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THE DEVELOPMENT OF REGIONAL ECONOMIC DIFFERENTIALS IN ITALY: NORTH  
AND SOUTH AT THE TIME OF UNIFICATION.<sup>1</sup>

I. The Historical Issue

Investigation of the historical development of economic differences between North and South Italy is of interest on several counts. First of all, it is important for the success of current development efforts in Southern Italy that the sources of its relative retrogression be understood. Secondly, Italy affords an opportunity to check, so far as the data allow, some of the contemporary theories about economic development and the effects of economic integration.

It is clear that the southern forty per cent of the land area of the Italian peninsula and the adjacent islands of Sardinia and Sicily with about thirty seven per cent of the country's population failed to participate fully in the industrialization and development which took place in northern Italy in the late nineteenth and twentieth century. Ties of nationhood and language, freedom of trade and labor and capital movements were, in fact, just not sufficient to propagate the economic transformations taking place in the North.

This paper examines one aspect of Italian economic history of the nineteenth century: the relative economic position of North and South at the time of unification. This issue must be resolved before an answer can be attempted as to the sources of the present regional economic differentials. Some of the most widely accepted views give major weight to political and

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1. The author is both personally and officially indebted for help and encouragement to Professor P.N. Rosenstein-Rodan for whom this work was undertaken as part of the Italy Project of the Center for International Studies, M.I.T.

economic changes which took place after unification.<sup>1</sup> In particular it is quite commonly held that the South and North were in roughly equal positions at the time of unification, and the present differentials result from preferential treatment of the northern provinces by the national government.<sup>2</sup> If the premise does not hold, identification of the effects of government policy becomes more questionable. On the other hand, if the economic differentials antedate unification that, in itself, would help explain the subsequent events. For we know from economic theory that original regional discrepancies can be magnified over time even in favorable conditions of equal growth rates.<sup>3</sup>

The opinion that, at the time of unification, North and South Italy were at roughly the same stage of development is sometimes stated in such a way as to mean that per capita income levels were about the same. If differences in per capita incomes were found, that would indicate not only unequal current levels of output but differences in growth potentials insofar as saving and investment rates are related to income levels. To the extent that these are affected by the distribution of income that would also be relevant.

Sometimes it is claimed that the degree and efficiency of industrialization were the same.<sup>4</sup> Surely the structure of production is important

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1. Francesco Perrone, Il Problemo del Mezzogiorno, Napoli, 1913, discusses a long list of theories of lack of economic development in the South.

2. E.g., F.S. Vitti, Nord e Sud, Torino, 1900, and, currently, F. Vochting, "Industrialization or Pre-Industrialization of Southern Italy," Banca Nazionale di Lavoro, Quarterly Review, No. 21, 1952, p. 67.

3. T. Haavelmo, A Study in the Theory of Economic Evolution.

4. E.g., F. Vochting, op. cit., p. 67, and A. Molinari, "Southern Italy," Banca Nazionale di Lavoro, Quarterly Review, No. 8, 1949, p. 27.

for growth capabilities but it has not always been clear in treatments of this issue as to just what industrial features are being compared. The "level of industrial development" is an ambiguous concept though often cited. Industrial production is relevant to economic growth, but if it is handicraft industry, it has a different significance than factory organized industry. It also makes a difference as to whether industry is self-supporting or dependent on government favors. And, of course, in addition to the per capita levels of industrial output, the number and dispersion of plants may be important.

The capability of an area to undertake economic growth may also be a useful concept but is one which must be given content for the present particular purposes. For example, it is often pointed out that there were industrial establishments in south Italy before unification which used techniques as advanced as those anywhere in Italy. However, such occurrences are not, by themselves, evidence of equal ability of South and North to undertake further development. Isolated and foreign-inspired examples of up-to-date productive technology are relevant to economic growth if they are imitated and integrated into economy. Otherwise, they remain anomalies.

There are protagonists who claim that the South was in some ways economically superior to the North.<sup>1</sup> When the issue is stated in terms of the relative capacity of the areas to undertake economic development, it has been claimed that the South, while lacking some of the social overhead capital of the North, had other economic advantages which made its prospects for development at least roughly equivalent to those of the North.<sup>2</sup>

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1. Antonio Fossati, Lavoro e Produzione in Italia, Torino, 1951.

2. F.S. Nitti, op. cit., p. 9.

The existence of larger amounts of gold coins in the South than in the North has been cited as a circumstance particularly favoring the South, but it is not necessarily a relevant factor. If domestic money requirements can be met by other means than gold, the metal may still retain importance as a potential offset to the import requirements for growth. But, if import requirements are not a bottleneck, or can be otherwise financed, even this significance of the gold stocks is reduced. To evaluate their significance for economic growth, it is necessary to consider the entire economy.

On the other hand, the view that the economic differences between North and South antedate the unification of Italy has been argued effectively by a number of authors. It has been suggested that the relative depression of the South has its first sources in events of antiquity and that the economic changes in the South in the first half of the nineteenth century did not reduce the regional disparities.<sup>1</sup> It has even been argued that these disparities increased in the first half of the nineteenth century,<sup>2</sup> but on the basis of quite limited evidence.

In most of the discussions of the relative economic positions of North and South Italy, there is full recognition of the great disparities within each region. It has been difficult, however, to treat central Italy separately in these historical studies because data for the central Italian Pontifical States of the mid-nineteenth century is even more inadequate than is usual for the pre-unification period. The generally accepted qualitative impression which emerges from a reading of pre-unification economic history is that there were greater economic differences between

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1. C. Barbagallo, La Questione Meridionale, 1948, Chapters 2 and 4.

2. D. Demarco, "Nord e sud nell'economia Italiana preunitaria," Rassegna Economica, No. 1, July-March, 1956, p. 34.

regions within the South than within the North. Even protagonists of the South will give this impression in their descriptions of the backwardness and difficulties of communication in many southern regions.

In view of this a general caveat must be made. It may be particularly misleading in the analysis of the early stages of economic growth to treat a large region such as North or South Italy as a homogeneous entity. Economic development in advanced countries has often originated at and been confined to relatively small areas for a considerable part of its history and many backwaters still exist in such countries. Division of Italy into three parts, North, Center, and South, the latter including Sicily and Sardegna, may uncover some factors crucial for the explanation of regional differences, which the North-South division covers up. Even so, it will help to remember that there are great differences within the three regions. In spite of this warning limitations of data will often force a reversion to the simpler North-South categories.

