

A Note on the Index Numbers of Italian Industrial Production

by

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1. — The Central Institute of Statistics has recently initiated the publication of new monthly index numbers of Italian industrial production on the basis of 1938 (1). The new indexes differ from the earlier ones not only on account of the numerous improvements introduced into the technique of collecting and elaborating the data (2), but also because further groups of industries are now taken into consideration. Moreover, the classification of industrial activities has been made practically identical to that proposed by the U.N.O., with the object of making international comparisons possible.

On the basis of the said indexes the variations of Italian industrial production, by major industrial groups, in 1948, 1949 and 1950, as compared with that of 1938, appear from the data indicated in Table I (3).

As can be seen, total Italian industrial production in 1948 was approximately equal to that of 1938; in 1949 and 1950 a further increase occurred and the 1938 level was surpassed by 5% and 19% respectively.

These increases do not apply to the various branches of industry in the same degree: the production of the mining industries has reached the pre-war level only in 1950, whereas in 1948 and 1949 there were reductions equal to 18% and 11% respectively. This slow progress, in comparison with total industrial activity, is attributable to the notable reduction, still continuing today, in the mining of metallic ores.

The production of the manufacturing industries, taken as a whole, shows a notable increase from 1948 to 1950; in 1948 it was below the 1938 level by 7%, in 1949 and 1950 it surpassed the figure for 1938 by

2% and 14% respectively. The groups of industries which in 1950 contributed particularly to the rise in the level of manufacturing production were the food and allied industries, which, in comparison with 1938, showed an increase of output of 33%, rubber and guttapercha industries (+ 32%), mechanical industries (+ 23%), chemical and allied industries and those of non-metallic ores (+ 21% and + 19% respectively). On the other hand the increase of production in the textile and clothing, metallurgical and paper industries showed a very modest expansion (2%, 4%, and 6% respectively). The very remarkable reduction in the wood industry (41%) is worthy of particular notice.

TABLE I

INDUSTRIAL PRODUCTION, BY BRANCHES AND GROUPS OF INDUSTRIES

(annual average, 1938 = 100)

Branches and groups of industries	1948	1949	1950
<i>Mining Industries</i>	82	89	101
Metallic ores	67	73	78
Non-metallic ores	89	97	111
<i>Manufacturing Industries</i>	93	102	114
Food production and allied industries	96	111	133
Textiles and clothing	96	99	102
Wood	54	57	59
Paper	73	91	106
Metallurgy	87	86	104
Engineering	104	115	123
Non-metallic ores	90	96	119
Chemical and allied industries	93	105	121
Rubber and guttapercha	103	115	132
<i>Electrical and Gas Industries</i>	138	136	159
Production and distribution of electric power	149	134	162
Production and distribution of gas for lighting	145	145	151
<i>Total</i>	99	105	119
(exclusive of electrical and gas industries)	(93)	(102)	(114)

The maximum increases, as compared with 1938, are registered in the electrical and gas industries, the index number of which attained in 1950 the quota

of 159 (138 = 100); the increase in the output of electric power has been particularly remarkable, having risen from 134 in 1949 to 162 in 1950.

2. — It has been objected, particularly by the Italian General Confederation of Industry, that the index numbers elaborated by the Central Institute of Statistics present for the last three years an excessively optimistic situation in comparison with the pre-war period. Italian productive industrial improvement, it is stated, has been contained within more modest limits than the index numbers of the Institute would suggest (4). These figures do not faithfully present the actual facts because they have been drafted on too restricted bases; further, in certain cases, the industrial groups selected for the construction of group index numbers are alleged not to be representative of the whole of the branch taken into consideration (5).

These criticisms do not seem to us convincing. As is explained in footnote (6), a sound and constructive

(4) The Italian General Confederation of Industry also publishes an index number for industrial production, drafted on more limited bases and objectives and reaching results notably inferior to those presented by the Institute of Statistics (See this Review, No. 8, January-March 1949, pp. 70-71 and pp. 77-78).

