

Considerations on the Industrialization of the Mezzogiorno

The present article is not a revised or abbreviated version of my book which was published in German in 1951 and, four years later, in an Italian edition (1). It aims only at picking up the thread at the point at which I was forced to drop it at that time. Its justification lies in the constant accumulation since then of new knowledge and experience.

It was only in the years following 1950 that the Italian authorities finally abandoned the old liberal conception according to which the solution to the perennial "Southern question" was to be sought along the lines of the special laws for the South which had existed since the beginning of the century, i.e. in a policy of large-scale public works. This policy, resolutely followed, had at least an experimental function and served to correct a way of thought of which the theoretical basis had also in the meantime been deepened and extended, so that gradually, and in spite of opposition, the way was paved for the realization that the pursuit of the path hitherto followed might end in an impasse.

It was no longer possible to hold that the intervention of the state should be limited to the provision of the "social fixed capital" and that it should be left to private enterprise to develop the social and economic fruits of these preparatory public works, or else that it should be allowed to abandon them periodically to the destructive forces of the elements from which they had only just been wrested, as had often enough happened in the case of the land improvement projects. The danger that the preparatory work of the State might

(1) FRIEDRICH VÖCHTING, *Die italienische Südfrage Entstehung und Problematik eines wirtschaftlichen Notstandsgebietes*, Duncker und Humblot, Berlin, 1951; *La questione meridionale*, Studi e Testi della "Cassa per il Mezzogiorno", Istituto Editoriale del Mezzogiorno, Napoli, 1955.

not be backed up by the private activity which was alone capable of bringing it to fruition, also threatened, though in a different form, the attempt to industrialize the Mezzogiorno. It threatened, that is to say, a process which was the only hope of breaking through the psychological and economic wall of the southern environment, and thus of giving the latter new life.

To-day things are a good deal different. But even in the much more vigorous social climate that now prevails the problem still remains of mustering, or indeed of finding a new class of entrepreneurs. For here the case is different from that of the agrarian reform where in the process of expropriation it is easy to replace the old land owners by others who, whether they be better or worse than their predecessors, are always in ample supply.

In the case of industry it is necessary to attract, from near or from far, a new class of entrepreneurs by offering incentives which act on profit prospects in such a way as not merely to neutralize the drawing power of the established industrial centres of Northern and Central Italy but to outbid it by forcing up of the productivity of the economy of the Mezzogiorno. And a solution has to be found not only to problems of a material character but also to problems of general education and technical instruction before the way will be open to the hoped for increase in the income level of the South.

The following essay deals with these questions and with the recent history of the efforts to carry the unification of Italy into the social and economic sphere. In preparing it, use has been made of articles in the daily press as well as of specialized publications (2).

The essay will be published in its entirety in the *Jahrbuch für die gesamte Staatswissenschaft* (Stuttgart). The version presented in this number of the Quarterly Review of the *Banca Nazionale del Lavoro* is, for reasons of space, confined to the part that deals with the problem which is to-day the most crucial one: that of the conditions and the results of industrialization in the South, and the limitations on its further progress.

(2) The publications of which most use has been made, and the abbreviations adopted in citing them, are as follows: *Informazioni SVIMEZ* (Associazione per lo sviluppo dell'industria nel Mezzogiorno), Roma, appearing weekly or fortnightly, and quoted as *Inf. Sv.*; *Mondo Agricolo*, Rome, weekly, quoted as *M. A.*; *Il Mezzogiorno*, Rome, monthly; *Bollettino Sicindustria*, Palermo, fortnightly, published by the Federazione degli Industriali della Sicilia, quoted as *Boll. Sic.*; *Rivista Mineraria Siciliana*, Palermo, quarterly, quoted as *Riv. Min. Sic.*

I. The Necessity for Industrialization

It has long been admitted by those most closely interested in the Southern problem that agriculture alone can never absorb the surplus population, even apart from the annual additions to the labour force, and even if the programmes for irrigation works and for more intensive cultivation launched by the *Cassa per il Mezzogiorno* are completed and their economic and social yield reaches a maximum. A corollary of this view is that the economic and social ills of the South can only be cured by large-scale industrial development. If no initiative was taken before 1950 in this direction, this was mainly because emigration had allowed the basic problem to be pushed into the background and had warded off the danger of a permanent disequilibrium in the labour market.

An emergency situation later obliged the Fascist regime — just at the time when, realizing the inadequacy of the one-sided “battle for grain”, it was about to recognize the necessity for industrializing the Mezzogiorno — to subordinate all political and economic exigencies to the aim of rapidly driving towards autarchy for the country as a whole.

It was the Allied occupation of Italy in 1943 which, by dividing the South from the North for a period of almost two years, emphasized the necessity of integrating the economy of the South with that of the rest of the country. However, the authorities, instead of launching a policy of industrialization, still thought it necessary to give preference to land improvement and land settlement works which had been damaged or destroyed by the war, especially in the plain of Catania, in the area round Salerno, in the region of the Pontine Marshes, in the neighbourhood of Anzio and Nettuno, and on the lower Volturno and Garigliano. It was thought at this time, especially in face of the outbreaks of social unrest and the attempts among the peasantry to take possession of the land by acts of violence, which were widespread in the Southern regions, that the best move was to resume the programme of agrarian reform and to carry it forward with the financial aid coming from America. Another point in favour of the policy of those giving priority to the agricultural sector was the conviction that it harmonised with the deep-seated instincts and age-old aspirations of the peasant masses. The efforts in this direction were a well deli-

neated phase of post-war reconstruction. But I cannot here enter in the details of the results achieved by the agricultural programme.

II. The Subjective Difficulties Involved in Industrialization

a) *General Psychological Obstacles*

The century which has passed since the political unification of Italy has not witnessed the closing of the gap which separates South and North, either in the material sense or in that of ways of thinking and behaving.

The freeing of the South from the bonds of feudalism, which took place much later than in the North, left behind it a psychological heritage of which the effects still survive. And it is in these vestiges of a degrading medieval oppression that is to be found the origin of those obstacles which still stand in the way of the integration of the former Bourbon kingdom into modern economic and political life, and of the attempts to overcome or at least diminish the long lag of the South behind the North. Just as in the past — after 1860 — the extension of the exchange economy had broken the closed circle of the community life, of the *Mezzogiorno*, the general misery of which did not exclude patriarchal or even idyllic traits, so now industrialization was felt to be a violent intrusion of moral rather than material forces, and as the imposition of an alien way of thinking and still more of an alien way of life (3).

The Southerner rebelled against the idea of being educated to new ways of living, of which he failed to recognize the pretended superiority, and of which the negative aspects initially obscured what at a later stage, after a process of gradual assimilation, might turn out to be salutary effects. And there was widespread resistance against submitting to the leadership of a class of unwanted and alien educators who claimed to act not only as guides towards the realization of a better economic system but also as apostles of a higher form of civilization. The resistance was the greater since this new civilization demanded a level of discipline on the part of the worker and an effort to economize time, in the race with

(3) Cf. VITTORIO VACCARI's report on the meeting of the CEPES in Palermo on 13-15 October 1955, *Inf. Sv.*, IX, 1956, No. 3, p. 72 et seq.

machine production, which had to be acquired almost overnight, starting practically from scratch and skipping a long process of technical development as well as a system of education and upbringing which, in other places, had been passed on from generation to generation.

b) *The Problem of Entrepreneurship*

A question of fundamental importance is whether this still largely pre-capitalistic world is able or not to give birth to an entrepreneurial class capable of measuring up to modern international standards.

A good many of the young people in the South who are gifted and enterprising enough to aspire towards the higher careers, believe that it is only in the North that they find suitable outlets for their ambitions. This northward migration which, if we wanted to dramatize it, we might call the "intellectual haemorrhage of the South", is partly counterbalanced by an analogous movement in the opposite direction. Those who migrate from the North to the South are inferior in numbers, but they are quick to make their influence felt in the Southern centres where they make their homes, and they rapidly take on the character of an élite. The unequality of this exchange of intellectual capital between North and South means that the Southerners, while recognizing the material and social advantages which derive from it, often feel a sense of moral inferiority. In any case, the draining away of the intellectual groups makes it difficult to see from what social stratum we can expect a local entrepreneurial class to emerge in the South, a class capable of making its weight felt alongside the entrepreneurial and managerial personnel coming from the North and, in time, of taking its place. So long as in Italy itself opinions concerning this fundamental problem differ so widely, we must be cautious in expressing a judgment, especially because much of what is said on the subject is either based on mere sentiment or else distorted by propaganda (4).

The two-way migration is closely connected with another important phenomenon: the poor level of technical education among

(4) FELICE DEL VECCHIO, "Sulle autonomie locali nel Mezzogiorno", *Lo Spettatore Italiano*, Rome, January 1956 and *Boll. Sic.*, VI, No. 2, 16.1.1957, p. 32.

the Southern middle classes or even, until recently at least, a positive aversion among these classes towards careers connected with business or commerce. This aversion is at one and the same time both cause and consequence of the paucity of technical and professional training centres in the area. The ambition of the young Southerner to obtain a safe job in the Government service (5) is catered for by a school curriculum which leans, heavily, towards the humanities. And in provincial towns this type of education is a prerequisite for entry into the liberal professions and other careers. I am here referring especially to the high school (*liceo*) which alongside a handful of scholars and politicians, and an excessive number of would-be government employees (including teachers) and legions of future lawyers, doctors and journalists, turns out every year a new group of intellectual proletarians who are without a future, but whose poverty must nevertheless be mantled by a university degree (6).

The ideal of a classical education, and of the possession of an academic title which gives it authenticity, still carries with it to-day in the Mezzogiorno an important prestige value. And it is unfortunately too much to expect that the social ideals of the Southerners can be radically changed within the short period — perhaps a decade — during which it seems possible that a structural transformation of the South of Italy might be achieved.

Educational tendencies in the Mezzogiorno are still discouraging from this point of view even to-day. In 1952-53, out of ten young people above the age of 14, eight had attended schools providing a humanistic education against five in the North, where the other five had had a scientific or technical training (7). Again in 1952-53, the South provided 48 per cent of the candidates for the school leaving certificate in classical subjects, and only 21 per cent of those who passed the examination in technical and scien-

(5) This is shown by the overstaffing of Southern government offices and by the high proportion of civil service salaries in the income of the area as a whole. Whereas the figure is 4 per cent in the Northern provinces of Vercelli and Varese, it is as much as 31 per cent in the province of Taranto (S. TAGLIACARNE, in *Il Tempo*, Rome, 17.8.1957 quoted in *Inf. Sv.*, X, 1957, No. 35-6, p. 785).

(6) According to a recent enquiry, the number of those who had had a higher education, was proportionally higher among the unemployed than among people in jobs. It was 36 per cent for the first group and 14 per cent for the second. (A. BARDOSCIA, "Mani e cervello nell'operaio meridionale", in *Civiltà delle Macchine*, Rome, Nov.-Dec. 1956.

(7) *Ibid.*

tific subjects. And the South accounts for about 38 per cent of the population. At the same time the South furnished 52 per cent of those graduating from the law faculties of the Universities, and 42 per cent of those graduating in medicine, against only 27 per cent of the graduates in engineering (8).

As Giustino Fortunato had already complained, the Southerners were, and still are, less inclined than are the people of the North to devote themselves to studies of a practical kind. This phenomenon is attributable, if not exclusively, then at least in part, to the paucity of opportunities in the Southern regions for turning a technical scientific education to profitable account.

This subjective factor, the lack that is of enterprising personalities capable of initiating new ventures and taking risks, often represents, in the whole complex of forces which condition industrialization, the most negative element. Indeed, it constitutes a much more serious obstacle to the economic development of the South than does the scarcity of capital or the inadequacy of the credit system which distributes that capital.

c) *The Lack of Education and Training among the Workers*

The lack of technical training, which Luigi Salvatorelli called the "illiteracy of the literate", is just as serious an obstacle to the industrialization of the Mezzogiorno, as is the absence of a class of commercial and business leaders. An equally heavy handicap is the illiteracy of large strata of the population; and this is another symptom of the absence of a social milieu with modern habits and ideas.

The inability to read and write and the ignorance of the rudiments of arithmetic (9) extend in the North to 6 per cent of the population. In the South the figure is still as high as 23 per cent. And this is still an insufficient guide to the true gravity of the phenomenon. For we ought to adjust this figure upwards to allow for those whom we might call the "relapsed illiterates", or those who once went to school but did not complete even an elementary education and subsequently forgot the little that they had learnt. When allowance is made for this group, the proportion of illiterates

(8) *Inf. Sv.*, X, 1957, No. 4, p. 95 f.

