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Convergence among Italian Regions, 1861-2011

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Abstract

In 150 years, the trends in regional disparities in economic development within Italy have differed depending on whether they are gauged by longitude or by latitude. The disparities between western and eastern regions first widened and then closed; the North-South gap, by contrast, remains the main open problem in the national history of Italy.
This work focuses on the underlying causes of the turning points in regional disparities since national unification in 1861. The first came in the late nineteenth and early twentieth century, with the industrialization of the so-called "industrial triangle". This was followed by the "failed new turn" during the interwar years: not only were the beginnings of convergence blocked but the North-South gap, until then still natural, inevitable, was transformed into a fracture of exceptional dimensions. The second turning point, in the twenty years after the World War, produced the first substantial, lasting convergence between southern and northern Italy, powered by rising productivity and structural change in the South. The last turning point was in the mid-1970s, when convergence was abruptly halted and a protracted period of immobility in the disparity began.

JEL Classification: N63, N93, R11, R12
Keywords: Italy, regional disparities

Contents

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Introduction and summary[2]

Like other countries, Italy has been marked in its economic development by pronounced geographical disparities and fluctuating processes of stability and change in those disparities. The clearest aspect is the persistent backwardness of the regions making up the South. This highly visible feature, exceptional in the international framework, has often overshadowed other developments in the evolution in the history of economic geography. For instance, the extraordinary convergence of another, equally large number of regions towards the levels of income and output of the most affluent part of the country. Or the strong tensions, within the persistent "Southern question," between the forces of convergence and divergence, such as to alter, over time, its causes and features. The history of geographical disparities is not one of immobility but of change; not a single cause but multiple determinants. Nothing could be more mistaken than to imagine that the great durability of the Southern question means that, in the history of Italian regional development, nothing has ever changed.

The stylized history we present is that of the differences in levels and trends in economic growth between the regions and between the two great divisions, North and South. The summary indicator used will be per capita output, flanked by indicators of "human development," especially education and health. In recent years the study of this history has been greatly enriched by the availability of appreciably more and better quantitative data than in the past: time series on regional GDP, sectoral productivity, industrial value added (with detailed sectoral and territorial disaggregations), the local components of public spending, the geographical distribution of educational levels, health, poverty.[3] We employ these new resources to focus on the decisive moments in Italian regional and economic history, describing the various initial conditions and identifying the turning points of the convergence process.

This work is part of the Bank of Italy's research project of historical analysis of Italy's evolving international position. As the linkage between the Italian and world economies has consisted, and still does, in the inflows and outflows of goods, the history of Italian regional disparities translated largely into the history of the various regions' ability to adapt to the changes in international demand. Accordingly, a central part of our work is given over to the industrial side of the regional economies.

Our stylized history divides the 150 years since national unification into four great periods. The first, from unification to the mid-1880s, was a time of relatively equal output levels and similar growth rates, despite differing economic environments. The second, from then to the 1950s, was the period of better performance in the regions of the North-West, later involving also the North-East and the Centre, and the consequent creation – over this protracted period of seven decades – of an enormous gap in per capita GDP between the South and the rest of the country. The third period, from the 1950s until the oil crisis of the 1970s, was one of substantial convergence among all regions, and in particular the advance

[2] The views expressed herein are those of the authors and do not necessarily reflect the views of the institutions represented.

[3] Nor must we neglect to mention Istat's invaluable "Digital library" project, which has already made available an enormous quantity of statistics produced since Italian unity, including the first national censuses (which we use here to identify the country's nascent industrial clusters).

of the South towards the income levels of the rest of Italy. The fourth and final period, since the oil crisis, has seen variegated trends, not such as to either attenuate or exacerbate the overall inequality. We have thus identified three major turning points in which trends in convergence or divergence change pace or direction. The purpose of this work is to set out the causes of these outcomes in each period.

From a broader, European perspective, Italian macro-areas and regions at unification, and for the first two decades thereafter, were uniformly poorer, all basically still agricultural economies, but with different degrees of backwardness in terms of the size of industry, infrastructure, living conditions, human capital. In greater detail, at provincial or sub-provincial level, internal disparities are sometimes quite substantial, even between adjacent territories, often mirroring the distances between the districts around the old capital cities and the rest of their regions. The advantage of some cities in the North-West in human development indicators and in the extent of highly specialized industries in many administrative districts was already perfectly clear. There, more than elsewhere, we find particularly favourable environmental, economic and social conditions for industrialization. There was a large internal market in the Po valley, made possible by topography; dense networks of roads, navigable waterways, the first railways; numerous, interconnected urban centres; and available waterpower. Modernization processes were under way, notably irrigated farming; craft and industrial production was found in many centres; industrial, specialized clusters were present; other European countries were nearby and contact with them was easy; precisely for this reason modern banking structures arose in these areas, accompanying and sustaining the growth of manufacturing. The level of schooling was decidedly higher than in the other regions of Italy, and educational institutions were being established, from technical schools to the polytechnical university.

Thus the seeds for a widening of the development gap were present from the start. The fruit came with the **first turning point**, the decades around the turn of the century, when industrialization was concentrated – as is common in economic history – in a few areas. In Italy, this was the “industrial triangle” of Milan, Turin and Genoa and bordering zones. Not only did these areas record rapid development of the textile industry but also, and above all, the rise of more modern industries, first of all engineering but also steel and chemicals.

Government policy fostered rather than fought the emergence of these disparities. As in other European countries at the time, social and education spending was minimal. Social solidarity and health care were in the hands of private bodies or mutual societies, which for historical reasons were more common in the North. Education was charged to municipal budgets, and its expansion was affected by differences in fiscal capacity. It was no accident that the regional literacy gap did not narrow but widened. Trade policy – with the turn to protectionism in the late 1880s – openly sustained the nascent industries and grain farming, penalizing precisely the more modern and highly developed part of southern agriculture. Like other nations, the young Italian state paid the greatest possible attention to defence. This entailed not only heavy current spending (naturally greater in the North, along the country’s borders) but also major support for Italian industry. There has been considerable, illuminating discussion of the geographical effects both of fiscal unification and of the impact of taxation and spending. The most important public programme of the day, the building of an extensive rail network, does not appear to have had any significant impact on the more distant regions’ access to interregional markets.

Nevertheless, up to the eve of the First World War the country's surprising progress in every economic and social variable involves the entire territory, albeit with varying intensity. Life expectancy at birth, for centuries stuck at exceptionally low levels, increased by more than 16 years on average and by 6 years even in the region with the worst performance. The growth of industry, though concentrated in the North-West, involved all parts of the country. At the end of this first period of our history, the South did not trail the Centre or the North-East by an appreciable margin in the size of its industry and its endowment of "points of excellence". As late as the mid-1920s, the scale of regional development disparities was not particularly unusual by European standards, and in developments in the sphere of policy one can see an awareness of the question of southern industrialization and the premises for policy action.

But history took a different direction, with a sort of "**failed new turn**" for the South. Research in regional economic history has yet to investigate this period as deeply as the decades preceding and following it, but the information we do have suggests that a series of events, running from the preparations for entry into the First World War to reconstruction after the Second World War, not only blocked the seeds of convergence, but transformed the North-South disparity, still "normal" until then, into a gap that would be exceedingly hard to close.

The per capita output gap between the South and the rest of the country widened more rapidly during the Fascist years than during the initial era of Italian industrialization or, for that matter, any other historical period. Emigration abroad was blocked, and Fascist policies first discouraged and then banned any form of internal migration, which could have accompanied the differences in income and economic structure between regions. Available capital was concentrated in the industries already established in the North-West: first with the abnormal growth of war industry; then with the repeated rescue operations in the 1920s and policies that assisted the creation of cartels and the defence of incumbent firms from new competitors; finally, with the transfer to the State – with the birth of Institute for Industrial Reconstruction (IRI) in 1933 – of a major part of the Italian banking sector and manufacturing. The Second World War and post-war reconstruction in the late 1940s continued to act in the same direction. During the war the modest industrial apparatus of the South was hit much harder than that of the North. Then, the latter's modernization absorbed the largest share of the international resources earmarked to relaunch the Italian economy.

In 1951, while the Centre and North-East had already made up a (small) part of the gap accumulated up to 1911, the South's starting conditions were worse, at least in relative terms, than they had been at the time of national unification. Those conditions were partly the result of the artificial containment of the dynamic of migration and that of the sectoral redistribution of output. Over the next twenty years the combined effect of those dynamics, finally free to act, and of the new economic policy approaches – in some respects reminiscent of those only undertaken in the "Age of Giolitti" after the turn of the century – would produce the first considerable, enduring convergence between North and South. The pronounced catching-up marks the **second turning** point of our history: the South of Italy was one of the regions of the world that enjoyed the fastest growth in output.

The chief engine of this convergence was productivity. It grew both within sectors and in the economy as a whole as a result of the changing sectoral composition of economic activities. The modernization process was intense in both agriculture and industry, the latter following with a lag of some ten years. However, trends in industry varied widely across the different types of firm. On the one hand, there was an increasing number of large, capital-intensive plants in basic sectors serving the domestic market and necessary for products downstream. In the overwhelming majority of cases, these investments were made by companies based in the North-West or by state-owned corporations and determined by fiscal incentives, the modernization of southern infrastructure, and lower labour costs. The gain in North-South integration, fostered by the way the new manufacturing plants in the South served the country's industrial needs, had beneficial effects for the whole Italian economy.

At the same time, however, the endogenous fabric of manufacturing in the South shrank, a development that persisted and indeed gained pace in the following decades. These years saw the creation of a truly integrated national market, with a radical reduction in transport and transaction costs. Most small southern producers were forced out of this new market by the competition of firms from the Centre and North, which individual capacities, but also history and geography, had endowed with superior organization and competitiveness. Rising income and demand stoked an increase not so much in native production as in interregional imports.

A set of public policy programmes accompanied these processes. There were specific southern development programmes, whose linchpin was the Southern Italy Development Fund, which for the first decade focused on the infrastructure endowment for agriculture, water supply and government services and from the 1960s on extended its action to direct industrial promotion. And there were national programmes that increased the role of government throughout the country: the welfare, health and education systems were strengthened. These policies were not expressly targeted at the weakest regions, but spending on them was proportionate to population, not output, so while their per capita effect was similar in North and South, their impact in relation to aggregate economic activity was greater in the South. The increase in per capita public spending, independently of per capita income, involved an implicit transfer of substantial resources to the population of the South in parallel to the flow of interregional imports of manufactured goods.

These policy programmes entailed a structural rebalancing, albeit partial, in the face of markedly unequal endowments in such fields as educational and health infrastructure. The convergence of human development indicators was even faster than that in output indicators. For example, a century after unification the level of education, measured by years of school attendance, finally became similar in all the Italian regions. The national government, perhaps for the first time since unification, began to be felt as a positive presence in the South.

But then, in the 1970s, came the **third turning point** of our story. The convergence process came to an abrupt halt, opening the path to a protracted period in which regional income and output gaps have remained more or less constant. Why did convergence stop? As in the preceding period, multiple factors were at work, but in the opposite direction: industry (and capital movements), migrations (and the movement of labour), and public policies.

The industrialization of the South from the outside was interrupted. With the altered macroeconomic environment at national and international level, industrial investments went much more to modernizing and restructuring the existing industrial apparatus than to expanding it. And, for good measure, industry in the South, given its size, sectoral and technological characteristics, was more exposed to adverse economic developments (rise in labour costs and the cost of energy, competition of newly industrialized countries) and less able to follow the new paths that Italian industry would take following the oil shock.

New paths were made viable first of all by a prolonged, sharp depreciation of the currency (throughout the 1970s and then, after the lira crisis of 1992, up to 1996). The consequent rise in the propensity to export was not greater in the North than in the South, where, on the contrary, it was greater in the 1990s; rather, it was constantly greater in the eastern regions, along the Adriatic seaboard, than in the West. But the starting level was so dramatically different that exports had only a modest impact on the economy of the South.

New paths taken, then, in reaction to sharply rising labour costs, with accentuated decentralization of production and significant competitiveness gains by smaller firms, especially those operating in industrial districts producing consumer goods. But these phenomena, too, were a good deal less intense in the South. The decentralization of production followed economic criteria of geographical contiguity and swept through the Centre and North-East, but the South partook of it to a far lesser extent. Convergence between the North-East and North-West was completed, and the Centre also made up ground. The North-South industrial division of labour, happily launched in the 1950s and 1960s, waned steadily in importance.

Finally, the competitiveness of southern industry was dealt a blow by the abolition in 1968 of "wage cages", which differentiated wages geographically. Employers were compensated by having a portion of their social security contributions bill charged to the state budget, a scheme that would absorb growing portions of the public resources earmarked and that was eliminated from 1995 onwards. Labour costs in the South moved into line with the national average, but in a context of significantly lower levels of productivity.

These developments caused the industrial engine of convergence to stall. This does not mean that the industrial apparatus of the South became insignificant. Despite worse locational and infrastructural conditions than in the rest of Italy and in many European regions, it did contribute to preventing a return to regional divergence in the 1980s and 1990s. However, it was unable to accelerate growth with respect to the rest of the country, and, like all of Italian industry, suffered from the acute problems of competitiveness that marked the first decade of this century.

The role of demographic factors also diminished. With the crisis of the mid-1970s and the decline in labour demand in the Centre and North, domestic migration slowed abruptly. Up to the middle of the 1990s the South, which had always had higher natural population growth rates than the rest of Italy, experienced a sizable pick-up in the growth rate of its resident population, which significantly slowed the rate of increase in its GDP per capita. Over the twenty years these trends changed. The natural rate of population growth slowed until it was in line with the national average. Internal migration resumed in the mid-1990s, including a major component of young and skilled workers. Italy, once a country of emigration, became a destination for immigration, and the immigrants settled chiefly in the regions of the North. So in the first decade of this century the historical patterns were reversed: much faster population growth in the Centre and North (due to migration, not natural increase) determined broadly similar growth in per capita income in all the macro-regions.

Lastly, the intensity and quality of public policy programmes declined. Southern development action, though formally extended, became less incisive, less concentrated, technically poorer and more subject to political influence, increasingly focused on ordinary investment that definitively eradicated its quality of additionality. The ending of special investment for the South in 1992 came after a long period of stagnation, which coincided with the fiscal adjustment effort of the mid-1990s that hit the South hard. In parallel with the strengthening of the European Community's cohesion policies, among other things, in 1998 a new policy for Southern development was launched. It sought to learn from the lessons of the past, but achieved generally modest results.

Political priorities changed. With the enormous exodus from agriculture and the incomplete development of a modern, market-based industrial apparatus and, at the same time, the remarkable increase in per capita income and the population's expectations, addressing the "Southern question" has come to mean not so much countering dire poverty as remedying a lack of jobs. In contrast with the pattern in many other countries, regional income differentials are determined not primarily by the productivity gap but by huge differences in employment rates. Especially up to 1992, many current public programmes sought to compensate for the lack of work and mitigate situations of social hardship. They proved ineffective, however, both because they were often designed for a particular exchange between politicians and final beneficiaries and owing to the simultaneous lack of structural measures to reduce the imbalance between labour demand and supply.

There is a rich debate on the role of the public sector in the South, especially in the last thirty years. Many observers underscore the distortions of public action and hold it responsible for throttling growth. Recent studies by the Bank of Italy show that, while the intensity of public action has become relatively similar from region to region (excluding the major outlays on pensions, a good deal higher in the Centre and North), the quality of public services is significantly lower in the South. There is a lively discussion on the causes of these phenomena and the possible remedies.

In any case, it is undeniable that the historical convergence of the quality-of-life indicators has sprung from the construction of the major health and education networks as well as from the growth in income. As noted, there is still a difference in the quality of these networks, and the gap is sometimes very considerable, but for some time now what is at issue in the "Southern question" has not been dire poverty, illiteracy or early death. Despite the continuing disparities between North and South in social exclusion indices, human capital and health (which, on the contrary, are taking on new, severe forms), then, this is a great success story. To be sure, it depends in part from the existence of national public services, whose upkeep implies redistributive transfers between territories. As is well known, this issue is at the heart of a harsh political debate.

The poorer state of public safety and legality in the Southern regions remains an issue, not least in light of the growing and more virulent manifestations of organized crime. In some parts of the South these phenomena were already present at the time of national unification, in others they have spread in recent decades, in others still they are practically absent.

It is difficult today to sketch the outlook for regional trends in Italy, considering the enormous complexity of the internationalization processes now at work, the events in the European Union, the possible alteration of national policies (including in light of the Italian public debt) and the tendencies towards decentralization of certain functions. There may be acute risks of a fresh divergence. The opposite scenario would be desirable: one in which, as in the 1950s and 1960s, faster growth in production and income in the South not only gives rise to convergence but also supports the progressive development of the entire national economy.

1. When, where and why regional disparities arose in Italy: 1861-1913

1.1 The starting conditions: differences in output and in the prerequisites for growth

For almost twenty years after unification the regional dispersion of GDP in Italy was less than it would become in subsequent years and lower too than in other European countries at comparable levels of development (Table 1)[4]. This comes as no surprise, considering that:

- no region had experienced a real industrial take-off, and productivity did not differ greatly from region to region in agriculture, the largely predominant sector (Table 2)[5];

- economic relations between sectors and factor mobility, variables that could fuel agglomeration and concentration of production, started out from very modest levels[6] and were hindered by the backwardness of transport systems;

- many regions contained important urban clusters, typically coinciding with capital cities or old commercial centres and their hinterlands. This is likely to have determined a greater variability of output within the economic macro-areas than between them. Consistently with the western location of the capitals of the pre-unification states (Fenoaltea, 2007), in 1871 the geographical disparities were also longitudinal, with an East-West divide similar to the South-North gap (Figure 1). The presence of a multiplicity of former capitals probably can explain the fact that the regional disparities in Italy were also low by comparison with countries that had achieved political or economic unification earlier, where output was strongly concentrated in the old capital cities. In 1871 per capita income in the Lazio region, containing Rome, was only 5 per cent greater than the average for Liguria and Lombardy (the second- and third-richest regions), while the gap between London and East

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[4] The two reconstructions of the trends in GDP per capita from 1861 available for this work are: (1) that presented in Daniele and Malanima (2007) and Svimez (2011) in 1911 prices, at factor cost and current borders (which shows the data for years), (2) that presented in Brunetti, Felice and Vecchi (2011), at 2010 prices and the regional boundaries of time (which starts at the regional level since 1871, and reports the data at intervals usually twenty years before 1951, ten later). For methods of constructing the two series and the original sources used, please refer to the original articles. The differences between the gaps between areas calculated on the two series are relatively small, and are concentrated mainly in the initial period: in 1871 the gap is estimated at 98.9% for Daniel and Malanima, to 84.5% for Brunetti et al.. In 1951 the gap is estimated at 47.3% for Daniel and Malanima, to 49.4% for Brunetti et al.. After 1951 the differences in differences are minimal. In the work we have chosen to use both sets, indicating that each time the series was used.