(5) Cf. M. SALIZANTI, *Gli indici della produzione industriale* in «L'Organizzazione industriale», No. 27, Rome, July 6, 1950; *La tecnica di costruzione degli indici della produzione industriale*, ibid., No. 25, Rome, July 20, 1950; *Sugli indici della produzione industriale*, ibid., Rome, October 26, 1950.

(6) As is well-known, one of the chief difficulties encountered in the construction of index numbers for industrial production is the impossibility of recording, for the individual periods referred to, all the expressions of the phenomenon. It is then necessary to fall back on one of the three following methods of inquiry: (a) «representative system»; (b) system based on the maximum number of manifestations; (c) «sample system».

In referring to these methods, certain critics have sometimes fallen into regrettable confusion, especially between method (a) and method (b). For instance, at times, the variations of a phenomenon from period X to period X+1, X+2... have not been regarded as representative of the corresponding comprehensive variations only because the returns are limited to too small a number of manifestations, thus creating confusion between the (a) method and the (b) method.

Another serious difficulty concerns the nature of the data to which one should refer for the calculation of elementary indexes. As is known, these data may be direct or indirect. Naturally the latter should be utilized only when it is impossible to avail oneself of the former; but often even direct data may lead to results which are anything but satisfactory. Let us admit, for instance, that the number of motor vehicles (of the same type) produced during a series of years by a particular plant is known. It does not follow that the indexes of production, estimated on the basis of this datum (taking as a basis one of the years under consideration, e.g. the first) give us a satisfactory measure of the annual variations of production attained by that plant. If, in fact, with the passing of years, the productive organization has changed in such a manner that during the first years only assemblage work was carried out there, whereas in the succeeding years also the construction of the component parts was effected, it is obvious that, the number of motor vehicles produced being

critical analysis of the indexes under consideration requires the examination of all the individual elements as well as the methods of ascertainment and elaboration, inasmuch as apparent imperfections may have been expressly excogitated in order to render the results satisfactorily significant.

A thorough judgment on the reliability of the official indexes of our industrial production should be based on a comprehensive analysis concerning the statistical recording methods, the nature of the data collected and the system of elaboration. Such a task

constant, in the second case as compared with the first, the productive activity of the plant has greatly increased. Of this, however, the indexes of production, calculated on the number of vehicles produced in each year, tell us nothing.

It might be thought that the above-mentioned drawback might be avoided by calculating the indexes not on the basis of the total gross production (number of motor vehicles), but by utilizing the «added value» which is identified with the total value of the gross output less the value of the raw and subsidiary materials employed in the productive process. But in this case a further difficulty might arise. In fact the amount of subsidiary materials subtracted from the total gross production with the object of determining the «added value», is a function of the quantitative and qualitative consistency of the machinery with which the plant is supplied; now, if in the first years the operation of the plant was based largely on human labour, whereas in subsequent years its activity has been progressively mechanized (with increasing consumption of subsidiary materials, electric power, coal, lubricants, etc.), it is obvious that the additional value of the output is no longer comparable on a time basis, and consequently no reliable significance can be attributed to the index numbers calculated on that basis.

The same may be said if, in elaborating the index numbers of industrial production, the «net output» is taken into consideration, which, with reference to the «added value», excludes the cost of upkeep and amortization of the machinery. Even in this case any eventual structural progress (quantitative or qualitative) in the means of production has a notably disturbing effect on time and space comparisons.

Similar reasons alter the significance of the index numbers of industrial production calculated on indirect data, such as the number of the machines in operation, the amount of power employed, the consumption of raw or subsidiary materials, the number of the persons employed, etc., or even calculated on varying combinations of such elements. Thus, for instance, if we regard as representative a combination made up of employees (by working days or working hours) and power (in HP.), it will not escape notice that if, with the passing of years, productive activity tends to become mechanized, the consequent increase of power will weigh on the combination in a measure out of all proportion to the increase of production.

In addition to the above-mentioned difficulties, there are many others to be borne in mind: the reduction or disappearance, with the passing of time, of certain industrial activities, the changes in the territory in which these activities operate, technical progress, etc.