The ideas advanced above exhaust most of the interesting hypotheses which can be formulated with respect to the relative positions of North and South Italy at the time of unification. Since I have not been a neutral on these issues, it would be less than honest for me to conceal my own predilections as these should be put to the test as explicitly as possible. My own hunch has been that Southern Italy's relative depression considerably antedates the period of unification. I believe that at the time of unification Northern Italy was much better prepared than Southern Italy to undertake further economic development and that this, rather than government policy, accounts at least for the early post-unification disparity in behavior. We shall see how far the data bears out these and the other hypotheses.

## II. Arraying the Data

Relatively little economic history in Italy, as in the U.S. and most other places, has been written with the purpose of elucidating problems of economic development. Thus in spite of much able and scholarly work many key issues have still not been fully investigated. It is true that there is the customary handicap of lack of data but even the relatively readily available information has not been fully exploited. The objective of this section is to assemble and interpret data which will describe the relative economic positions of North and South Italy at the time of unification and their relative capabilities to produce economic growth.

Fundamentally we would like information on the total income produced in each region, its distribution, its sector breakdowns and relation to available capital stock. Lacking anything approximating this degree of enlightenment, it is necessary to turn to indirect indicators. We shall find that these are not always unambiguous guides.

### A. Occupational Censuses

Tables 1, 2, 3, 4, set forth available historical data on the occupational distribution of the labor force in Italy. The data of Table 1 have their source in the population censuses taken regularly in Italy since its unification. The larger percentages of the total labor force employed in industry in the South as compared to the North in the 1860's and 1870's are widely quoted as evidence of the relative economic advancement of the South. When this evidence is considered in conjunction with other less favorable evidence, it is frequently conceded that there may have been a rough equivalence between North and South at the time of unification. However, in interpreting Table 1 it is useful to recall that the rate of industrialization in Italy began to change

TABLE 1

Occupational Distribution of Active Population, Regionally Distributed at  
Census Dates

in absolute numbers (thousands) and percentages<sup>1</sup>

Year	Sector	Agriculture		Industry		Transport		Commerce		Other		Total
		Number	Per Cent	No.	%	No.	%	No.	%	No.	%	
1861	North	5,100	57.2		2,300	25.9			1,500	16.9		8,900
	Center											
	Mezzo-	3,200	57.1		1,400	30.4			700	12.5		5,300
	giorno											
1871	North	4,166	60.3	1,520	22.0	105	1.5	92	1.3	1,030	14.9	6,913
	Center	1,553	60.2	478	18.5	44	1.7	34	1.3	472	18.3	2,581
	Mezzo-	2,882	54.0	1,327	24.0	122	2.2	75	1.4	1,029	18.6	5,534
	giorno											
	North	4,058	56.4	1,838	25.4	119	1.7	148	2.1	1,035	14.4	7,197
	Center	1,424	55.8	603	23.6	51	2.0	42	1.6	435	17.0	2,555
1881	Mezzo-	3,117	48.9	1,956	30.7	143	2.2	90	1.4	1,056	16.6	6,362
	North	4,328	57.3	2,018	26.6	175	2.3	401	5.3	640	8.5	7,562
	Center	1,681	61.3	596	21.7	76	2.8	118	4.3	273	9.9	2,744
1901	Mezzo-	3,658	61.4	1,376	23.1	173	2.9	255	4.3	506	8.5	5,967
	North	4,065	51.8	2,405	30.7	234	3.0	472	6.0	667	8.5	7,843
	Center	1,513	55.0	731	26.6	98	3.6	134	4.9	273	9.9	2,749
1911	Mezzo-	3,508	60.6	1,268	21.9	212	3.7	313	5.4	478	8.3	5,779
	North	4,273	50.3	2,501	29.5	349	4.1	596	7.0	769	9.1	8,488
	Center	1,681	56.7	654	22.0	140	4.7	152	5.1	342	11.5	2,969
1921	Mezzo-	3,887	62.8	1,246	20.5	267	4.3	300	4.9	494	7.9	6,193
	North	3,398	41.0	2,972	35.8	342	4.1	691	8.3	892	10.8	8,295
	Center	1,501	48.8	808	26.3	141	4.6	214	6.9	411	13.4	3,075
1931	Mezzo-	2,970	55.3	1,246	23.1	267	5.0	343	6.4	549	10.2	5,374
	North	3,612	42.0	3,058	35.5	296	3.4	774	9.0	870	10.1	8,610
	Center	1,695	50.7	846	25.3	127	3.7	249	7.5	427	12.8	3,344
1936	Mezzo-	3,197	57.0	1,257	22.4	239	4.3	401	7.2	514	9.2	5,607
	North	3,100	33.0	3,787	40.3	374	4.0	1,290	13.7	852	9.0	9,403
	Center	1,534	42.5	1,010	28.0	157	4.3	455	12.6	455	12.6	3,611
1951	Mezzo-	3,627	55.3	1,493	22.7	254	3.9	650	9.9	539	8.2	6,563

1. SVIMEZ, *Statistiche sul Mezzogiorno, 1861-1953*, Roma, 1954, pp. 39-49. This data has its source in the national population censuses taken in Italy since 1861 and has been adjusted to eliminate overlapping of categories and increase comparability. Numbers may not add to totals because of rounding.

rapidly in the late 1880's and 1890's and that this change was highly concentrated in Northern Italy.<sup>1</sup> With this in mind it begins to appear that the evidence of Table 1 is quite ambiguous.

The conclusion, using the evidence of Table 1, of at least the rough equivalence between North and South Italy at the time of unification is based on the assumption of a simple and direct relation between the proportion of labor force in industry and the level of economic development. This assumption can be checked by applying it to the later years for which the general lines of development are known. The assumption would lead us to believe that development proceeded more rapidly in the North between 1871 and 1881 than between 1881 and 1901 and that the North was less developed in 1921 and 1951 than in 1911 and 1931, respectively. Central Italy by this assumption would have retrogressed between 1881 and 1901 and the South must have declined at least from 1881 to 1921 and must have been less developed in 1951 than 1931.