[5] Federico (2007) writes that "total factor productivity in the North was practically the same as in the South in 1891". Although he warns that his findings need to be treated with caution because the quality of the data available is still poor, they do tally with the results of a long series of studies that have cast doubt on the stereotype of backward southern agriculture at the time of unification.

[6] According to Vera Zamagni, at unification interstate trade accounted for only 20% of trade in the Italian states (Zamagni, 1993, p. 10).

Midlands, or between Madrid and Catalonia, or Paris and its hinterland, or Vienna and Salzburg, approached or exceeded 40 per cent (Table 1).

The relative uniformity of per capita income did not mean, however, that the living conditions of the national population were similar across regions. Mean income is a notoriously imperfect measure of welfare, especially when income is highly concentrated in a small fraction of the population.[7] Furthermore, the economic activities that would produce the initial "take-off" still accounted for only a small share of output: the low dispersion of per capita GDP implied neither that the Italian regions all were equally endowed with identical growth potential, nor that the local starting conditions of industry, soon to become the driver of the country's development, were similar.

On the contrary, it is precisely a reading of these features that brings out the South's backwardness at the time of unification, pointing to what later became the North-South divide in levels of economic development. Or, if you will, defining the order of magnitude (financial, but not only) of the policies the young nation would have needed to prevent that divide.

Taken together, the statistical indicators that we will discuss – some of them reconstructed very recently – confirm the severe verdict on the southern economy's potential expressed by Cavour's *missi dominici* and nicely summed up by an historian such as Giuseppe Galasso when he spoke of the " … uneven inadequacy of the country [the Kingdom of Naples] and of its industrialization to the needs of a modern economy".[8]

In 1861, the diffusion of "well-being" was lower in the southern regions than in the country as a whole, and this holds both for the share of the population classified as poor, equal to 52 per cent in the South and 37 per cent in the Centre and North (Amendola, Brandolini and Vecchi, 2001) and in terms of "biological" well-being, measured by recently reconstructed anthropometric data from conscription records (A'Hearn and Vecchi, 2011). In 1861 20-year-old conscripts from the South were on average 3.2 cm shorter than those from the Centre and North. Similarly, life expectancy at birth in 1871 (the first year for which we have data on all the Italian regions) was 2 years and 2 months shorter in the South than in the rest of the country, not a trivial difference considering the very short average life expectancy of Italians back then (just over 30 years). In these cases, as with other health indicators such as infant mortality, the differences within each macro-region were greater than those between them, presumably owing in part to the effect of the acute sensitivity of the indicators to micro-geographical conditions arising from environmental factors (for instance, the different incidence of malaria).

Greater still was the divide in what we can consider preconditions for industrial development. Some decisive factors, for example the endowment of such primary resources as water or nearness to the markets of Europe, were "naturally" concentrated in the North. Just consider that the flow rate of rivers, a key indicator of the potential for both internal transport and hydro-electric power, was 127 litres per second per inhabitant in the regions of the Centre and North (ranging from 247 in Piedmont and Lombardy to 161 in Veneto and

[7] In 1861 nearly 30 per cent of total income went to the richest 5 per cent of the population, about double the current figure (Amendola, Brandolini and Vecchi, 2001).

[8] Galasso (2010), vol. V, p. 518.

Friuli-Venezia Giulia) compared with 25 in the South (118 in Campania and 3-4 in Puglia, Sicily, Sardinia; Svimez, 1961). The role played by water resources in a country lacking coal is essential to understand the pattern of industrial location.

The South also lagged far behind in other prerequisites: infrastructure, availability of human and social capital, and the situation of public order.

On the first of these factors, Eckaus (1961) reports that on the eve of unification, in 1859, "outside the North and the Centre, railways were almost a curiosity" and had "practically no effect on economic activity". There were 522 km of track in operation in Piedmont, 819 km in the Kingdom of Lombardy-Venetia, 101 in Tuscany, 99 in the Kingdom of the Two Sicilies, and 257 in the Papal States. In proportion to population, the high was 1.92 km per 1,000 inhabitants in the Kingdom of Sardinia, against a low of scarcely 0.1 in the Kingdom of the Two Sicilies. The situation of the road network was similar: in 1863, 4.7 km per 1,000 inhabitants in Piedmont, 6.5 in Lombardy, about 6.2 in the Centre but just 1.7 in the continental South and Sardinia, and 1.1 in Sicily. This confirms the South's overland isolation from the rest of Europe, mitigated in part by maritime transport.

As to human capital, the data presented by A'Hearn, Auria and Vecchi (2011) speak clearly: in 1861 the literacy rate in the South was only a third of that in the rest of the country (13 against 39 per cent). The primary school enrolment rate for the population aged 6 to 10 was 17.1 per cent in the South, 67.2 per cent in the Centre and North. As calculated by Felice (2007), in 1871 the numbers enrolled in schools up to university amounted to 4.0 per cent of the corresponding age groups in the South, 5.4 per cent in the North-East and Centre, and 10.7 per cent in the North-West.

Many studies have investigated the disparities that existed in terms of institutional and social arrangements. This strand embraces analyses that have focused on the relationship between social capital and economic development and studies that have examined land ownership rights as a variable able to foster the rise of an industrial bourgeoisie.[9] An aspect that has been less thoroughly investigated, but one probably deserving more attention, is the differing efficiency of the institutional forms existing in the pre-unification states. Marco Meriggi (2001) describes the particularity of the South in its slowness to overcome "feudal remnants", observing that the attempts to modernize the apparatus of central governments and local bureaucracies, planned and undertaken in the South, as elsewhere, in the first half of the nineteenth century, were far more complex to execute.[10]

[9] In particular, they contrast the widespread presence of sharecropping in the Centre and North with the prevalence in the South of absentee ownership of landed estates, which supposedly did not encourage investment in nascent industry. This interpretation, long dominant, is now questioned by some economic historians, who "have not found any statistically significant effect of the contractual structure on regional differences in factor productivity" (Cohen and Federico, 2001, pp. 49-50).

[10] "here [in the kingdom of Naples] a big gap with the contemporaneous [Milan] experience of the kingdom of Italy must be noticed….the concrete implementation of that modernisation project was hindered by the deep-rooted structure of the society - the feudal system…- as well as by the nature…Bristling with mountains which made it impossible a speedy communication within the region…the fragmented territory of the Mezzogiorno was significantly less receptive to the administrative project than the wide plain of the Po…Between Milan, Venice and Bologna there were numerous and smooth means of communication insuring a speedy and reliable transmission of any impulse….The travel time under the italic administration was to remain "extraordinarily short" compared with that allowed by the geography of the South…one "day" in the North of 1806 was equivalent to three days in the South of the 1840s…The same reasoning outlined in relation to the timing of

Differences in crime rates and in the effectiveness of law enforcement no doubt reflected these social and institutional differences. In 1891, the first year for which criminal court statistics are available by region, there were 1,416 reported crimes for each 100,000 inhabitants in the South, practically double the number in the North (790). The difference equally involved crimes of violence, crimes against property and crimes against the public order. Crime rates were higher throughout the South (Figure 6), and in some of the major regions criminal organizations, then as now, were subtracting resources from the legal economy and impeding the formation of indispensable relations of trust and cooperation between institutions and citizens. Historians of crime have thoroughly described the phenomenon as pertaining particularly to the Calabrian, Sicilian and Neapolitan provinces,[11] but people were already well aware of it at the time.[12]

In brief, mutual trust between citizens and institutions, certainly not an unimportant factor for economic development, was tenuous in the South before unification. Nor did the situation improve in the first decades of the united Italy, mainly because of the war

raged during the first decade after the Italian unification, that was called the banditry war but had all the characteristics of a civil war… Banditry together with farmers' unrest due to the unfulfilled land reform gave rise to the never settled territorial split between the North and the South of Italy. Moreover, in southern regions the repression favoured the instillation and development of criminal organizations, which evolved over time and still play a crucial role in this area of the country.[13]

1.2 An inquiry into the late nineteenth century's industrial geography

At the time of Italy's political unification, its industrial apparatus was significantly undersized. The most perceptive observers did not take long to discern the environmental conditions that hindered the development of manufacturing in Italy by comparison with other countries[14] and to describe the structural features that characterized the sectors, size and geographical distribution of industry.

Examining the regional differences in the number of workers in some industries for which data for 1876 were available, Vittorio Ellena concluded:

summarizing, the industrial activities reach their peak in the North of Italy, are lower in the Centre and almost absent in the South. The « Terra di Lavoro », located in the South of Italy, represents a kind of oasis in the industrial desert that characterize the area. This gap

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entry into force of the laws can be applied to the dynamics of the administrative action…Naples fatally remained a distant capital city…and its administrative structures…tended to loose steam on their hard and slow way through hostile territory", Meriggi (2011) pp. 86-88.

[11] Canosa (1991).

[12] Let us cite, for all, the exemplary description by the writer Marco Monnier in the early 1860s of the pervasiveness of illegitimate intermediation that the Neapolitan camorra forced on the market in fruits and vegetables: "The camorra collected a loading charge, a transport charge, an unloading charge, a distribution charge, a charge on retail sales of these products … thereby reducing the profit of the growers and vendors, who earned practically nil". Monnier (1863), p. 58. See also the lengthy account of Monnier's testimony in Barbagallo (2010), chapter 1.

[13] Salvadori (2011), pp. 14-15.

[14] The classic reference is to the work of Vittorio Ellena (Ellena, 1879).

can be explained by considering that Italian regions differ substantially in terms of wealth and skill endowment, but it is mostly due to the lack of communications (which lasts long in the South of Italy) and to the less abundance of rivers.[15]

As Ellena himself said, his estimates were certainly incomplete,[16] but the order of magnitude of the territorial gap that they measured was truly large. Setting the national average for industrial workers' share of the population equal to 1, the figure was 2.42 in the North-West and 0.29 in the South. Although similar indicators that Vera Zamagni calculated a century later by combining the industrial statistics with the data of the 1881 population census reduce the gap appreciably (1.43 in the "industrial triangle" and 0.80 in the South), the differences are still great and not far from today's figures.[17]

Until just a few years ago, descriptions of the geographical distribution of Italian industry that did not resort to purely qualitative sources did not go beyond the levels and growth rates of employment in manufacturing. Now, instead, thanks above all to the work of Stefano Fenoaltea, we have available to us a vast harvest of systematic statistical information on national manufacturing output, broken down by sector and territory, in the early post-unification decades. In 1871 the value added of manufacturing in the South trailed that in the rest of the country by some 20 points on a per capita basis and by about 8 points in relation to GDP (Table 3). Campania was the sole region of the South with per capita indicators above the national average.

The recent data also allow us to fully appreciate the impressive gain in the relative position of the North-West in the period up to First World War. We know, of course, that it was in the "industrial triangle" that modern Italian industry was born. As to industry in the South, though lagging behind the national average it hardly disappeared. On the eve of the war manufacturing value added at constant prices was 2.6 times greater in the South than it had been in 1861 (Figure 7), almost on a par with the gain achieved by the Centre and North-East (whose production tripled), while in the North-West the multiple was equal to 4.3.[18]

But let's return to 1871, because the progress in statistical sources enables us to investigate the sectoral and territorial breakdown of the differences in industrialization. The sectoral breakdown is important because it allows us to discover if and to what extent the poorer performance of southern manufacturing was due to an unfavourable composition

[15] Ellena, p. 42.

[16] "The statistics published last year do not include the mining, metal and mechanical industries and those involved in the production of glass, ceramics and chemical products….And my work here also fails to account for the employment in homemade spinning, which is a relevant industry in nearly all provinces of our country." Ellena, pp. 34-35. In spite of these limits, Ellena's statistics probably capture the most dynamic and substantial part of Italian manufacturing. Epicarmo Corbino estimated that they covered about three quarters of Italian industry of the day (Corbino, p. 1954, p. 93).

[17] Zamagni (1987), pp. 36-97. Zamagni's data refer to the regions' current administrative borders, Ellena's to their contemporary boundaries.

[18] The relative shrinking of southern industry only marginally involved large firms. Lawually, the number of industrial limited share companies grew at a slightly faster rate in the South than nationwide. If in 1865 just 8 of Italy's 134 industrial limited share companies (about 6 per cent) were located in the South, by 1916 the South was home to 247 out 1,518 (about 14 per cent), and now the aggregate also includes the Veneto region. In terms of total capital, the South's share increased from 4.1 to 8.3 per cent. In 1916 there were still more limited share companies in industry in Campania than in Tuscany or Emilia, and only slightly fewer than in Veneto (Svimez, 1954).

effect, while the geographical breakdown, especially if pushed below the regional level, is useful for understanding whether the average difference between the rates of industrialization in the macro-areas actually conceals significantly dissimilar trends.

From the sectoral viewpoint, at the time of national unification the differences between the North and South were not enormous. However, in 1871 the South was specialized to a greater extent in industries that would have low relative growth rates in the following decades. In particular, classifying the 12 sectors for which data are available according to their performance in the next 40 years, we find that in the South the sectors with the poorest future growth (food products and tobacco, leather and footwear) accounted for almost half of manufacturing value added, more than 5 points more than in the Centre and North (Table 4).

However, more important than the macro-areas' initial specialization was the different growth rate of the "modern" sectors. Between 1871 and 1911 value added in basic metals, engineering and chemicals grew at average annual rates of respectively 8.8, 4.3 and 6.3 per cent in the North-West, compared with 6.8, 3.9 and 5.6 per cent in the Centre and the North-East and substantially lower rates in the South (4.3, 2.3 and 4.8 per cent).

Consequently, the alteration in the sectoral composition of industry was much less radical in the South than in the North-West.[19] The changes were largely determined by the two main sectors: the share of the food products industry, the least dynamic, fell by fully 16 percentage points in the North-West and by only 8 in the South, while engineering, the most dynamic sector, gained 11 points in the industrial triangle and only 3 in the South.[20]

As for the detailed geographical distribution of industrial growth rates – by province – the first observation concerns how large a part of each macro-area was involved in industrialization to an appreciable extent (Table 5). By this gauge, in 1871 the North-West already had a large lead on the rest of the country: 8 of the 14 provinces of Piedmont, Liguria and Lombardy, had overall industrialization rates more than 10 points above the national average, 13 of them had a lead of this size in at least one branch of manufacturing (6 in engineering).[21] A similar snapshot taken in 1911 shows substantially no change in the Centre and North, and a reduction in the heavily industrialized territory in the South, where practically the province of Naples alone continued to claim some prominence on the national scale.

These trends are not merely a detail of the widening geographical gap in the country's industrialization during the period under consideration. On the contrary, to some extent they capture one of its causes, especially if one believes that the presence of highly-specialized industry constitutes a structural strength for a local economy in view of the economies of agglomeration that can arise from the territorial concentration of production.

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[19] Between the start and the end of the period considered, the index of dissimilarity of the composition of industry is equal to 26.1 in the South, 27.7 in the North-East, 39.7 in the Centre and 48-7 in the North-West (Table 4, last column).

[20] On the history of the engineering industry in the South and its underdevelopment at the start of the twentieth century, see De Rosa (1968), p. 203.

[21] By contrast, high overall industrialization rates could be found in only 2 of 16 provinces in the North-East, 3 of 14 in the Centre and 2 of 25 in the South.

In this sense, it is likely that the greater density of specialized areas that the North-West already displayed in 1871 helped to determine its industrial success in the decades to come thanks to the self-reinforcement of locational advantages, a pattern that a host of theorists of the so-called New Economic Geography have highlighted but that Marshall had already described precisely in the years we are examining.[22] In short, our interest in the micro-geographical distribution of Italian industries stems from the idea that in assessing an economic system's development potential *over time* it is necessary to take into account its *initial endowment* of manufacturing poles and the possible consequent phenomena of *spatial correlation* in growth.

Hence it may be useful to delve more deeply into territorial details of the disparities in industrialization, using a geographical scale and a metric to measure industrial concentration similar to those employed in constructing recent maps of Italy's industrial clusters.[23]

The statistics we have for 1871 do not contain all the necessary data, which we have estimated as described in the methodological note.[24] The territories we analyse are the 284 "administrative districts", i.e. the smallest geographical unit considered in the 1871 census.[25] Applying the specialization test, we find that 46 of them had a significantly higher concentration of employment in a given sector than their share of the population (Table 6). The regional distribution of the phenomenon, particularly the share of manufacturing employment located in the "specialized" districts, does not differ appreciably from the pattern found with provincial data (Table 5), showing an incidence of specialization in the North-West practically double that of the rest of the country and, more in general, a wider divide between western and eastern Italy than between the North and the South.

What "locational advantages" could the Italian territories offer in 1871? In places that still had not experienced a genuine industrial take-off, it is doubtful there had been sufficient time for the formation of economies of agglomeration. So the territorial concentration of manufacturing activities could have depended on the endowment of natural resources (for example, port facilities for shipbuilding) or the size of the market within reach in terms of effective demand.

This thesis seems to be borne out by the fact that the "specialized districts" had a median population of nearly 143,000, more than double that of the rest of the districts

[22] Marshall (1890), *Principles of Economics* (London: Macmillan).

[23] As Iuzzolino (2004) points out, a statistically correct identification of these territories requires the construction of a statistical test to check whether the degree of manufacturing specialization resulting from the data is not purely random. The test selects the areas – sub-provincial – where share of the population employed in a given industry exceeds the area's share of the total population and checks that such "specialization" does not depend on the random distribution of firms over the nation's territory. The areas identified in this way presumably offer locational advantages to the firms of that sector. However, the test is not able to distinguish the nature of those advantages, which consequently may depend on the presence of favourable natural conditions, on the size of the accessible market, or on the creation over time of a virtuous circle between the density of specialized firms and the local availability of tangible and intangible resources serving the sector.

[24] Given the number of estimation procedures we have used and their inevitable imprecision, the map of the specialized territories that we describe in what follows needs to be taken as a rough approximation of the "true" geographical distribution of what we might call "proto industrial clusters".

[25] The administrative district, an intermediate entity between province and municipality, was instituted in the Kingdom of Italy in 1859 by the Rattazzi Law (Royal Decree 3702 of 23 October 1859). It was the new name given to what had been "provinces" in the Kingdom of Sardinia, corresponding to *arrondisssements* in France.

(64,000). Table 7 shows that most of the specialized districts were also more populous (37 of the 46 specialized districts had at least 100,000 inhabitants). But the converse did not hold: 65 per cent of these "large" districts had no industrial specialization. Volume of demand was therefore probably a necessary but not a sufficient condition for the formation of clusters. In this regard, it is interesting to note that the share of "large" administrative districts with a high density of industry districts was fairly similar in the North-West, North-East and Centre but drastically lower – only half as great – in the South.[26] Nearly four-fifths of the more populous southern administrative districts (37 out of 48[27]), districts with good potential local demand, had no significant specialization in manufacturing.

In brief, in the South in 1871 the local size of the market appears to have been a *necessary* condition – there were no specialized districts with a population under 100,000 – but not a *sufficient* condition. In the rest of the country, the same factor appears instead to have acted as an *(almost) sufficient condition* – fewer that 9 per cent of the large districts did not have a pronounced specialization in industry – but *not a necessary condition*, because a quarter of the specialized districts did not have a large population. Consequently, if there were locational advantages independent of the local volume of demand, they can be presumed to have been concentrated in some parts of the Centre and North.

