transformation) of the many small premodern units must in any case take place if we wish per capita product to increase.

3. Problems of Distribution Raised by Differences in Levels of Productivity

Assuming that dualism as regards productivity is a distinct feature of lagging economies such as Italy, it follows that we have to face a difficult choice concerning income distribution, which does not confront more developed countries.

We have a group of high productivity firms able to bear labour costs close to those of the more advanced countries, and another group which, given their level of productivity, are unable to bear that level of costs. And we must, if we wish to employ the whole labour potential, ensure that both groups can operate, including the second one, until the first group has expanded sufficiently, which will require a considerable time. How can this dualism as regards productivity be handled in the field of wage policy?

There are three main solutions:

a) Explicit wage dualism, or more exactly a system of wage differentials corresponding to differences in productivity. The Japanese wage system, according to descriptions available in European languages, provided until recent years an extremely clear example of this kind. But there have also been certain limited applications of the system in Italy, earlier in the form of fenced off geographical wage areas, and later in the form of wage bargaining on a firm-by-firm basis. The disparity of rewards for similar jobs (an "incomes jungle", as Italians call it) sanctioned by this system naturally does not make it very popular.

b) A unified wage system at a sufficiently low level for it to be bearable even for firms with a low productivity. This means very high profits for those firms with a high productivity. It can be argued whether the resulting concentration of self-financing does or does not lead to an allocation of the new investments in line with the desiderata of development. But, in any case, it is certain that from the viewpoint of distributive equity, the system can hardly be

accepted. One could try and correct it by introducing some control on the part of the workers' organization as regards the allocation of the investments (and perhaps it is in this sense that we should interpret some of the ideas ventilated in recent years by the Italian trade unions), but it is doubtful whether a project of this kind can really be put into practice.

c) A system which — by means of a fiscal equalization — would reconcile equal earnings among workers and different labour costs among firms proportionate to their productivity. What I mean is putting an additional burden (as concerns e.g. social welfare contributions or even profit taxes) on the more productive firms and affording relief or granting subsidies to the less productive ones. This is, however, a scheme that raises a host of problems, as its more unsophisticated formulation would in effect provide incentives for *not* raising productivity, whilst a more refined formulation presupposes the existence of abilities which are lacking in the civil service of most lagging economies.

Italy is actually applying, at the present time, a solution which may euphemistically be called a "mixed" one. We have given ourselves a wage system officially unified at levels of labour costs too high for low-productivity firms, and we allow these firms to evade and elude the official regulations. In other words, we have created a system of hidden wage dualism.⁷ As I pointed out in my 1976 book, I consider that our hidden wage dualism adds new disadvantages to those already inherent in explicit wage dualism. It means that the scanty entrepreneurial and organizational energies of the country are to some extent expended on the achievement of productive formulas which are best suited to securing the evasion of charges and constraints imposed by wage agreements and by the law, and these formulas do not necessarily coincide with those calculated to raise productivity. At the same time the existence of a large area of hidden employment and incomes deprives the government of an adequate map of the economic reality on which it ought to operate,

⁷ In fact the Italian solution also comprises limited doses of systems (a) and (c). As regards (a), I would mention the exclusion of firms with less than 15 employees from the application of the Workers' Statute. As to (c), I would recall the "fiscalizzazione" (State subsidy for covering social security costs), which has been granted to specific weaker areas of production.

with the result that — to give only one example out of many — the distribution of fiscal charges and social contributions can only be made at random. Similar phenomena of groping one's way forward are to be found within individual firms, since their ability to keep proper accounts is adulterated by the logic of tax evasion.

Since some commentators have compared my position as to dualism and lagged development to that of Vera Lutz, a few words of clarification may be useful. Vera Lutz's work is extremely rich in observations, and, if one looks carefully, one can find there hints of almost all the points in my argument. There is even a rapid reference to the "inelasticity of supply of the entrepreneurial factor" as a bottleneck to development,⁸ and an incidental recognition that a marked dualism might not be an Italian peculiarity, nay "a similar split, no less serious in degree and duration, may manifest itself at some stage of the future economic history of certain of those countries which are now just beginning to industrialize."⁹

But if we go beyond the similarities on many particular points, we will find a sharp contrast in the basic logic of the two analyses. Among the mutual relationships which link up lagged development, the dualism of productivity and that of wages, I attribute major importance to the following causal sequence: retarded development determines the dualism in productivity, and this raises the problem of dualism in wages. Vera Lutz on the contrary, attaches primary importance to a causal sequence moving in the opposite direction, i.e. the existence of a dualism in wages aggravates the dualism in productivity, which in its turn retards development.¹⁰

From this flows her insistence on the need for a policy which aligns labour costs for all firms at the earliest possible moment, so that the low-productivity firms are driven out of the market. At this point, in her opinion, the existing labour force would be completely absorbed by the high productivity firms. I consider that her recipe might perhaps be appropriate in an advanced economy facing problems of dualism connected with the use of immigrant manpower, but certainly not in an economy like the

⁸ V. LUTZ, *Italy, A Study in Economic Development*, London, 1962, p. 316.