Obviously the hypothesis of a simple relation between the share of the labor force in industry and economic development is not borne out when one considers all the evidence. The relationship is more involved. One complicating factor is that the "industry" category includes artisan shops as well as factory establishments. The relative growth of the labor force in industry depends not only upon the growth of industrial output but also upon the changing distribution of this output between artisan and factory establishments.<sup>2</sup> It is possible that a relative decline in the significance

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<sup>1</sup>See, for example, A. Gerschenkron, "Notes on the Rate of Industrial Growth in Italy, 1881-1913," Journal of Economic History, Dec. 1955, pp. 360-375 and S. Golzio, Sulla misura delle variazioni del reddito nazionale italiano, Torino.

<sup>2</sup>Obviously a model is implicit in this analysis which assumes that labor is used in quite different intensities in artisan and factory establishment. This difference is at least one source of cost, and therefore, returns differentials which may persist over long periods because of market imperfections but which break down during rapid industrialization.



of artisan establishments can lead to a relative, or even absolute, decline in industrial labor force though industrial output is increasing. This in turn can possibly be offset in a developing country by an increasing demand for industrial products which would soften the blow of competition from new factories.<sup>1</sup> Unfortunately, the nature of the changes in the occupational distribution of working force in the very early stages of industrial development is not known precisely. Lacking such knowledge the data of Table 1 do not provide a clear indication of the relative economic positions of North and South Italy at the time of unification. It is worth noting that the results of the 1861 census were greeted with surprise at the time. Apparently it was quite generally felt that these results overstated the importance of industry in Italy as a whole as well as particularly in the South.<sup>2</sup> Other investigations failed to indicate anywhere near the levels of industrial employment shown by the national censuses.<sup>3</sup> There is also no doubt that the census methods admitted the possibility of gross errors as major responsibility for reporting was put on the municipal governments.

The labor force data of Tables 2, 3, and 4 culled from various sources and collected originally on the basis of quite different definitions and coverages add a little insight on the issue. The comparisons of Table 2 seem to be a partial confirmation of those for 1861 in Table 1, however, in that the percentage of the labor force in industry (handicrafts) is higher for the Kingdom of the Two Sicilies than for any other region, except the Papal States.<sup>4</sup> It is difficult to reconcile Tables 1 and 2

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1. Professor Rosenstein-Rodan reports that investigations in countries of Southeastern Europe showed that the percentage of workers in handicraft industries varied first inversely and then directly with higher per capita incomes.

2. R. Tremelloni, "Le Condizioni dell'industria italiana al momento della prima unita," *L'Industria*, 2-3, 1946, p. 11.

3. V. Ellena, "La Statistica di alcune industrie italiane," *Annali di Statistica*, ser. 2, Vol. 13, Roma, 1830.

4. There was a concentration of artisans around Rome attracted by and serving the Papal court.

with Tables 3 and 4, however. The proportions of labor force in industry in continental southern Italy shown in Table 3 for 1826 are significantly lower than the proportions indicated in the national censuses summarized in Table 1. Similarly the proportion of labor force in industry in Tuscany is much higher than that indicated in the national censuses of Table 1.

Tables 3 and 4 both indicate a considerable diversity of the occupational structure within the larger regions, with the continental South showing greater differences between its regions than Tuscany. It is possible, of course, that this greater diversity is the result of peculiarities of boundaries in the South. However, the greater diversity in the South can be provisionally taken as one of the facts to be explained and to be used in explaining the relative economic positions of the North and South at time of unification.

TABLE 2

Occupational Distribution of Some Italian States Around 1850  
In Absolute Numbers (Thousands) and Percentages<sup>1</sup>

Sector Region	Proprietors		Agriculture		Industry and Handicrafts		Other		Totals
	No.	%	No.	%	No.	%	No.	%	
Piedmont	513	23.3%	1,325	60.0%	270	12.2%	98	4.5%	2,206
Lombardy and Veneto			1,475		683				
Duchy of Modena	243	37.6%	338	52.2%	40	6.2%	26	4.0%	647
Papal States			1,176	60.3%	697	35.8%	75	3.9%	1,948
Kingdom of the Two Sicilies	994	25.9%	1,824	49.4%	541	14.6%	338	9.1%	3,697

<sup>1</sup>Maestri, Annuario Economico-Statistico dell'Italia, 1853, Torino, pp. 68-69.

TABLE 3

Occupational Distribution of Active Population, Regionally Distributed, of the Continental Part of the Kingdom of the Two Sicilies, According to the Census of 1826<sup>1</sup>

	Agriculture		Industry and Handicrafts		Other		Total	
	No.	%	No.	%	No.	%	No.	%
Capital	5.4	4.3	103.0	82.0	17.3	13.7	125.7	6.5
Province of Naples	64.3	68.8	25.7	27.5	3.5	3.7	93.5	4.9
Terra di Lavoro	143.2	83.8	22.1	12.9	5.6	3.3	170.9	8.9
Principato Citra e Ultra	176.0	81.4	33.0	15.2	7.4	3.4	216.4	11.3
Capitanata	123.0	91.9	8.3	6.2	2.6	1.9	133.9	7.0
Basilicata	193.9	93.0	11.7	5.6	3.0	1.4	208.6	10.9
Molise	135.1	92.9	8.5	5.9	1.8	1.2	145.4	7.6
Bari	92.4	81.5	18.0	15.9	2.9	2.6	113.3	5.9
Terra d'Otranto	96.1	83.7	15.6	13.6	3.1	2.7	114.8	6.0
Abruzzi	272.5	88.6	28.0	9.1	7.1	2.3	307.6	16.0
Calabria	238.8	83.4	38.8	13.6	8.7	3.0	286.3	15.0
TOTAL	1,540.5	80.4	312.1	16.3	63.0	3.3	1,915.6	100.0

<sup>1</sup>Censimento ossia Statistica Del Regno delle due Sicilie, Napoli, 1826. Numbers may not add to totals because of rounding

TABLE 4

Occupational Distribution of Active Population  
Regionally Distributed, of Tuscany,  
According to the Census of 1841<sup>1</sup>