In so far as the economies of agglomeration deriving from pronounced territorial specialization translate into productivity advantages,[28] this finding is consistent with the considerable disparities in industrial value added per worker reported by Felice (2007): in 1891 this indicator stood at half the national average in the South, whereas in the Centre and North-East it exceeded the national average by 11 per cent and in the North-West by 52 per cent. [29]

Holding district population equal, almost half of the industrial poles in 1871 (21 of 46) had particularly low illiteracy rates; this share was very high in the North-West (15 of 18) and nil in the South. We find a similar variance in the endowment of communication and transport infrastructure (measured by the share of the population residing in municipalities equipped with post and telegraph offices, railway stations or ports), which was decidedly higher than the average in the industrial poles of the North-West and minimal in those of the South.[30]

[26] This result does not change when we weight the population by the literacy rate, so as to obtain a size parameter more closely correlated with effective demand (assuming that literacy also indicates economic wellbeing).

[27] Among the 37 large, unspecialized districts, we find many territories (Caserta, Castellammare, Foggia, L'Aquila, Teramo, Cosenza, etc.) that qualitative descriptions of Bourbon industry had instead counted as significant industrial poles. This may have been true on the southern scale, but no longer on the national scale.

[28] Cingano and Schivardi (2005).

[29] The data refer to the whole industrial sector, not just manufacturing. Additional statistical evidence showing that the structure of the industrial poles was more fragile in the South are reported in Table 8. For example, none of the 11 poles in the South specialized chiefly in engineering, compared with 7 out of 35 poles in the Centre and North. Further, 7 of the 11 relatively industrialized administrative districts in the South had a single specialization, whereas in the rest of the country this was true in fewer than half the cases (17).

[30] Table 7 shows, moreover, whether at least some of the "specialized" territories of 1871 continued to be included in the industrial clusters found using the data from the industrial censuses conducted 40, 80 and 130 years later. The greater persistence of the territories belonging to the Centre and North is striking: 80 per cent

Examining the birth rate of industrial clusters between 1871 and 1911, we obtain interesting confirmation of the fact that southern industry, though failing to keeping pace with other parts of the country, not only did not vanish but actually expanded to some extent. In 1911 the administrative districts belonging to industrial agglomerations, identified on the basis of the industrial census of that year, numbered 72, of which 32 coincide with the specialized districts of 1871 and 40 do not. Figure 8 depicts the share of these two sets in relation to the total population in 1871, divided by macro-area. In the South, as in the rest of Italy, we see an extension in the area (measured by population in the chart, but the same holds in terms of territory) with a relatively high degree of industrial specialization, albeit to a lesser degree than in the country as a whole owing to lower "birth" and higher "death" rates. Further, in 1911 the South's share of total employment in Italy's industrial clusters was still small compared with the North-West's (11.7 against 74.2 per cent; Table 9), but it was only a little lower than the sum of those of the North-East and Centre (14.1 per cent), thanks above all to the high density of industry in the Naples district, the country's leading cluster in the leather and footwear sector. As will be seen, the picture changes dramatically with the snapshot taken in 1951, when the South's share of total employment in the industrial clusters collapsed to 2.6 per cent (Table 10), owing among other things to the disappearance of Naples from the ranks of Italy's "industrial centres".

1.3 Industry, agriculture, migrations and policy: gaps widen

By all evidence, then, the North-South gap in economic development was created and accentuated by the onset of industrialization (Figure 9), which is no surprise given the differences in initial conditions propitious for agglomeration economies: the size of reachable local markets (and access to external markets)[31]; energy resources; skilled labour and entrepreneurial aptitude; the presence of proto-district craft clusters even in medium-sized and smaller cities and towns. These features and others (the development of the credit system, simultaneously cause and effect of industrialization[32]) tended to reinforce one another.

But the output gap was not the product of industrialization alone. Decades after national unification there was also a divergence in productivity growth in agriculture that

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were still counted among the clusters in 2001, against just over a third of those in the South. The survival rate to 1911 was 86 per cent for the territories with low illiteracy and 52 per cent for the others.

[31] The main impediment to industrialization was "the persistently limited market for consumer goods. The mechanical engineering industries that had developed thanks to protectionism under the Bourbons before national unity, for example, failed to make the transition to private enterprise not for lack of management skill but because of the scarcity of market opportunities." Southern agriculture created much less demand than northern for industrial products like machinery and fertilizer. The absence of a stable class of farmers meant that no mass consumer market could arise. Consequently, far fewer virtuous circles came into being between industrial, financial and agricultural markets, of the sort that characterized the North-West (Davis, 1999, p. 234-5).

[32] A significant factor accompanying and sustaining the rise of industry in Italy was the formation of modern banks, first of all Banca Commerciale and Credito Italiano, established during those years in the North-West at the initiative of foreign capital. The role of banking is emphasized in particular by Alexander Gerschenkron (1963). In the South, although credit expanded thanks to many cooperative banks, it played a much smaller role; and its development was much more halting than in the North, as is attested by the large number of cooperative bank failures (Ferri and Trento, 1997; A'Hearn, 2000).

explains a good part of the overall widening of the gap (Federico, 2007). From the 1890s onward the industrial development of the North-West was paralleled by a deep farming slump in the South, owing to three concomitant factors: the closure of market outlets with the simultaneous protectionist measures of other European countries, above all France; the tariff protection of wheat; and the international agrarian crisis.[33] The South immediately lost major export outlets. Exports of citrus fruit fell from 2.3 million quintals in 1887 to 1.4 million in 1891; those of oil from 641 million in 1887 to 378 million in 1890 (Pescosolido, 1998). In one year, wine exports collapsed from 2 million hectoliters to just tens of thousands, ruining the grape farmers (Rossi Doria, 1982).

Northern farming reacted better. Eckaus (1960) notes that the "agricultural improvement" of the time came almost exclusively in the North. Davis (1999) dates to the end of the century the rise in the North of true agrarian capitalism and the consequent development of credit networks, as is shown by Ferri and Trento (1997). In short, when the agrarian crisis hit,

Italy was caught completely off guard by the crisis that hence was pretty harmful. In the Centre-North farmers tried to react by relying on technological innovation and by organizing themselves into association. But, with few exceptions, this way was not followed in the South where the setback to the development of this productive sector was worsened by the explosion of social conflicts (Rossi Doria, 1982).

The deep market slump in modern, specialized, export-oriented farming was an especially severe blow to the regions where it had been most developed, Puglia and Sicily. Over the next twenty years, farm productivity in Puglia (value added per worker) fell from 162 per cent of the Italian average to 110 per cent, and in Sicily from 166 to 140 per cent (Felice, 2007, Table 3.3). That is, the crisis went to the vital heart of the southern economy, leaving only the skin and bones and opening the way to mass emigration (Davis, 1999).[34]

There was no way of replacing these foreign markets with domestic outlets. Apart from the greater cost of land rather than sea transport, the reason was above all the lack of demand for southern farm products in the Centre and North of Italy. The South did not produce the raw materials that northern manufacturing needed, much of which were imported from abroad. It was not in a position to supply grain or livestock products, of which it too had a shortfall. Owing to still low incomes, there was insufficient demand for its specialized fruit and vegetable products (Zamagni, 1993). Yet between the turn of the century and the outbreak of the First World War the South made anything but negligible

[33] Starting in 1880 farm crops were hit by a major international crisis in connection with soaring output around the world and the advances in transportation that made possible the mass arrival of foodstuffs from outside Europe. After the long period of rising prices, there was a collapse, "varied and unevenly distributed over the years but averaging more than 30%" (Rossi Doria, 1982). Wheat fell from 35 to 20 lire a quintal. The customs tariff, which was raised from 3 lire in 1887 to 7.50 lire in 1894, stabilized the price at around 25 lire, but "the artificial support for wheat had the effect of distorting the economic advantage of other crops" (Rossi Doria, 1982).

[34] Per capita GDP in Puglia fell from 95 per cent of the national average in 1891 to 78 per cent in 1911 (Daniele and Malanima, 2007, Table 5); in Sicily, from 98 to 88 per cent. This did not happen in the rest of the South. In Campania, both the relative decline in farm productivity and the fall in overall output were much more moderate: from 110 per cent of Italian per capita GDP in 1891, Campania was still at 105 per cent 20 years later.

progress, "roughly on a par with the North" (Rossi Doria, 1982). The gains involved both technical advances and rural modernization:

The establishment of the itinerant universities and of the agrarian consortiums, the progresses of the credit system, the institution of the first labour unions, the interesting phenomenon of the collective "affittanze" in Sicily, the development of farming properties in the areas of immigration and the improvement of the general standard of living all date back to those years. On the eve of the war, hence, there was ground for a gradual, albeit modest, autonomous economic development at least of some southern regions.[35]

Citrus exports rose from 2 million quintals a year in 1894-1901 to 4 million in 1913-14 (Bevilacqua, 1993), even though irrigation remained very modest: 1.5 per cent of farmland in the South compared with 7.9 per cent in the North (Svimez, 2011). Thus in 1911, despite the pronounced drop over the preceding twenty years, several southern regions still outperformed the national average in agricultural productivity (Felice, 2007, Table 3.3; Federico, 2007, Table 5).

Migration also played a role in the dynamics of regional disparities: fifteen years after unification, Italy experienced an extraordinary wave of emigration, with an estimated 14 million emigrants between 1876 and 1914. Through the end of the nineteenth century emigration was highest in the North-East and especially in Veneto, because of its vicinity to the most attractive European destinations and "as a reflection of the conditions most favourable to leaving which, within a general context of backwardness made it possible to plan and undertake a journey for a period of work abroad" (Felice, 2007). In the last decade of the nineteenth century, the ratio of gross emigration to total population[36] was still higher in the Centre-North: an average of around 1 per cent per year, compared to 0.6 per cent (1890-94) and 0.9 per cent (1895-1900) in the South. After the turn of the century, however, emigration accelerated, especially in the South, where the average annual ratio jumped to 1.7 per cent in 1900-1904 (surpassing the Centre-North) and then to 2.4 per cent in 1905-1909 and 2 percent in 1910-1914.

The emigrants' destinations were quite diverse. During the period 1876-1914, 62 per cent of emigrants from the North-West and 74 per cent from the North-East (87 per cent for Veneto) went to European and Mediterranean countries. This was the case for just 9 per cent of emigrants from the South (Felice, 2007), who chose almost exclusively to go to the Americas. This divergence would influence repatriation rates, which tended to be low for the southern regions. Rossi Doria (1982) indicates that of the one and a half million southerners who emigrated during the nineteenth century, one million never repatriated.

The repatriation rate was a determining factor in the medium and long-term effects of emigration on economic growth in the regions of origin. While emigration deprived those regions of dynamic and enterprising human resources, repatriation attenuated the effects of this loss of human capital. Higher repatriation rates were also associated with greater emigrant remittances in favor of the local economy.[37]

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[35] Rossi Doria 1982, p 191.

[36] Calculated on the basis of the data in Svimez, 2011, pp. 129 et seq.

[37] Felice (2007) notes that "the advantages of remittances went primarily to the regions of the Centre-North." The impact of emigration on local economies is nevertheless complex and difficult to measure. One example is

With regard to short-term effects, it is estimated that international migrations accentuated the contemporary North-South gap by about 2 percentage points between 1881 and 1901, while their effect in the following decade was negligible (Table 11).

The role of policy. – Like demographics, policy also failed to keep the gaps from widening. Awareness of the existence of a "Southern question" came very early on[38], but in the second half of the nineteenth century financial investments associated with public policy were decidedly low compared to European and Italian standards in the final decades of the twentieth. Up to the First World War, overall spending by the central government and local administrations rarely approached one fifth of GDP. Moreover, central government spending consisted very largely of interest on the public debt and armaments (Cohen and Federico, 2001. p.91). Public works spending was little more than 10 per cent of the total; redistributive spending was very low, less than 1 per cent of total spending for the entire nineteenth century, while spending for education, also low in 1870 (3.2 per cent of public spending, or 0.5 per cent of GDP) increased constantly until it doubled its relative portion of public spending on the eve of the Great War (Zamigni 1993).

Comparing these orders of magnitude with those related to the many and complex aspects of the disparities that existed in Italy (in addition to, naturally, the more general condition of the country's overall backwardness compared to the rest of Europe), it is difficult to imagine any way that Italy's first unified public policies could have achieved a rapid geographical realignment.

The most conspicuous measures directed primarily to the South were those aimed at improving transportation networks. Between 1861 and 1875 the South went from 7.2 per cent of the national rail network to 32 per cent. Nevertheless, according to some historians, the country's north-south rail connections, owing partly to particularly high fares, failed to bring about the creation of a national market or even a significant increase in interregional commerce; "the railways were built not to be used" (Fenoaltea, 2006); the purpose was more the military one of controlling the national territory, especially in the South, than favouring commerce. Nitti had noted that railway fares acted in many cases as customs duties, making it more economic for the South to export goods abroad by sea rather than try to sell its products to the North via railway (Nitti, 1993). Opinion is divided about the role of the railways in Italy's economic development (Cannari and Chiri, 2002). According to Romeo (1959) industrialization followed, both chronologically and causally, the construction of the railways, but Gerschenkron (1962) argues that the Italian industrial system was not sufficiently developed to benefit from the development of the country's rail network. In any event, Fenoaltea (2007) points out that the infrastructures that had the biggest impact on development were the railways in the North-West, which were initiated in large part before national unification.

Furthermore, the substantial increase of investment in Southern railways was countered by a significant reduction in rural reclamation projects compared to the pre-unification period (Pescosolido, 1998). The 1862 reclamation law entrusted the execution of such projects to private enterprise, "effectively favoring northern regions where the most

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the much debated question of whether or not emigration produced an increase in wages and salaries in the regions of origin by restricting the supply of labour.

[38] The first important studies were begun just ten years after unification.

extensive marshlands were concentrated and where there were numerous consortia of land owners" (Atella, Francisci and Vecchi, 2011, p. 109). In the South, the amount of reclamation to be done was enormous, beyond the potential profitability for private enterprises; there it was necessary "literally to create the plains, ensure the elemental conditions for human habitation, restore the land . . . to populations that for centuries, owing to the insecurity of the coastal areas and other historical causes, had been forced to abandon it" (Bevilacqua and Rossi Doria, 1984). Before fascism the South received just 4 per cent of spending on reclamation, and the land area involved was only 9 per cent of the national total (Cafiero, 1996).

In the Age of Giolitti before the First World War, public investment in the South intensified, as can be seen in the expenditure summaries of the Ministry of Public Works reported in D'Antone (2011a). Spending for continued railway development was joined by investments in roads and ports, and work was begun on the construction of the Apulian aqueduct. The sum total of infrastructure investment contributed to the modernization of North and South, but it was not such as to modify the relative advantage of locating productive activities in the two regions; on the contrary, the imbalance was probably accentuated.

In other important areas of national policy as well, the impact on the South's initial deficit appears, as with the railways, to have been substantial enough to improve previous levels but insufficient to narrow the gap. Let us consider two examples, education and public health. With regard to education, the Casati Act went into effect for the whole country in 1859:

according to the law, school enrolment (for pupils aged 6) had to be compulsory and free of charge. The educational system was divided into two grades, primary and secondary, each one lasting two years. Each municipality had to provide almost two primary schools, one for male and one for female. However, difficulties in the adoption of the rule on compulsory school enrolment, which was primarily due to the lack of effective sanctions, arisen as the law was applied to the whole country.[39]

Successive studies of the education system conducted in the years following the law's implementation continued to demonstrate the backwardness of the structure and functioning of the Italian school system, and the relatively worse situation in the southern regions.

The unequal tax base of the local finances prevented a massive effort for raising the levels of primary education in the most disadvantaged areas (the countryside)"; in 1910 the Corradini's inquiry underlines the inadequacy of resources invested in the regions of the Mezzogiorno for bridging the gap in the education system, hinting that the decentralised fiscal system had led to the strengthening of the existing structures, thereby fostering the concentration of State-sponsored competitions in the big cities and communities already sufficiently endowed with schools.[40]

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[39] A'Hearn, Auria e Vecchi 2011, p. 164.

[40] Zamagni 1993, p. 220. According to some recent interpretations, however, the lesser financial capacity of southern municipalities did not depend only on the disparities in the tax base: "it would seem, therefore, that quite apart from their average local economic conditions, northern municipalities, much more frequently than their southern counterparts, deliberately chose forms of taxation favourable to the development of basic community services, including education"(A'Hearn, Auria e Vecchi 2011).

It was not until 1911, fifty years after unification, that the Daneo-Credaro Act established national funding for elementary education. This choice proved to be a notable step forward in the fight against illiteracy, even though in just a few years, "the outbreak of war would be a decisive blow, diverting the government's attention away from education and postponing all public investment" (A'Hearn, Auria and Vecchi 2011, pp.167-8).

With the 1865 adoption of the Rattazzi Act, previously in effect in the Kingdom of Piedmont, the local representatives of the Ministry of Internal Affairs were entrusted with the protection of public health, and the burden of financing health services was placed on municipalities, which were required to provide health care for the poor through medical officers. Health policies (including the Pagliani Act of 1888 and later provisions for the distribution of quinine), slowly but steadily improved the overall quality of life but did not alter internal regional imbalances. In 1881, Italy's average per capita spending for medical officers came to 492 lire, but all the regions of the South were well under that figure, with lows of around 150 lire in Sicily and Campania, and the reform of 1888, because of the way it was structured – especially its disproportionate burden of spending for municipalities, "was a factor in consolidating the territorial imbalances between more and less developed areas" (Atella, Francisci, and Vecchi, 2011). In 1885 there were 134 hospital beds per thousand inhabitants in the North-West, 138 in the North-East, and only 44 in the South (Felice, 2007).

A much debated point is the hypothesized transfer of capital from South to North caused by geographical asymmetries between tax revenues and public spending. Unification brought with it the consolidation of public debt, two-thirds of which was carried over from Piedmont (Cafiero, 1996). Net of spending for the wars of independence, per capita public debt in Piedmont was 188 lire compared to 84 for the Kingdom of the Two Sicilies and 55 for the Grand Duchy of Tuscany. Unification of the debt thus meant "a transfer of real resources from the South to the North" (Toniolo, 1988). The same may also be true for taxation, which like public spending was particularly low in the pre-unification South.[41] But on this point there is no conclusive empirical evidence or agreement among historians (Cohen and Federico, 2001, pp. 36-37).

An important role in reinforcing the localization dynamics of Italian industry may have been played by industrial policies and, in particular, the high concentration of public contracts among several mechanical engineering firms prevalently located in the North. Complete quantitative evidence, however, is lacking. Fenoaltea (1982) shows that between 1861 and 1913 public contracts in the railway sector did not exceed 10 per cent of the value added in the national mechanical engineering industry. Contracts related to the arms industry were more substantial (Pescosolido, 1998; Federico and O'Rourke, 2000). To be sure, there was no lack of perception on the part of contemporary observers that conducting economic policy in support of industry could have important consequences on the geography of Italian economic development.