However, the impact of these circumstances on the reliability of the index numbers of industrial production tends to be greatly reduced when we pass from the elementary indexes to those of groups or branches of industry, provided that in making up the totals appropriate system of weighting be used. Thus, for instance, if the data utilized for the elaboration of elementary indexes refer to total gross production, the con-

implies the reconsideration of the whole of the statistical documentation on which the procedure has been based and may not be accomplished in this note. We believe, however, that it might be useful to call attention to certain special problems and phenomena which not only prove in a sufficiently convincing manner the reliability of the index numbers as calculated by the Institute of Statistics, but which may also serve for a more correct interpretation of them.

3. — It should in the first place be borne in mind that the increase of industrial production as a whole, as appears from the general index worked out by the Central Institute of Statistics, is due to the notable increases of the elementary indexes of certain particular industrial activities. These increases, as the industrial branches they represent refer to the production of commodities of first necessity or of general consumption, are justified, we believe, by the increase of population in 1950 as compared with that of 1938 (over 5%). Indeed the productive level has notably increased in the field of macaroni paste and biscuit manufacture, the milling of cereals and sifinal activities (food and allied industries); the manufacture of printing machinery, sewing machines, electric engines, motor vehicles, tractors, vans and typewriters (mechanical industries), and so also for motor and cycle air tubes and tyres, sanitary appliances (rubber industries). It cannot be denied that the larger number of the population in 1950, as compared with 1938, corresponds to larger food requirements and consequently to a strong productive increase in food industries. This particularly with reference to the manufacture of macaroni paste and similar products, also on account of the greater imports of cereals in 1950 as compared with the pre-war period (7).

consideration of the « added value » may eliminate some of the disturbing factors due to the changing pattern of productive activity.

Indeed, in calculating the index numbers of industrial production one cannot *a priori* lay down a rigid methodological scheme neither with reference to the data to be collected nor to the criteria of elaboration and synthesis. Consequently even those criticisms which tend to invalidate the reliability of synthetic index numbers, as being based on a too limited number of observations or because certain particular activities are not calculated, may prove devoid of foundation if they do not consider all the aspects and devices of the statistical process followed.

(7) The criticisms levelled at the new series of index numbers for industrial production have been particularly concentrated on the food and mechanical industries. It is stated that it is above all the excessive optimism in the estimate of these two branches of activity which have adulterated the general index for industrial production.

As regards food industries, we believe that the short considerations set forth in the text are sufficient to prove that the criticisms are devoid of foundation. The mechanical industry no doubt presents more delicate and complicated problems. In any case the index number of this branch of activity, even if capable of improvement, cannot be charged with having altered the facts because it has only taken into consideration, for instance, production for civilian use and omitted military production. As a matter of fact, in selecting, with a

The increase of population and also the notable diffusion of the Press in all its aspects, the evolution of the means of transport (also in consequence of the competition between motor vehicles and railway), the mechanization of agricultural activity, sanitary improvements, etc., likewise help to explain the vigorous impulse given to mechanical and rubber industries.

For similar reasons, the increase indicated by the index number for the electrical industries appears equally justified (hydro-electric and thermo-electric plants) (8).

4. — For a more accurate judgment of the reliability of the general index under consideration, it may perhaps be advisable to set forth the course of Italian industrial production in the period between the two world wars, and thus to try, by a process of extrapolation, to guess what would have been the further developments should there have been no disturbing factors of extraordinary character in the last decade.

5. — The indexes of industrial production calculated on the basis of 1922, for the years from 1922 to 1939, enable us to define what has been the evolution,

view to constructing a synthetic index number, the various sectors which go to make up the mechanical industry all those statistical considerations mentioned in the note (6) have been applied, in such a manner as to take into account, within the limits of possibility, the contrasting developments which since 1938 have characterized this industrial branch.