Sector Region	Agriculture		Artisan		Transport		Commerce and Services		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Florence	206.7	51.3	118.2	29.3	5.6	1.4	53.4	13.2	19.5	4.8	403.4	49.2
Pisa	91.9	50.7	41.2	22.7	7.4	4.1	31.0	17.1	9.6	5.3	181.1	22.0
Siena	46.7	61.7	14.8	19.6	0.9	1.2	9.6	12.7	3.6	4.8	75.6	9.2
Arezzo	85.1	68.1	22.7	18.2	0.6	0.5	10.8	8.6	5.8	4.6	125.0	15.2
Grosseto	22.9	63.4	5.4	15.0	0.6	1.7	5.1	14.1	2.1	5.8	36.1	4.4
TOTAL	4,453.3	55.2	202.2	24.6	15.4	1.9	109.8	13.4	40.6	4.9	821.3	100.0

<sup>1</sup>P. Bandettini, "La popolazione della Toscana alla meta dell'ottocento,"  
Archivio economico dell'unificazione italiana, Vol. III-IV, Fascicolo I, Roma,  
pp. 51-71. Numbers may not add to totals because of rounding.

## B. Social Overhead Capital

The relative endowments of "social overhead capital" in the different regions at the time of unification are of significance in judging the relative growth capabilities as well as current levels of output. It has been suggested that because of the high capital-output ratios and excess capacity associated with highways, railroads and similar "overheads" the differences in endowments between North and South are of relatively little significance at the time of unification. On the other hand, it is the first highways and railroads constructed in well-populated, economically advanced regions which have often been the most spectacular successes. The later imitators and speculative builders have more frequently taken the losses. If this generalization holds, one could presume that differentials in highway and rail systems in North and South at time of unification signified income differentials as well.

There is, however, little information available on social overhead capital in Italy in the middle of the nineteenth century beyond data on highway and railway mileage. These are summarized in Tables 5 and 6. Not even if the highway network in the South were concentrated mainly in the coastal plains would the great discrepancies between North and South shown in Table 5 be offset. The North also has its mountainous regions and aggregative comparisons indicate that its agriculturally unproductive land area is relatively about the same as that in the South. Thus it is unlikely that adjusting the data of Table 5 to an occupied and productive land area basis would eliminate the differences shown. The sizeable differences within the North and Center regions

would tend to confirm the frequent observation that the North-South comparison is distorted by the inclusion of the central with the northern regions.

The comparison of railroad mileage in Table 6 only reinforces the impressions gained from Table 5. Railways, outside the North and Center were a curioso; their mileage was so limited that they must have been virtually without effect on economic activity. Within the North, by the late 1850's there must have been impact, at least on some sectors, of the advantages of rail transport.

Tables 5 and 6 confirm the often-remarked-on isolation of Southern Italians in the mid-nineteenth century. Coastal shipping, which is unreported, undoubtedly made up partially for the inadequacies of land transport both in the South and in the North. Internal communication in the South must have been relatively slow and costly, however. This suggests that there may have been relatively more self-sufficiency in southern regions, so that whatever advances were achieved in some areas communicated themselves with less speed and impact than in the North.

Another type of "social overhead" of a region is its educational system. The relationship between literacy and productivity may be a complicated one and has not yet been fully investigated. However, on a priori grounds one would expect the two to move together for some distance at least. There is no doubt from Table 7 even though it refers to 1871 that primary education in the early 1860's was more widespread in the North than in the South.

Table 2

Highway Mileage in Italy, 1863<sup>1</sup>

Province	Population (thousands)	Area (Square kilometers)	Length of Roads				National Roads (kilometers)		Provincial Roads (kilometers)		Communal Roads (kilometers)		All Roads (kilometers)	
			National (kilometers)	Provincial (kilometers)	Communal (kilometers)	TOTAL	Per 1000 inhabitants	Per square kilometer	Per 1000 inhabitants	Per square kilometer	Per 1000 inhabitants	Per square kilometer	Per 1000 inhabitants	Per square kilometer
Piedmont	3536	34593	3575	(a)	13266	16841	1.011	0.103	-	-	3.752	0.384	4.763	0.487
Lombardy	3105	22265	2515	(a)	17752	20267	0.810	0.113	-	-	5.717	0.796	6.527	0.909
Emilia, Marche and Umbria	3543	41632	1935		2602	17123	0.546	0.046	0.734	0.062	4.833	0.401	6.113	0.509
Tuscany	1826	22273	1339		1979	9041	0.733	0.060	1.084	0.089	4.951	0.406	6.768	0.555
Continental South	6787	85316	2500		3024	5699	0.368	0.029	0.446	0.035	0.839	0.067	1.653	0.131
Sicily	2392	29241	780		1390	460	0.326	0.027	0.581	0.047	0.192	0.016	1.099	0.090
Sardegna	588	24342	854	(a)	125	979	1.452	0.035	-	-	0.213	0.005	1.655	0.040
TOTAL	21777	259662	13498		8995	63466	0.620	0.052	0.413	0.034	2.914	0.245	3.947	0.331

<sup>1</sup>L. Bodio, L'Italia Economica nel 1873, p. 564.

Table 6

Railroad Mileage in Italy to 1859<sup>1</sup>

## Annual Construction (Kilometers)

Year	Sardegna	Lombardy- Venice	Tuscany	Pontifical States	Kingdom of the Two Sicilies	TOTAL
1839		-			8	8
1840		13			-	13
1841		-			-	-
1842		33			-	33
1843		-			33	33
1844		-	19		31	50
1845		-	20		-	20
1846		66	19		12	97
1847		-	26			26
1848	8	-	72			80
1849	49	80	64			193
1850	56	-	-			56
1851	12	54	16			87
1852	-	3	-			3
1853	107	-	7			114
1854	194	85	-			279
1855	52	72	-			124
1856	146	-	2		15	163
1857	58	50	10	20		138
1858	168	27	-	-	195	195
1859	-	39	2	81		122
Adjustments	-31					-31
Total length 1859	819	522	101	257	99	1,798
1859 Total length per 1000 Inhabitants	1.92	1.40	0.35	1.10	0.10	
Total length per Millions of Hectares	1.38	1.19	0.24	1.15	0.09	

<sup>1</sup>Isidore Sachs, L'Italie, ses finances et son développement économique depuis l'unification du royaume 1859-1884, Paris, 1885, p. 957. This agrees in total but not in the distribution between Lombardy and Tuscany with the data given in L. Bodio, op. cit., p. 573.