The observer who most clearly understood this relationship was Francesco Saverio Nitti. While he did not oppose public policies in support of industry, he grasped their

[41] On the basis of a complex and detailed reconstruction of the data concerning central government revenues and spending, Nitti (1900) argues that in the period he examined (1894-98), but very probably since unification, per capita tax revenues were greater in the South than in the North.

geographically differentiated distributive effects. As a result he was the first strong advocate not of reducing support for industry but of implementing specific economic policy measures to ensure that industrial localization would benefit the entire country, and especially the South. Abandoning the traditional view of the South as a land exclusively suited to agriculture, he placed special emphasis on the potential role of Naples as a great modern industrial city with propulsive effects on the entire South and on the importance of electric power plants in the South.

Elected to Parliament in 1904, Nitti proposed "Special Provisions for Naples," a package of measures to favor industry, among them a quota of public mechanical engineering contracts, customs exemptions on imports of equipment for the initial establishment of industrial plants, measures aimed at establishing a hydroelectric industry that would exploit the Volturno river(Barone, 1986). In 1909 the big industrial plant in Bagnoli went into operation; the Volturno Power Authority was set up. In the judgment of Bevilacqua (1993), they "surely had a positive effect on the Neapolitan economy, whose industry experienced a remarkable recovery."

Also in 1904 the special legislation, with similar measures, was extended to Basilicata, then to Calabria and the rest of the southern provinces. The package of provisions also contained funding for the construction of elementary schools, the institution of schools for illiterate adults, and salary increases for teachers in rural schools (A'Hearn, Auria, and Vecchi, 2001), as well as public reclamation projects, reforestation, and roads, accompanied by tax relief and farm loans (Zamagni, 1993, p. 218). The Nitti-Sacchi Act of 1911 assigned to the central government the entire burden for the water management and forest protection in the mountain basins that are so important for the South (Zamagni , 1993, p.71).[42]

1.4 First period balance sheet: the situation as of 1911

In the decades around the turn of the century the regional gaps widened. The process of divergence was simultaneous with the country's industrial development, as would be expected given the tendency to geographical concentration, as industrial activities strengthened themselves in those areas where they first began to have success, corresponding, in the Italian case, to the industrial triangle. But the dimensions and the structural features of the gaps were far from the dramatic levels that would mark the following decades, and they were normal by international standards, maintaining an intermediate position with respect to the low German figure and the very high figures for the components of the Hapsburg empire (Table 1).

The characteristic North-South split became even more marked in these decades, with a divergence of GDP amounting to 26 percentage points, but the East-West gap also widened, reaching 18 points (Figure 1).

[42] In the judgment of Bevilacqua (1993), however, taken altogether, "these special provisions were not as effective as the ones adopted for Naples," not least because of the lack of "adequate financial support," and their management by local ruling classes. Davis (1999) emphasizes the political opposition to Nitti's measures from southern land owners and the action of the executive branch of the central government which assigned exclusively to Northern companies the contracts for work in the port of Naples and land reclamation in Basilicata. Nevertheless, the special provisions did produce some initial positive effects.

Considering how far behind it was at unification, the absolute growth of the southern economy over the next fifty years was certainly not negligible. At constant prices and in relation to population, GDP increased 1.5 times, and industrial production 1.8 times. The incidence of absolute poverty to population in the South went from 52 to 43 percent (Vecchi, 2011, Table S20).

Most important, all the southern regions experienced strong improvements in their indicators of well-being, although again in this case they were lower than the national average. Between 1861 and 1911 life expectancy at birth, virtually unchanged for centuries, increased by nearly 16 years in Italy and by about 11 years in the South (Vecchi, 2011, Table S6). The infant mortality rate fell in every southern region by between a fourth and a third (-37 per cent in Italy; Vecchi, 2011, Table S7). With regard to changes in physical stature in the first decades after unification, "the spectacular reduction of the biological inequalities found in southern Italy"[43] suggests that living conditions in that part of the country had registered progress of a dimension never experienced up to that time.

With regard to education we take as our reference point the threshold of 40 per cent literacy, believed by many historians to be the minimum requisite at that time for modern economic development (Felice, 2007). At unification, this threshold had been reached only by the three regions of the North-West and even in 1881 it had been attained only by the northern regions and Lazio (Vecchi, 2011, Table S10). By 1911 no region of Italy was under 45 per cent, with the exception of Calabria, but the North-South gap was still very wide. The remarkable disparity between Centre-North and South in gross rates of enrollment in elementary schools of children aged 6-10 had been reduced by half as of 1901 (Vecchi, 2011, Table S12). By 1911, the incidence of child labour, which in 1881 in the South excluding Sardinia still ranged from 70.2 per cent in Campania to 92.7 per cent in Calabria, had retreated to levels slightly above or below 50 per cent in all the regions, shrinking to levels similar to those reached by the North-West 30 years earlier (Vecchi, 2011, Table S9).

Health, education, and income indicators saw a drop in internal variability within the macro-areas, a symptom of progress not limited to single geographical areas.

In drawing up a balance sheet of united Italy's first fifty years, D'Antone (2011a) writes: "at least until the First World War, the still physiological North-South divergence was not deliberately constructed by virtue of political decisions to the disadvantage of the South, but it was even acceptable in a country whose productive system was highly differentiated, and did not constitute the fatal condition for the ever steeper decline of the southern regions." We agree.

2. War, fascism, war: the gap explodes (1914-1950)

The physiological or at least unsurprising widening of the gaps in the first fifty years of united Italy was followed by forty years in which those divergences intensified to reach decidedly anomalous proportions (Figure 2), also by international standards (Table1). The trend is clear and for the first time it follows a North-South gradient. Between 1911 and 1951 all the regions of the South visibly lost ground, while all those of the Centre-North,

[43] A'Hearn-Vecchi, 2011, cit. p. 69.

with the exception of Umbria,[44] gained ground (Figure 5). Overall, per capita output in the South went from 83 to 53 per cent of per capita output in the Centre-North.[45]

Very probably, much more than by the nature of initial industrialization, the true geographical fracture in Italian history was created by the experience of the world wars and the dictatorship. This period, therefore, is deserving of special attention.[46]

The First World War is of fundamental importance (Zamagni, 2002); it marks a break in previous trends. Overall, "the war subordinated every aspect of social life to increasing Italy's industrial potential" and it "determined a new dislocation of the country's resources in favour of industry, encouraged financial agglomerations, and reinforced protectionist practices"(Castronovo, 1975).

The war effected a remarkable growth in the role of the public sector. The national deficit grew to dizzying heights, postponing adjustment problems to the post-war years. Between the second half of the teens and the first half of the twenties the debt of the public administrations grew 10-fold in absolute terms, and the ratio to GDP rose from 80 to 140 per cent (Francese-Pace, 2008).

The corresponding increase in spending, however, was nearly all directed at war-fighting needs (defence spending approached three-quarters of total public spending; MEF-RGS 2011, Table 20), and particularly for military production, which was by a very large margin prevalently located in the North. At the end of the war, 1,116 of the nearly 2,000 plants declared to be auxiliary were located in the industrial triangle; but the proportion is even greater in the case of metallurgical (170 out of 204) and mechanical engineering plants (409 out of 558) (Zamagni, 1993).[47]

State support for the defence industry, vast and diversified, created effects that were destined to last; among them, and decisive for regional questions, was the process of geographical concentration of industry in areas where it had already been established: "with some significant spillover effect in Emilia, Veneto and Tuscany ... The war proved to be a bad deal for the South of the country" (Zamagni, 1993).

Interrelationships between political decision-makers and industrial groups intensified; that is, what Castronovo (1975) defines as "intimate relations between government economic policy and business strategies", which would take on great importance in the following years and which already in this period give rise to company bailouts immediately following the war (in particular the bailouts of Ansaldo and Ilva in Liguria) and in general bring about a concentration of "profits in the groups tied to war supplies and materiel" (Romeo, 1988).

[44] As well as Lazio, according to the data in Brunetti et al (2011).

[45] This according to the data of Daniele and Malanima (2007) (regarding present regional boundaries); but the indication is very much the same also on the basis of the data in Brunetti et al (2011), using the regional boundaries of the time: per capita output went from 76 to 49 per cent.

[46] To be sure, it could be submitted that this period was characterized by a mere unfolding of effects set in motion during the Age of Giolitti, but even if it were so automatic (and it does not seem so in light of some fundamental circumstances pertaining both to demography and to public policy) one must wonder why it is that Italy could not, would not, and did not face up to this drastically growing disparity.

[47] There was a boom in investment – which diminished notably for the economy as a whole – and the profits of war industries, especially the mechanical engineering industry (Zamagni, 1993).

The effects of the First World War on geographical disparities were probably primarily of a *deferred* nature; that is, they laid the groundwork for a permanent reinforcement of industrial dualism. The widening of the geographical gaps, *contemporary with* or immediately following the conflict was instead not much more than that of the twenty years preceding it. It would become much more intense starting in the final years of the 1920s (Figure 10). It must be considered that the brief span of years between the end of the war and the age of "free market" fascism witnessed a relative stasis for large industry in the North involved in bailout operations and reconversion, a solid recovery for southern agriculture which continued nearly to end of the 1920s,[48] and the resumption of emigration. Manlio Rossi Doria describes this period as a positive one for the South:

> the marked increase in the price of agricultural goods, together with a new emigration flow and the higher value of emigrant remittances, besides an higher level of production, caused an increase in farmers' savings, mostly used to buy land, so that they finally become land owners.[49]

But these interesting developments were halted and inverted in the second half of the 1920s, first by changes in fascist economic policy and the great international depression, and then by the explosion of protectionism and restrictions on emigration. The years after 1925-26 were certainly the worst period in the economic history of the South; the economic conditions of the South "deteriorated disastrously" (Davis, 1999). For the first time, the two components of the regional output gap, i.e. the variability internal to the Centre-North and the South on the one hand, the distance between the two on the other (Figure 11 and Brunetti, Felice and Vecchi, 2011) displayed different dynamics. While the first remained nearly unchanged, the second increased sharply; in this twenty-year period, that is, there occurred "a fracture of epochal proportions," which shows a country "literally split in two," (Brunetti, Felice and Vecchi, 2011).

Estimates by Svimez (2011), based on the reconstruction done by Daniele and Malanima (2007), indicate an overall growth of 12.3 per cent in GDP per inhabitant in the South (expressed in constant euros, year 2000) for the twenty-year period 1931-51, compared to growth of 38.4 per cent in the North. The difference is even more marked in the data presented by Brunetti, Felice and Vecchi (2011): the South grew by just 1.2 per cent, against 41.4 per cent for the Centre-North. According to this latter reconstruction, per capita output declined notably in Basilicata, Sicily, and Sardinia, a bit less in Puglia, while it increased by 60 per cent in Lombardy and even more, 70 per cent, in Veneto. In 1931 per

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[48] Southern agriculture modernized even further thanks to new farming methods (even grain farmers saw a strong increase in productivity), the spread of specialized crops (olives, grapes, almonds, citrus fruits) and the introduction of new crops (apricots, pears, peaches, cherries, and medlars), to the growth of sales on distant markets made possible in part by the introduction of refrigerated railway cars, and to a new willingness on the part of farmers to invest, even for considerably deferred returns, in confirmation of the fact that "in many entrepreneurial farming sectors in the South the willingness to risk was no less frequent or pronounced than elsewhere" (Bevilacqua, 1993).

[49] Manlio Rossi Doria, 1982, p.191. In the immediate post-war period, moreover, some of the public works projects proposed by Nitti in 1911-14 were implemented: reclamation projects in Sardinia and the artificial lakes on the Sila, even though the great "electro-irrigation" plan (Barone, 1986) – which could have brought about structural modifications in the conditions of ample parts of the South – was blocked by opposition from large southern landowners and then cancelled in 1925 (Zamagni 1993). There was also some attempt at industrialization in Calabria with the construction of the chemical plant in Crotone.

capita output in Veneto was 4 per cent below the southern average, but by 1951 it was 61 per cent higher.

This striking retreat of relative output in the South is, in good measure, the fruit of policy choices made in the period that created difficulties for southern agriculture in the absence of any kind of industrial development, and in the presence of a rapidly growing population, owing to both natural causes and restrictions on emigration.[50] The autarky policy, "a wide range of policies aimed at making Italy self-sufficient and thus invulnerable in the event of war," (Federico and Giannetti, 1999), especially harmed the South (Toniolo, 1980) returning it to "initial conditions" in 1951 much worse in many respects than those of 1861.[51]

Agriculture – The South remained an unequivocally agricultural area whose conditions were decidedly worse than in the preceding period.

The crisis and the reduction in production level manifested themselves through a decrease in the price of agricultural goods, a migration stopping and higher unemployment rates. Between 1926 and 1941, in the South of Italy the level of agricultural production (at constant prices) was unchanged. But, at current prices (namely, at lower prices that take into account the impact of the crisis) there was a more than 40% decrease in the agricultural production values and even more pronounced was the reduction of farmers' income, which was also due to lower wage rates. Considering that the primary sector accounted for more than 70% of total income in the South of Italy, the relevance of these figures become more clear.[52]

Fascism's farm policy, with its preference for extensive cultivation, its ruralization policy and, finally, with its commercial treaties with Germany in the 1930s in a context of a drastic reduction in international trade, brought still greater damage to southern agriculture. Fascism "sacrificed the economic interests of the South and devastated its most advanced sectors" (Davis, 1999). The "Battle for Wheat", in particular, sacrificed the interests of high-value export crops; there was in increase in grain production and a drop in fruit: "an anti-historical outcome which postponed for several decades the specialization of Italian agriculture" (Zamagni, 1993). Whereas in 1911 value added per worker in Sicily was 40 per

[50] Infrastructure policies also contributed to the widening of the gaps. The "much acclaimed spending for public works was vastly reduced by 1932" (Castronovo, 1975). Initial construction of the national highway network was concentrated almost exclusively in the North, with the exception of the Naples-Pompeii; the plan outlined in 1934 by the State Road Agency to expand the highway network to all regions, including Calabria and Sicily, was delayed by the war in Ethiopia and then cancelled (D'Antone, 2011a). The railway network underwent a remarkable modernization, with lines being doubled and electrified, but this too touched the South only marginally (the Rome-Naples fast train line and electrification of the Naples-Foggia line), while in 1934 the Bologna-Florence fast train was inaugurated, reducing travel time from 5 hours to one and a half (Zamagni, 1993).

[51] The South's relative decline extended to other human development indicators (Figure4) and living conditions, probably owing to the scanty attention of the social policies of the time to the disadvantaged. Not coincidentally, the fascist era saw a strong redistribution of income toward the wealthier classes. Contrary to what happened in liberal Italy, the poorer half of the population got poorer and only the wealthiest families benefited; "the twenty years of fascism assumed the contours, therefore, of a historical period in which the taboo of poverty was accompanied by flagrantly regressive redistributive effects" (Amendola, Salsano and Vecchi, 2011).

[52] Manlio Rossi Doria, 1982, p.192.

cent higher than the Italian average, by 1951 it had shrunk to 5 per cent lower; the same was true for Sardinia (from +62 to -14 per cent), in Puglia (from +10 to -18), in Calabria (from -17 to -38;, that is, in all those regions where there had been a robust development of quality farming.[53] Fascism's commitment to land reclamation was its only positive policy for the South, thanks in part to the activity of Arrigo Serpieri and his 1928 legislation on "integral reclamation". The reclamations, undertaken in part as a means of absorbing high unemployment, were major public works projects, including, beyond the largest and most famous ones that turned the Pontine marshes into the Pontine plain, smaller ones in the Tavoliere, Metaponto, Sibari, Lamezia, Rosario, and the plains around Catania, for an overall estimated total of 400,000 hectares (Bevilacqua, 1993). The disparity with the rest of the country, however, did not improve because only one quarter of the land area reclaimed between 1923 and 1949 was in the South (Zamagni, 1993). In his own post-war assessment of the reclamation programme, Serpieri declared that "available financial resources – already anything but ample at the start – gradually became even scarcer and more inadequate for a task that was much too broad in scope" (Cafiero, 1996). Yet again, wars (in Africa and Spain) diverted "means, interests, and will".

Industry – Italian industrial development in the fascist period "didn't stop but took roads that were probably different from those that might have been expected" (Zamagni, 1993). In the South it was extremely limited.

Between 1911 and 1936 the number of workers in the manufacturing sector, as measured by the population census, went from 2.6 to 3.1 million in the Centre-North, while in the South it fell from 893 to 823 thousand (Svimez, 2011). When crafts and small business are excluded, the disparity is truly striking: the industrial census of 1937-39 found that 86 per cent of the approximately 28,000 manufacturing plants with at least 11 employees were in the Centre-North (Svimez, 2011).

Economic policy tended to crystallize the pre-existing structure of production and business, owing both to the distribution of public contracts[54] and to the promotion of agreements among producers, reinforcing their monopolistic power (Romeo, 1988, p.151).[55] Fascism put into effect a policy to favour industrialization outside of the industrial triangle. In certain respects the policy resembled Nitti's projects, but it involved only cities of the Centre-North.[56]

[53] The data here are calculated on the basis of Felice (2007, Table 3.3).

[54] In 1938 some 28 per cent of mechanical engineering production was constituted by government purchases (Zamagni, 1993). The war in Ethiopia also generated important public supply contracts for northern industry (Castronovo, 1975); the colonial occupation of Ethiopia opened up a new protected market, of a certain importance for Italian industry. For the South it was simply a limited source of employment: in 1936 more than 100,000 southerners were serving in the colonial army (Castronovo, 1975).

[55] Industrial cartels were made legal in 1926 and obligatory in 1936; two years later there were 144 of them at national level (Federico and Giannetti, 1999). In 1933 a law was enacted authorizing the construction of new or expanded industrial plants (Castronovo, 1975).

[56] The most important project was Porto Marghera, promoted by Minister Giuseppe Volpi. The first plants were built as early as 1922 and by 1939 they employed some 15,000 workers. The other assisted industrial zones (with infrastructural works and tax relief, which became sites for advanced technology plants) were in Livorno, Massa, Ferrara, Bolzano, and Trieste (Petri, 1991).

The Banking Law of 1927 also favoured greater channelling of investments to the Centre-North (Castronovo, 1975). In Raffaele Mattioli's reconstruction (cited in Zamagni, 1993, p. 381): "most of the credit [. . .] was extended to a small number of companies, a hundred or so, which because of that aid were able to grow considerably, but which depended on it to the point of not being able to do without it; thus, the former physiological symbiosis was now transformed into a monstrous Siamese twinship". To this must be added the gigantic bailout operation of the banking and industrial system conducted by the Industrial Reconstruction Institute (IRI) (D'Antone, 2011), whose funding division intervened almost exclusively in the North, where most of the national industry was concentrated.[57]

Rearmament and the war made the situation even worse. War once again stimulated military production, especially steel and machinery, heavily concentrated in the North and for the most part publicly owned through IRI (Romeo, 1988). The war provoked moderate damage to Italian industrial plants, but the course of events ensured that the brunt was borne by the already modest industry of the South, particularly in Campania. According to the industrial census conducted by the Allied Command, over 35 per cent of the 1939 value of plants in the South had been destroyed by 1944; in Naples the damage amounted to 67 per cent (Svimez, 2011).