(9) *Ibid.*, p. 79 f.

among the population in the Mezzogiorno is, according to one estimate which does not seem to be unduly pessimistic, about 50 per cent. This is symptomatic of conditions which leave very little hope indeed that it may be possible rapidly to create in the South an industrial apparatus on the high technical level that is required to-day in order to keep pace with world competition, and into which the worker in the North is, thanks to his better education and training, well able to fit.

Praiseworthy efforts have been made for a number of years now towards breaking down this wall of ignorance. They have included the foundation of labour training schools, the provision of special courses, and the organisation of a modern apprenticeship system. They can, however, bear fruit only over the longer run, only after a difficult struggle and, for some time at least, only among a small circle out of the total population. Moreover, according to one distinguished statesman and economist (10), the provision of a specialized industrial training requires a minimum of three years and costs at least 500,000 lire a year per head. Thus, if the labour force with specialized training were to be increased by, for example, 50,000 units, the cost would amount to 75 milliard lire. This sum is equivalent to three quarters of the amount originally allocated to the *Cassa per il Mezzogiorno* for one year's operations. The outlay of time and money goes beyond anything that can conceivably come from private initiative (11). Indeed, it was three semi-public entities (IRI, FINSIDER, FINMECCANICA) which undertook to provide specialized training for young as well as older workers in Naples, gathering together the necessary group of instructors, and providing courses which are at present in the third year and have an attendance of as many as 600 trainees. The number of participants could easily be expanded were more facilities available (12). This "Centro di Addestramento Maestranze Industrie Meridionali", which aims at training labour for heavy industries in the Naples area, is of course a mere beginning, limited to one geographical centre and one branch of industry. It is to be hoped

(10) E. CORBINO, "Aspetti attuali dell'economia meridionale", in *L'industria meridionale*, Vol. III/IV, March 1956, quoted in *Inf. Sv.*, IX, 1956, No. 24, p. 514.

(11) See radio talk by CARLO FABRIZI of 8.12.1956 (quoted in *Inf. Sv.*, X, 1957, No. 3, p. 653 f.).

(12) *Ibid.*, X, 1957, No. 7, p. 180 f.

that the example may be followed in other industrial centres, which are already in existence or in process of being created, and especially in the major branches of industry. In general the lack of skilled labour, a lack which can be overcome only slowly and with difficulty, constitutes one of the worst obstacles to industrialization in the South.

III. The Objective Problems of Industrialization

a) *The Supply of Power*

Any industrialization programme for the Mezzogiorno comes up against a problem of power supply. Even in this respect, the numerous Alpine water courses, together with the natural gas deposits in the Po Valley, assure the North of a position of superiority with which the South could draw even only by exploiting the possibilities offered by atomic energy and even then, of course, only provided it were not outstripped in this field also by the North (13).

It is a well known fact that Southern Italy and the Islands lack rivers which carry a continuous and large flow of water, with the exception of the Sele and the Volturno. Most of the streams which rise in the Southern Appennines, even if these in some parts reach beyond the snow line, are rushing torrents at one time of the year and waterless beds at another; and this is a characteristic which has been sharpened by the effects of deforestation and the ploughing up of grassland. These sources of water power, which are at some times overfull to the point of being dangerous to life and property and at others — and just when the need would be greatest — completely dried up, can be harnessed only with the aid of dams and sluices. But, even then, action is necessary to avoid two possible disasters. One is the crumbling, washing away and subsidence of the bare mountain slopes on either side, which unless prevented rapidly silts up the reservoirs impounding the water, and reduces the supply of water available for power generation and for

(13) The recent announcement on this subject is not too encouraging. It says that, of the 4 or 5 atomic energy plants which Italy plans to set up by 1960, only one will be in the South. (*Inf. Sv.*, X, 1957, No. 11, p. 6).

irrigation. The other danger is the permeability of the soil which may allow the water to trickle away.

The first of these dangers calls for careful and thorough underpinning of all gullies and ravines in the usually extensive catchment area, the construction and continuous maintenance of a carefully constructed amphitheatre of terraces running horizontally and vertically. These artificial steps have to be planted with quick-growing hardy types of tree of which the best has proved, in Southern Italy, to be the eucalyptus. Even this plant, which comes from Australia, must be carefully tended in the early years of its growth if it is to survive.

The second danger, which derives from the late geological formation of the Southern Appennines, can perhaps only be obviated by means of cement injections, which, despite their high cost, are no guarantee of success.

On top of these material obstacles in the way of the production of hydro-electric power, to which must be added the rapid evaporation caused by the southern climate, there is an economic obstacle connected with the distribution of current. The cost of electric power, which is for technical reasons above the national average, is further increased by the need to relay it to consumers scattered over a large area, hardly any of whom are industrial users, and who do not need, or are unable to afford, a high rate of consumption.

The growth in electricity consumption, which is increasing for the whole of Italy at the rate of 6.3 per cent per year, justifies the target set by the "Vanoni Plan" of raising output from the level of 35.5 milliard Kwh. reached in 1954 to 66 milliard Kwh. in 1964 (14). It was estimated, also in the "Vanoni Plan", that the remaining sources of electric power which it would pay to develop did not exceed 45 milliard Kwh. Even previously, about 70 per cent of the total volume of economically worthwhile waters had already been developed on the Southern mainland and 55 per cent in Sicily, while the North had exploited only 45 per cent of its much richer reserves (15). In future, therefore, the emphasis would have to be placed on thermal production which alone would make

(14) *Schema Vanoni*, p. 25.

(15) PASQUALE SARACENO, *Elementi per un piano quadriennale di sviluppo dell'economia italiana*, Milan, 1947, p. 57 f.

it possible to cover the deficit of 20-25 milliard Kwh. by 1964 (16). Methane gas and fuel oil seem called upon to replace, to an increasing extent, expensive imported coal. The inferior Sardinian coal, which is also costly, would be worth processing only by a petrochemical technique which would have to be applied at the point of extraction (17).

The rich deposits of methane gas in the Po Valley, the recent discovery of which revealed a previously unsuspected store of mineral wealth, have their counterpart in finds of the same kind, though smaller in magnitude, in the Plain of Catania (Sicily). The optimistic first hopes were, however, subsequently disappointed. The output measured in coal-units fell from 25,000 tons in 1955 to 17,000 in 1956, because the high carbon anhydride content of the gas from a number of wells made it necessary to close them down (18).

On the other hand, the South still retains its lead, its monopoly even, in respect of oil production. Here too, however, the hopes originally entertained had to be sharply scaled down. The field of Ragusa in southeast Sicily, where, in the autumn of 1953, the *Gulf Italia* was the first of the various Italian and foreign firms in the running to strike oil, has so far yielded increasing quantities but of a low grade product. According to the rate of extraction reached in the autumn of 1957, the annual output ought to reach about 1.6 million tons (19). This is equal to a tenth of the present needs of Italian refineries.

In 1956, the "AGIP Mineraria" started drillings to a depth of 3,400 metres near Gela on the south coast of Sicily. Enrico Mattei, the General Director of ENI, has recently declared himself confident, on the basis of the soundings so far taken, that production would amount to 2 million tons a year. However, this oil seems to be even heavier and more bituminous than the deposit at Ragusa so that, before it can be pumped to the surface, about 15 per cent of solvents has to be used. This of course greatly adds to the cost of extraction, and means that the deposit ranks low as a source of

(16) Even now Italy's output of electricity comes from hydro- and thermo-electric plants in the proportions of 70: 30 respectively (*Boll. Sic.*, VI, 1957, No. 11, p. 6).

(17) F. PASTINA and A. SOLUSTRI, "Ponti di energia e industrializzazione del Mezzogiorno", in *Idrocarburi*, Rome, 1957, No. 1, quoted in *Inf. Sv.*, X, No. 9-10, p. 238.

(18) *Boll. Sic.*, VI, 1957, No. 19, p. 8 f.

(19) *Ibid.*, p. 13.

fuel products. Nevertheless, Mattei is also contemplating working the submarine oilfields that are presumed to exist off Gela. Other prospectings by ENI have been proceeding near Noto and Caltagirone (20), also in Sicily, and judgments on them are favourable.

As against this, it appears, unfortunately, that the slightly later discoveries of oil in the Abruzzi which seemed promising to start with, at least as regards quality, have later proved disappointing. The bore holes, after the first rich production, threw up more brine than oil (21). In fact, the "Gulf Italia", after incurring prospecting costs of about 2.5 milliard lire, gave up its concessions in the Abruzzi in the beginning of 1957 (22). "Esso Standard" and "Shell Italiana" followed suit (23). The failure to strike oil was not alone responsible for this sensational withdrawal. According to the public declarations of the General Director of "Gulf Italia", the new Italian oil law, which was passed by Parliament on 11 January 1957 after bitter struggles, also played a decisive part (24) because of "the poor economic stimulus which it gave".

That part of the oil from Ragusa which is not refined or consumed on the spot (25) now flows through a 75 kilometre long pipeline to the refinery at the former naval base of Augusta. This refinery has recently been expanded to an annual capacity of 2.2 million tons and it still obtains most of its crude oil from abroad, in the main from the Near East, and these supplies were of course partially interrupted by the Suez Canal crisis (26).

It is estimated that by 1960 about three quarters of the South's production of thermo-electricity can be covered by imported and local oil, and hence at relatively low cost. And this is obviously an extremely important factor for the future of Southern industry.

(20) *Ibid.*, No. 18, p. 35.

(21) *Basler Nachrichten*, 2.10.1956.

(22) *Inf. Sv.*, X, 1957, No. 5-6, p. 127.

(23) *Basler Nachrichten*, 20.3.1957.

(24) *Ibid.*, 24.1.1957 and 7.3.1957. A later press announcement (*Ibid.*, 16.12.1957) reports that the "Gulf Oil" has reacted to the failure of the latest drillings near Ragusa by giving up most of its concessions there and stopping further investments in the Island. This decision of the American company is declared to be the result of the recent advance of state planning influences in Sicily, leading to favoritism towards the semi-state corporation ENI. It seems to me, however, that equal importance should be attached to the high cost of extracting and processing this bituminous Ragusa petrol. In the case of a lowering of the price of petrol, such wells would be among the first to be closed.

(25) *Inf. Sv.*, VIII, 1955, No. 38, p. 854.

(26) *Boll. Sic.*, VI, 1957, No. 1, p. 12.

Unfortunately, the tax authorities appear to have scant understanding of this situation. They have imposed a tax of 0.55 lire on a thousand calories obtained from fuel oil, while the same amount obtained from methane gas is taxed at 0.33 lire and from imported coal at 0.20 lire (27). This discrimination is probably intended to restrict the growth of oil refining which even in 1955 began, or so it was feared, to exceed the absorptive capacity of home and foreign markets (28). But it is obviously a question of choosing the lesser evil. The alternatives are *either* to leave private enterprise freedom of action, so long as it complies with certain social obligations, and to give up a source of tax revenue which it may be difficult to replace, or to deprive industrialization in the Mezzogiorno, which is the primary objective of current economic and social policy in Italy, or one of its prerequisites, namely a cheap source of power. There can scarcely be any doubt as to where the choice should lie. Without the present tax, a thousand calories, produced from fuel oil, would be provided at a price not above 2.20 lire. The objection that is sometimes made that increased oil imports add to the deficit of the Italian balance of trade will not stand up to examination. Exports of oil products, which in 1956 reached a value of no less than 106 milliard lire (a sum which was already a substantial one) (29), along with the exports of various other products obtained from oil or with its help, cannot fail to bring back a good part of the foreign exchange spent on the crude oil. It is therefore mistaken to argue that the weight of this item on the debit side justifies, as a means of lightening it, recourse to marginal sources of hydro-electric power. This sort of logic is reminiscent of the old mercantilist theories according to which a country should extract the precious metals from its own soil regardless of cost, even if the same quantity of gold and silver could be obtained much more cheaply from abroad in exchange for manufactured goods. Moreover, in this case, the South has, by virtue of its geographical position, the advantage of the lower freights, which has enabled Bari, Augusta and above all Naples to create on the basis of oil from the Middle East, an important processing

(27) R. DELLA FELICE, "Lo sviluppo del Meridione e il problema dell'energia", in *Realtà*, 22.2.1957; *Inf. Sv.*, X, 1957, No. 11, p. 269.

(28) *Basler Nachrichten*, 10.8.1955.

(29) *Boll. Sic.*, VI, 1957, No. 10, p. 26.

industry which now vies, in terms of the volume of exports, with the Northern refineries.

These oil refineries, which have shot up very rapidly especially in the South, are intended to supply the increased need for power which is estimated by the "Vanoni Plan", on the assumption that the Italian economy maintains the rate of growth there envisaged, to reach 20-25 milliard Kwh. in 1964. This is an amount which the domestic hydroelectric potential cannot possibly cover.