Table 7Illiteracy in Italy in 1871<sup>1</sup>

	<u>Rate of Illiteracy Among All Inhabitants Beyond Age 6</u>	<u>Rate of Illiteracy Among Conscripts to Army</u>
North	54.2%	24.0%
Center	74.7%	48.0%
South	84.1%	58.8%
Italy	68.8%	40.3%

C. Relative Regional Agricultural Outputs

Agriculture, of course, was by far and away the most important sector in both North and South. Data exist which provide a fairly complete picture of the relative state of development of this sector. Table 8 gives the regional production of wheat and corn, the major grain crops, as well as total production of all types of cereals in the late 1850's. For purposes of comparison the areas of agricultural land of the corresponding present regions are listed; these will correspond roughly with the agricultural land areas of the mid-nineteenth century. Population as of 1861 is also given.

The different patterns of agricultural production which characterized the different regions are clearly indicated by Table 8. The specialization of the South in wheat is, to some extent, balanced by the specialization of the North in corn. The North also outweighs the South in rye and rice and the reverse is true for barley and oats.

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<sup>1</sup>SVIMEZ, op. cit., p. 770-772.

Table 8

Cereal Production, Trade and Availabilities Compared with Agricultural Land Area and Population by Region (Cereal Amounts in thousands of hectoliters)<sup>1</sup> for Average Year 1855-1860

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Region	Agricultural Land-Area-1952 Hectares(1000's)	Population 1861	Wheat Production	Corn Production	Total Cereal Production	Cereals Imports	Cereals Exports	Cereal Availabilities
Piedmont + Liguria	2758.1	(14.1%) 3535.8	4122.3	3984.9	11573.1	1831.4 <sup>2)</sup>	666.8 <sup>2)</sup>	(19.5%) 14052.1 <sup>2)</sup>
Lombardy	2019.1	(13.0%) 3260.8	2207.6	3161.3	7019.8	143.6	346.5	(9.5%) 6816.9
Veneto	1612.1	(9.4%) 2340.0	1053.5	1931.7	3603.3	771.3	280.3	(5.7%) 4094.3
Emilia-Romagna	2020.8	(8.0%) 2005.8	3625.4	2313.7	6570.9			
Toscana	2189.8	(7.9%) 1967.1	1500.0	600.0	3000.0	1535.8	308.7	(5.9%) 4227.1
Marche	921.7	(3.5%) 883.1	2029.1	1214.9	3354.4	347.9	614.6	(15.5%) 11168.7
Umbria	809.3	(2.1%) 513.0	1008.3	328.0	1510.1			
Roman Provinces	1637.7	(3.0%) 743.0	1423.1	547.9	2310.6	50.9	117.4	(3.1%) 2244.1
Continental South	7019.1	(27.1%) 6787.3	12186.3	2802.4	23186.6	11.8	1258.9	(30.5%) 21939.5
Sicily	2439.2	(9.6%) 2392.4	5877.5	-	7860.6	1.1	500.5	(10.2%) 7361.2
Sardegna	2321.6	(2.3%) 588.1	787.4	15.3	1314.4	2)	2)	2)
TOTAL	25748.5	(100.0%) 25016.3	35820.3	16900.1	71303.8	4693.8	4093.7	(100.0%) 71903.9
North	(32.7%) 8410.1	(44.5%) 11142.4	(30.7%) 11008.2	(67.4%) 11391.6	(40.3%) 28767.1	4680.9	2334.3	(57.5%) 41288.8
Center	(25.2%) 5558.5	(16.4%) 4106.2	(16.6%) 5960.5	(15.9%) 2690.8	(14.3%) 10175.1			
South	(45.5%) 11779.9	(39.1%) 9767.8	(52.7%) 18851.2	(16.7%) 2817.7	(45.4%) 32361.6	12.9	1759.4	(42.5%) 39615.1

<sup>1</sup>Correnti and Maestri, *op. cit.*, pp. 407, 419.

<sup>2</sup>Sardegna is included in totals for Piedmont and Liguria.

Columns 7 and 8 of Table 8 show the total trade in cereals by region; in column 9 the regional availabilities of cereals are derived by adding the net trade balance to domestic production. This indicates that, in general, per capita cereal consumption in the North and Center was lower than in the South. The exception of Piedmont may be due to the inclusion of the island of Sardegna whose cereal trade could not be separated from that of the rest of the Kingdom. Certain central areas also had a higher than average wheat consumption. This regional pattern of cereal consumption prevails even today and is considered another aspect of the relative depression of the South.

A considerable diversity exists among the various regions with respect to production of other crops. Potatoes were apparently a more important food crop in the continental South than in the Center or North, but the North may have held its own with respect to other vegetables. The South produced two-thirds of the olive oil but only around a fifth of the wine. There is little doubt that fruit crops, particularly citrus, were much more important in the South and this seems also to be true of cotton and, to a lesser extent, of tobacco. Linen and hemp were produced primarily in the North.

Table 9 presents a survey of the animal population at the middle of the nineteenth century. The overwhelming superiority of the North in cattle is quite clear. This includes both meat and milk-producing animals and draft animals. The South has more than its share of horses, asses and mules, however. Where there is separate evidence it is clear that by far and away most of this advantage is in the lighter animals. A net picture

of the relative significance of draft animals would thus require more information, since part of the differences may be due to differential characteristics of the soil imposing different draft requirements for tilling. The South also has more than its share of sheep and goats which are significant for wool, leather and meat production as well as a relatively larger number of pigs.

A net conclusion on the relative regional significance of livestock culture and use is difficult without additional information. The North does appear, however, to have more of the characteristics of a high-income agriculture.

To complete this survey of Italian agriculture at mid-nineteenth century, we can use the words of our major source on agriculture:

We come now to the mine of gold that for many years has been a little disappointing but still, for all that, has always been the principal source of Italian wealth.

The Italian silk industry based on silk-worm culture in rural areas was indeed the major source of foreign earnings for Italy at mid-nineteenth century. Although in the 1850's it began to suffer from silk worm diseases which reduced output (but raised prices), it remained the principal export earner for many years. Table 10 gives the regional distribution of silk production by weight and value. Silk was clearly more than an agricultural by-product. It was a major income earner which could be readily adapted to the varied activities of a diversified agriculture.