Finally, by favouring imports of raw materials and the resumption of industrial production in the North, reconstruction policy choices widened, yet again, the regional development disparities: purchases of goods financed by the Marshall Plan were used to "renovate industrial facilities to favour economies of scale" (Brunetti, Felice and Vecchi, 2011). Not coincidentally, 84.3 per cent of the financial facilities granted to Italian industry from the end of the war to 1951 were directed to companies in the Centre-North (Svimez, 2011). Some 90 per cent of American funding in 1946-52 was used for investments that allowed Italian industry to undertake a massive renovation of plant and equipment, which took concrete form in a doubling of the horsepower installed in 1951 compared to 1937/39 (Zamagni, 1993).

According to Pasquale Saraceno (1977), this effect was already foreseeable at the time of the earliest policy choices in 1945; with regard to possible development in the South, "I don't believe that such a profound innovation of our concept of economic development could have been reasonably expected at the time. Aside from our insuperable national, and especially Lombard-Venetian, insensitivity to the Southern question, there were other imposing problems then which could not be put off": the generalized impoverishment of the country (with output in 1945 at half of its pre-war level), and industrial unemployment, especially in the defence industry. In the immediate post-war period and during the work of the Constituent Assembly, discussion of the problems and prospects of the South was very modest (Barucci, 1978).

[57] IRI took over the share holdings of Banca Commerciale, Credito Italiano, and Banco di Roma. In 1934 three quarters of Italian industry and agriculture was held by the State. IRI controlled 100 per cent of the defence-related steel industry, artillery production, and coal mining, 90 percent of shipbuilding works, 80 per cent of maritime shipping companies and locomotive producers, 40 per cent of steel, 30 per cent of electric power, almost all telephone service, various mechanical engineering firms, plus, naturally, the three banks (Zamagni, 1993). At the end of the war, IRI controlled 216 companies with an overall total of 135,000 employees (Barca and Trento, 1997).

So, in 1951, the southern economy was in disastrous condition. According to the recent reconstruction by Svimez, southern industry's share of value added amounted to just over 11 per cent of the national total, well under half of its share in 1911 as calculated by Fenoaltea (26 per cent). For every thousand inhabitants the South had just 43 full-time equivalent workers, compared to 77 for the North-East and 171 for the North-West. Labour productivity at current prices was almost 40 points lower than the Italian average, and 54 points lower than in the North-West. The data on industrial corporations also show a marked widening of the disparities: in 1916 southern corporations had accounted for 14 per cent of the national total; in 1951 they accounted for less than 8 per cent.

In the immediate post-war period, the "strong points" of southern industry, to the extent they appear on the map of industrial clusters, were reduced to a minimum (less than 3 per cent of the national total in terms of employees; Table10, last column) and almost entirely concentrated in the food processing sector, still relatively unexposed to competition. Compared to 1911, the collapse is evident: in 40 years all of the clusters in mechanical engineering, chemicals, clothing and shoes had disappeared (Tables 9 and 10). The clusters' share of total manufacturing employment in the South had dropped from 17 per cent to 5; the difference, not only compared to the still-dominant North-West, but even with respect to the North-East and Centre, is striking (Figure 13).

Population – Demographic dynamics, both migratory and natural, are also fundamental to an understanding of period trends. As is well known, the period between the two wars was characterized by much smaller international population flows than at the turn of the century. Significant restrictions on immigration were introduced, starting with the United States from 1920 on. In the five-year period 1920-24, the number of expatriations was 1.1 per cent of the total population in the South and 0.9 per cent in the Centre-North, both figures half of what they were in 1910-14 (Svimez, 2011, p.129). In 1925-29 the figures continued to shrink, especially in the South, down to 0.5 per cent. In the 1930s, international migratory flows were substantially reduced to zero.

Internal migration remained modest: primarily population flows from Veneto, Puglia, and Sicily to the North-West. This occurred despite fascism's vigorous efforts to block population shifts to the cities and to the more heavily industrialized areas. After 1931 change of residence required specific authorization; in 1939 internal migration was outlawed (Carey and Carey, 1955).

At the same time, the regional divergence in natural demographic dynamics was accentuated. In the three decades from 1880-82 to 1910-12, Italy as whole experienced a decline in fertility of just 11 points; in the following quarter century (from 1910-12 to 1935-37) this moderate decline turned into a steep drop: the fertility rate lost nearly 50 points, from 154 to 105. But the decline was much more pronounced in the Centre-North, where it dropped by 61 points, from 149 to 88, while the South it declined by only 25 points, from 163 to 138. In 1910-12, Veneto and Puglia shared the same fertility rate (181); twenty-five years later Veneto's rate was 111 and Puglia's was 150 (Svimez, 1954). For the first time in the country's history, the population dynamic (including migratory flows) contributed to a widening of the regional disparities in per capita output (Table 11).

3. The economic miracle and convergence: 1951-1973

3.1 What happened

For decades beginning in 1951 the South underwent a period of exceptional growth. It came at the same time as the fastest overall growth in Italian economic history but was even faster. For the first – and last – time since national unification, the output gap between South and North was reduced significantly and over a protracted period. (Figure 2). All the southern regions took part, if to differing extent (Figure 5).

From 1951 to 1971 per capita GDP in the South rose at an average annual rate of 5.77 per cent, one of the best performances in the entire world (Figure 3). The South was outperformed significantly only by Japan, and slightly by Greece and Spain. Setting average income in the United States, at purchasing power parity, equal to 100, during these two decades the Italian South rose from 22.3 to 46.6, leaving the countries of Eastern Europe well behind and overtaking those of the Mediterranean except Spain (Felice, 2007).

The gap in per capita output with the rest of Italy was narrowed from 53 percentage points in 1951 to 44 in 1961 and 33 in 1971.[58] Essentially, the South gained a percentage point of per capita GDP a year, at a time when Italian GDP was growing at historically unequalled rates.

It should be said that during these same years practically all the countries of Europe experienced a reduction in geographical disparities. In fact, virtually all the main cases of postwar interregional convergence occurred from the 1950s to the mid-1970s. Between 1955 and 1977 the portion of the population living in regions whose per capita output was at least 15 per cent below the national average was cut in half in France, Spain and Greece, nearly eliminated in the Netherlands, the United Kingdom and West Germany (Iuzzolino, 2009).

The performance of the individual regions is also worth tracing. It led to a reduction of the internal variability within the macro-areas that was nearly on a par with the convergence between them (Figure 11). All the regions of the North-West saw a reduction in their output advantage over the national average, but the extent varied considerably, from 20 or more points in Piedmont and Lombardy to as much as 45 in Liguria, which came down from 162 to 117 per cent of the average. In the Centre and North-East, Emilia and Tuscany made slight gains; Veneto was steady at about the national average, as was Lazio (at 109 per cent). Marche gained from 85 to 93 per cent. The smallest southern regions gained more than 20 percentage points against the nationwide average, led by Basilicata, with a rise of 29 points, from 45 to 74, and Sardinia, from 62 to 91. Thus in 1971 Sardinia's per capita GDP was higher than that of Umbria and almost equal to that of Marche.

There was considerable improvement also in Puglia and Sicily, at nearly 20 points, but much less in Campania (just 7 points, from 68 to 75 per cent). Campania's enormous advantage over the rest of the South was thus eliminated, never to return. By 1971 Campania lagged behind Abruzzo, after leading it by 35 percentage points in per capita GDP in 1911 and still 13 in 1951. The only region still significantly behind was Calabria.

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[58] According to Daniele and Malanima. The data of Brunetti, Felice and Vecchi (2011) show a slightly less rapid but still extremely significant relative advance: from a gap of 51 points in 1951 to 46 in 1961 and 36 in 1971.

For the South as a whole, 14 of the 20 points recouped can be ascribed to productivity gains, the remaining 6 to the relative shrinkage of population (Table 11). Both components, then, were factors in the convergence. On the one hand, there was powerful growth in per capita output, both sector-by-sector and through the sectoral composition effect due to the sharp relative decline of agriculture to the benefit of industry and services. The share of the economically active population engaged in agriculture was nearly halved from 58 per cent in 1951 to 30 per cent in 1971, while industry's share doubled from 17 to 35 per cent. At the same time, mass national and international emigration produced a structural moderation of the aberrant relation at the end of the war between the southern population and available resources. The region's average negative domestic migratory balance exceeded 6 per cent, driving the different in per capita output down by nearly 7 points (Table 11).

Productivity trends were better than in the North in individual sectors as well. Although the effect of the agrarian reform was "far below expectations" (Rossi Doria, 1957), southern farm productivity rose from 79 per cent of the national average in 1951 to 91 per cent in 1971 (Felice, 2007). Thanks to heavy public and private investment, hence the very substantial expansion of reclaimed and irrigated land, agricultural value added gained 2.8 per cent per year even though farm employment was nearly halved (Siracusano, Tresoldi and Zen, 1986).

Industrial productivity also rose sharply, from 76.4 to 99.1 of that of the Centre-North (Figure 18),[59] thanks in part to the installation of a good many large plants, driven by public subsidies or the impetus imparted by public industry. Direct employment in state-owned corporations in the South rose from 40,000 in 1960 to 150,000 in 1975 (Bodo and Sestito, 1991). The census of southern industrial plants with at least 20 workers in 1977 (CESAN, 1978) shows the full importance of non-southern industrial groups: 57 per cent of manufacturing employees were working at nearly a thousand plants that were either government-, northern- or foreign-owned (Table 12). Two-thirds of these plants had been built since 1961 and half were in "heavy" industry (petrochemicals, basic metals, mechanical engineering, transport equipment). A most interesting reading is that the modernization of southern industry was functional to the overall progress of Italian manufacturing: "In the name of regional equalization, Italy created the basic industry that was essential to the successes of the Italian export industries that were at the forefront of the 'economic miracle': textiles, engineering, motor vehicles" (Giannola, 2010).

Also going by gauges other than GDP or productivity, southern development was equally impressive. Per capita consumption tripled in real terms, the number of cars on the roads rose from 125,000 to 3.3 million, the number of telephones from 110,000 to 2.2 million. Half the region's housing stock was built during those years, and 54,000 kilometers of new roads (Cafiero, 1976). The literacy rate gained 12 percentage points, practically closing the gap with the rest of the country. Convergence was also achieved for life expectancy at birth, which was more than 71 years in both parts of Italy, practically twice as long as 90 years earlier (Vecchi, 2011).

3.2 What failed to happen

[59] The gain was accompanied by rising wages. Per capita employee earnings in southern manufacturing rose from 57.2 per cent of northern earnings in 1951 to 76.4 per cent in 1971. This resulted in a modest loss of competitiveness: manufacturing unit labour costs rose from 75 to 77 per cent.

Not everything was positive, however. The many, profound changes to the social and economic structure of the South failed to include at least one of crucial importance: the local deepening of manufacturing product chains, the expansion of the capacity to supply goods to serve exploding consumer demand, which occurred in other parts of the country in those decades. The expansion of the southern industrial base proved insufficient in number of enterprises and ill-adapted in composition to the radical changes in the competitive environment that began to take place in the 1970s.

This inadequacy was clearly perceived by Luigi Einaudi, who in 1960 warned against the optimistic forecasts of southern development led by public policy:

We should not think that, thanks to the State or private citizens, the number of business activities able to generate higher income level would increase quickly. The State can contribute…but the economic development will be mostly driven by the growth of single firms that will favour the creation and proliferation of similar enterprises…; but it is a slow process.[60]

This was the primary reason why from the very outset the southern economy's capacity to absorb the manpower shed by agriculture was insufficient to maintain equilibrium in the labour market. The differential in unemployment rates, which had been practically eliminated by the mid-1960s, widened again to nearly 3 percentage points in 1971 (Figure 14). Census data show that the number of workers in plants located in the South and active in industry or services (excluding government) increased by 51 per cent in twenty years (30 per cent in manufacturing; Svimez, 2011), while in the Centre and North it rose by 78 per cent (and 56 per cent in manufacturing). For the South, this expansion was not enough to provide jobs for the exodus from farming; in the North – where the exodus had begun decades earlier – it was more than enough. And southern industry actually regressed from 210,000 to 174,000 plants, while the rest of Italy recorded expansion from 422,000 to 456,000.

Brusco and Paba (1997, p. 271) observe: "The South lost a large number of small enterprises that may have achieved regional size but could not withstand the offensive from the enterprises of the North." Our reconstructed map of Italian industrial clusters (Table 13) confirms their relative unimportance in the South, which was the only part of the country to undergo a decline in the number of highly specialized industrial areas in the 1950s and 1960s.[61]

The regions of the Centre and North-East showed a completely different pattern. There the fabric of craft and micro enterprises present at the end of the war evolved progressively. With the growth of domestic demand, it strengthened and thus, progressively, gave rise to better structured firms and to the development of existing clusters (as in Tuscany and Veneto) or the creation of new industrial districts, as in Marche, a region where economic geography had detected no such clusters previously (Brusco and Paba, 1997). This was the crucial phenomenon of a process of industrialization rightly termed "without ruptures" (Fuà

[60] Taken from an article for *Corriere della Sera* entitled "Mezzogiorno e tempi lunghi" that Einaudi wrote just days before his death; cited in Barucci, P. (2003), p. 90.
[61] On the possible crowding-out of southern industry by the drop in transport costs and more competitive central and northern products, see Faini (1983).

and Zacchia, 1984), which was based in part on foundations different from those of the North-West and which would sustain the economy for decades.

Why did this happen? Why did the growth paths of small firms and systems of small firms diverge so sharply between Centre/North-East and South? Essential though the question is to Italian economic history, it is not easy to find one definitive answer. A number of factors, in all likelihood, combined to determine the outcome.

History certainly counts. As we have seen, in 1951 the distance between the two parts of Italy was already great both in terms of industrialization (Figures 12 and 13) and in terms of per capita income, hence in the initial volume of local demand, which fosters the competitive growth of local firms.

Physical geography also counts, and human geography as shaped by infrastructural projects definitely counts. No internal southern market had ever existed, and certainly none did in the 1950s and 1960s. The geography of the South and the glaring lack of transport networks, with the consequent absence of a tradition of interregional trade within the South, meant that for small southern manufacturers the "internal market" was strictly local. The size of this local demand varied considerably: somewhat larger in Puglia or around Naples, where in fact the cases of endogenous business development were concentrated; tiny along the southern Apennines. This situation contrasted sharply with the state of the Po valley as far back as the nineteenth century, which had come within the reach of firms in central Italy, especially on the Adriatic coast.

Smaller and poorer internal markets. The 1951 census found that just 13 per cent of non-farm firms in the South had "extra-municipal extension," i.e. some premises outside the municipality of origin, compared with 39 per cent in the Centre and North. Of these, nearly 30 per cent had "interregional extension," i.e. premises outside their home region (Svimez, 1961). These "interregional" firms were those best placed to exploit the unification of the national market and the growth of consumer spending. They employed more than 1.6 million workers in the Centre and North, including 600,000 in Lombardy and 500,000 in Lazio, but just 54,000 in the South, mostly in Campania (33,000). The much smaller and chiefly local southern firms were hampered by serious barriers to entry into larger, non-local markets and by lack of distribution networks (Barca, 1997).

Probably social factors also played a role, in particular the organization of sharecropping and the coexistence of agricultural with craft activities, which are masterfully analysed by Bagnasco (1977), Fuà and Zacchia (1984), and the abundant literature on the "third Italy" and its virtuous industrialization processes. Certainly a significant factor was the enormous initial gap in schooling (recouped only subsequently) between South and Centre/North-East. In 1951 the literacy rate for the population aged 15 and older was 63 per cent in Calabria, 67 per cent in Basilicata, and 77 per cent in the best southern region, Abruzzo, against 84 per cent in Marche and 93 per cent in Veneto.

To this, we must add the resumption of mass emigration in the 1950s. This involved not only the farm workers and the rural under-employed but also craftsmen, especially from the southern hinterland. And if resurgent emigration offered opportunities to southerners, at the same time it deprived the South of some of the best elements of its work force, potential entrepreneurs. It thus helped to cause the "destruction of the fabric of specific craft and industrial skills that had been rooted in the South before the war and could have fostered development" (Brusco and Paba, 1997, p. 283).

3.3 The role of policy

The tumultuous process of convergence in the first two post-war decades was sustained and in many respects led by a set of public policy programmes that created the conditions for economic growth in the South.[62] First of all, a set of programmes centring on the (Southern Italy Development Fund) ("Cassa per il Mezzogiorno") was devised. In its first decade the Fund focused on agricultural infrastructure, water systems, government structure. In the 1960s it concentrated on the direct promotion of industrialization. This action was flanked by national programmes to strengthen health, welfare and education which, though not addressed directly to the backward regions, had greater impact in the South both in terms of welfare and in terms of resource transfers in proportion to local GDP. They thus fostered partial structural equalization, given Italy's historically most uneven endowments in health and education facilities, as is shown by the convergence of the South's human development indicators with those of the rest of the country (Figure 4). All of this produced a widespread perception of the positive presence of the national government in the South, perhaps for the first time since Italian unification.

The Southern Italy Development Fund is one of Italy's great, extraordinary economic institutions, on a par with IRI. And it was the men of IRI, who had led the defence and support of the industrial apparatus of northern Italy in the 1930s, who now aimed to bring industrial development to the South (D'Antone, 1997). The idea of a special agency for the industrialization of the South was the brainchild of the southern industrial development association (Associazione per lo sviluppo dell'industria nel Mezzogiorno – Svimez), founded in 1947, and was elaborated on with the aid of Domenico Menichella, who was Governor of the Bank of Italy and a director of Svimez, and the experts of the Bank (Barucci, 1978). The project was sustained by the United States, in part because it resembled Roosevelt's New Deal agencies and in part because it was considered to be a useful instrument for employing the funds of the World Bank. The Fund arose as a public law agency, independent from the government, charged with a specific, fixed-term programme. Some features of the Fund were totally new in political and legal terms. It formed part of the general concept of the "mixed economy" in which government not only facilitates and encourages private enterprise but, if this proves insufficient for development, can take its place.

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[62] The reference here is not to land reform and the expropriation of large landed estates (the "Sila" law for Calabria in 1950, the partial reform law in October and a similar one for Sicily in December, all the same year). These measures had the essentially social aim of easing the tensions of the early post-war years, in which land-starved peasants and farm labourers occupied the land or staged violent uprisings, as in Puglia. The reform gave land to 113,000 peasant households; 767,000 hectares of farmland went to land reform agencies, which assigned 89 per cent of it to the peasants (La Marca, 1973). The reform, together with land reclamation projects, not only improved resources and allowed for stepped-up farming but permanently changed the contractual relations governing land ownership and use, unchaining suppressed energy and rapidly improving civil, social and economic conditions.