The extraction of the so-called "forze endogene" — or volcanic steam emanating from the ground — which were rather optimistically hailed as likely to prove one of the main sources of power in the South, has fallen far behind expectations. The precedent of Larderello, south of Volterra, where the Italian State Railways obtain all their electricity from this source at very low cost (30), has unfortunately not been repeated in other places, with the exception of a few instances of scarce significance, such as that on the tiny island of Volcano near Lipari.

The experiments undertaken at considerable effort and cost in the vicinity of Naples, on the Phlegrean Fields and on the Island of Ischia were soon dropped because of their poor results. And a similar venture at Sciacca in Sicily, at the outlet of the local thermal springs, proved a complete failure (31). In any case, these operations present extremely difficult problems the solution of which is hindered rather than helped by the fantastic accounts given in some parts of the press. If all that was necessary was to bore through the flanks of Etna in order to release volcanic steam from its depths, the undertaking would undoubtedly have been successfully carried out before (32). Nevertheless, the results obtained in the one case of Larderello should be an encouragement to further efforts.

Part of the reason for the slackening of interest in the "forze endogene" was the sudden burst of hope that large oil fields would be found in Italy after the early successes near Ragusa in October 1953. It was anticipated that the new source of energy would

(30) Here again it was due to the energy and farsightedness of an outstanding private operator, the Tuscan Count Ginori-Conti, that the transition was made from abstract conceptions to the practical realisation of projects which demanded an expenditure of effort and of funds which could be expected to yield a reward only at a distance of decades.

(31) F. PASTINA and A. SOLUSTRI, *loc. cit.*; *Inf. Sv.*, X, 1957, No. 9-10, p. 238 f.

(32) Cf. article by MARIO LUPO, "Elettricità e metallurgia", in the Catania daily *La Sicilia* of 2.7.1957.

produce power much more cheaply and — what was an important consideration — with less risk of insuccess. The work on these schemes should now be resumed with greater vigour; and it is time to reconsider the possibility of producing another 3 milliard Kwh. (33) of power with the volcanic gas which erupts from the sub-soil in so many places in Southern Italy. Such operations depend in any case on the application of new technical methods.

b) *The Availability of Raw Materials*

Italy has always been poor in raw materials and this circumstance has been an obstacle to her industrial development. The principal exception were the sulphur mines of which the principal ones, in Sicily, were alone supplying, around 1900, about 80 per cent of world production. The other Italian sulphur deposits are situated in Campania, in Romagna and in the area round Ancona. Italy was not, however, able after the beginning of the century to preserve the monopoly which nature had conferred upon her.

During this period of strict economic liberalism, the supply of sulphur was subject to violent fluctuations corresponding to the ups and downs in production. At regular intervals, prices collapsed, and, in the wake of the crisis, came a trail of ruined marginal and small concerns. The periodic closure of these pits plunged masses of workers into misery and despair, which often found relief in wild bursts of violence. Throughout the 19th century, social unrest was endemic in the Sicilian mining areas.

Efforts to regulate sales constantly came to grief because of the equally endemic greed and shortsightedness of the owners. Another factor preventing the necessary concentration of ownership was the property system prevailing in Sicily. Almost all of the richer pits belonged to the family estates of the Sicilian nobles, most of whom were deeply in debt and, as absentee owners, either farmed out the pits to foreigners or left them in the hands of managers. Even in good times, the profits from the mines — when they were not pledged to creditors — were seldom used to improve the conditions of the mines and the mining equipment.

Sicily's leading position in the sulphur market, which was thought to be permanent, carried with it, as in so many similar

(33) Cf. articles by GUALTIERO MAZZEI, in *Il Mezzogiorno*, II, 1953, Nos. 10 and 12.

cases, a serious danger. It provided no incentive or compulsion for the owners to introduce better mining methods or, what was even more urgent, to improve working conditions, which were comparable to those of early capitalism and rendered Sicily a painful exception to the progress made both in Italy and in the rest of the world. The backward methods of production meant a loss of productivity of 30-35 per cent (34). Only a minority of firms had the determination and the means to give up these methods and also to improve the living conditions of the workers. These few enterprises (25 out of the approximately 600 at the turn of the century) supplied half of the whole production. It must, however, in all fairness be added that the irregularity with which sulphur strata are found introduces an element of chance into the profitability of mining and limits the scope for mechanization (35).

The processing of the raw material was left almost entirely to other countries. Sicily had only a few small refineries; and in 1860 there was one single sulphuric acid works in Palermo.

The alternation of periods of boom and slump which had been characteristic of the nineteenth century gave way, in the twentieth, to a permanent state of depression, when new sulphur deposits were discovered in Louisiana and Texas, where the mineral could be brought to the surface by a drilling process using compressed air and boiling hot water. This process, which had been invented by the German-American Frasch, is dependent on particular geological conditions and cannot therefore be extended to every region where sulphur is found. With the new technique, man no longer had to go below the surface to mine the sulphur; all he had to do was to pump it out of the earth which was heavily laden with this material. This new production method did serious damage, of course, to Sicily, where the mineral is not found in large lumps in pure form, but is embodied in rock, with a 15-30 per cent sulphur content, and can be extracted only by mining and processing this rock. In these circumstances the new American supplies were able after a brief period to challenge the position of the traditional Italian production in the world market and gradually to exclude it. There were brief periods of recovery only in times

(34) EPICARMO CORBINO, *Annali dell'economia italiana*, Città di Castello, 1931, Vol. II, p. 96.

(35) *Riv. Min. Sic.*, IV, 1953, No. 24, p. 288.

of war or rearmament when the Italian production was added to that of the rest of the world as the marginal element.

Not only was the American sulphur cheaper than the Sicilian. The output was also larger. As early as 1912 the United States had an output of 788,000 tons, while the output of the Sicilian mines had fallen, from the maximum of 537,000 tons reached in 1900, to only 200,000 tons (36).

The "flotation" process would make it possible to reduce the cost by about 18 per cent and increase the sulphur yield by at least 25 per cent. However, this method calls for a consumption of water at least thrice the weight of the stone that has to be processed (37). Thus, in accordance with the "laws" of industrial location, the raw material must be brought to the water instead of the opposite which, in any case, would be impossible in the dry area of Central Sicily where the main sulphur deposits are situated. The only solution would be to erect flotation works that would serve a certain number of mines situated within an area of not more than 20 square kilometres; and these works would, of course, have to be situated either on the banks of an all-the-year-round river or by the seashore. But even with that system the cost advantage enjoyed by the American sulphur would only be reduced: it would not be eliminated.

Even before the discovery of the American sulphur, the Sicilian product had been threatened by a dangerous rival produced mainly in Central Italy in the form of pyrites which had already captured Sicily's former English customers towards the end of the nineteenth century. Its rise was meteoric, and it even drove sulphur into the shade for the time being in Italy itself. It is significant that the comprehensive work of Loiacono devoted to the policy of autarchy hardly mentions the mining of sulphur in Sicily: evidently it was no longer considered of any account.

This changed situation, which depended primarily on the new competition from other areas, and on the new technical discoveries, seems to have led to the neglect of considerations of a social character which were, however, an important part of the Sicilian mining problem, given the large numbers of workers who were

(36) *Riv. Min. Sic.*, XIII, 1957, No. 43, p. 36.

(37) *Ibid.*, 1954, No. 26, p. 59 f.

directly or indirectly dependent on the sulphur mines for their living.

To complete the picture it should be added that, even before the end of the nineteenth century, sulphur had found new uses as an antiparasite for vines and as an ingredient in paper making. But in spite of this the market for Sicilian sulphur did not improve except in sporadic boom conditions such as occurred, for example, during the Korean War. Unfortunately modern technology has not discovered a way of reducing the production costs by the half, or more, which would be necessary to put Sicilian sulphur back into the position of being able to compete on the world market without State aid (38).

Another factor which worsened the position of Sicilian sulphur was the general decline in the production capacity of the mines: the exhaustion of a certain number of mines meant that they had to be closed (39). Others had been temporarily closed during the war, and had suffered from flooding and the collapse of some of the workings.

The industry was thus caught in a vicious circle between the unfavourable market and price conditions and the costs of putting back into service some of the closed mines. This was a situation from which the industry was unable to extricate itself by its own efforts. It was clear that if the industry was to have any future at all, state help was necessary especially in order to allow the prospecting for new deposits which were thought to exist in large and still unexplored areas of the island (40).

This new prospecting was encouraged by the general expectation, even in America, that the already heavily worked deposits in Louisiana and Texas (of which the output had been forced up to a very high level during the Korean War) were nearing exhaustion (41). A state law of 12 August 1951 set aside 950 million lire for the purpose, and to this sum the Sicilian region added 770 million. Simultaneously, in the Italian budget, a sum of 9 milliard

(38) Concerning the countries which import Italian sulphur, cf. *Boll. Sic.*, VI, 1957, No. 11.

(39) *Riv. Min. Sic.*, II, 1957, No. 7, p. 6 and 22.

(40) According to *Riv. Min. Sic.*, 1952, No. 15, p. 125, 5,500 square kilometres are likely to contain sulphur. The area worked at present is about 1,300 square kilometres.

(41) GIUSEPPE TUCCI, "Capitali per le miniere di zolfo", in *24 Ore*, Milan, 4.8.1951; also *Riv. Min. Sic.*, IV, 1953, No. 24, p. 280 f.

lire was allocated for urgent repair work and for permitting the worst hit firms to pay wage arrears (42).

After the end of the Korean War many factors combined to bring the Sicilian sulphur crisis once more to the fore. In the first place, the rearmament demand fell short of expectations. In the second place, on top of the decline in world sulphur prices there came the sharp fall in ocean freights, a fall which deprived the Sicilian industry of the protection which its geographical proximity to certain markets had given it when freight rates were high (43).

Finally, there is the declining rate of output or gradual exhaustion of the mines at present producing in Sicily, mines which are estimated to have from 15 to 20 years still to go.

The State and Regional grants made in aid of new prospecting had almost been used up by 1956. Additional funds were allocated by the Sicilian Regional Government (44) subsequently. The authorities have had to proceed against resistance from the mine owners themselves, who are doubtful whether — despite the benefits of the best modern techniques of prospecting and processing imported from the United States — all this costly activity may not prove in the end to be a useless luxury.

The prospects, in fact, became darker when rich deposits were discovered off the shore of the United States in the Gulf of Mexico, in Mexico and in Southern California, all deposits which can be worked by the cheap Frasch method (45). In addition, a method had been discovered of obtaining sulphur from oil. In the United States, about 100,000 tons of this synthetic product were placed on the market in 1952. Methane gas, too, yields sulphur — in the proportion of 55,000 tons per million cubic metres (46). The new discoveries of oil and methane gas in Canada, and the exploitation of methane deposits at Lacq in France, add to the risk that the market may be flooded with the cheap synthetic product.

These unpromising prospects, and the accumulation of large unsaleable stocks in the mining areas, have led the mine owners federation — "Ente Zolfi Italiano" — to close pits on a number

(42) *Riv. Min. Sic.*, V, 1954, No. 28-29, p. 231-35.

(43) *Ibid.*, VIII, 1957, No. 43, p. 36.

(44) *Ibid.*, VIII, 1957, No. 43, p. 37.

(45) *Ibid.*, IV, 1953, No. 24, p. 280 f.; V, 1954, No. 28-29, p. 217; VI, 1955, No. 34-35, p. 197 f.; VII, 1956, No. 40-41, p. 167 and No. 42, p. 281.

(46) *Ibid.*, VIII, 1957, No. 43, p. 40.

of occasions. In 1953, stocks amounted to 300,000 tons, while production fell off to 166,000 tons, and exports were practically nil (47). The wretched miners, some of whom still had arrears of wages owing to them, followed the example of the peasants in occupying the land and occupied the mines (48). As the State credit of 9 milliard lire was linked to the modernization of the mines, this could not be drawn upon. The Regional Government, through the Bank of Sicily, tried therefore to help by granting a small loan. A year later, however, the crisis became even more acute and forced the Central Government to make a new effort. An additional credit of 3 milliard lire was granted; and the Government made a contribution of 10,000 lire per ton to the losses which the producers incurred by selling sulphur at the world market price (49). But even this proved to be insufficient. In the financial year 1958-59, the export price per ton of Italian sulphur (for which the principal customers were France at the top of the list, followed by Israel, the U.S.S.R. and Tunis) fell to 25,000 lire, while Italian buyers were paying 46,000 lire (50). It is difficult to see how this costly subsidization policy can be continued indefinitely, especially since there is no prospect, certainly, that the market conditions will improve.

Nor is the situation likely to be helped by the advent of the Common Market. For it can hardly be expected that the other member countries be willing to impose a tariff against the cheap American sulphur in order to allow the Italian product to be sold at a price which covers its costs. Moreover, there may very well be intra-European competition which might become particularly strong with the heavy increase in output that is predicted for synthetic sulphur produced at low cost from French methane (51).