For a regional comparison of total agricultural incomes some interesting rough estimates are available. The gross estimates seem to have been prepared by valuing the various types of output at some

Table 2

Animal Population by Region for Average Year 1855-1860<sup>1</sup>

Region	Cattle	Horses, Asses and Mules	Sheep and Goats	Pigs
Piedmont and Liguria	812,668	101,357	603,862	136,905
Lombardy	437,141	109,193	228,370	143,152
Veneto	408,204	97,524	448,250	223,614
Tuscany	360,000	120,000	870,583	195,000
Emilia-Romagna, Marche, Umbria, Roman Provinces	888,124	103,102	1,866,122	813,440
Continental South	320,000	620,000	4,484,000	1,500,000
Sicily	80,000	150,000	1,046,000	500,000
Sardegna	281,792	58,314	1,331,584	168,230
TOTAL	3,587,929	1,359,490	10,878,771	3,680,341
North and Center	2,906,137	531,176	4,017,187	1,512,111
South	681,792	828,314	6,861,584	2,168,230

<sup>1</sup>Correnti e Maestri, op. cit., pp. 443

Table 10Regional Distribution of Silk Production by Weight and Value<sup>1</sup>

Region	Weight (Kilograms)	Value (Lire)
Kingdom of Sardegna	10,902,400	46,822,554
Lombardy	15,212,950	67,932,256
Veneto	10,920,000	39,000,000
Emilia and Romagna	1,953,939	9,575,169
Tuscany	1,875,000	7,500,000
Marche and Umbria	900,278	5,220,000
Roman Provinces	133,227	440,000
Continental South	5,120,000	23,852,000
Sicily	2,200,000	8,800,000
TOTAL	49,217,794	208,871,979
North <sup>2</sup>	38,989,289 (79.2%)	163,329,979 (78.2%)
Center	2,908,505 (5.9%)	13,160,000 (6.3%)
South <sup>2</sup>	7,320,000 (14.9%)	32,382,000 (15.5%)

<sup>1</sup>Correnti and Maestri, op. cit., p. 449-450.<sup>2</sup>The island of Sardegna is included in the Kingdom of Sardegna.

average price. The net estimate involves a subtraction for seed and, perhaps, other adjustments; little explanation is actually given. The estimating technique, though crude, probably provides a reasonably reliable index for regional comparisons inasmuch as production methods and organization probably did not vary much regionally. However, since it was an area with a somewhat more elaborately organized agriculture, the North may have had its relative position overestimated by this procedure.

Table 11 presents a set of estimates. Net product was apparently computed consistently at 40 per cent of gross. Umbria and Marche were omitted, thus lowering the total and leading to an underestimate of the share of the Center and an overestimate of the shares of North and South. The differences between North and South are, however, so large that the final comparison would not change from inclusion of the omitted areas.

The authors of this table themselves warn against "multiplying the comparisons" based on the table as it is derived from a variety of sources of varying credibility. Nonetheless, the major conclusions of the table deserve consideration. The North, with roughly 45 per cent of the total population and, perhaps, an even smaller share of rural population, appears to have 50 per cent of the gross income earned in agriculture. That is, the agricultural product distributed among all the people in the South was only about 75 per cent of that in the North and about 77 per cent of that of the Center according to these figures. Though apparently equal or behind in per capita gross crop production, the North much more than made up any difference in gross income earned by means of livestock--and silk worms! The results are about the same if

Table 11

Estimates of Agricultural Income, Gross and Net  
Regionally Distributed for an Average Year, 1855-1860  
(in millions of lire)<sup>1</sup>

	Gross Product		Total	Net Product
	Of Crops	Of Livestock		
Piedmont and Liguria	355	161	516 (18.2%)	206
Lombardy	299	136	435 (15.3%)	174
Veneto	155	115	270 (9.5%)	108
Emilia-Romagna	35	42	197 (6.9%)	79
Tuscany	162	80	242 (8.5%)	97
Pontifical States	217	47	264 (9.3%)	106
Continental South	500	170	670 (23.6%)	268
Sicily	-	-	200 (7.0%)	80
Sardegna			48 (1.7%)	19
<b>TOTAL</b>			<b>2,842 (100.0%)</b>	<b>1137</b>
North			1,418 (49.9%)	
Central			506 (17.8%)	
South			918 (32.3%)	

<sup>1</sup>Correnti and Maestri, op. cit., p. 451.



the comparison is made in terms of the per capita product of persons employed in agriculture using the occupational listings in the population census of 1861. It is also interesting to note that the per capita outputs of North and Central Italy, on the other hand, are quite similar.

D. Comparison of Regional Industrial Activity

It is difficult to describe Italian industry at midcentury with even that limited scope and detail which could be provided for agriculture. Industry in Italy, both North and South, was, for the most part small and scattered, producing a variety of products and distributing them locally or through traditional foreign trade channels. This section will be confined to a series of observations about particular sectors.

Only a very general but probably adequate impression can be formed of mining activity in Italy at the time of unification. There was not very much anyway, and the most productive mines were concentrated in a few areas.

Sulphur was, far and away, the most important product of Italian mines as can be seen from Table 12. Nearly all of the sulphur was mined on Sicily, which had at that time a virtual world monopoly. Its export earning ability should not be overestimated, however. 1868 seems to have been a relatively poor year but the average annual value of exports of sulphur, grey and refined, from 1862 to 1866 was only about 33.5 million lire,<sup>1</sup> that is not much more than a tenth of the value of Italian silk exports at roughly the same time.

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<sup>1</sup>Ibid., p. 231

Two thirds of the iron was mined on Elba; most of the rest came from Lombardy and Piedmont. As the table shows there was a considerable variety of mining but not in significant amounts and most of it was widely scattered. A small amount of the high quality Elba iron ores were exported but almost four times as much iron was imported as was mined domestically, most of it going to northern Italy.<sup>1</sup> Lack of good supplies of coal has been and still is a major handicap to Italian development. Of the limited existing coal supplies nearly all was found in north and central Italy.<sup>2</sup>

Turning to the manufacturing, an over-all picture can be obtained of the state of the iron and steel industry in Italy which is relatively good as compared to the information available for other industries. A report already cited prepared for the naval ministry in 1864 covers the larger-scale enterprises reasonably well for the present purposes. Total iron production of all types in Italy at that time was about 29,000 metric tons. Of this around 40 per cent was produced in Lombardy, at least 30 per cent in Tuscany, as much as 25 per cent in the Val d'Osta. Not even all the remainder can be credited to Calabria as some of the estimated total is produced in small establishments throughout the country whose output could not be included in the previous regional estimates.