(8) The figures — published by the Ministry of Industry — on the consumption of power (electric power, solid and liquid fuels, natural gas) in Italy in 1950, for industrial uses give indirect confirmation to the accuracy of the industrial production index for 1950 drafted by the Central Institute of Statistics.

In spite of the notable reduction in the imports of coal, the consumption of power for industrial uses, reduced to its equivalent in coal, in 1950 amounted to 28.2 millions of m. tons, being an increase of 10% as compared with 1949 (the consumption of power for all uses has undergone an increase of 22% in 1950 as compared to 1949). This increase corresponds fairly closely to that of industrial production, as indicated by Central Institute of Statistics index number (+13%). As compared with 1938 the increase in the consumption of power for industrial uses was 19%, i.e. equal to the increase in industrial production general index number.

It might be objected that the increased consumption of power could be explained, at least in part, by the increased mechanization of our industrial system, and that consequently it does not confirm the accuracy of the index of industrial production.

As a matter of fact, if the process of mechanization considered by itself may justify an increase in the consumption of power above the increase in industrial production, on the other hand it must be remembered that the rationalization of our productive apparatus has probably contributed to a higher productivity, the amount of power consumed remaining unaltered.

In conclusion, it is probable that the two factors above mentioned tend to neutralize each other, and that the increment in the consumption of power represents a fairly accurate indication of the increase of industrial production during these last years.

in our country, until the eve of the world war II (9). On account of the great depression of the early thirties the 1922-1939 period remains split up into two well-defined economic cycles, the first covering the years from 1922 to 1929 and the second those from 1932 to 1939. During the first cycle the course of Italian industrial production is characterized by a lineal function of the type:

$$[1] \quad Y = 105.40 + 13.73 x$$

In the equation [1] the angular coefficient signifies that between 1922 and 1929 our industrial output increased annually by a quota equal to 13.73% of the industrial output of 1922. Undoubtedly the 1922-1929 period, on account of many economic, political and psychological factors, was a particularly favourable one for the development of industrial activity, also because that activity, having fallen in the early twenties to a level which was by no means satisfactory with reference to the economic and social requirements of the time, offered sure possibilities for a rapid expansion. The trend which characterized the said period must therefore be considered somewhat optimistic if we wish to extend it to the years after 1929 and deduce the evolution of industrial production during the past decade on the hypothesis that that period had not been afflicted by the war.

6. — The great depression of 1929-1932 marked a tremendous decline in industrial production; but from 1932 onwards we had a definite rise. The basic trend of industrial production from 1932 to the eve of World War II presents a rate of progress less marked as compared with that of the 1922-1929 period, and one which reflects the normal evolution of the industrial activity of our country during the past twenty years fairly faithfully. We may, therefore, assume that, in the absence of factors brought about by World War II, this same basic trend would have also more or less characterized the 1941-50 period. On this assumption, what would the general index of industrial production (basis 1938) have been during the last three years?

The trend of our industrial production during the 1932-1939 period is expressed by the following lineal function:

$$[2] \quad Y = 157.87 + 9.78 x$$

From the equation [2] we gather that in 1932 industrial production had risen above that of 1922 by 57.87%, and that for the period 1932-39 the annual increase was equal to 9.78% of the 1922 production. The hypothetical index numbers calculated on the [2] basis also for the last decade (1938=100) define what would have been, in comparison with 1938, the variations in industrial production for 1948, 1949

and 1950 in the absence of World War II. Comparing the hypothetical indexes thus calculated with the actual ones we reach the results indicated in Table II.

TABLE II
GENERAL INDEXES, ACTUAL AND HYPOTHETICAL,
OF INDUSTRIAL PRODUCTION
(basis: 1938=100)

Years	Indexes		Differences in % of the 1938 production
	actual	hypothetical	
1948	99	151	52
1949	105	155	50
1950	119	160	41

As we can see, on the basis of our hypothesis and of the indexes as worked out by the Central Institute of Statistics, we might come to the conclusion that, owing to the depressive effects of the war, Italian industrial production has suffered a reduction of 52% in 1948, of 50% in 1949 and of 41% in 1950.