It was against this background that the ENI decided to prospect for new sulphur deposits on its own account, and to set up, wherever the results were good, the necessary processing plants (52). This would mean that there would be introduced in the Sicilian sulphur industry the same "vertical concentration" that has been

(47) *Il Mezzogiorno*, Nov. 1954, p. 26.

(48) *Riv. Min. Sic.*, V, 1954, No. 28-29, p. 232 f.

(49) *Ibid.*, VII, 1956, No. 37, p. 45.

(50) *Basler Nachrichten*, 4.10.1957.

(51) *Boll. Sic.*, VII, 1958, No. 1, p. 13 f.

(52) *Riv. Min. Sic.*, VIII, No. 43, Jan.-Feb. 1957, p. 37 f.

adopted in other areas for oil and methane gas (53). It is only in this way, and of course on the condition that remunerative prices are obtainable for the sulphur products, that it may be possible to cover the cost of extraction of the raw material and to raise the sulphur industry from the state of depression in which it has languished for so long, and thus to cure one of the chronic maladies of the vast area of Central Sicily.

The other extracting industries of the South are of more recent origin. Although the existence of potash in Sicily had long been known, it was only in 1955 that a start was made to mine it on a large scale (54). Three big Italian companies began operations in three provinces at the same time after a new process had been worked out for producing an excellent type of fertiliser from the "Cainite" which is the mineral in which potash occurs in Sicily. Up till then, Italian agriculture had consumed only small quantities of potash-fertilizers — some 60,000 tons a year — and these had had to be imported. The new technical process and the exploitation of the Sicilian deposits promised to relieve the trade balance on the import side and even possibly to provide a surplus for export (55). Moreover, French and American experience suggested that, if the potash fertilizers are available close at hand, the demand for it shoots up, and that the quality and quantity of agricultural produce perceptibly improves. In the United States, for example, the consumption of potash fertilizers has tripled. In the case of potash, too, the plan is to erect, in Sicily, processing plants near the points of extraction, and to supply both home and foreign markets from these points. If this scheme is carried out, a great step forward will have been made on the way towards industrialization of the island and indeed of the whole South.

Sicily also produces rocksalt (*salgemma*), which is highly appreciated by the chemical industry on the Italian mainland (56).

(53) *Boll. Sic.*, VI, 1957, No. 11, p. 5.

(54) *Riv. Min. Sic.*, V, 1954, No. 25, p. 3 f.; VI, 1955, No. 31, p. 20 f.; No. 32, p. 67; VII, 1956, No. 37, p. 22; *Boll. Sic.*, IV, 1955, No. 24, p. 17; V, 1956, No. 7, p. 18 f.; No. 21, p. 20 and No. 24, p. 17; VI, 1957, No. 1, p. 10 and No. 5, p. 17 f.; *The Statist.*, "A Survey of Sicily", April 1957, p. 39.

(55) *Inf. Sv.*, X, 1957, No. 24, p. 525.

(56) The rocksalt production in Calabria is of no importance. Cf. SVIMEZ, *Statistiche sul Mezzogiorno d'Italia 1861-1953*, Rome, 1954, p. 423.

Production, which in 1956 reached 175,000 tons (57), could, however, be substantially increased by more progressive methods. In this case, too, it would, of course, be a good thing for Sicily if the raw material could be treated at works erected near the mines. This would save costs and would prevent the transfer to the North of the processing profits.

Since the loss of Istria to Yugoslavia, Italy's richest deposits of bauxite are those on the Gargano promontory of Apulia where, as early as 1937, the Montecatini Company had started mining operations. In 1951 production was 173,869 tons, and in 1954 it had risen to 268,499 tons (58).

Lastly, the Sicilian experimental mining centre (*Centro sperimentale per l'industria mineraria*) has started to search for phosphate, with good prospects of finding it, since Sicily is the geological continuation of Tunisia which is rich in that mineral. There is no need to emphasize how important the discovery and exploitation of such resources would be for the agriculture of Sicily and of the whole of Italy (59).

c) *The Supply of Capital*

When the Kingdom of the Two Sicilies was incorporated in the United Italy in 1860, its industry could bear comparison with that of the North both in variety and in technical development. Its weakness consisted in the fact that it was concentrated in a few localities and that it depended on the customs protection with which it had been pampered. Once this was withdrawn after union, it was unable to stand up to the competition of the factories of Lombardy and Piedmont which had been toughened by the free trade regime of Cavour.

With this regression of the South to the level of a more or less solely agrarian economy, there began the flow of capital from South to North which southern economists, especially Fortunato

(57) *Boll. Sic.*, V, 1956, No. 23, p. 12.

(58) *Inf. Sv.*, VIII, 1955, No. 48-49, p. 1098 f.; IX, 1956, No. 26-27, p. 566 f.; SVIMEZ, *Statistiche*, cit., p. 422.

(59) *Inf. Sv.*, XI, 1958, No. 3, p. 65.

and Nitti, were never weary of lamenting. A substantial part of the savings of the South, coming especially from the large wheat farms, was quickly despatched to the industries of the North which were rapidly developing and which were themselves later to be granted high tariff protection. For them, the South, in addition to being a market of which they so to speak had a monopoly, was now also the source of a rich supply of capital. This movement of funds from South to North also carried with it the bank deposits representing the remittances of Southern emigrants.

According to the liberal conception, capital surpluses were bound, in a free market economy, to find their way to the point at which they were most needed. If this expectation was not realized, it was due, it was claimed, to the industrial protection which distorted the economy of the country. For this protection had induced foreign countries to impose retaliatory tariffs on the agricultural exports of Southern Italy, and had thus resulted in the drying up of the most important source of wealth in that area.

But even if a free trade policy had prevailed, a balance between the economy of the North and that of the South would still not have been achieved. In the early years of this century there was no clear understanding of the principles which govern the location of industry, whereas to-day we know from experience that it is determined not so much by the proximity of raw materials, or sources of power or of a labour supply, as by agglomerative tendencies which are conditioned by historical factors.

The existing industrial centres, endowed with amenities and with public services, act as poles of attraction for new industries, whereas in areas with little or no industry, the establishment of new industries can be induced only by outside intervention of which the state must be the motive force. At least this is true in the absence of new discoveries of mineral resources or sources of power, as for example oil, such as are capable of profoundly altering the environment.

If, at the beginning of the century, it was believed that the principle that "nature abhors a vacuum" worked within a country's economic system so that capital would flow spontaneously towards the areas that were short of it, the conviction soon spread that, if things were left alone, the vacuum would become even larger.

One of the main aims of the programme of the *Cassa per il Mezzogiorno* was just this of reversing the direction of this flight

of capital, which as we have seen was accompanied by the flight of persons from the educated classes.

The *Cassa*, however, achieved only a limited success in this field. About 40 per cent of the expenditure in the South flowed back to the North, where it was invested in new plants with the usual multiplier effect. In the South, on the contrary, the wages paid by the *Cassa* were spent almost entirely on consumers' goods. In view of the low standard of living there, this is understandable and also socially desirable, but it does not contribute to the solution of the crux of the Southern problem which is the shortage of capital and the unwillingness to invest in industry the few resources available.

In 1955, the South with nearly 38 per cent of the population accounted for 17 per cent of national savings. In 1956, which was however a year of poor harvests, the figure was only 15 per cent, while consumption in the South in that year reached 23 per cent (60) of the national total, thus exceeding, according to the most reliable estimates, the area's share (20 per cent) in the national income (61).

At the end of 1956, deposits at Postal Savings Offices and at banks and savings banks were only 11 per cent of the total Italian figure. These figures do not however allow us to draw any very definite conclusions (62). Indeed there is no inevitable relation between the degree of economic backwardness and the volume of capital available for investment; for the savings of depressed areas, when they are not invested in other more prosperous parts of the same country or abroad, either disappear from circulation into hoards, or are used to buy government securities.

Only a vigorous development of the industrial potential of the Mezzogiorno could have remedied this situation, by keeping the savings of the South in the area, by attracting them out of their anachronistic hiding places, and by offering promising opportunities for the employment of foreign capital. But in any case only State

(60) *Inf. Sv.*, X, 1957, No. 25, p. 553; G. TAGLIACARNE, "Calcolo del reddito del settore privato e della pubblica amministrazione nelle Provincie e Regioni d'Italia nel 1956", in *Moneta e Credito* (quarterly publication by Banca Nazionale del Lavoro), Rome, 1957, No. 39, p. 324.

(61) *Inf. Sv.*, X, 1957, No. 25, p. 550.

(62) *Boll. Sic.*, VI, 1957, No. 2, p. 32.

intervention could, as has already been emphasized, create the conditions for such a development.

I will spare the reader details of the measures taken since the end of 1947 in respect of taxes, custom duties, freight and electricity rates, and in credit and other fields, measures which were subsequently modified to meet changing conditions. A few points may, however, be mentioned.

All Southern industries, whether new, reconstructed or expanded, were granted exemption for ten years from that part of the income tax (*imposta di ricchezza mobile*) which is levied on a proportional basis. And the new law of 29 July 1957 gave exemption from this tax to that part of profits (up to 50 per cent of the total) which firms, wherever situated, invested in the five following years in the construction, expansion or reopening of industrial plants in the Mezzogiorno (63).

The exemption from custom duties (originally given up to January 1958 and later extended to June 1965) of building materials, machines and other capital goods imported for the new industries was not very well received, understandably enough, in the North. But, even in the South, the objection was raised that the absence of protection was exposing the new enterprises of that area to the more powerful foreign competition (64).

Another form of concession on the part of the State is that of preferential transport rates on the State railways for raw materials and other supplies necessary for the starting up or expansion of industrial plants in the South. On distances of over 1,000 kilometres, the reduction is as much as 50 per cent. The aim of this measure is, of course, to attenuate the handicap imposed on the South by its remoteness from the main industrial centres.

For the sake of completeness, it should be mentioned that a Law of 6 October 1950, extending previous measures, obliges state bodies to place a fifth of their orders with Southern firms. Orders from this source are in addition to normal orders which Southern industries can obtain in competition with Northern concerns for state contracts. From a recent question asked in the Senate, it is clear that this "Legge del quinto" is not always complied with, in spite of a ministerial circular of June 1955 enjoining observance

(63) Law of 29 July 1957, No. 634, Art. 34.

(64) *Inf. Sv.*, No. 5-6, p. 118 f.

of it. In Sicily, too, it is common knowledge that the law is ineffective, and the Regional Government has long been pressing for the reservation of at least half of all orders to the industry of the island (65).

The policy aimed at increasing the availability of capital for Southern industries obviously had, at the beginning, to be of an experimental nature. This explains the slow rate at which it gathered momentum in comparison with other parts of the development programme which were regarded as deserving priority, and which could be executed on the basis of much wider previous experience — such as the improvement of technical, agricultural and educational conditions which was essential if Southern industry was to develop on any considerable scale.

The government programme for assisting the growing industry of the South to obtain capital covered a variety of measures: loans at reduced interest rates; the partial guarantee of the loans themselves; outright contributions to the cost of the plant; and the possibility of state participation in the share capital of the new enterprises, or even of the erection of State enterprises. As long as possible, an effort was made to observe the rules of the free market economy; but it was later found necessary to give State guarantees, in order to reconcile the need for security on the part of the Institutes authorized to grant industrial loans with the development possibilities of enterprises which would otherwise be in danger of foundering under the weight of heavy interest charges.

The guarantees were initially given for 70 per cent of the amount borrowed (66). The figure was later cut to 50 per cent, evidently in consequence of a demand for loans which was much heavier than had been foreseen. As was to be expected, this cut resulted in a more than proportional reduction in the effectiveness of the State guarantee (67).

The reduction made it difficult for the new enterprises to finance their working capital requirements; for the reduction in the guarantee often prompted the Institutes granting industrial credit

(65) *Relazione al Consiglio Generale della Sicindustria*, Bozze, Catania, 4.2.1955, p. 16 f.; also *Inf. Sv.*, VIII, 1955, No. 26-27, p. 619 f., No. 31-32, p. 719 and No. 33-34, p. 762; *Boll. Sic.*, VI, 1957, No. 4, p. 11 f.

(66) Law of 14.12.1947, No. 1598, Art. 10. SVIMEZ, *Agevolazioni per l'industrializzazione e lo sviluppo economico del Mezzogiorno*, 4th ed., Rome, 1954, p. 509.

(67) Law of 9.5.1950, No. 261, Art. 10; *Ibid.*, p. 691.

to ask for mortgages not only on the property of the firm (factory buildings, machines and stocks) but on private assets as well, thus depriving the entrepreneur of the collateral he needed for obtaining the necessary working capital. The result was that the new factories had hardly been built than they felt the financial pinch. For these difficulties, which have recently been the subject of complaints in Sicily (68), no solution has to my knowledge so far been found. All subsequent laws, including the latest one, were concerned only with further reductions in interest charges and did not deal adequately with the problem of the guarantees (69).