In judging the relative regional development of the iron and iron-using industries account must be taken of regional imports and exports as well as domestic production. It is clear that northern iron imports were much larger than in the South.<sup>3</sup>

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<sup>1</sup>F. Giordano, Industria del Ferro in Italia, Torino, 1864, p. 11.

<sup>2</sup>Ibid.

<sup>3</sup>Correnti and Maestri, op. cit.

Table 12  
Output of Italian Mines in 1868<sup>1</sup>

	Quantity Tons (1000's)	Value (thousands of lire)	No. of miners
Iron	148.5	2,033.5	2,212
Copper	16.1	1,593.6	2,412
Lead and Silver	16.0	2,972.7	4,105
Gold	0.1	235.6	642
Mercury	7.6	57.0	288
Zinc	.3	10.0	
Antimony	.1	50.0	
Nickel	.1	1.0	
Iron Pyrites	4.8	26.0	
Manganese	1.9	60.6	
Brown coal and peat	108.4	1,004.0	
Sulphur	181.3	20,059.8	21,000
TOTAL		28,103.8	

<sup>1</sup>P. Maestri, L'Italia Economica nel 1868, Firenze, 1868, p. 225.

Another indication of the relative regional development of iron and iron-using industries in Italy is shown in Table 13 which gives employment in mechanical establishments in 1864. This data was compiled from the previously mentioned study made in 1864 for the naval ministry which admittedly does not cover the smaller establishments. There were, for example, few cases cited of establishments with less than 20 workers. Thus Table 13 must be considered to represent only "larger" scale establishments, omitting handicraft workers. The employment in metal-using industries in the South as shown by Table 13 is, proportionally, much smaller than that in the North. The table also shows clearly the higher geographical concentration of large metal-using firms within the South where in each case they were confined to one city. It is true, of course, that no other Italian city but Genova had as many large firms as Naples but outside Naples in the South there were only two other cities with metal-using firms prominent enough to be included in the compilation.

Not much information can be added to the data of Table 13. From various sources it is clear that there were a great many small, artisan iron-working shops scattered widely through the country which are not included in the above compilation. Lacking more information, the significance of these other establishments cannot be compared definitively with the firms tabulated. Partly on an a priori basis, partly on empirical grounds, however, I would argue that the South was in this crucial industry quite backward at the time of unification. The descriptive reports of iron working in the South do not mention as many flourishing areas as the North. While raw materials were a problem everywhere, the

Table 13

**Employment in Large Firms in Metal-Using  
Industries in Italy in 1864<sup>1</sup>**

Region and Cities	Workers		Number of firms
	Number	Per Cent	
Piedmont (Cuneo, Novara, Turin)	2,204	18.8%	14
Lombardy (Bergamo, Brescia, Como, Milan)	1,522	12.9	11
Veneto (Padova, Treviso, Venezia, Verona)	1,250	10.6	6
Liguria (Genova)	2,255	19.2	7
Emilia-Romagna (Bologna, Modena, Piacenza)	203	1.7	4
Tuscany (Firenze, Livorno, Lucca, Siena)	1,147	9.7	8
Umbria	120	1.0	2
Marche (Ancona)	136	1.2	2
Lazio (Civitavecchia)	400	3.4	1
Campania (Naples)	2,225	18.9	7
Sicily (Palermo)	275	2.3	1
Sardegna (Cagliari)	40	.3	1
<b>TOTAL</b>	<b>11,777</b>	<b>100.0</b>	<b>64</b>

<sup>1</sup>F. Giordano, *op. cit.*, pp. 354-373. Some rough estimates of employment were made when only information on equipment was given. Metal-using firms were listed only for the regions and provinces specified. Thus, there were no firms reported in Abruzzi, Puglia, Basilicata or Calabria.

South seems at a disadvantage as compared to the North, being relatively lacking in domestic supplies of iron and coal and separated from foreign sources by a higher tariff. It is also reported that behind the largest and most advanced firms in Naples, which are most frequently cited in demonstration of the equivalent development of the South, were foreign, English, French, Swiss, and German entrepreneurs, aided by court-conferred privileges. This seems to be much less true in the North and suggests that the native southern industry was itself incapable of creating the type of firm considered necessary for more modern armaments and railroad equipment. Larger-scale establishments were, at this time, the result of new entrepreneurial activity rather than simple growth in traditional patterns. Presumably, therefore, productivity was higher in the larger firms. If their features in other countries were true also of Italy, such firms were also centers of labor training from which skilled workers emerged to seed other establishments.

For the shipbuilding industry there is for 1867 information on the number and size of ships constructed in the various shipyards. By number almost sixty per cent of the ships constructed were built along the coast of the continental South and Sicily and Sardegna. But by weight this amounted to less than 18% of the total. Genoa was by far and away the most important center of this industry; sixty per cent by weight of the annual production had its source there. In value terms shipbuilding was surely one of the important industries of the country; the 1867 construction was valued at 22 million lire. It may possibly be misleading, however, to make inferences about the preunification regional distribution

of this industry from 1867 data. It apparently grew very rapidly from 1860 to 1867 with annual output almost quadrupling at that time so that major regional shifts could possibly have taken place. There is no reason for supposing they did, however.

The "mine of gold" of northern agriculture provided the raw material for silk spinning and weaving which was probably the sector of Italian industry with highest value of output at the time of unification. The considerable foreign trade in silk at all stages of processing did not shift the overwhelming superiority of the north gained in production of the raw material. Table 14 gives the regional distribution of silk weaving and spinning production.

There is less information available about the woolen industry. However, not only the descriptive reports but the quantitative estimates indicate that the North had a very considerable superiority. The data on the distribution of animal population gives the South more than its proportion of sheep but apparently somewhat more raw wool was imported than produced domestically, with most of the imports going to the North. Some data on the distribution of looms and their output is given in Table 15.

The leather industry, from the available data, shows a similar concentration in the North. Table 16 gives some data for 1867.