⁹ V. LUTZ, *op. cit.*, p. 11.

¹⁰ V. LUTZ, *op. cit.*, p. 54 and *passim*.

Italian one in which the rapid substitution of modern firms for premodern ones is hampered by the "inelasticity of supply of the entrepreneurial factor" (or more exactly of the "organizational structures" factor). The way I see it, dualism in productivity can be overcome only in the long run by a suitable development policy and not in the short run simply through a wage policy.

4. Lagged Development is a Different Development ¹¹

The question arises whether the problems of dualism which lagging economies have to face today have already been faced by the advanced economies in a previous phase of their development, that is, when their per capita incomes were roughly equal to those of the lagging economies at the present time.

The reply is probably in the negative. A first reason for this view lies in the gradualness with which the world store of technological knowledge has been built up. The economies which began to replace traditional technologies with "new" technologies up to a hundred, a hundred and fifty and more years ago (which were, in the main, the same economies in which these new technologies were elaborated) did not have to make a very big jump from the old to the new. This means that the existing productive structures were able to adjust with relative ease and the diffusion of the new technology from the earliest nuclei of modernization to the whole economy could be fairly rapid.¹² It also means that, even before the diffusion was complete, the productivity gap between the modernization nuclei and the surrounding economy was fairly limited. Things are completely different in an economy which begins its modernization only when the front of the new technologies has already far outdistanced the traditional ones.

¹¹ The issue raised in this section is dealt with very vigorously in a study which came out 16 years ago and which deserves to be reread with great care: L. SPAVENTA, *Nuovi problemi di sviluppo economico*, introduction to the anthology of the same title edited by Spaventa himself, Torino, 1962. Among the most recent writings, I would mention P. STREETEN, "Changing Perception of Development," *Finance and Development*, Vol. 14 et seq.

¹² The question is given more extensive treatment but in a somewhat different context by P. BATROCH, *Lo sviluppo bloccato*, Torino, 1976, pp. 64-66, 77-80, 247-251. French original: *Le Tiers-Monde dans l'impasse. Le démarrage économique du XVIII^e au XX^e siècle*, Paris, 1971.

A second reason for thinking that the most developed economies have not had any experience of dualism — in particular of industrial dualism — comparable with the present Italian one is to be found in the fact that this subject scarcely attracted any attention in the economic literature up to the second world war.

What said on dualism can be extended to other aspects of the economic structure. There is a general reason for expecting that the structural evolution of the lagging economies will not be the exact replica of the evolution of the economies which have preceded them. Even if the endogenous forces of development were equal in both cases (a far-fetched hypothesis, indeed), the milieu with which these forces interact has been modified, if only because of the development which has taken place meanwhile in the advanced countries. Thus, to take the most obvious example, it is clear that we cannot expect a country, which is at present going through the initial phases of industrialization, to assume, in the international division of labour, a monopolistic role analogous to the one played by the early industrial countries in the corresponding phases of their evolution.

This is confirmed by the fact that those who have devoted themselves to research on the patterns of modern economic development have found systematic differences between the functional relationships resulting from the historical series and those emerging from the cross-sections. It has also been found that if cross-sections are repeated at intervals of time, the coefficients of the functions change.¹³

Hence, if it is thought useful (as I believe it is) to try and identify certain statistical laws of the growth and structural evolution of the economy, in the sense of functional relationships valid for several countries, we must admit that these functions are subject to shift over time (so that the further problem arises of identifying the laws governing such shifts).

These remarks pose a serious problem of development policy. An appropriate development policy for lagging economies cannot be modelled on the one valid for the advanced economies of today, or even for those of yesterday, but calls for *ad hoc* reflection. Such reflection has so far been lacking. The fact is that the main body

¹³ On both observations, see S. KUZNETS, *Modern Economic Growth*, New Haven, 1966 (reprinted 1973), pp. 431-437; *idem*, *Economic Growth of Nations*, Cambridge, Mass., 1971 (reprinted 1972), pp. 174-198 and 275-288; H. CHENERY and M. SYRQUIN, *Patterns of Development 1950-1970*, London, 1975, pp. 117-134 and 170-174.

of economic analysis and policy has been elaborated in the most advanced countries and with reference to the latter's problems.

Besides, there has, it is true, been an effort in the last few decades to elaborate an analysis and a policy for the extreme case of "underdevelopment"; but there has been a relative neglect of the intermediate cases — which comprise Italy, and indeed all the European Mediterranean countries — much as if one could, by and large, apply to them the tools already elaborated for the more developed economies, which in fact has not been proved correct.

To throw light on the specific problems of the intermediate economies is therefore a task which awaits economists. And Italians should be well placed to make a contribution. From the fulfillment of this task depends the possibility of a correct approach, not only to the domestic policies of the economies in question, but also to their insertion in the international framework. I am thinking, among other things, of the relationship between the Mediterranean countries and the EEC.

Ancona

GIORGIO FUA