From this point of view, the official indexes of industrial production point to a situation which is anything but satisfactory, even if in 1950 the rate of improvement has been markedly higher as compared with 1949. In fact, if we bear in mind that the national income, calculated in 1938 lire, was not very different in the years 1948, 1949 and 1950 from that of 1938, and that the share of it due to industrial activity amounted to about 50% of the total (10), we must conclude that the reduction of our national dividend, caused by the impact of World War II on industrial activity alone, should be regarded as amounting at present to about 25%.

7. — The above considerations are based on the assumption that the rise of industrial production in the 1932-39 period had followed a similar rate even in the succeeding decade (should World War II not have occurred). This assumption might be considered optimistic inasmuch as it must be admitted that, even in the absence of catastrophic factors, any economic or social phenomenon tends, owing to environmental saturation, towards a progressive slowing down. In order to take this circumstance into account we have adjusted, always for the 1932-39 period, the course of industrial production on the basis of certain depressive factors which would have appeared during the second half of that period. This course is defined as follows:

$$[3] \quad Y = 105.51 + 9.78 x - 9.65 x^2$$

where the origin of the independent variable (x) refers to the end of 1935.

(9) ISTITUTO CENTRALE DI STATISTICA, « Compendio statistico italiano », 1940, Vol. XIV, Chap. XX, *Indici delle condizioni economiche e finanziarie dell'Italia dal 1922 al 1939*, Rome, 1940.

(10) E. D'ELIA, *Italy's National Income*, this Review, No. 15, October-December 1950, p. 255 et seq.

Bearing in mind the formula [2], whose derivative ($y'_{(t)}$) is equal to 9.78, and deriving the [3], we have

$$Y'_{(t)} = 9.78 - 1.30x$$

whence:

$$[4] \quad Y'_{(t)} = Y'_{(t)} - 1.30x$$

The last term ($-1.30x$) of the second member of the [4] indicates, on the variation of x , the *saturation coefficient* of the development of industrial production which would have been realized after 1935 and down to the whole of 1939 on account of specific perturbing factors. Let us suppose that the trend of industrial production already indicated for the 1941-50 period has been subject to an involutory influence equal to the average of that actually as realized in the 1936-38 period. In that case — always on the hypothesis that there had been no war — the indexes of Italian industrial production for 1948, 1949 and 1950, would have been: 134.5 for 1948, 137.9 for 1949, and 141.5 for 1950.

It is probable, however, that if the results obtained by applying the formula [2] are incorrect in a positive way, the results attained on the basis of the latter hypothesis are incorrect in a negative way. It would be hard to decide which of the two sets are to be considered nearest to the truth; but as far as our purposes are concerned, it is not necessary to solve this problem. It is sufficient to affirm that the data obtained on the basis of the two hypotheses certainly define the field in which the indexes of Italian industrial production would have been comprised in 1948, 1949 and 1950.

TABLE III

GENERAL INDEXES, BOTH ACTUAL AND HYPOTHETIC, OF INDUSTRIAL PRODUCTION (basis 1938=100)

Years	Indexes			Differences in % of the 1938 production	
	actual	hypothetic		1st hypothesis	2nd hypothesis
		1st hypothesis	2nd hypothesis		
1948	99	151	135	52	36
1949	105	155	138	50	33
1950	119	160	142	41	23

8. — From the data indicated in Table III we deduce, on the basis of our hypotheses and of the official indexes of industrial production, that, on account of the 1940-45 conflict, Italian industrial production has suffered considerable contractions for an amount between 36% and 52% in 1948, between 33% and 50% in 1949 and between 23% and 41% in 1950.

Therefore, the indexes of industrial production worked out by the Central Institute of Statistics, even if they indicate for 1949 and still more for 1950 a

higher level than that of 1938, point to a far from satisfactory productive activity, in relation to the increase of population and to the requirements of our economic and social structure. The impact of the war on industrial activity is still considerable, and many more years will probably be required before the wounds can be entirely healed.