The Southern Italy Development Fund was instituted by Law 646/1950.[63] Its action was governed by two main criteria: its spending was additional ("extraordinary") to ordinary government operations; and it was to be conducted under a multiyear programme (entrusted to a special Ministerial Committee for the South), structured as a series of one-year plans. The use of exceptional instruments carried major implications for institutional development in the South. In the face of the shortcomings of the central government in project design and integrated planning, there was no rewriting of the rules for the ordinary operation of markets and government; instead, a new body was created, to which financial and intellectual resources were channeled. The Fund had no intention of regulating markets, especially the capital market; it operated in their stead. The role played by ordinary government institutions was modest in the extreme. But its success depended on the existence of special requirements, in particular "the sense of mission of the civil servants heading public agencies". But no mechanism for reproducing these features was envisaged, nor was the relationship between political control and management regulated, so that when the political and idealistic climate of the nation changed, the structure lost independence and effectiveness (Barca, 1997).

The Fund's extraordinary measures for the South, theoretically additional to ordinary action, came in two phases, corresponding to two laws establishing their legal basis. The first was bound up with the law instituting the Fund, which provided for a ten-year investment of over 1.2 trillion lire for land reclamation, aqueducts, hydroelectric projects, roads, railways and infrastructure in general, which were considered essential to the industrial development of the area. These were complicated public investments with deferred returns, not only because they involved infrastructure but because in many cases they were complexes of works whose economic return depended on the completion of every single part. The results were appreciable; in the opinion of some scholars, explosive (D'Antone, 1997). By the end of the 1950s the public works and infrastructure connected with the Marshall Plan and the first programme of the Fund, within the framework of trade liberalization, had lifted all the regions of Italy to unimagined heights of income and consumption. Although the direct employment impact of the Fund's works was limited, averaging 140,000 jobs a year (Carey and Carey, 1955), the effect on investment was substantial. The investment rate rose appreciably, from 23.7 per cent of GDP in 1951 to 31.9 per cent in 1955, while southern investment rose from 35.5 to 43.7 per cent of investment in the rest of Italy. Looking only at industry excluding construction, the South's relative gain was from 16.6 to 22.1 per cent.

The second phase for the Fund was ushered in by the passage of Law 634/1957, which was based on the idea that the construction of the prerequisites for growth had been completed, that the Fund had worked well to this end but that it was now necessary to proceed with industrialization proper. The new policy, then, was one of more determined industrialization to flank the traditional agricultural and infrastructural projects. A more substantial subsidy programme was put in place; infrastructural projects were concentrated in the most propitious areas for industry (development poles). This was accompanied by a more massive presence on the part of the state-owned corporations, which were required to

[63] In addition to the regions of the South, its purview also covered the Isle of Elba in Tuscany, the provinces of Latina and Frosinone in Lazio, the municipality of Cittaducale and surrounding towns in Lazio, and the Tronto land reclamation district.

locate at least 60 per cent of new investment and not less than 40 per cent of total investment in the South.

The new law accompanied the extensive development of Italian industry during the miracle years. In the late 1950s and early 1960s the political impetus for industrialization was especially strong. A highly significant instance was the political decision to locate Italy's fourth steelworks in the South, at Taranto (Romeo, 1988). The South's share of total investment by state-owned corporations rose from 17 per cent in 1957 to 40 per cent in 1962. At the same time, however, support programmes were launched for disadvantaged areas outside the South, with "crowding-out" effects that were probably worse than expected. The inclusion of parts of Lazio within the jurisdiction of the Fund led to the creation of an industrial pole in Pomezia, practically on the outskirts of Rome; and special legislation (Laws 647/1950 and 635/1957) offered tax subsidies and exemptions for selected areas in the Centre and North. Another legislative change was enacted with Law 717/1965, which extended the incentives, albeit with some limits, to large industrial initiatives and broadened the sphere of application.

The overall results of the Fund's extraordinary intervention – valued at 6.6 trillion lire in 1970 (La Marca, 1973), to which one must add the funds appropriated by the regions of Sicily and Sardinia to additional projects – were of fundamental importance to the economy. In the aggregate: in 1971 the investment rate in the South was 37 per cent, nearly twice as high as the 20.7 per cent rate of the Centre and North. That same year investment in the South was 58 per cent of the amount invested in the rest of Italy, although regional GDP was only 36 per cent. The growth of industrial productivity was extremely rapid over the years, virtually closing the gap with respect to the North (from 76.4 per cent in 1951 to 99.1 per cent in 1971).

This basically positive assessment of the Fund's activity and of regional development policy in general, however, must not be allowed to conceal the feebleness of the stimulus that it provided for self-sustained growth. For one thing, as we shall see further on, the incentives for large plants went mainly to public and private monopolies, especially in the chemical and petrochemical industries, and – contrary to expectations – failed to forge any local links between the input and output sides or to foster local management capabilities, which remained in the North. There was some local formation and conservation of skills and human capital that would survive the eventual demise of these plants, but the positive results would come only in the long term (Bianchi, Masselli and Pellegrini, 2008). And secondly, the Fund acted mainly as domestic demand support for northern industry. The increase in internal demand translated more into imports than into local output of goods and tradable services, while it did stimulate construction and non-tradable services, especially personal services. The southern market became highly important to northern Italian industry, especially prior to the first export boom in connection with European integration. In 1959 the South took 70 per cent of the Centre and North's net exports (Castronovo, 1975). Access to a growing domestic market enabled northern firms to achieve economies of scale (and skill) that proved to be a major factor for success on the international market (Castronovo, 2010), while southern firms were often reduced to a local dimension.

These dependency effects are evident in the data on imports. Southern imports were high already in the 1950s, equivalent to nearly a quarter of regional GDP, indicating the presence of very substantial transfers from the rest of the country. The data as reconstructed by Svimez show that net imports from the rest of Italy and the rest of the world came to 24.3 per cent of southern GDP at current prices in 1951 and 38.1 per cent in 1963 before subsiding to 30 per cent in 1970.

4. End of the economic miracle and of convergence: 1974-1999

The South's economic convergence with the rest of Italy came to a halt in 1971. The ratio of the region's per capita GDP to that of the rest of the country reached a level (two thirds, up from under half in 1951) that it would never again equal. Region by region, over the next forty years the gap with the North-West remained basically unchanged, but that with the North-East and the Centre widened, as those areas grew steadily faster than the national average. In purely quantitative terms the overall North-South gap did not change greatly over these decades, but the situation within the South, in terms of provinces, grew more uniform; consequently there was a gradual widening of the disparity between the "best" southern and the "worst" central and northern provinces. But there was a major structural modification: the weight of the various components of the GDP gap changed, with a more and more important role being played by employment rates. This was when the "Southern question" – since the 1950s no longer an agrarian question – became the great question of lack of jobs.[64]

Geographical polarization. The first of these processes is described by the pattern over time in the distribution (relative to the Italian average) of per capita output in the 95 provinces into which Italy was divided in 1951. Figure 15 shows that in that year output was basically unimodal; that is, that the provinces both of the South and of the rest of the country were concentrated near the median. The result was substantially uniform distribution by output levels with a higher frequency near the national mean. In the decades that followed the distribution tended to spread but remained basically unimodal. In 1971 there was still a large group of provinces near the median, with a significant southern presence (Taranto with per capita GDP of 103 per cent of the national average, Siracusa at 90 per cent, Matera at 89 per cent, Cagliari at 88 per cent and Pescara at 85 per cent).

By 1981, the distribution had changed, becoming clearly bimodal: two clearly separated sets of provinces with different levels of per capita GDP and a sharply reduced number of provinces intermediate between the two modes. Practically all the southern provinces were in the poorer group; none were above the national average. The highest ratio was in L'Aquila (94 percent), followed by Teramo (89 per cent), Siracusa (87 per cent) and Taranto (80 per cent). This split was not overcome in the years that followed but became a characteristic of the per capita output distribution in Italy (Figure 16), which remains exceptional by international standards.[65]

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[64] Thirty years ago Augusto Graziani wrote: "There is a blatant contradiction within the southern economy between the mass of investment and the volume of jobs created. Whereas … in a number of respects the southern economy is growing rapidly, employment remains depressed. As some have described the South as undergoing industrialization without development, so we can also speak of development without jobs" (Graziani and Pugliese, 1979, p. 17). Analogous considerations, combined with an analysis of the linkage between the lack of employment growth and the distorting effect of government intervention, can be found in Giannola and Del Monte (1978, chapter VIII; 1997, chapter 7) and Siracusano and Tresoldi (1990).

[65] In 2005, of the underdeveloped regions of Europe (those with per capita GDP less than 85 per cent of the national average), a significant portion of the population (18.1 per cent) lives in provinces that are above that threshold. But his phenomenon is absent in Italy, where the most highly developed province within the underdeveloped regions had per capita GDP of 82.4 per cent of the national average in 2005 (Iuzzolino, 2009).

This analysis shows which provinces were "winners" and which were "losers" following the shocks of the 1980s and the subsequent industrial restructuring. In the Centre and North the relative loss of income was concentrated in the provinces with large enterprises, including service enterprises (Turin, whose relative output fell by 18 percentage points; Milan, which lost 16; and Rome, 13) or industries in crisis (all of Liguria: Genoa down by 23 points, Imperia by 24, La Spezia by 16, Savona by 18; or the province of Grosseto, down by 13 points, Livorno down by 8, Terni by 7). By contrast, there was rapid growth in a good many provinces characterized by clusters of small and medium-sized enterprises (Rovigo up 28 points, Forlì up 29, Modena up 25, Reggio Emilia up 21, Macerata up 30). From 1971 to 1981, 46 of the 61 provinces of the Centre and North registered a rise in relative per capita output, while only a quarter recorded a decline.

Meanwhile, in the South nearly half the provinces showed a decline in relative per capita output.[66] Overall, the province-by-province pattern is closely correlated with the changing local division of industrial labour in response to the upheavals in the competitive scenario. Production was transformed by corporate outsourcing, an increase in the incidence of service activities, downsizing and the strengthening of local enterprise clusters.

These processes were not uniform throughout Italy but were diversified according to the initial sectoral and size composition of firms in the different areas. Thus the locational distribution was transformed with a shift of Italian industry from west to east, and to some extent to the South-East. The geographical structure of the major, typical Italian-made products was organized along major axes, from Milan towards Friuli, from Milan to central Tuscany, from Milan along the Adriatic, reaching Abruzzo and then, if to a lesser extent, Molise and Puglia (Viesti, 1995). The other regions of the South were left out of this process.

The employment question and the industrial question. The North-South gap in per capita output increased from 33 per cent in 1971 to 40 per cent in 1991. Most of the widening (55 per cent) was due to the South's relative productivity loss, the rest to its relative increase in population, which reflected not only a higher birth rate but also a sharp reduction in migration to the North (the net migratory balance was halved during the 1980s compared with the 1970s). This was accompanied by a rise in the unemployment rate; on a comparable basis the rate doubled from 8.3 per cent in 1979 to 15.8 per cent in 1989, while that in the Centre and North rose by just 1 point, from 5.8 to 6.9 per cent (Svimez, 2011). Given the rapid expansion of service employment during these years,[67] this poor capacity for creating jobs once more highlighted "industrial backwardness" as a key factor in the Southern question.

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[66] Sharp losses were registered in Taranto (down 11 points), Naples (11 points) and Cagliari (15 points). All the provinces of Sardinia also lost ground (Sassari was down by 9 points), as did those of Sicily (Enna was down by 19 points) except Agrigento and Catania (both up by 4 points). Abruzzo made substantial gains (L'Aquila up 19 points, Teramo up 18), as did Molise (Isernia up 19, Campobasso up 11), and the province of Avellino (up 12).

[67] During these decades, the service sector (public and private) was a sort of "sponge" sopping up a part of the excess labour supply. It gained much greater importance in the economy and the society – and the politics – of the South. At the turn of the 1980s public employees accounted for nearly 17 per cent of total employment in the South, 3 percentage points more than in the rest of the country (Bodo and Sestito, 1991).

The end of convergence was associated with the threefold wage, oil and budget shock of the 1970s (Ciocca, 2007). The effects were aggravated by major institutional changes that made it harder to achieve labour market balance or fiscal balance (with the creation of new levels of local government). Many of the explanations why southern per capita GDP ceased to grow faster than the average turn on the sometimes geographically asymmetrical impact of these problems and the sharp break they caused with the old "idea" behind southern development policy. These explanations can be summarized as follows:

− labour market rigidities the prevented the South from overcoming the impact of the shocks to factor prices;

− the emergence of a competitive deficit in connection with the structure of the shocks, which had more severe repercussions on the South than the rest of the country;

− the termination (or substantial insufficiency) of public investment support programmes;

− the crisis of the development programmes of the previous two decades, which partly as a result of institutional changes proved insufficient to trigger self-sustained growth.

Convergence and the labour market. The reduction of domestic migration and the rise in the unemployment rate suggested that the difficulty of convergence might be connected with the malfunctioning of the labour market. In effect, the new labour market rules – the abolition of official regional wage differentials in 1969 and the Labour Rights Act of 1970 – reduced the flexibility of demand and supply, producing a "spatial rigidity of wages" (Mauro and Pigliaru, 2011) that was certainly detrimental to growth. However, the rise in southern relative to northern wages cannot be traced directly to the wage shocks of the 1970s but had begun in the previous decade (Figure 17).

Excluding the effects of the increasing incidence of service activities (which greatly complicates the territorial breakdown of income and productivity trends) and concentrating on industry alone, it is clear that the trend in southern competitiveness with the rest of the country depends primarily on productivity (Figure 18). Value added per worker reached 99 per cent of that in the rest of Italy in 1971 but then slipped to 86 per cent in 1991. Relative wages, equal to 60 per cent in 1961, rose to 76 per cent in 1971 and 81 per cent in 1981. As a result unit labour costs jumped by 15 points in a decade, from 77 per cent of those in the Centre and North in 1971 to 92 per cent in 1981. In just ten years the loss of competitiveness, dominated by the relative decline in productivity, had a severe impact on the South's ability to sustain convergence.

The loss of manufacturing competitiveness. This brings us to the second of the explanations set out above. In part, the decline in relative productivity in manufacturing in the South was due to the differential geographical impact of the energy and wage shocks. First of all, the world crisis created severe problems for the more energy-intensive segments of industry in Italy and throughout Europe – petrochemicals, oil refining, steel. Steel and man-made fibres, in fact, were the subject of planned action for Community-wide reduction of capacity – a sensational departure from the policies of protecting and fostering competition laid down in the Treaty of Rome (the Davignon Plan, 1977).

Second, industrial relations, beginning with the "hot autumn" of 1969 (Rossi, 1998) were a major contributory factor in productive decentralization. Some major corporations diminished the degree of vertical integration, increasingly outsourcing production phases to smaller firms with significant advantages in terms of labour costs (Brusco and Paba, 1997, p. 307, estimate the advantage at 30 per cent) and flexibility in organization, the stages and processes of production. Other large firms cut staff or closed down altogether; the workers so expelled in some cases formed new businesses engaged in similar productive activity. "Thousands of lathe operators and milling machinists fired by the large firms started up work as suppliers for those same firms, often using identical machinery" (Brusco and Paba, 1997, p. 324).

Unfortunately, the industry of the South, largely the offspring of the second phase of extraordinary development policy, had a series of characteristics that could only accentuate these shocks. It consisted largely of basic industry, highly capital-intensive and often energy-intensive; it was dominated by large, vertically integrated plants with little capacity to "induce" new business formation outside; it was marked by the overwhelming presence of state-owned corporations and a relative handful of private industrial corporations; and it was oriented almost exclusively to the domestic market.

The measures for the direct industrialization of the South, often analysed in the literature, relied principally on incentives to attract capital. As Fenoaltea (2007), among others, notes, at the time it was believed that "in a world of fixed coefficients à la Leontieff" unemployment depended only on a relative shortage of capital. These incentives were thus particularly costly. But the mobile resources that arrived in the form of capital did not encounter a corresponding endowment of fixed resources in the form of infrastructure and human capital with which to interact (Felice, 2007). The incentives were structured so as to attract highly capital-intensive activities with a relatively low input of labour: in some, it drew in such speculative northern companies as Nino Rovell's SIR and the Ursini family's Liquichimica (Barca and Trento, 1997).[68]

In short, the shocks threw large industry into severe crisis while facilitating the activities of small and medium-sized enterprises. The effects on the South were devastating. The expansion of the steel industry's capacity came to a halt with the cancellation of the plans for the nation's fifth plant in Gioia Tauro, for which major works had already been completed. The steelworks of Taranto and Bagnoli in Naples (like the steel industry in Liguria) encountered a period of severe economic difficulty, as did the many basic chemical plants established in the South in the previous years (mainly in Sardinia, but also in other regions).

The decentralization of production could not make these losses good. Decentralization is practicable only for modular or assembled products (clothing, engineering products and the like), not for continuous-cycle industry; and naturally only where large enterprises of the same type are already located. Outsourced work phases tend to be concentrated relatively nearby the original plants, as the potentially greater production savings in distant regions (such as the South) are more than offset by heightened coordination and transport costs. These developments further boosted the industrialization in the Centre and North-East, in

[68] The majority of the economists who analysed Italian economic geography at the time were not optimistic; see Giannola and Del Monte (1978), for instance, or Graziani and Pugliese (1979). The recouping of per capita GDP was seen as a short-term effect of policies that were short-sighted and shot through with factors of distortion that generated immediate gains in output rather than laying the basis for the growth of employment in the long run.

particular Veneto, Emilia, Tuscany and Marche. They created problems for the large firms in the old industrial triangle, especially Liguria and Piedmont. They were considerably more limited in Abruzzo and Puglia. They triggered an explosion of entrepreneurship, reinforcing the locational advantages of the industrial districts. They were no help to the industry of the South.

On the contrary, the major investments in the South produced only very slow, though not negligible, growth in secondary, follow-on economic activity. The southern industrial clusters did begin to increase in numbers, but their share of southern industry was less than half as much as in the economy nationwide (Table 13). Industrial establishments in the South, often enough directed by "second-rank managers whose tasks consisted mainly in mediation" with local politicians and social forces (Barca, 1997, p. 89), functioned more as mere production plants rather than true, independent industrial companies; many managerial functions were left to the parent company, thus only marginally creating the new managerial capabilities that in time could form independent enterprises. They were vertically integrated, with modest purchases of components and semi-finished products, so through this channel too they did little to induce the development of local business. Nor were their marketing policies designed to favour downstream development locally. The classic example is the Taranto steel works, which sold its output at the same price throughout Italy and thus did nothing to create a locational advantage (Barca and Trento, 1997, p. 218).