The new Southern enterprises are naturally still far from being able to finance themselves out of retained earnings, and the Italian Federation of Industrialists (*Confindustria*) has urged that in the present difficult credit situation, further steps should be taken to help Southern industry to equip itself on modern lines. Account is here taken of the difficulties which Southern industry will have in adapting itself to the new situation created by the Common Market (70).

Up till 1953 the volume of funds available to the Banco di Napoli and the Banco di Sicilia for loans to industry was limited to 10 milliard lire a year, equivalent to little more than 30 per cent of the total amount requested by private firms (71). This imbalance between supply and demand naturally made it more difficult to select the enterprises to receive loans; and it led to the application of criteria of a technical-financial order rather than principles that were more of an economic policy nature. Thus applications for expansion and modernization from existing firms were given priority, since such firms had their own past experience to offer as evidence of their trustworthiness as debtors (72).

The new regulations concerning industrial credit and contained in the Law of 11 April 1953, No. 298 (foundation of the three special credit institutes, ISVEIMER, IRFIS and CIS) also added a limited amount of public funds.

(68) Report of M. P. CAROLLO on the new Sicilian industry law, *Boll. Sic.*, VI, 1957, No. 15-16, p. 45.

(69) *Inf. Sv.*, X, 1957, No. 11, p. 263 f.

(70) *Boll. Sic.*, VII, 1958, No. 4, p. 17 f.

(71) *Inf. Sv.*, VIII, 1955, No. 23, p. 443.

(72) *Ibid.*, IX, 1956, No. 7, p. 155.

The law further authorizes the industrial credit institutes that were reorganized in 1953 to participate in the setting-up of financial companies of which the function would be to promote industrial development in Southern Italy. The present legislation, following the example of similar regulations adopted in Sicily in 1950, also provides that certain Institutes (I.M.I., I.S.A.P.) may participate within specified limits in the subscription of the share capital of industrial firms, and thus take part in their management; in this way the credit risk is reduced. The State may thus indirectly become a partner in new industrial enterprises, and through the corporations under its control, such as IRI and ENI, may take the initiative in setting up, and participate in the management of, such enterprises.

Another rich source of investment capital were the series of loans which the International Bank for Reconstruction and Development granted, at first with some hesitation and at long intervals, to the *Cassa per il Mezzogiorno*. The first two tranches of 10 million dollars each were placed at the free disposal of the *Cassa*, which took advantage of the technical services and of the organization of the new institutes for industrial loans. It was only from 1955 on that the Bank, obviously reassured by its experience up to that point, showed a willingness to give more ample finance to the *Cassa* (73). In 1955-56, that organization received within a short period further credits of 70 and 75 million dollars respectively, which, however, were now tied to specific investment projects.

The World Bank drew up, on the basis of calculations of their benefit to the national economy, a whole set of such projects with corresponding allocations of funds. 40 million dollars were earmarked for land improvement projects in Sicily and Sardinia; 55 million were to finance hydroelectric power stations; and the balance of 50 million went to 17 industrial enterprises engaged in the production of fertilizers, chemical and pharmaceutical products, building materials (especially cement), timber boards, canned foods, and glass.

The programme did not, however, provide any assistance to the engineering sector, nor to the steel industry, the expansion of which is most keenly desired in the South as a basic element in the new industrial structure. Evidently the Bank considered that the

(73) *Inf. Sv.*, VIII, 1955, No. 24, p. 572 f.; No. 25, p. 600 f.; IX, 1956, No. 15, p. 316; No. 41, p. 848; No. 43-44, p. 892 f.; No. 45, p. 937; *Boll. Sic.*, VI, 1957, No. 2, p. 8.

total of Italian capacity in this field was already more than enough to satisfy home and export requirements.

Seven of the new factories to which the Bank allotted credits are to be set up in Sicily, one in Sardinia and the other 9 on the Southern mainland, including the Province of Latina. In all cases, the sites will be in centres which are already economically developed and possess the necessary "social fixed capital" in the form of roads and railway connections, water, sewers, electricity, post offices and other public utilities. In other words they are centres with already existing industries to which in many cases the new units will be complementary, and from which they will draw an advantage in the form of "external economies".

This policy differs in spirit from the 1957 law on industrialization, since that measure aims at the wide dispersal of the new factories among rural centres in a manner which will "decongest" the overcrowded agricultural sector. These social motives for preferring a more even geographical distribution of industry are foreign to the productivity-minded directors of the World Bank (74).

In addition to the World Bank loans, Italy obtained in the years 1954-57, special loans from the United States Government for the building up of industry in the South. These amounted to 8.75 milliard lire (out of a total of 18.75 milliard lire most of which was intended for other purposes (75), left to the discretion of the Italian authorities).

Addition loans, amounting to 25 milliard lire, came from the American grain surpluses which were turned over to the Italian Government at a price below the market level (76).

In this way there was made available a further sum of almost 35 milliard lire which helped finance investment for almost twice this amount, and made it possible to absorb about 20-25 thousand workers who would otherwise have been unemployed or underemployed.

According to an editorial article in the *Informazioni Svimez* (77), between the time when the industrialization programme

(74) *Inf. Sv.*, IX, 1956, No. 48-49, p. 1021 f.

(75) *Ibid.*, IX, 1956, No. 52, p. 855. Similar credits had already been granted for analogous purposes. (*Ibid.*, VIII, 1955, No. 23, p. 452; IX, 1956, No. 45, p. 936).

(76) *Ibid.*, X, 1957, No. 19, p. 413.

(77) *Ibid.*, X, 1957, No. 22-23, p. 496 f.

for the Mezzogiorno was started and the end of June 1956, financial resources totalling 94.6 milliard lire were provided through the relevant credit institutions, the funds of the *Cassa per il Mezzogiorno*, and the loans of the World Bank (78). It is estimated that this sum gave rise to investment amounting to 223.5 milliard lire inclusive of stocks. The ratio between loans granted and investments made is thus 42 per cent, and the figure would rise to 63 per cent if stocks were excluded. Since there is a tendency for the interested parties to give estimates for the value of the investments to be undertaken that are higher than the real figures, and since it is difficult for the institution granting the finance completely to eliminate the overvaluation at the estimates stage, the author of the article supposes that, to be on the safe side, we should raise the figure from 42 to 50 per cent. When this correction is made, we arrive at a total potential investment of about 190 (instead of 223) milliards, a sum which, according to the former Minister Campilli would be sufficient to create 53,000 new jobs (79). This calculation implies that the amount of fixed capital required on the average for each additional worker employed would be about 3.6 million lire, a figure which corresponds to that given by the *Cassa per il Mezzogiorno* in the publication entitled *La Cassa per il Mezzogiorno: primo quinquennio 1950-55*, (Rome 1955).

When all the other sources of funds (ordinary bank advances, loans granted under the various special laws, and finally self-finance) are included, the aggregate figure for the financing by new industrial plants over the period 1944-1957 may be very roughly estimated, according to the article of the SVIMEZ, at about 340 milliard lire. If the 50 per cent ratio proposed above is adopted the total volume of investments (partly taking place with a lag) ought to be somewhere in the neighbourhood of 680 milliards. The SVIMEZ article also tells us that for the period 1950-57 another 420 milliards of lire may be added for the reequipment and expansion of existing plants: for the years prior to 1950 no estimate is attempted because of the lack of adequate data.

The total of industrial investment is thus estimated by the SVIMEZ study at 927 milliard lire for the period 1950-57 and of this

(78) A new loan from the World Bank to the Cassa and to the Land Reform Agencies was envisaged for August 1957 (*Ibid.*, No. 32, p. 716-18).

(79) *Ibid.*, No. 29, p. 656 and No. 33-34, p. 738.

amount 158 milliards were made in the year 1957; and it is pointed out that the annual rate has been continually rising since 1955. If this rate were actually to reach the desired level and the process of economic development were to continue without interruption, and if the inevitable errors of judgment of the entrepreneurs and the difficulties of financing new investments were to remain within the normal limits (80), the financial resources provided during these last eight years would have laid the foundations for the creation of 155 thousand additional jobs.

This development process ought of course to continue for many years still without breaks or a slowing down in its rhythm, and then it would be possible to reach the level of employment which the "Vanoni Plan" envisaged for 1964 and which implies a substantial reduction in, if not the abolition of, unemployment in the Mezzogiorno.

The new State Law (of July 1957) on industrialization and the Law of the Sicilian Region which was passed at almost the same time reflect the determination to make any economic sacrifice that may be necessary in order to help the Mezzogiorno out of the depressed conditions in which, despite the efforts of the past years, it still remains. All possible means are being concentrated on this still remote and difficult objective of lifting up the Mezzogiorno: new contributions to the cost of plants; further reductions in interest rates; renewals of provisions for tax relief and for increased credit facilities; substantial grants for the establishment of industrial zones; shareholding by public bodies in private companies.

The final result will depend on the financial capacity of Italy — or that is of the State and of the Sicilian Region — but more especially it will depend on the possibility of persuading the Italian public, through a propaganda campaign which reaches wide strata of the population, to accept a reduction in consumption and an increase in the fiscal burden, which are indispensable conditions for the realization of what to-day is only a dream: the levelling up of economic conditions between the South and the North.

(80) Many entrepreneurs succeeded in procuring the "own funds", of which they had to show the existence as a condition for obtaining loans at a preferential interest rate, only by borrowing at short term from the banks at very high interest rates and against mortgages. Cf. *Inf. Sv.*, X, 1957, No. 21, p. 45.

IV. Questions of Method Regarding Industrialization

a) *The Choice of Location.*

The question of what was the best location for the new industrial establishments in the Mezzogiorno was left in the background so long as it was still unclear whether the protective measures and the incentives provided by the Government would really give good results and would bring into being factories capable of standing on their own feet after Government aid had been withdrawn. Thus, at the beginning, the subsidized industries were left to go their own way until it was discovered that as in every other case, they obeyed the well-known laws of the "location of industry". In this case too, the firms felt, except in a few instances where other factors were at work, the force of attraction towards a small number of already existing centres of industrial concentration. In fact it was soon conspicuously apparent that, within the more limited area of the South, just as previously in Italy as a whole, a new cleavage was to be feared between developed and underdeveloped areas.

The 460 new or reequipped industrial establishments which had been aided up to the end of 1955 by the three special credit institutions for the Southern mainland and the islands (ISVEIMER, IRFIS, CIS) were in fact concentrated in, or round Palermo, Catania, Naples, Bari, Pescara, Latina and Cagliari (81). This was in spite of the principle followed by the credit institutes that application from the most backward areas should be given priority (82). In the early part of the period then, little progress was made towards reaching the aim of relieving the labour pressure in the overpopulated rural areas; an aim which, for reasons that have been repeatedly stressed, constituted a guiding principle of Italy's Southern policy.

In face of these results, the proposal was often advanced that steps should be taken to draw the new industrial plants towards the places where the workers were already living. With a view to counterbalancing the disadvantages implied by this spreading of the establishments, a plan was suggested for graduating the loans that might be granted (83), and the new Law of July 1957 made

(81) *Inf. Sv.*, IX, 1956, No. 26-27, p. 553.

(82) *Ibid.*, No. 13-14, p. 291.

(83) *Ibid.*, No. 16, p. 354.

provision for contributions towards the construction of factories in centres with up to 75,000 inhabitants (84). In drawing up these provisions, regard was had to the type and extent of public intervention that would be needed if the location of the new industries was to follow the desired pattern. We need only mention here that electricity rates are normally the higher the smaller, and the farther from the power stations, is the place of consumption. At the same time the differences in wage rates between town and country, which were once substantial, are tending to disappear as a result of the growing influence of the trade unions.

On the other hand, an investigation carried out by the SVIMEZ, and covering the greater part of the new industries in the Mezzogiorno, leads to the conclusion, which is at first sight surprising, that the "social cost" imposed by every new inhabitant is inversely correlated with the size of the centre to which he immigrates. Assuming that the "social cost" per worker has to be doubled in order to allow for the fact that soon or later he brings with him another person, the cost is estimated as follows for centres of different sizes:

- up to 30,000 inhabitants: L. 123,000;
- from 30,000 to 200,000 inhabitants: L. 194,000;
- over 200,000 inhabitants: L. 357,000.

If the State subsidy for the construction of low-cost houses is included, the cost is still higher, but the proportions as between towns of different sizes remain roughly the same (85).

As against this, it is estimated (though no figures are, or probably can be given) by the Economic Commission for Europe that the disadvantages to an entrepreneur of transferring his enterprise from a populous to a relatively unpopulated centre are "considerable" (86). (The expression used in the E.C.E. study for small and tiny centres of population is "villages", but this can be changed into "small urban centres" in the case of Southern Italy, since the large Southern rural communities are, from the sociological point of view, really overgrown villages).