In conclusion, the indexes elaborated by the Central Institute of Statistics, if examined from this visual angle, do not indeed present a too rosy situation, such as to make one presume that they have erred on the side of optimism.

9. — A further confirmation of their substantial accuracy may be gathered by analyzing the movement of population in industrial Communes during the past years, as compared with other Communes.

TABLE IV

DEMOGRAPHIC IMPORTANCE OF INDUSTRIAL COMMUNES AS COMPARED WITH THE TOTALITY OF THE COMMUNES OF THE PROVINCE

Province	Population of the industrial Communes, (population of the Province = 100)	
	on Jan. 1, 1948	on Jan. 1, 1950
Novara	14.39	14.83
Torino	3.79	3.83
Vercelli	24.69	25.24
Bergamo	5.64	5.72
Brescia	5.10	5.20
Como	24.27	24.58
Milano	21.45	21.75
Varese	57.72	57.80
Vicenza	5.07	5.24
Savona	7.00	7.15
Pistoia	5.48	5.50
Roma	0.46	0.48
Pescara	1.78	1.82
Cagliari	0.78	0.80
Total	11.92	12.10

To this end the resident population of Communes having over 70% of the «active» inhabitants (11) employed in industry has been calculated as it was on January 1, 1948 and on January 1, 1950. Comparing on each of those dates the population of the industrial Communes with the corresponding total population of the Provinces, we have obtained the coefficients of demographic importance of Table IV. On the basis of these data it is easy to realize that in all the Provinces considered the demographic importance of the industrial Communes, as compared with the total population of each Province, was on January 1950 higher than on January 1, 1948. This means that dur-

(11) Population over 10 years of age occupied in branches of economic activity, including the persons momentarily unemployed.

ing the two years 1948 and 1949 the actual increase in the population of the industrial Communes has been higher than in the other Communes of the provinces in question. If we bear in mind that the natural increase (the balance between births and deaths) of the population of the industrial Communes is always considerably lower than that of the non-industrial Communes on account of the high birth-rate which is characteristic of the latter (usually Communes with rural economy), we must come to the conclusion that during the two years under consideration there has been a notable migration from the rural Communes into the industrial Communes. These displacements cannot be explained save by admitting that there has been a certain increase of activity in the industrial centres. This is borne out by the fact

that, whereas from 1937 (the last year in which a population census was held) to 1948 the increase of population throughout all the industrial Communes was over 24.1%, the increase of the totality of the Communes, in the years 1948 and 1949 the difference had reached the quota of 62.3%. This figure appears extremely high if, as we pointed out before, we bear in mind that the population of the industrial Communes, unlike that of the other Communes, shows a limited natural increase.

Consequently, we feel that we are justified in concluding that the improvement in our industrial activity, in comparison with that of 1938, in these last three years, has been calculated with sufficiently approximate accuracy by the indexes elaborated by the Central Institute of Statistics.

STATISTICAL APPENDIX

ITALIAN BUDGET SUMMARY - ASSESSMENTS AND OBLIGATIONS (a)
(millions of lire)

Table A

Fiscal year beginning 1st July	Current revenue	Current Expenditure	Deficit	% of expenses to revenue	% of expenses covered by revenue	% of deficit to expenses
1938-19	27,576	39,835	- 12,277	144.5	69.2	30.8
1946-47	352,006	932,059	- 580,053	264.8	37.8	62.2
1947-48	827,802	1,547,152	- 719,350	186.9	53.5	46.5
1948-49	1,015,324	1,519,222	- 503,898	149.0	66.8	31.2
1949-50	1,248,310	1,775,573	- 527,263	122.3	81.8	18.2
1950-51 (b)	1,257,560	1,436,520	- 178,960	114.2	87.5	12.5
1951-52 (c)	1,455,000	1,824,000	- 369,000	125.4	79.7	20.2

(a) Current revenue and expenditure (recurrent and non recurrent). Movements of capitals are excluded. (b) Estimates at February 28, 1951, for the whole fiscal year. (c) Estimates.

Source: *Conto riassuntivo del Tesoro*.