This was a period of persistent, pronounced depreciation of the lira, which resulted in an appreciable gain in the price competitiveness of Italian products and a surge in exports. But these effects were asymmetrical. Sectorally it worked to the advantage of industries with greater price elasticity of demand, such as traditional consumer goods and in part mechanical engineering. Regionally it favoured those whose propensity to export was already high and those closer to the main outlet markets, chiefly within the European Community. These two sets largely coincided. Once again, the sectoral and geo-economic features penalized the southern industrial apparatus, whose products, given the nature of the region's industrialization, were much more heavily oriented to the domestic market. In 1971 the exports of the southern regions as a group amounted to just 4.6 per cent of value added; this export propensity was lower still in Campania and Puglia (3.8 per cent) and higher only in Sicily (7.3 per cent). The national average, by comparison, was 12.4 per cent; that of the North-West was 19.8 per cent and that of Piedmont 23.7 per cent. The consequences for southern growth were significant.

The insufficiency of public policy. This productivity-led competitiveness gap was accompanied by a differential in the profitability of investing in different parts of the country. Although the infrastructure development programmes – designed especially for the South, for the first time since national unification – had accomplished a great deal, they had only partly closed the yawning gap in public capital endowment. This raises the issue of how much the halt to convergence can be blamed on the reduction, or elimination, of investment policy measures (Barucci, Miotti and Pellegrini, 2011). Svimez data suggest that investment played an important part in the South's post-war catch-up, and that its waning had a negative effect in the subsequent period. From 1951 to 1973 the investment rate was steadily higher in the South than in the Centre and North (Figure 19), with a maximum differential of 16 percentage points in 1971. Over the next twenty years the flow of investment diminished, both in absolute terms and relative to that of the rest of Italy, partly in response to changes in development policy. The investment rate in the South declined practically every year and plunged in 1992; by 1995 it was down to the same level as the early 1950s (19.5 per cent), just decimal points above the 18.6 per cent rate of the Centre and North. Southern capital accumulation got laboriously under way again in the late 1990s, and in 2009 the rate was 22.5 per cent, just 2 points more than in the rest of Italy. So it is not hard to see that economic convergence followed the same pattern as the accumulation of capital, public and private. From 1951 to 1971 the investment surge sustained the growth of productivity, hence the catch-up in output. Afterwards, when the investment rate declined, the output gap was not narrowed. The ratio of net imports to GDP also closely tracked investment. The purchase of capital goods from the rest of the country was one of the chief mechanisms whereby the South incorporated technology into the production process and thus succeeded in keeping step with the technological trajectory of the Centre and North.

According to Svimez, extraordinary expenditure for the South came to 0.7 per cent of GDP in the 1950s and 1960s, 0.9 per cent in the 1970s. It was reduced to 0.65 per cent in 1981-86, then rising to 0.75 per cent through 1993 and 0.8 per cent thereafter. Thus the reduction in public intervention may have played a role in the end to convergence. But the question is broader, going to the nature of development policy in a backward region of a developed country as compared with the situation in an underdeveloped country proper. There are fewer instruments available, and reconciling the industrial development of the rich and poor areas is complicated. These problems were lucidly described by the American economist Hollis Chenery (1962). The problem of the South is its product specialization within the national economy. Being part of a large country gives the Italian South two major advantages: the possibility of larger or easier emigration and public resources to finance its sizeable payments deficit and levels of disposable income higher than regional output. At the same time, it anchors the backward region to an unfavourable product specialization. The elasticity of the South's interregional exports to income was very low, so it benefited almost insignificantly from the powerful growth in demand. At the same time, however, the rise in income resulted in a surge of imports from other regions. Citing Pilloton (1960), Chenery showed that the multiplier effect of the investment in the South was felt mainly in the North.

The improved environment in the South and the sharp rise in local consumption, then, failed to elicit a comparable development on the supply side. The marginal ratio of capital to output was very low, lower than in the rest of Italy and far lower than in the developing countries. This necessitated persistent, massive capital investment to generate any significant increment in production. According to Chenery the industrial development of the South of Italy could be achieved only within a long-term process of structural transformation of Italian output. It could not be left solely to investment measures but had to be part of a deliberate process whereby all national policy programmes would locate new economic activities in the backward parts of the country and so, with time, achieve a radical change in product specialization. The fundamental problems for growth in the South, hence for policies that could result in real regional convergence, were perfectly clear to people at the time. Was there such a national policy for convergence? The question is open. Ugo La Malfa's "addendum" (Ministero del Bilancio, 1962, p. 28) noted that:

Compared with the needs of the less developed areas of the country, the actions that have been implemented by the Government appear to be insufficient. Contradictions in the actions undertaken to favour the economic development of the South of Italy emerge also if one looks at the monetary, fiscal, and credit policies adopted by the Government and to its attitude toward the self funding procedures; moreover, it never tried to affect the economic development characterizing the northern regions so as to favour a proper redistribution of resources from the richer to the poorer areas of the country.

Law 717/1965, enacted under the centre-left government, was intended to make southern development a top national priority (Cafiero, 1996, p. 189). But "programming" had only very limited success. Throughout the subsequent period, with the partial exception of Ciampi's "new planning," it is hard to see any consistency between the major national development programmes (when and where there were any) and interregional convergence.

The crisis of development policy and the limits of decentralization. In Italy, the national government is incapable of "serious programming and planning" (Romeo, 1988). In the 1960s the influence of southern advocacy on national policy was stronger than at any other time in Italian history. Even so, it met powerful resistance that impeded if it could not totally block the impetus to southern development. This affected not only the financial commitment to specific southern development programmes but also, as we shall see further on, the way in which national policies were used – or not used – to overcome the disparities between the two parts of the country.

Further development of this line of analysis, underscoring the role of policy in slowing down convergence, bears on the creation of the regions (Mauro and Pigliaru, 2011). Until the 1980s regional governments had no significant role in the implementation of local development policy, save for the special-statute regions of Valle D'Aosta, Friuli Venezia Giulia, Trentino Alto Adige, Sicily and Sardinia. Starting in the mid-1970s a number of functions were devolved on the regions and a good number of officers seconded from the central government, resulting in increasing decentralization of territorial policies and programmes. Mauro and Pigliaru (2011) find that the process had a significantly negative differential effect for the South. The reason is that the decentralization of programmes makes them more vulnerable to local pressures and interest groups and, in a broader sense, more sensitive to the level and quality of social capital. As the South is poorer in social capital than the Centre and North, the consequences of this institutional repositioning were not positive. However, the empirical evidence on this point is not abundant. Paolo Sylos Labini (2001) held that organized crime is what explains the different development paths taken by Campania and Sicily on the one hand, Abruzzo and Molise on the other. Recent estimates (Pinotti, 2011) put the cost in terms of economic growth to Puglia and Basilicata of the spread of organized crime in those regions at around 15 percentage points.

In conclusion, it is unlikely that the halt to convergence can be traced to a single factor. Certainly the shocks of the 1970s affected the South deeply, and at a time when adjustment mechanisms were less ready to moderate the geographical disparities. By contrast, in many parts of the "third Italy" decentralization and competitive devaluation of the lira lent impulse and provided market outlets to a myriad of small and medium-sized enterprises, an economic fabric that was not rooted in the South. This worked against the processes of convergence, while the programmes to sustain it began to falter, owing in part to the institutional reforms initiated during those years. Overall, the two parts of the country began to march parallel, neither closing nor widening the differential in income and output. The South's progress relapsed once again into a kind of "passive modernization" (Cafagna, 1994). For that matter, the deceleration of development affected the entire national economy, raising additional obstacles to growth. The South was unable to grow in an Italy that was not growing. But this is the story of the present.

5. The great stagnation: 1992-2009

5.1 The money illusion of the last devaluations: a South out of step with the times

Our present history begins with the dramatic crisis of the public finances and of the political system in general, which led to Italy's last devaluations and the institution of the so-called "second republic" and continued with the entire nation's strenuous battle to qualify for the European single currency At the same time the global market was revolutionized by the emergence of China, India and other major countries whose growth rates were far higher than those of Europe or the other industrial economies.

In 1992, this process came together with the dramatic collapse of the credibility of southern development policy. The Southern Italy Development Fund and its activities were definitively liquidated and its technical personnel, many of them highly skilled, were dispersed in a range of general government bodies.

The resulting policy vacuum lasted through the mid-1990s, when Law 488/1992 for the funding of selected investment projects went operational. During these same years the European Union's economic and social cohesion policy took shape with the Community Support Frameworks. In 1995 the first structural funds planning cycle began. The discretionary powers of the member states were considerably reduced; the criteria, calendar and procedure for the assignment of funds were established; progressively, power was shifted to sub-national governments – in Italy, the regions, which since the 1970s had been exercising some powers formerly assigned to the Southern Italy Development Fund.

At first the structural fund programming had little effect, owing above all to the paralysis of southern policy. The charging of southern employers' social contributions to the central government budget was phased out under a 1994 agreement with the European Commission, and no offsetting policy measure was taken. The impact of restrictive fiscal policy was especially heavy for the economy of the South, which was more dependent on public resources. The dismantling of the state-owned corporations meant the collapse of another of the southern economy's traditional buttresses.

The devaluations fostered one last money illusion, shoring up the accounts of firms in the old industrial districts and permitting the rise in the South too of clusters of export-oriented producers (Table 13). In the mid-'90s this process seemed to be advancing along lines similar to the successes of the "third Italy" (Bodo and Viesti, 1997). Unhappily for the South, the advantages of smallness and flexibility came too late with respect to the new international division of manufacturing and, with the turn of the century, the new foreign exchange framework. So after losing the locational advantages it had begun to acquire in the '60s and taking thirty years to create others, the Italian South found itself totally unsuited to the new competitive environment.

From 1991 to 2006 manufacturing employment in the South in northern-owned companies (private, privatized or state-owned) was nearly halved (D'Aurizio and Ilardi, 2011) both in absolute terms (from 162,000 to 83,000) and as a share of total southern employment (from 19.5 to 11.5 per cent). The South's share of national employment held steady at 17 per cent thanks to the greater stability of local enterprises.

The data underscore the South's difficulty in keeping up with even the slow growth of the rest of the country. Per capita output, equal to 59.6 per cent of that in the Centre and North in 1991, had inched up to 61.6 per cent in 2007, gaining a percentage point per decade. And even this minimal gain was due entirely to demographics: in terms of output alone the gap widened, albeit modestly, as southern GDP slipped from 33.8 to 32.7 per cent. The population of northern Italy grew relative to that of the South mainly because of immigration, both domestic (which produced an average ten-year population increase of 1.4 per cent) and international (0.8 per cent).

In the course of two decades national and international pressure constrained the South to engage in some economic restructuring, expelling the smallest and least productive firms from the market and recouping productivity in many sectors, such as wholesale and retail trade, with the beginnings of the growth in business size and the exploitation of economies of scale and scope already under way in the rest of the country. On the aggregate level the loss of employment was sharper than the loss of output, as the number of full-time equivalent workers in the South slipped from 40.2 to 36.6 per cent of that in the rest of the country. But the relative productivity gain (about 1 percentage point) was not sufficient to offset the rise in relative wages, whose index level, owing in part of sector and size effects, rose from 84.2 in 1991 to 89.9 in 2007. There was therefore a pronounced loss of competitiveness. Unit labour costs in the South, already 3.7 per cent higher than in the Centre and North in 1991, were nearly 9 points higher in 2007. In manufacturing alone the picture is similar, although the main factor in the loss here was output per worker, which fell from 86.4 to 81.5 per cent of that in the rest of Italy. So while relative employment levels remained comparable, unit labour costs in the South, which were 95 per cent of those in the rest of the country in 1995, were 1 percentage point higher in 2007 (Figure 18).

These difficulties were accompanied by rising unemployment, from a rate of 16.2 per cent in 1991 to 19.6 per cent in 2009 (Figure 14). In the rest of the country, not only was the rate much lower but it worsened much more moderately, from 5.0 to 6.7 per cent. Subsequently, heightened flexibility thanks to regulatory change in the labour market led to a reduction in the unemployment rate to 13.4 per cent in the South and 6.4 per cent in the North.

The Italian South, still today, is the largest backward region within the EU-15. This is no surprise, given that like the rest of the country the South has had great difficulty keeping pace with the other EU member states. Over the last twenty years, therefore, the South has fallen further behind. Whereas in 1995 its per capita output was 79 per cent of that of the EU-27, in 2008 it was just 70 per cent. Setting this performance alongside those of the other underdeveloped areas, it is clear that the Italian South has been excluded from processes of convergence that have involved not only the new member states in Eastern Europe but also the cohesion countries of Greece, Portugal, Ireland and Spain. However, while international convergence has been striking, regional disparities within those countries have been stable or increasing, especially in Eastern Europe.

If the comparison is broadened to the OECD area, the picture remains negative. In 2005 regional income inequality was highly variable. On average, interregional disparities were inversely proportion to the national level of development (Table 14). Of 27 OECD countries, Italy ranked sixteenth in GDP and seventh in inequality, with a degree of inequality two-thirds higher than the median and nearly twice as high as in many countries of comparable per capita GDP, such as Spain, Germany, Japan and the United Kingdom. Moreover, in many of the countries – but not Italy – the overall degree of inequality was significantly affected by the presence of one region with exceptionally high income, generally that of the national capital. Net of these regions, Italy moves up to rank third in inequality, behind only Mexico and Turkey.

Italy's greater income inequality by international standards appears to depend entirely on the exceptionally broad interregional differences in employment rates (Figure 20). This is an especially negative feature of Italian economic dualism. That is, compared with other countries economic inequalities in Italy weigh most heavily on an essential aspect of living conditions in the backward regions, namely the chances of being employed.

5.2 The regional policy illusion and the disparity in national policy efficacy

Historically, as we have seen, government action has been fundamental, for better or worse, in determining the size of the economic and social disparity between the South and the North of Italy. Regional development programmes (also known as "place-based policies") have been directed explicitly to the economic and social development of the backward areas. But there has also been a powerful territorial effect from general policy, i.e. central government programmes for the entire country but whose effects differ from region to region.

The nationwide extension of a series of programmes (schooling, but also health programmes such as compulsory vaccination, free medicines, the building of infrastructure) enabled the South to share in national development. This development was in part inclusive: a number of public programmes ensured that income differences were no longer accompanied by unsustainable social disparities. Thus the fact that since the 1970s the income and output gap has remained virtually unchanged does not mean the South has not made progress. Actually, the southern Italian regions have managed to keep pace with one of the most advanced areas of Europe. The totally obvious conclusion is that living conditions in the South today are better than thirty years ago.

But things are less obvious if differences in "well-being" are measured by the more sophisticated indicators now available. In 150 years there has been significant if not total convergence in the improved human development index (Figure 4). But this is valid only if we measure the components by the same gauge in 1861 and in 2011. But if we look more closely at the present, observing students' educational attainment rather than just the illiteracy rate, life expectancy without disability rather than infant mortality, felonies that indicate organized crime rather than total crimes, new and alarming dimensions of the disparity emerge (Figure 20).

This is the reason for the renewed recognition, today, of the importance of general policy measures, indispensable to ensure a future of growth and development in the South, in particular through supplying higher-quality public services.[69]

[69] This is reflected in regional policy measures and results. Given unequal conditions in North and South, the same economic policy measure will have different effects in the two areas. In a different context, even equally efficient administrators (while in reality those in the South, on average, are less efficient) will obtain different

The importance of national with respect to regional policy is given by their relative financial size. Total general government primary expenditure in the South – current and capital – averaged €200 billion a year from 2004 through 2006. In the Centre and North it came to over €400 billion. Per capita, the figures were €9,800 and €10,800 respectively. The difference depends mainly on current spending, in particular pension transfers. Capital expenditure, which is explicitly targeted to sustain long-term growth, counts for only a tenth of total spending. In 2004-06 average annual capital expenditure in the South was €21 billion (6 per cent of the area's GDP), compared with €35 billion in the Centre and North (3.1 per cent of GDP). On a per capita basis capital spending in the South was about 10 per cent higher than in the rest of Italy. But if we also count investment by state-owned corporations, such as the State Railways, the difference vanishes (Viesti, 2009).

There are a good many sectors in which the effects of national policy programmes are geographically uneven, including, crucially, education, justice, and law enforcement. There is no need to cite an abundant literature to observe that students' educational attainment, the efficiency of the courts and the justice system, the ability of the administration to assure compliance with the law, or the degree of citizens' confidence in public institutions are essential factors for the growth of an economy. What we observe is that in the South these factors, the primary object of national public action, are all at lower levels than in other regions; and this helps explain the area's lower economic growth.

In recent years, at the initiative of the Bank of Italy a number of studies have collected and set in order data on geographical disparities in the quantity and quality of public services in essential fields (Banca d'Italia, 2010). The data make it clear that the is a gap, in some cases a very wide one, between South and North. The difference has historical roots, but it also depends on present-day administrative capabilities at central and local level. The inequality cannot be blamed solely on the amount of resources allocated but depends also on how efficiently they are used and on the characteristics of the local environment. Overall, we find two important aspects. First, the significant disparity in the supply of many public services inevitably affects competitiveness and growth differentials; and second, the future development of the South of Italy necessarily depends to a great extent on national policy programmes, as defined here, designed to enhance the supply of those services.

For some policy areas the need is to spend more and probably better in the South. For others, the priority is to recover efficiency. This does not mean either excusing the faults of regional development policy or limiting its role. Regional development policy is not useless but it can and must be improved, learning the lessons of experience.[70] The question is what role policies can play for southern growth and development. The answer is that all policies, regional but above all national, have to contribute.

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results. If young people come from uneducated family backgrounds and move in social circles where crime is common, they are unlikely to achieve the same educational results as young people from cultured families that uphold civic values, even if the quality of teachers and school facilities were the same in both areas.

[70] For instance, reducing untargeted subsidies, which distort resource allocation and are only modestly effective; this would free resources for action on the social and economic framework. Or reducing overlapping competences among the various levels of government by applying, where possible, the principle of subsidiarity, as by restricting the veto power of local authorities (not only in the South) in respect of programmes in the national interest.

The desired result simply cannot be attained unless the South is placed at the centre of economic policy in general, not only explicit policy action to overcome geographical inequalities in development. The fact is that it will be impossible to provide the same quality of essential services in all parts of the country and to restart the process of convergence unless the Southern question becomes, once again, a national political question (Cannari, Magnani and Pellegrini, 2010). In the words of the President of the Republic, Giorgio Napolitano, "We cannot afford the luxury of leaving to fester what remains the gravest unresolved problem in our national unification process."[71]

[71] Giorgio Napolitano, "Presentazione" to *Il Mezzogiorno e la politica economica dell'Italia* (Banca d'Italia, 2010).