(84) Art. 18-19. In the meantime, a draft bill has been tabled proposing that this upper limit of 75,000 inhabitants be raised, because it operates against slightly larger towns which also have no industry. (*Inf. Sv.*, X, 1957, No. 47, p. 1055 f.).

(85) *Inf. Sv.*, X, 1957, No. 20, p. 438 f.

(86) UNITED NATIONS, *Economic Survey for 1954*, ECE, Geneva, 1955, p. 159.

Theoretically, therefore, the optimum size of a centre for the planting of new industry lies at the intersection of two curves: one representing the rising private expenditures and the other the falling public ones, or viceversa, according to whether the firm is moving from a large centre to a small one or from a small centre to a large one. Even in normal cases, where the transfer to small centres does not entail mass migration and most of the workers are drawn from the local population, they have to be educated up to their new industrial activity and to the way of life corresponding to it.

A point in favour of transplanting industries to places which have previously been purely agricultural centres is the statistical fact that (87) savings per person vary inversely with the degree of rurality. The more, that is to say, an area is dependent on agriculture, the larger is the proportion of earnings absorbed by the elementary necessities of life. The dispersal of industry can therefore be justified not only on grounds of personal welfare, but also by reason of its economic and fiscal effects.

At the opposite pole to this theory and practice which favours industrial dispersion, is the older theory which inclines towards the creation of "industrial zones", where the State or the local authorities provide cheap building land and the essential "social fixed capital" in the effort to attract and acclimatize a variety of enterprises. This concentration of industrial concerns in chosen areas (usually offering ample local supplies of labour and the proximity to a large body of consumers) presents a number of advantages, especially of a technical kind, in comparison with the decentralisation solution, however important may be the positive aspects, mostly social and political, of the latter. Location in a large centre gives the entrepreneur the possibility, which he would not have, or would have only on a much more limited degree, in a small centre, to determine the optimum size of his establishment, and the degree of mechanization, perhaps going as far as automation, in accordance with rational principles. Moreover, the costs of the necessary public services can be spread over a larger number of users and thus bear less heavily on the single entrepreneur than they would in isolated rural centres.

(87) *Inf. Sv.*, X, 1957, No. 47, p. 1065 f.

The new law on industrialization takes into account both the excentric and the concentric approach to organization. It gives assistance to industrial dispersion, but in Article 21, it provides for aid towards the creation of "industrial zones". Further the law recognizes the right of consortia of communes, provinces, chambers of commerce and other bodies uniting for the purpose, to appropriate suitable land; and it empowers the *Cassa* to assume up to half the relevant costs, and to pay part of the interest (Art. 24) whenever it is necessary to borrow in order to finance the construction of public utilities. As far as I know, this sort of consortium has up to date been formed in the South only for the plain of S. Eufemia (Calabria) and for Bari (88).

The idea of industrial zones has been given particular attention in Sicily and a great deal of trouble has been taken in working out appropriate plans. According to the present programme, there will be nine of these zones scattered over the island in a few years' time (89). Catania, which has long been the industrial and business centre of the island (although other cities have constantly tried to wrest that title from it) has assumed the leadership in this respect. Its industrial zone is the oldest and so far (with 90 hectares) the biggest in the island. Palermo comes next with an area half that size (90). Catania had the initial advantage of possessing a nearby plain, which was once riddled with malaria and is even to-day only sparsely settled and extensively cultivated, but has enabled Catania to carve out an industrial zone near the city. Palermo, situated in the heart of the rich *Conca d'oro*, obviously has more difficulty in finding a sufficiently large area without paying excessive expropriation costs.

In the industrial zone of Catania, the Sicilian Region has spent 700 million lire on development projects (91). By the summer of 1957, a total of 64 factories were already operating or under construction (92). The group comprises a well diversified range of activities. It contains enterprises manufacturing glass, pottery,

(88) *Ibid.*, X, 1957, No. 37, p. 844 and No. 39-40, p. 890.

(89) *Ibid.*, X, 1957, No. 22-23, p. 489.

(90) *Ibid.*, X, 1957, No. 17-18, p. 387 f.

(91) *Ibid.*, Provision of 650 million lire and 800 million lire was made for the areas of Messina and Palermo respectively in the Regional budget (*Inf. Sv.*, IX, 1956, No. 30-31, p. 623 and No. 32-33, p. 659 f.).

(92) *Boll. Sic.*, VI, 1957, No. 14, p. 34 f. and *Inf. Sv.*, IX, 1956, No. 33-34, p. 755.

building materials, iron and wood products, plastics (93), steel products, electro-engineering goods, railway equipment, steel pipes, agricultural and other machines, irrigation equipment, oil by-products, medicines, rubber, paints and varnishes, wireless sets, shoes, jute, textiles and clothes, beer fruit juices and tinned fruits, sweets and other food products, and so on. The only missing item is fertilizers which will be produced by the large plant now being constructed at Priolo near Syracuse by the Edison group (94). It is expected that 4,500 workers will find permanent employment in the Catania industrial zone (95).

I have dwelt on this case at some length because it is the only example so far of an agglomeration which owes its origin not to the spontaneous operation of forces of attraction but to conscious planning. In fact other similar schemes have not got beyond sporadic single investments, in spite of the fact that since 1953 the regional budget of Sicily has contained an item of 3.6 milliard lire for their development (96).

The "industrial zone" approach has not been without its critics. Nor have these been confined to the supporters of the dispersal of industry. There were also proposals for intermediate solutions, based on the selection of broader zones of what might be called "industrial concentration". The areas indicated are those at the mouth of the Volturno and the Sele, the coastal stretches of Metaponto and the lower Neto, and the region of Pescara and the Tavoliere in Apulia (97); and in Calabria, the plains of Sibari and of Rosarno, after the example of Santa Eufemia had shown the way. Nevertheless it will be difficult, in such extensive areas as the Tavoliere of Apulia, to prevent a concentration of enterprises round certain centres, whether they are given support or not, and whether they are called industrial zones or by some other name. Foggia, and also Cerignola and Santo Severo, would probably act as centres of attraction for the new industrial plants that were planned for the area round them.

(93) A large new factory erected by Montecatini at a cost of 2.8 milliard lire will employ 300 workers making plastics. It will be the biggest factory in the area so far. (*Boll. Sic.*, VI, No. 20, p. 9 f.).

(94) *Boll. Sic.*, VI, 1957, No. 20, p. 10.

(95) *Inf. Sv.*, X, 1957, No. 17-18, p. 388.

(96) *Ibid.*, No. 22, p. 389.

(97) F. COMPAGNA, "Industrializzazione e azione meridionalista", in *Civiltà degli Scambi*, Bari, No. 10, 1957, quoted in *Inf. Sv.*, X, 1957, No. 32, p. 710 f.

Another point which is worth considering is the proposal made in the course of these discussions for a graduated system of credit and fiscal assistance which would help promote the creation of complementary industrial groups. The powers and duties of whatever agencies were given the task of making the necessary choices would come very close to those devolving upon the authorities in a centrally planned economy.

b) *Choice of Industries*

The State was in a position to exercise a decisive influence on the character and structure of the new industrial organisms through the credit institutes responsible for granting industrial loans. Given this possibility, the question which has to be asked is: should the State use this power on its own responsibility and at its own risk, and if so what criteria should it adopt in the selection of industries?

As in the question of location, the initial attitude was, understandably, one of wait and see. The State could not guide development without first ascertaining what were the sectors of industry which would guarantee the credit institutes security and earnings for the loans granted to finance them. And it soon became clear that existing firms, which needed capital only in order to make alterations, to expand or to re-equip themselves, found a readier hearing than firms which had still to give proof of their power to survive (98). Only gradually, as experience and familiarity with hitherto infrequent types of financial operation developed, did the emphasis move to new firms.

There was a good deal of controversy about the order of priority that should be followed in allocating credit. The majority of replies to a recent enquiry made by the periodical called "Il Mezzogiorno" stressed the processing and conservation of food products so strongly, and to the exclusion of other aspects of the question (99), that one is inclined to suppose that they were mostly sent in by Northern industrialists. This supposition is confirmed by the strong warnings not to set up firms doing the same job as existing enterprises which are already sufficient, it is held, to satisfy home demand (100). In the same way, a Cabinet Committee had, shortly before, given a position of first importance to industries processing

(98) *Inf. Sv.*, IX, 1956, No. 19, p. 403.

(99) *Il Mezzogiorno*, 1957, No. 3-4, p. 48.

(100) *Ibid.*, 1957, *loc. cit.*

agricultural products. This was to be combined with the production, first, of those goods which the *Cassa* needed most in carrying out its development programme, i.e. building materials, especially cement, the provision of which initially constituted a real bottleneck. Second came tools and simple agricultural machines, and fertilizers and pesticides; and third, certain consumers' goods industries which were desired in order to satisfy the requirements of the local population (101).

Other experts have recommended the creation of industries for the production of relatively new products which are not very wide spread in Italy — particularly electric domestic appliances, plastics and electronic goods, and chemical and pharmaceutical products. But there is general agreement that textiles and leather goods — for which the market is saturated — should be excluded (102).

Lastly, many experts, including Pasquale Saraceno, take the line that the main objective should be the development of the engineering and steel industries. These, they argue, form the basis, and the stimulating agent for any healthy industrial growth.

It must be admitted that the reality of the industrial South bears only the remotest resemblance to this ideal. Nor has it shown any sign of complying with other prophecies or expectations. Indeed, half way through 1957, according to figures given by Campilli, the loans granted were divided up among the main branches of industry, as follows (103):

- chemicals: 27.7 per cent;
- construction materials: 22.6 per cent;
- food products: 19.7 per cent;
- engineering: 10.7 per cent (104).

That some progress has been made is shown by the fact that the foodstuffs industry, which was leading in 1950 with 35 per cent (105) now occupies only third place, whereas the chemical

(101) *Inf. Sv.*, IX, 1956, No. 21, p. 441 f.

(102) *Ibid.*, No. 19, p. 403.

(103) *Ibid.*, X, 1957, No. 33-34, p. 738.

(104) In the list of industrial credits accorded by the Banco di Sicilia, foodstuffs were leading in June 1956 with 21 per cent. Next came building materials with 12, engineering with 10 and chemicals with 8 per cent (*Inf. Sv.*, IX, 1956, No. 45, p. 935). The percentages in the case of loans granted by IRFIS were somewhat different: 55 for chemicals, 16 for building materials, 11 for foodstuffs, 6 for engineering (*Boll. Sic.*, VI, 1957, No. 19, p. 6).

(105) *Inf. Sv.*, IX, 1956, No. 1, p. 5 f.

industry, a rather elastic term it is true (106), at that date held first place, followed by building materials. Chemicals presumably include the large works planned at Syracuse where plastics are to be manufactured out the local supplies of sulphur, salt and oil (107).

The engineering industry has, on the other hand, lagged far behind. In the three years 1954-56, investments in it, financed by borrowing and out of its own resources, amounted to only 12 per cent of total industrial investment in that period (108). It absorbed about 21 milliard lire, or an average of 230 million for each of the 91 plants which were established, expanded or reequipped during these years. As, however, of these 21 milliards 9 went to four large establishments, the remaining 12 milliards were shared by 87 firms, for which the average sum drawn was therefore less than 138 million. If, as according to the estimates of the *Cassa* (*Primo Quinquennio*, p. 543), the capital required per worker is 3.6 million lire (109), these factories must have given employment to an average of about 40 persons and are thus to be termed medium-size concerns. Indeed, most of the Southern engineering firms are of the artisan type of which 90 per cent give employment only to the master himself and two other persons. Their power consumption is only 4.4 per cent of that used by the Italian engineering industry as a whole (110). Those who stress the importance of developing this branch look especially towards the manufacture of tractors and other agricultural equipment, both light and heavy, which must be adapted to the Southern terrain and soil, towards the production of mining equipment, and finally towards the manufacture of the consumers' goods which are most in demand (111). In any case, these "meridionalists" argue that the South should produce not only consumers' goods but also invest-

(106) The southern fertilizer industry can, according to SARACENO, cover domestic needs, and is already beginning to produce a surplus which it exports. (*Ibid.*, X, 1957, No. 12, p. 295).

(107) *Boll. Sic.*, VI, 1957, No. 18, p. 23.

(108) *Inf. Sv.*, X, 1957, No. 21, p. 647.

(109) A recent estimate of the investment capital needed in Italy per individual worker puts it at 5 million lire and makes the problem of absorbing the unemployed appear correspondingly more difficult.

(110) *Inf. Sv.*, X, 1957, No. 19, pp. 416 f.