ITALIAN BUDGET SUMMARY - CASH MOVEMENT (a)
(milliards of lire)

Table B

Fiscal year	Receipts (b)			Revenue assessed but not collected (c)	Payments (b)			Expenditure pledged but not incurred (c)	Deficit
	On year account	Arrears	Total		On year account	Arrears	Total		
	1	2	3=1+2		4	5	6		
1945-46	210.5	3.8	214.3	(+10)	400.5	49.3	449.8	231.1	- 215.5
1946-47	658.3	6.5	667.9	18.9	715.9	157.6	873.5	361.8	- 205.6
1947-48	801.4	20.6	822.0	205.9	1,015.9	311.5	1,327.4	485.2	- 505.4
1948-49	979.6	40.6	1,020.2	40.6	1,014.5	405.2	1,440.2	176.7	- 200.0
1949-50 (d)	1,503.4	99.9	1,603.3	189.6	1,200.2	486.7	1,686.9	197.7	- 83.6
July 1, 1950 - February 28, 1951	804.4	116.1	920.5	110.9	700.6	358.3	1,058.9	13.9	- 138.4

(a) While Table A shows assessed revenue and pledged expenditure (the so-called *bilancio di competenza*), this Table indicates receipts actually collected and payments actually incurred (the so-called *bilancio di cassa*). (b) Current revenue (recurrent and non recurrent) and movements of capital. (c) The figures of these columns indicate the difference between the *bilancio di competenza* and the *bilancio di cassa*. (d) Rectified.

Source: *Conto riassuntivo del Tesoro*.

ITALIAN BUDGET SUMMARY - FINANCING OF CASH DEFICIT
(millions of lire)

Table C

	1946-47	1947-48	1948-49	1949-50	July 1, 1950 February 28, 1951
Assessments and Obligations (a) - Deficit	- 549,000	- 784,764	- 556,705	- 191,768	- 111,418
Receipts and Payments (b) - Cash deficit	- 205,625	- 505,454	- 419,964	- 83,619	- 138,425
Financing of cash deficit:					
Treasury Bills	+ 39,918	+ 203,709	+ 262,564	+ 24,530	+ 116,683
Advances of the Bank of Italy	+ 22,878	+ 107,509	+ 2,884	+ 19,077	+ 19,077
Interest bearing (Cassa DD. PP. and insurance instit. (c))	+ 43,806	+ 86,288	+ 223,443	+ 159,514	+ 98,902
current accounts (Banking institutions)	+ 1,566	+ 20,726	+ 39,449	+ 10,176	+ 9,458
Floating debt - Total	+ 105,036	+ 418,232	+ 443,674	+ 143,885	+ 187,050
Other Treasury Debits and Credits (d)	+ 88,880	+ 41,301	+ 67,773	+ 40,282	+ 22,473
Changes in cash position	+ 11,709	+ 45,921	+ 44,063	- 100,548	- 26,152
Grand Total	+ 205,625	+ 505,454	+ 419,964	+ 83,619	- 138,425

(a) Current revenue and expenditure and movements of capital. (b) Receipts and payments on year account and arrears; current revenue and expenditure and movements of capital. (c) For more than 90% a/c. with "Cassa Depositi e Prestiti" (Cassa DD. PP.) which collects the deposits of the Postal Savings Banks. (d) Debits and credits with government's agencies and other public bodies.

Source: *Conto riassuntivo del Tesoro*.