For the cotton textile industry there are only scattered reports of establishments in different regions. The same is true of linen and hemp, except that the latter industry is generally spoken of as being concentrated in the North.

Table 14

Silk Spinning and Weaving in Italy by Region, 1868<sup>1</sup>

Regions	Thread Spun from Cocoons		Grey Silk	
	Quantity Tons (1000's)	Value Lire (1000's)	Quantity Tons (1000's)	Value Lire (1000's)
Piedmont	4,090.5	22,437.7	283.1	25,758.8
Liguria	49.5	269.5	3.0	290.5
Lombardy	8,567.6	41,848.6	526.0	49,324.5
Veneto	2,069.9	8,384.3	132.7	10,595.3
Emilia	591.7	2,370.0	43.0	3,416.2
Marche	620.1	3,301.8	40.4	3,521.5
Umbria	43.5	320.8	3.3	275.9
Tuscany	652.8	3,186.5	50.6	5,018.2
Campania	139.5	659.3	9.2	717.8
Puglia	.4	2.0	-	1.8
Calabria	154.7	707.7	12.5	1,248.8
Sicily	178.8	1,263.1	12.8	1,317.4
TOTAL <sup>2</sup>	17,159.0	84,752.3	1,116.6	101,446.7
North	89.5% 15,369.2	88.9% 75,311.1	88.5% 987.8	88.0% 89,385.3
Center	7.7% 1,316.4	8.0% 6,809.1	8.4% 94.3	8.7% 8,815.6
South	2.8% 473.3	3.1% 2,632.1	3.1% 34.5	3.3% 3,285.8

<sup>1</sup>p. Maestri, *op. cit.*, *supra*, p. 192.<sup>2</sup>Note that the Roman Provinces, mainly Lazio, are omitted.



Table 15Regional Distribution of Woolen Looms  
and Cloth Production<sup>1</sup> in 1867

Region	Number of Looms	Value of Output (1000's of lire)
Piedmont	2,700	26,000
Liguria	350	1,000
Lombardy	550	3,500
Veneto	850	8,900
Emagna	100	1,000
Umbria	300	2,500
Tuscany	600	5,500
Continental South	1,640	16,000
TOTAL	7,190	64,000

<sup>1</sup>p. Maestri, op. cit., p. 199.

Table 16Regional Distribution of Leather Production in 1867

Region	Quantity (Metric Tons)	Value (1000's of lire)
Piedmont and Liguria	4,150	18,500
Lombardy	1,909	8,500
Veneto	2,150	9,000
Emilia, Umbria, Marche	796	3,500
Tuscany	1,286	5,700
Continental South	3,300	14,000
Sicily	783	3,500
TOTAL	14,374	62,700

Evaluation of the relative positions of North and South at time of unification becomes more difficult for industries for which the raw material supplies were less specific and outputs less homogeneous and more scattered. There is no doubt that a wide variety of products were produced throughout the peninsula in the middle of the nineteenth century: gloves, glass, paper, chemicals, locomotives and firearms, and so on. Listing these products and the locations of their production conveys an impression of variety but no idea of relative significance. Without more basic information there is no way to compare the significance of the concentration of glove-making in Naples with that of glass in Venice. It does not seem possible to resolve the problem of lack of data for many

sectors, especially those characterized by small and widely dispersed firms. The information which has already been cited must, therefore, be viewed as a sample which is, however, known not to be a cross-section of the regional economies. While a weakness of the data, it is also an advantage in that for a few crucial sectors we have information which for the present, limited purposes is relatively complete.

### III. Conclusions on Relative Regional Development at the Time of Unification

Given the nature of the data the final conclusions to be drawn from it must inevitably depend to some extent on individual judgment. We cannot add up aggregate regional incomes and compare them on a per capita basis, but rather must balance the disparate types of evidence as best we can. It seems to me that with only one exception the evidence points to a clear superiority at the time of unification of the North over the South in terms of per capita output and income. The data for agriculture indicate that whatever advantages the South had in a few particular crops, mainly wheat and fruit, the North more than made up for with livestock production, and, above all, silkworm culture. In industry the South did not approach the North in development in any of those particular sectors for which data was available. In terms of the relative contribution in the different regions of social overhead capital, roads, railroads and educational levels, the North was strikingly better off. The situation does not appear to have been one in which disadvantages in one sector were more than balanced in another sector. The North seems to have been better off, on a per capita basis across the board.

The one exception in the data to a uniform demonstration of the relative economic superiority of the North at the time of unification is the showing of the occupational censuses. Not only for 1861, but as late as 1881 there was a larger percentage of the population employed in "industry" in the South than in the North. Perhaps, however, this 'protestest too much'. Not only is it at odds with the other information assembled for the unification years, but also with the increasingly clear indications of the relative economic advancement of the North in the 1870's and 1880's. For example, it does not agree with other data cited for the 1870's. Moreover, the data from this type of census in 1911 disagrees strikingly with the results of the first industrial census taken in the same year. On these grounds it is suspect as well as because of the many contemporaneous criticisms of the way it was taken. Still it gives a consistent twenty-year picture and I find it difficult to explain away in a completely satisfactory manner.

It is difficult to put a summary number to the qualitative and quantitative differences observed in the separate sectors. However, calculating the per capita product in agriculture gives the North at least a twenty per cent margin over the South in this respect. The margins in the manufacturing and transport sectors were probably greater, but these sectors were relatively small. In other, more minor sectors the regional differences were probably unimportant. Over-all it appears to me that the per capita difference in income between North and South was between fifteen and twenty-five per cent.

With respect to the relative abilities of the different regions to undertake development, a priori, as well as a posteriori, reasoning would,

I believe, lead to greater expectations for the North. The data on relative availabilities of social overhead capital and on the types as well as amounts of agriculture and industrial production suggest that the transformation from traditional to modern ways of life was well started in the North and hardly begun in the South. The North also had the advantage of producing in silk a substantial earner of foreign exchange. While less concrete and to a greater extent a matter of individual judgment it seems that the North must score higher than the South in terms of the spirit and expectations of the times. With few exceptions most of the South appears to have been a backwater. In the North on the other hand by 1860 economic change seems to have been spreading slowly, but with sureness, through the countryside as well as the cities.