(111) As is already the case with the newly built branch factories of North Italian and foreign industrial firms — Fiat, Olivetti, Remington, Viberti, and so on. (*Inf. Sv.*, XI, 1958, No. 9-10, p. 174).

ment goods, and that special fiscal and credit measures should be given for these purposes (112). Without pursuing autarchistic will-o'-the-wisps, they look forward to the creation of an industrial South which is not merely the appendix of a more powerful North but a balanced and to some extent self-contained economic unit.

The construction of the steelworks is the responsibility of the semi-state corporation IRI. The latter rebuilt at great expense the war-shattered ILVA plant — *Altoforni e Acciaierie d'Italia* — near Naples, expanded it considerably and provided it with the most up-to-date equipment, which greatly increased the works' efficiency but led to the laying off of workers, a consequence which, unfortunately, seems to be the penalty of every increase in productivity in the South (113).

IRI has planned a new steelworks in the South with an initial capacity of 100,000 tons. There has naturally been fierce competition among the various possible sites. Palermo has staked a particularly strong claim, since its harbour is favourably situated in respect of the import of ore from North Africa, Liberia and Turkey and is equipped with all the necessary unloading gear. It also adduces in its favour the steel requirements of Sicily which are now about 120,000 tons and are rapidly increasing (114). The latest information seems to indicate that Bari has the better prospect of being chosen (115). The execution of the IRI project would be important not only for the additional employment which it would provide but also because the production and consumption of steel are a barometer of the state of industrial development and of the standard of living of a country (116).

The year 1950, with the setting up of the *Cassa per il Mezzogiorno*, had opened the way towards the development of a building materials industry in the South. If it was desired to avoid that the more than a thousand milliard lire of national savings allocated to the Mezzogiorno should create no more than the mirage of a fleeting prosperity, *i.e.* that they should be translated into wages and thus into consumers' goods, and that the major part of what

(112) *Ibid.*, X, 1957, No. 29, p. 646.

(113) *Ibid.*, IX, 1956, No. 26, p. 552.

(114) *Boll. Sic.*, VI, 1957, No. 11, p. 11: *Giornale di Sicilia*, Palermo, 10.7.1956.

(115) *Boll. Sic.*, VI, 1957, No. 18, p. 10.

(116) *Inf. Sv.*, IX, 1956, No. 42, pp. 856 f.

was channelled into investment should flow back to the North, it was necessary first and foremost to produce in the Mezzogiorno itself those capital goods which were required in large quantities by the programme of the *Cassa*. In this way there would have remained in the Mezzogiorno not only the precious "social fixed capital" (roads, land improvements, irrigation works, reafforestation, etc.) which gives a return only over the longer run, but also a production potential which could be turned into investments that gave a quicker and higher return. But in addition to these reasons of a general economic nature there was in the case of construction materials a more specific reason for producing them in the Mezzogiorno: *viz.* the high incidence of transport costs on materials of such weight and volume.

Cement, the most important product of this kind, if moved by road, can be sold only within a radius of 130 to 150 kilometres. The cement industry showed an astonishing expansion during the years from 1950 on. In 1952, the proportion of cement turned out in the South was 23.5 per cent of the total for Italy; and in 1956, it was 30.4 per cent (117). The most striking development was in Sicily, where the output rose from 195,000 tons in 1952 to 450,000 in 1954, and was expected to reach almost a million in 1958, with the coming into operation of the new works near Palermo. The rapid increase in the industrial labour force of Sicily is in fact largely due to the development of this branch. In Saraceno's opinion the South now produces locally sufficient cement for its own needs (118). And in the production of bricks and tiles, Sicily at least seems almost to have reached the point of covering its own requirements (119).

Two other special cases are worth noting: one is the result of intelligent legislation, and the other is due to private enterprise.

The Law of 26 January 1953 of the Sicilian Region, granting considerable tax abatements for new shipbuilding, gave the dockyards of the island a powerful fillip. The four years from 1953 to 1956 saw an almost fourfold increase in its fleet — from 201,938 to 801,870 gross registered tons. In 1957, a further 15 steamers

(117) *Ibid.*, X, 1957, No. 30-31, p. 685 f.

(118) *Ibid.*, VIII, 1955, No. 28, p. 655; IX, 1956, No. 45, p. 939; X, 1957, No. 12, p. 295; *Boll. Sic.*, VI, 1957, No. 18, p. 23.

(119) *Inf. Sv.*, VIII, 1955, No. 29, p. 678.

totalling 182,010 tons and 20 tankers amounting to 715,290 tons were under construction. The programme of the enterprising Sicilian shipowners is only half completed, and the Government in Palermo is being pressed to prolong the concessions, which were due to expire in June 1958, by five years (120).

The second instance is also taken from Sicily. In the neighbourhood of the hill township of Piazza Armerina, near Enna, the Regional Government had dammed a number of small torrents in order to help put a stop to the recurrent inundations of the plain of Catania. The reforestation of the catchment area was to cover 12,000 hectares according to the plans of the Sicilian Government; and a large private company, the Snia Viscosa, declared its willingness to assume responsibility for a quarter of that area. It has been planting Australian eucalyptus trees to strengthen those slopes which are threatened with loss of earth from floods, and it plans to use the timber for a cellulose factory, which is to produce 27,000 tons a year (121). This is a model case of cooperation between public and private enterprise, for it has the advantage of enabling at least part of those temporarily working on the "infrastructure" to find permanent employment in a new factory.

Mention should also be made of the construction of a sugar factory in the plain of Catania, a factory of which the daily output is expected to reach 25,000 quintals. Local experiments have shown that, if the beet is planted in the autumn, and not in the spring as in the North, the yield per hectare will be 500 quintals, which is a good average figure for Italy, while the sugar content is actually 6 per cent above that normally reached in the North (122).

c) *Private or Public Enterprise*

It has often been remarked in Italy that the large increase in public spending linked with the policy of the *Cassa per il Mezzogiorno*, and the by no means negligible industrial development, have prevented a further deterioration in the social and economic disadvantage of the South, but have not succeeded in eliminating

(120) *Boll. Sic.*, VI, 1957, No. 7, p. 4 f.; No. 17, p. 29.

(121) *Inf. Sv.*, X, 1957, No. 35-36, p. 784.

(122) *Boll. Sic.*, VI, 1957, No. 19, p. 12.

or reducing it (123). In other words, with respect to the rise in national income, the South has lagged behind the North.

According to a plausible estimate (124), industrial investments in the South in 1957 totalled 158 milliard lire, or only about half the amount postulated by the "Vanoni Plan". But, even if the plan were fulfilled in this respect, the South would still not achieve parity with the North: for the "Plan" itself looked only towards the limited objective of raising the Mezzogiorno's share in total national income from 21 per cent in 1954 to 28 per cent ten years later (Vanoni Plan, p. 78).

The realization of the immensity of the road still to be covered, and the uncertainty as to whether the rhythm of investments can be maintained, is united with the recollection of the experience, made many times before in the history of land improvement schemes in the South, that the provision by the State of the "social fixed capital" did not prove sufficient to stimulate the complementary private investment.

In face of these doubts, it is understandable that many of the protagonists of aid for the South gradually lost faith in the efficacy of the exclusively indirect methods of development so far adopted. Just as the land reform policy was able in the last resort to threaten expropriation should preferential loans, premiums, special rates of interest and tax concessions be in vain, it seemed that the Gordian knot could only be cut in the industrial field by direct State intervention which would overcome the material and psychological obstacles in the way of industrialization.

The recourse to direct government intervention which was explicitly contemplated by the "Vanoni Plan" (p. 16), found support among many experts (125). These pointed to the limitations of private enterprise and its inadequacy as a means of reaching full employment of the available productive resources and particularly of labour (126). The IRI (127) and the ENI appeared to the

(123) *Inf. Sv.*, X, 1957, No. 33-34, p. 758.

(124) *Ibid.*, X, 1957, No. 22-23, p. 496 f.

(125) On the role of State corporations in industrial development policy, see *Inf. Sv.*, X, 1957, No. 13-14, p. 305 f.

(126) *Inf. Sv.*, X, 1957, No. 13-14, p. 306. Article in *Il Popolo*, 13.8.1957, quoted in *Inf. Sv.*, No. 35-36; *Inf. Sv.*, X, 1957, No. 45, p. 1013.

(127) IRI controls between a fifth and a third of all Italian industry. About 70 per cent of its holdings are concentrated in the Po Valley and the rest are in Umbria, Tuscany,

supporters of State industry as the proper organs for founding new public enterprises in place of private initiative which, despite the assistance offered to it, had shown too little concentration of effort and too little courage in affronting the problem of industrialization.

It was pointed out that the capital investments of IRI, amounting to 900 milliard lire in the period 1948-55, had been devoted mostly to the reconstruction, expansion and modernization of war-damaged works. Hence, their centre of gravity had lain in the already industrialized North. Hardly a fifth of the total had been channelled to the South, most of it to the heavy industry of Naples. This geographical bias was clearly utterly at variance with the main objective, since 1950, of Italian economic policy (128) of which the *Cassa* was the instrument.

In order to put an end to these contradictions in the official policy for the South, Article 2 of the Law on industrialization of 29 July 1957 prescribed that, in future, these semi-state corporations were to reserve 60 per cent of their new investments, and 40 per cent of their total investments, for the South. A number of critics objected that this co-efficient was rigid and artificial (129). Campilli replied by saying that the 40-60 per cent rule was not to be interpreted as an obligatory formula but merely as a normative level which should be observed within the limits of what was feasible and sensible (130); and he added that the rule would be expected to come into force only gradually over the seven years up to 1965 (131).

The State should thus not confine its activity in respect of industrialization to planning the exploitation of sources of raw materials and reserves of power. The intention is that it should

Campania and Sardinia. Hence the saying: "IRI stopped at Naples". (Cf. *Boll. Sic.*, VI, 1957, No. 15-16, p. 35).

(128) *Inf. Sv.*, X, 1957, No. 25, pp. 546 f.

(129) The investment programme of IRI allots more than three quarters of the total expenditure of 1 milliard, budgeted for 5 years, to the expansion and technical improvement of the existing industrial establishments, so that new plants are left with barely a quarter. How will it be possible to invest in the Mezzogiorno 40 per cent of the funds that are predominantly intended for existing productive units, when the great majority of the oldest industrial establishments are situated in Central and Northern Italy? In the case — which is a possible one — that in any particular year the IRI budget allowed a margin for new plants, there would be nothing at all for the Mezzogiorno.

(130) *Inf. Sv.*, X, 1957, No. 35-36, p. 780.

(131) *Ibid.*, X, 1957, No. 45, p. 1013.

directly undertake the establishment of new industries wherever private enterprise is hesitant, either because of the risk involved, or because of lack of capital, or because of doubts about earnings prospects. These arguments and tendencies were the focal point of a sharp contrast of views about the methods of industrialization as between the opponents and the supporters of State industry.

The opponents feared especially that the existence, or even the mere programming of a State industry would paralyse new private initiative, or suffocate the private enterprise that already existed. And the question was asked whether it was possible to draw a clear line between, the public and the private spheres, or whether the new public enterprises were not likely, armed with their political supports, to become unassailable bulwarks against the forces of healthy competition (132). The task of the State, according to this group, begins and ends with the creation of a suitable institutional and social milieu for economic development, and with the provision of financial assistance. The actual realization of projects for industrial plants ought to be the task exclusively of private enterprise. The prevalence of businesses run by public corporations in the field that ought to be reserved to private initiative might give rise to the danger of the coexistence and at the same time antithesis, within the Italian economy, of two different principles: a more or less disguised State enterprise in the South, contrasting with the private enterprise which is already solidly established and is continually expanding in the North.

These objections of the anti-interventionists can be countered, according to the supporters of State intervention, by vesting the public enterprises with appropriate characteristics. These rest on familiar theories concerning the possibility of reconciling public enterprise with a system based on private initiative and responsibility.

The clearest recent expression of this view is that of Saraceno (133).

He first restates his view that "la politica d'industrializzazione non può limitarsi ad introdurre un quadro di incentivi, restando

(132) *Ibid.*, IX, 1956, No. 52, p. 1087 f.

(133) PASQUALE SARACENO, "Lo Schema Vanoni due anni dopo la sua presentazione", in *Stato Sociale*, Rome, January 1957, No. 1; "The Vanoni Plan Re-examined", in *Banca Nazionale del Lavoro Quarterly Review*, No. 43, December 1957, p. 375, especially pp. 393-96.

poi lo Stato semplice spettatore delle reazioni che gli incentivi suscitano, ma deve esplicarsi anche attraverso iniziative dirette ad ottenere che determinate unità di produzione sorgano in determinati luoghi" (134). And he goes on to affirm that the productive activity which the State directly undertakes must conform to three conditions:

"a) le aziende controllate dallo Stato debbono operare su un piano di parità con le aziende gestite dall'iniziativa privata;

b) ciascuna azienda deve godere di un'assoluta autonomia economica e finanziaria, così che sia possibile valutarne i risultati economici e rendersi conto del credito che essa riesce a meritarsi sul mercato; in particolare deve evitarsi: 1) che il credito dell'azienda sia confuso con il credito di cui gode lo Stato; 2) che i profitti di un'azienda vadano ad occultare le perdite di un'altra;

c) l'assunzione di esercizi industriali da parte dello Stato deve avere carattere temporaneo, nel senso che il controllo delle imprese deve passare all'iniziativa privata ogni volta che l'esercizio dell'azienda controllata non sia utile ai fini dell'ulteriore processo di sviluppo" (135).