Statistical Appendix

CURRENT EXPENDITURE, BY MAIN CATEGORIES (a)

Table D

	Fiscal year 1938-39		Fiscal year 1946-47		Fiscal year 1947-48		Fiscal year 1948-49		Fiscal year 1949-50	
	millions of lire	%	millions of lire	%	millions of lire	%	millions of lire	%	millions of lire	%
Interest on public debt	6,278	17	39,361	4.4	75,179	4.5	91,015	5.6	99,542	5.8
Armed Forces	14,056	35.3	100,193	11.1	189,235	11.1	234,959	14.6	269,042	15.8
Public works	2,489	6.2	290,880	32.3	388,905	23.2	471,367	29.3	267,513	15.7(b)
Economic services	2,383	6	19,616	2.2	75,621	4.5	50,570	3.5	153,639	9
Education	2,149	5.4	53,428	5.9	109,725	6.5	134,850	8.4	170,277	10
Italian ex-colonies and trust territories	3,847	9.7	1,293	0.1	2,770	0.2	5,694	0.4	17,069	1
Social assistance	907	2.3	59,420	6.6	82,145	4.9	99,911	6.2	103,528	6.1
Police	1,227	3.1	39,863	4.4	78,804	4.7	85,720	5.3	93,708	5.5
War pensions	829	2.1	12,773	1.4	24,136	1.4	38,203	2.4	56,354	3.3
Local Finance	45	0.1	32,334	3.6	51,817	3.1	45,454	2.8	64,520	3.8
Subsidies to State enterprises to settle budgetary deficit	—	—	41,961	4.6	82,024	4.9	73,240	4.5	70,679	4.1
Expenses for war commitments	—	—	43,075	4.8	65,293	3.9	30,640	1.9	35,269	2.1
Expenses connected with peace treaty	—	—	13,338	1.5	69,754	4.1	28,478	1.8	67,894	4
Subsidies	—	—	57,620	6.4	232,040	13.8	38,500	2.4	721	—
Sundry expenses	5,152	12.8	95,945	10.7	151,352	9.0	176,565	10.9	236,188	13.8
Total (c)	39,853	100	901,100	100	1,678,800	100	1,613,166	100	1,705,943	100

(a) Current expenditure (recurrent and non recurrent). Movements of capital are excluded. The figures indicate the expenses engaged (*bilancio di competenza*) and not those actually made (*bilancio di cassa*).

(b) The lowering of the figure for public works in fiscal year 1949-50 does not reflect an actual shrinkage of government action in this field. It is due, for the most part, to a larger use of installment financing. In fiscal year 1949-50, only the first amount of the whole expenditure engaged for public works was accounted for in the Budget, while in the preceding years, when the method of payment in one year prevailed, the whole cost weighed on the Budget of the fiscal year concerned.

(c) The totals of this Table do not coincide with the figures on current expenditure reported in Table A, owing to a different system of statistical recording.

Source: *General Report on Italy's Economic Situation*, submitted to the Parliament on March 30, 1951 by the Minister of the Treasury.

ITALIAN DOMESTIC PUBLIC DEBT
(milliards of lire - Index Numbers, 1938=100)

Table E

End of period	Consolidated and others		Redeemable debt		Floating debt					Total of domestic public debt		
	A-mount	I.N.	A-mount	I.N.	Treasury bills	Interest bearing current accounts	Advances by the Bank of Italy	Total		Treasury notes	Total of domestic public debt	
								Amount	I. N.		Amount	I. N.
1938 - June	53	100	49	100	9	20	1	30	100	1.5	133.5	100
1947 - "	53	100	429	875	279	188	366	833	2,777	6.9	1,321.9	990
1948 - "	53	100	419	855	483	295	473	1,251	4,170	7.1	1,730.1	1,296
1949 - "	53	100	392	800	744	479	470	1,693	5,643	8.4	2,146.4	1,608
1950 - March	53	100	374	1,763	712	663	544	1,919	6,397	9.0	2,355.0	1,764
June (a)	53	100	586	1,196	719	628	490	1,837	6,123	9.0	2,486.0	1,862
September	53	100	584	1,191	750	655	471	1,876	6,153	9.0	2,522.0	1,889
December	53	100	579	1,182	811	686	471	1,968	6,560	9.0	2,609.0	1,954
1951 - January	53	100	579	1,182	834	716	471	2,021	6,737	9.0	2,662.0	1,994
February	53	100	579	1,182	836	717	471	2,024	6,747	9.0	2,665.0	1,996

(a) Rectified.

Source: *Conto riassuntivo del Tesoro*.