The discussion is thus tending to shift to the concrete possibilities of setting up public enterprises of which the management conforms to such principles. The achievement of this objective is fraught with uncertainties and difficulties which the opponents of State intervention regard as practically insuperable.

V. Implications of Recent Developments

In the course of this article, a number of references have been made to statements by experts, statements which reflected a certain disappointment at the results so far obtained in the Mezzogiorno under the new policy, which has now been in force for eight years and has entailed a heavy financial sacrifice.

No less a person than Campilli, until recently Minister responsible for the policy of the *Cassa per il Mezzogiorno*, had to admit that the economic progress of the South had not so far been

(134) Cf. SARACENO, *Lo Schema Vanoni...*, loc. cit., p. 50-51.

(135) Cf. SARACENO, *The Vanoni Plan...*, p. 393.

sufficient to allow it even to begin to draw level with the North. In spite of all the efforts made, there was still no sign of an autonomous economic impulse in the South. Nor was the danger completely removed that the Mezzogiorno might, were the policy of State support abandoned, suffer a relapse into a condition of stagnation, a relapse which must at all costs be avoided especially because of its psychological effects (136).

In fact, in 1956 the share of the North of Italy in the country's total income was about 60 per cent, while that of Central Italy and of the Mezzogiorno was in each case 20 per cent. In the same year the Mezzogiorno accounted for only just above 20 per cent of total national consumption for a group of non-food items, while for other items the percentage was even lower (137). The standard of living of the inhabitants of the Mezzogiorno must thus still have been very low considering the fact that they represent about 38 per cent of the whole Italian population. Indeed the income and the consumption per head would, according to the estimates of Tagliacarne, be less than half the national average.

At the risk of some repetition, I should like to make three points which, to some extent, detract from the significance of these figures.

In the first place, allowance must be made for the dependence of the mainly agricultural South on harvest variations. 1955 and 1956 were specially bad years, and the effect was to raise above normal the income gap between the "two Italies".

Secondly, a comparison is made extremely difficult by the difference in the proportion of the "active" population to the total. Even if equipment in the South were as good as elsewhere, a smaller proportion, of the population would be active there than in the North. Hence the output per head of the active and inactive population combined would be lower, and so would the income available for spending on food and other items.

Lastly, the movement in the cost of living has been slightly different in the two areas. According to the indices calculated by the Central Institute of Statistics, in 1956 the figures (on the base 1938 = 1) were 63.07 for the North as compared with 60.47 in the South. Thus the same increase in money income compared with

(136) *Il Popolo*, Rome, 1.8.1957.

(137) *Inf. Sv.*, X, 1957, No. 35-36, p. 783.

the level of 1938 meant a slightly higher increase in purchasing power in the South than in the North (138).

And now we come to the most important question among these concluding remarks. Will the sacrifices already made and still to come make it possible to lift the South out of its condition of economic stagnation, and to set it following a development process which is not merely continuous but goes at a faster speed than that in the North, so that the disparity between the two areas diminishes and finally disappears?

Saraceno, who has been an untiring proponent of an active policy for the South, has stated that the efforts so far made to improve conditions in the South have served only to prevent the balance from being tilted still further against that area, as would undoubtedly have happened had economic forces been left to operate freely. He was obliged also to recall that what is classified by the statistics as "industry" in the South is mainly composed of small artisan workshops, which, despite certain beginnings of mechanization (139), are still marking time at a precapitalistic stage in conditions which are technically out of date (140). The few southern industrial plants using modern technical methods do not, except in rare cases, owe their existence to a process of spontaneous growth but are due — he says — to state intervention, or that is to external forces. The South is thus threatened not with temporary interruptions on the model of an economy which obeys its own laws of movement, but with the much more serious prospect of a contraction which constantly gathers momentum, as had indeed been the case from the time when the country was united up until the "new policy" was introduced (141). Only the events of very recent date encourage Saraceno to suppose that autonomous dynamic forces are beginning to stir in the Southern economy (142).

But even earlier, other authorities such as Molinari, Ciasca and Mirabella had expressed similar views. Whatever progress had been

(138) *Ibid.*, X, 1957, No. 30-31, p. 965.

(139) Cf. the informative article by GUGLIELMO CIARPELLA, "I provvedimenti per l'industrializzazione del Mezzogiorno e per l'artigianato meridionale", shortened version in *Inf. Sv.*, X, 1957, No. 43-44, p. 982 f.

(140) *Ibid.*, X, 1957, No. 30-31, p. 965.

(141) PASQUALE SARACENO, "Lo Schema Varoni due anni dopo la sua presentazione e la posizione del Mezzogiorno", in *Inf. Sv.*, X, 1957, No. 21, p. 464 f.; *Ibid.*, No. 28, p. 608.

(142) *Ibid.*, XI, 1958, No. 7, p. 142.

made towards a levelling up between the South and the North was precarious in the sense that it was in danger of being lost as soon as the efforts to assist the South were in the slightest degree relaxed (143). According to Molinari, the lowest point so far had been reached in 1950 when the *Cassa* started operations. At that time, the income of the South, which was equivalent to 45 per cent of the national average in 1938, had fallen to 40 per cent, and then risen to 43 per cent in 1955 (144). Unfortunately, 1956, with its disastrous late frost reduced the income by 12 per cent, while Northern income rose by 11 per cent. If the calculations are correct, the Mezzogiorno (with 38 per cent of the population of the whole of Italy) earned in 1956 only 17 per cent of the national income, which means that the share envisaged by the "Vanoni Plan" for the South in 1964 — 28 per cent — recedes into the remote and indeed unattainable distance.

It is no wonder, in such circumstances, that not only the general public is somewhat disappointed, but that those taking part in industrialization give signs of something approaching lassitude and detachment. Requests for finance have declined, and the initial flood has given way to an ebbtide which is due not merely to chance factors and psychological reactions but also to conscious and rational calculation (145).

The situation was also made decidedly gloomy by the fact that in one year, 1955-56, unemployment in the South increased by 6½ per cent (from 916,747 to 976,608), while it fell in the North in the same period from 1,244,235 to 1,194,608 (or by 4 per cent). These data which were discussed in Parliament were not contested (146), and not much consolation could be derived from the possibly misleading nature of the figures for the South, due to the fact that many persons in agriculture who were previously either unemployed or underemployed are registering with the employment offices for the first time, and that they often do so in periods of peak activity. On the other hand, it could not be denied that mechanization in agriculture, which economizes labour, is making constant progress and that, what is perhaps even more important,

(143) *Ibid.*, X, 1957, No. 4, p. 89 f.

(144) *Ibid.*, IX, 1956, No. 48, p. 983.

(145) *Ibid.*, IX, 1956, No. 17-18, p. 378 f.

(146) *Ibid.*, X, 1957, No. 25, p. 547.

those who had not benefited from land reform — and they were the great majority — found it more and more difficult to obtain work. And, since scepticism was in the air, the constant stream of funds devoured by land reform caused considerable concern; and there was growing apprehension that the expensive public works undertaken by the *Cassa*, in particular the thousands of kilometres of new or improved roads (147), were not being adequately maintained, or that, given the impecuniousness of the provincial and local authorities concerned, there was no possibility of taking sufficient care of them.

Moreover, the statistics throw a rather discomfoting light on the antinomy between productivity and full employment. In Italy, as a whole, between 1950 and 1954, industrial production increased by no less than 41 per cent, and at the same time the workers in large factories expanded by only 2 per cent, and the total of industrial workers by only 5 per cent. This is the explanation of the temporary unemployment in the iron and steel works of Naples and (in so far as it is not due to the textile crisis) the low extent to which the equipment of the textile industry is being utilized (148). Here, as elsewhere, the low level of employment was due to technological progress; the machine had taken away from man part of his work. The demand for labour on the part of the *Cassa* was unable to make up for this loss, particularly as it was making an effort to rationalize its methods and to mechanize its techniques as much as possible. In fact, between 1955 and 1956, employment in public works declined by 20 per cent (149).

The decisive question to-day, therefore, is whether the new or expanded industrial plants, together with tertiary occupations, can succeed in compensating for this decrease in jobs (which are by their nature temporary) by an increase in a different type of employment which would normally give some guarantee of permanence. Unfortunately, there are no reliable statistics concerning this point; the data in the daily newspapers and specialist press are quite often contradictory, because the figures only relate to partial

(147) Up to 30 June 1956, the *Cassa* had spent 130 milliard lire on road construction; this figure represented 24 per cent of a total expenditure of 543 milliard. (*Inf. Sv.*, X, 1957, No. 4, p. 29).

(148) *Ibid.*, VIII, 1955, No. 35-36, p. 795.

(149) *Ibid.*, X, 1957, No. 33-34, p. 744.

phenomena, which the individual expert is tempted to isolate with a view to proving an argument close to his heart.

But more important than all this controversy about what are probably only temporary movements and to which statistics, whether for good or ill, always give some support, is a fundamental question which we must try to answer. How far has the policy for the South succeeded, since 1955, in living up to the objectives of the "Vanoni Plan", at least in its broad lines?

The Italian press has given a great deal of attention to this question (150). The "Vanoni Plan" envisaged for the whole ten years 1955-64 total investments in the South of 11,726 milliard lire (or an average of about 1,200 milliard lire per year). The largest share of this capital (41 per cent) was to go to the so-called "propulsive sectors" — agriculture, public works and public utilities. Industry and handicraft were allowed 23 per cent, building a similar figure, and tertiary occupations 13 per cent. Thus, industry and handicraft ought to have absorbed investments averaging 270 milliard lire annually, the "social product" of which should have emerged in the form of 400,000 additional jobs. It was expected that the tertiary occupations and building would provide for the remainder of the total increase in employment.

In actual fact, the three special credit institutions created in the first two years of the *Cassa's* life for the purpose of financing industry had promoted investments for a sum of 150 milliard lire. In addition, there were the contributions of the Sicilian Region and other funds raised indirectly or through the usual credit channels. And finally there must be added the IRI factories which are self-financed, and those of several large northern companies such as Fiat and Olivetti, who also provided their own funds. The overall total seems to be in the region of 200 milliard lire, though this may be an overestimate. In any case we are faced with the fact that, in spite of a large financial effort, the two-year investment target — of about 540 milliard lire — set by the "Vanoni Plan" for the South was only fulfilled to the extent of 37 per cent. (It should be noted that the annual investment envisaged by the Plan is not the same from year to year but is planned to rise gradually throughout the course of implementation).

(150) *Ibid.*, X, 1957, No. 45, p. 1008 f., quoting from *Mondo Economico* of 19.10.1957.

One essential hypothesis of the "Plan" must, moreover, be corrected. The capital-labour ratio, which was at one time assumed to be constant, has as the result of technological progress already risen above the figure there adopted. A recent example will suffice to prove the point. A big cotton spinning and weaving factory (which is a branch of an industrial group situated on the West coast of Calabria and belongs to a sector hitherto regarded as almost the prototype of high labour-intensity) says that to be in condition to compete successfully, both at home and abroad, its capital equipment should be at the level of 5½ million lire per employee (151). In this case, too, therefore, in the struggle between full employment and maximum productivity, the latter comes out on top.

This increase — a consequence of technical progress — in the capital needed per worker has extremely important consequences in a country which is only now making a serious drive to catch up on the arrears (accumulated over a century) of industrial equipment in almost half its territory. One has only to increase the amount of capital needed, to insert a single worker into the productive process from the 1½ million assumed by the "Vanoni Plan" (152) to 3.5 million — as perhaps will be done in some future second edition of the Plan — to throw the present estimates completely out of gear.

Every increase in the capital required for creating each new job would place an additional burden on the Italian economy, a burden which in all probability could be borne only by stretching it over a longer period than that envisaged by those responsible for drawing up the Plan. In consequence there would have to be a postponement of the final realization of the investment programme for the "two Italies", and a slowing down of the rhythm of economic development of the Mezzogiorno.

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(151) *Inf. Sv.*, X, 1957, No. 45, p. 1009.

(152) The "Vanoni Plan" envisaged a capital requirement of 10 million lire per worker as an exceptional case, applying only to 100,000 additional workers that were expected to find employment in the large industrial complexes (*Schema*, p. 35).