Appendix

Table 1

Regional disparities in Italy: an international comparison

Countries	Structural data to 1871			Regional inequality in GDP per capita *(mean log deviation population-weighted)*							
				1871 (*)		1911 (**)		1931-38 (***)	1951 (***)		2005 (7)
	Population (million)	GDP per capita (UK=100)	Number of "regions"	Italy=1	gap between the "capital " region and the two richest regions (a)	Italy=1	1871=1	Italy=1	Italy=1	1911=1	Italy=1
Habsburg Empire (1)	35,9	37,2	24	5,76	1,38	2,50	0,90	…	…	…	…
di cui: Austria	*6,3*	*59,4*	*8*	*1,86*	*1,38*	*0,48*	*0,53*	…	*0,12*	*0,95*	*0,54*
Spain (2)	16,3	39,0	17	1,04	1,46	1,33	2,63	0,95	0,39	1,08	0,51
Italy (3)	28,1	45,2	16	1,00	1,17	1,00	2,06	1,00	1,00	3,69	1,00
Germany (4)	39,5	54,5	14	…	…	0,34	…	0,0002	…	…	0,51
France (5)	37,7	57,0	16	1,16	1,51	…	…	…	0,25	…	0,73
United Kingdom (6)	31,7	100	11	0,51	1,34	0,50	2,02	…	0,05	0,41	0,54

Source: (1) *Schultze* (2007); (2) *Martìnez-Gallaraga* (2006), (3) *Brunetti-Felice-Vecchi* (2011); (4) e (5) *Williamson* (1964),

(6) *Crafts* (2004): Data exclude Ireland.

(7) *Iuzzolino* (2009): the number of regions considered is slightly different than in previous years.

(a) GDP per capita in the region where the capital is located in relation to the average of the two richest regions (except the "capital" one).

(*) The years of comparison are different: Spain: 1860; Habsburg Empire: 1870; France: 1864.

(**)The years of comparison are different: Spain: 1914; Habsburg Empire: 1910; Germany: 1900.

(***)The years of comparison are different: Spain: 1930 compared with Italy 1931; Germany: 1936 compared with Italy 1936.

(****)The years of comparison are different: Spain: 1955; Austria: 1957 (source: *Williamson*, 1964); France e United Kingdom: 1954.

Table 2

Population Census by Regions in 1881

(percentage composition on total labour force)

Regions	Agricolture	Industry	Construction	Commerce	Transport	Credit Insurance	Personal Services	Pubblic Administration
North West	**59,5**	**20,2**	**3,7**	**6,4**	**2,1**	**0,2**	**6,2**	**1,7**
Piemonte	65,7	16,4	3,2	5,6	1,5	0,1	5,8	1,7
Liguria	52,1	17,7	4,4	8,4	5,7	0,2	8,9	2,5
Lombardia	56,0	24,0	3,8	6,7	1,7	0,2	6,0	1,6
North East	**63,8**	**15,1**	**3,7**	**6,0**	**2,1**	**0,1**	**7,3**	**1,8**
Trentino Alto Adige	69,4	12,0	3,6	5,0	1,4	0,0	6,5	2,0
Veneto	63,5	16,0	2,4	6,8	2,3	0,1	7,0	1,8
Friuli Venezia Giulia	59,3	17,4	4,8	6,0	2,4	0,2	8,0	1,9
Emilia - Romagna	64,1	14,3	4,5	5,5	2,0	0,1	7,6	1,9
Center	**63,4**	**15,4**	**3,9**	**5,2**	**2,5**	**0,2**	**7,5**	**2,1**
Marche	69,8	13,1	3,7	3,6	1,6	0,1	6,5	1,7
Toscana	58,9	19,1	4,1	6,2	2,9	0,2	7,0	1,8
Umbria	74,7	9,7	3,2	2,6	1,2	0,1	6,9	1,6
Lazio	61,3	13,2	4,0	6,0	3,0	0,2	9,2	3,1
Center-North	***61,8***	***17,4***	***3,7***	***6,0***	***2,2***	***0,2***	***6,9***	***1,9***
South and Islands	**61,0**	**14,5**	**4,6**	**5,7**	**3,1**	**0,1**	**7,5**	**3,5**
Campania	53,7	17,3	5,0	8,5	3,8	0,3	8,8	2,5
Abruzzi	76,3	9,8	4,3	2,6	0,9	0,0	4,7	1,4
Puglie	65,0	13,1	4,2	5,3	3,7	0,1	6,8	1,9
Basilicata	76,7	10,0	2,2	2,7	1,7	0,0	5,5	1,2
Calabria	58,4	11,2	4,4	3,1	2,8	0,0	6,0	14,0
Sicilia	56,1	17,9	4,5	6,8	3,8	0,2	8,6	2,2
Sardegna	61,5	12,5	6,6	4,5	2,6	0,1	10,2	2,1
ITALY	**61,6**	**16,4**	**4,0**	**5,9**	**2,5**	**0,1**	**7,1**	**2,4**

Source: Zamagni (1987). Regions at present boundaries

Table 3

Industrialization by Regions

(indices Italy=1)

Regions	1871			1911		
	Manufacturing value added per capita		Manufacturing value added in GDP	Manufacturing value added per capita		Manufacturing value added in GDP
	In relation to the total present population	In relation to the present male population with at least 15 years		In relation to the total present population	In relation to the present male population with at least 15 years	
North West	**1,24**	**1,24**	**1,12**	**1,56**	**1,51**	**1,27**
- Piemonte	1,07	1,08	1,04	1,33	1,28	1,15
- Lombardia	1,43	1,41	1,29	1,70	1,69	1,42
- Liguria	1,05	1,07	0,76	1,61	1,46	1,05
North East	**0,98**	**0,97**	**0,99**	**0,89**	**0,93**	**0,93**
- Veneto	1,01	1,01	1,00	0,86	0,94	0,99
- Emilia Romagna	0,94	0,92	0,99	0,95	0,91	0,87
Center	**0,98**	**0,94**	**0,91**	**0,93**	**0,90**	**0,88**
- Toscana	1,04	1,01	0,99	1,10	1,05	1,13
- Umbria	0,74	0,71	0,75	0,72	0,69	0,78
- Marche	0,91	0,93	1,11	0,72	0,75	0,88
- Lazio	1,05	0,93	0,72	0,87	0,81	0,58
Center-North	***1,09***	***1,08***	***1,03***	***1,20***	***1,18***	***1,09***
South and Islands	**0,85**	**0,87**	**0,95**	**0,68**	**0,70**	**0,81**
- Abruzzi	0,62	0,65	0,78	0,47	0,52	0,69
- Puglia	0,82	0,85	0,92	0,67	0,68	0,79
- Campania	1,05	1,04	0,98	0,96	0,98	1,02
- Basilicata	0,70	0,72	1,04	0,47	0,51	0,63
- Calabria	0,68	0,71	0,98	0,54	0,61	0,77
- Sicilia	0,96	1,00	1,02	0,65	0,63	0,76
- Sardegna	0,54	0,53	0,69	0,54	0,52	0,59
Italy	**1,00**	**1,00**	**1,00**	**1,00**	**1,00**	**1,00**

Source: Manufacturing value added: *Ciccarelli-Fenoaltea* (2009); Population, *Istat* (1965); GDP. *Vecchi* (2011).

All data is to boundaries of the time. The added value is at 1911 prices: to express it in relation to GDP has been converted to 2010 euros in the corresponding column**.**

Table 4

Sectoral composition of manufacturing value added

(percentages)

Regions	Incidence in the geographic area (1871)							Dissimilarity 1871-1911 (2)
	Main manufacturing sectors				Groups of manufacturing sectors classified by performance 1871-1911 (1)			
	Food	Mechanical engineering	Leather and footwear	Textiles	Growth	Stability	Decline	
North West	**34,2**	**16,2**	**8,4**	**13,8**	**24,8**	**31,3**	**43,9**	**48,7**
- Piemonte	35,7	16,6	9,3	9,4	25,5	27,5	47,0	53,0
- Lombardia	33,9	15,1	7,8	17,6	23,0	34,6	42,4	46,8
- Liguria	30,6	21,3	9,3	8,5	32,8	25,8	41,4	55,8
North East	**33,2**	**17,6**	**9,8**	**8,6**	**26,8**	**27,9**	**45,4**	**27,6**
- Veneto	34,1	18,9	8,5	6,5	30,0	25,7	44,3	35,0
- Emilia Romagna	32,0	15,8	11,6	11,4	22,4	30,8	46,8	34,4
Center	**30,9**	**17,5**	**11,0**	**7,8**	**28,2**	**27,9**	**43,9**	**39,7**
- Toscana	30,2	16,0	9,6	7,0	28,7	30,0	41,4	36,9
- Umbria	33,3	21,4	14,0	6,8	29,0	23,8	47,3	57,0
- Marche	25,0	18,8	12,6	14,7	25,3	33,2	41,5	36,9
- Lazio	37,1	18,3	11,7	3,8	29,3	19,7	51,0	49,9
Center-North	**33,1**	**16,9**	**9,4**	**11,0**	**26,1**	**29,6**	**44,3**	**41,0**
South and Islands	**35,3**	**17,9**	**13,1**	**9,2**	**24,8**	**25,5**	**49,7**	**26,4**
- Abruzzi	31,8	20,8	13,9	10,8	25,9	28,4	45,7	33,4
- Puglia	41,9	16,9	13,2	5,7	23,4	21,3	55,3	32,2
- Campania	31,5	15,2	11,1	14,4	24,4	32,2	43,4	31,5
- Basilicata	35,8	22,1	15,3	6,3	25,8	23,1	51,1	26,9
- Calabria	37,6	19,7	15,3	4,4	23,6	23,5	52,9	30,8
- Sicilia	36,6	18,0	14,0	7,3	24,9	20,9	54,1	29,1
- Sardegna	37,1	26,9	14,1	2,4	31,0	17,8	51,2	23,1
Italy	**33,8**	**17,2**	**10,6**	**10,4**	**25,7**	**28,2**	**46,1**	**33,6**

Source: own elaborations on Ciccareli-Fenoaltea (2009)

(1) The growth sectors (metallurgy, mechanical engineering, petrochemical, non-metallic minerals) in the period in question are those that have increased their impact on the national total of at least 2 percentage points, those in decline (food, tobacco, leather and footwear) are those that in the same period have reduced the incidence of at least 2 points. The remaining sectors are considered "stable".

(2) The indicator is the sum of absolute differences (1911-1871) of the relative weight of sectors in the geographical area.

Table 5

Highly industrialized Italian Provinces (1)
(unit values and percentage composition)

Regions	Specialized in total manufacturing sectors			Specialized in at least one sector			Specialized in the mechanical	
	Provinces		Share of regional value added (2)	Provinces		Share of regional value added (only sectors of specialization) (2)	Number of provinces	Share of regional value added of the mechanical (2)
	Number	Share of total provinces		Numero	Share of total provinces			
				1871				
North West	**8**	**57,1**	**78,6**	**13**	**92,9**	**73,1**	**6**	**78,0**
- Piemonte	2	50,0	66,4	3	75,0	64,7	2	71,0
- Lombardia	5	62,5	82,9	8	100,0	80,4	3	68,6
- Liguria	1	50,0	93,6	2	100,0	65,9	1	97,7
North East	**2**	**12,5**	**19,6**	**14**	**87,5**	**31,6**	**2**	**17,2**
- Veneto	2	25,0	33,5	8	100,0	44,7	2	27,9
- Emilia Romagna	0	0,0	0,0	6	75,0	13,1	0	0,0
Center	**3**	**21,4**	**34,8**	**12**	**85,7**	**25,2**	**1**	**5,4**
- Toscana	3	37,5	66,0	8	100,0	37,9	1	11,4
- Umbria	0	0,0	0,0	3	75,0	20,6	0	0,0
- Marche	0	0,0	0,0	0	0,0	0,0	0	0,0
- Lazio	0	0,0	0,0	1	100,0	7,3	0	0,0
Center-North	***13***	***29,5***	***53,8***	***39***	***88,6***	***51,7***	***9***	***47,3***
South and Islands	**2**	**8,0**	**25,2**	**16**	**64,0**	**32,7**	**1**	**17,2**
- Abruzzi	0	0,0	0,0	2	50,0	4,1	0	0,0
- Puglia	0	0,0	0,0	3	100,0	21,2	0	0,0
- Campania	1	20,0	47,6	3	60,0	54,2	1	52,3
- Basilicata	0	0,0	0,0	0	0,0	0,0	0	0,0
- Calabria	0	0,0	0,0	2	66,7	12,0	0	0,0
- Sicilia	1	14,3	34,2	6	85,7	37,5	0	0,0
- Sardegna	0	0,0	0,0	0	0,0	0,0	0	0,0
Italy	**15**	**21,7**	**44,9**	**55**	**79,7**	**45,7**	**10**	**38,0**
				1911				
North West	**7**	**50,0**	**82,1**	**13**	**92,9**	**81,1**	**5**	**81,4**
- Piemonte	2	50,0	74,1	4	100,0	72,1	1	61,1
- Lombardia	4	50,0	83,4	7	87,5	84,2	3	85,3
- Liguria	1	50,0	94,7	2	100,0	89,2	1	97,9
North East	**3**	**18,8**	**30,9**	**15**	**93,8**	**43,0**	**3**	**36,9**
- Veneto	2	25,0	34,2	7	87,5	38,6	2	40,0
- Emilia Romagna	1	12,5	26,8	8	100,0	48,5	1	33,1
Center	**3**	**21,4**	**38,4**	**11**	**78,6**	**37,7**	**1**	**6,9**
- Toscana	3	37,5	68,9	7	87,5	51,6	1	13,4
- Umbria	0	0,0	0,0	2	50,0	16,8	0	0,0
- Marche	0	0,0	0,0	1	100,0	28,3	0	0,0
- Lazio	0	0,0	0,0	1	100,0	18,3	0	0,0
Center-North	**13**	**29,5**	**62,2**	**39**	**88,6**	**64,1**	**9**	**59,5**
South and Islands	**1**	**4,0**	**21,1**	**13**	**52,0**	**38,2**	**1**	**30,7**
- Abruzzi	0	0,0	0,0	0	0,0	0,0	0	0,0
- Puglia	0	0,0	0,0	3	100,0	43,5	0	0,0
- Campania	1	20,0	59,9	2	40,0	57,2	1	75,6
- Basilicata	0	0,0	0,0	0	0,0	0,0	0	0,0
- Calabria	0	0,0	0,0	1	33,3	6,6	0	0,0
- Sicilia	0	0,0	0,0	6	85,7	40,9	0	0,0
- Sardegna	0	0,0	0,0	1	50,0	1,8	0	0,0
Italy	**14**	**20,3**	**51,8**	**52**	**75,4**	**57,5**	**10**	**52,7**

Source: own elaborations on Ciccareli-Fenoaltea (2009).
(1) Provinces where the share of national manufacturing value added is at least 10 per cent higher than the corresponding share of the adult male population. (2) Concentration of regional manufacturing value added in the highly industrialized provinces.

Table 6

Administrative districts with high manufacturing specializations in 1871: spatial and sectoral distribution

Regions	Number of districts		Population		Share of regional employment in manufacturing sectors					
					Industry specialization					Total
	unit	share of the total area	thousands	share of the total area	Food	Textiles	Clothing, leather	Metalmaking, engineering	Other	
North West	**18**	**28,6**	**3.471**	**48,3**	**36,4**	**55,8**	**24,3**	**45,9**	**41,4**	**41,3**
- Piemonte	4	19,0	856	29,5	35,8	50,2	12,9	32,9	30,9	32,0
- Lombardia	12	34,3	2.166	62,7	42,5	62,0	36,6	43,4	51,2	49,1
- Liguria	2	28,6	450	54,2	0,0	0,0	0,0	78,5	10,0	28,2
North East	**9**	**9,2**	**830**	**17,5**	**10,2**	**2,1**	**14,3**	**14,3**	**10,1**	**10,7**
- Veneto	7	9,2	353	13,4	17,9	3,1	0,8	22,8	3,5	8,6
- Emilia Romagna	2	9,1	477	22,6	0,0	0,0	27,1	0,0	18,3	13,4
Center	**8**	**23,5**	**1.753**	**40,2**	**41,6**	**0,0**	**23,8**	**14,0**	**20,1**	**22,2**
- Toscana	5	31,3	1.114	54,3	50,7	0,0	41,3	0,0	33,3	30,7
- Umbria	-	-	-	-	-	-	-	-	-	-
- Marche	2	28,6	218	23,5	0,0	0,0	17,6	0,0	11,2	8,4
- Lazio	1	20,0	421	50,3	66,7	0,0	0,0	65,6	7,2	27,5
Center-North	***35***	***17,9***	***6.054***	***37,1***	***30,5***	***35,0***	***21,3***	***29,7***	***28,3***	***28,8***
South and Islands	**11**	**12,4**	**2.468**	**23,7**	**21,6**	**19,7**	**22,5**	**17,8**	**22,7**	**21,8**
- Abruzzi	-	-	-	-	-	-	-	-	-	-
- Puglia	1	10,0	286	20,1	0,0	0,0	0,0	0,0	0,6	0,4
- Campania	4	21,1	1.028	37,3	41,5	38,5	39,1	48,9	39,1	40,9
- Basilicata	-	-	-	-	-	-	-	-	-	-
- Calabria	2	18,2	250	20,7	0,0	0,0	26,1	0,0	23,3	16,8
- Sicilia	3	12,5	761	29,4	27,6	0,0	28,1	0,0	23,9	21,0
- Sardegna	1	11,1	143	22,4	0,0	0,0	1,2	0,0	1,1	0,7
Italy	**46**	**16,2**	**8.521**	**31,9**	**27,5**	**31,6**	**21,8**	**25,5**	**26,4**	**26,4**

Source: own elaborations on population census 1871 (cf. *Methodological Note*).

Table 7

Administrative Districts with at least 100 thousand inhabitants in 1871

Area	Present population			
	a) with no industrial specialization	b) with at least one industrial specialization	c) total	(b/c)*100
North West	16	15	31	48,4
North East	5	4	9	44,4
Center	10	7	17	41,2
South and Islands	37	11	48	22,9
Italy	**68**	**37**	**105**	**35,2**
Area	Population weighted by the share of alphabets (1)			
	a) with no industrial specialization	b) with at least one industrial specialization	c) total	(b/c)*100
North West	20	15	35	42,9
North East	6	4	10	40,0
Center	10	7	17	41,2
South and Islands	25	10	35	28,6
Italy	**61**	**36**	**97**	**37,1**

Source: own elaborations on population census 1871 (cf. *Methodological Note*).
(1) The weighting gives a double weight to the inhabitants who were able to read. The resulting weighted distribution of population among districts is used to readjust the actual population.

Table 8

Administrative districts with high manufacturing specializations in 1871: list and structural features

Area	Regions	District	Number of specializations and main sector	Illiteracy rate (1)	Persistence of the district into the industrial agglomerations of the years indicated (2)		
					1911	1951	2001
North West	Liguria	Genova	4 - Metalmaking, engineering	LOW	YES	YES	NO
North West	Liguria	Savona	1 - Metalmaking, engineering	LOW	YES	NO	NO
North West	Lombardia	Bergamo	1 – Furniture	LOW	YES	YES	YES
North West	Lombardia	Brescia	1 - Metalmaking, engineering	LOW	YES	YES	YES
North West	Lombardia	Como	1 – Textiles	LOW	YES	YES	YES
North West	Lombardia	Cremona	2 – Food	LOW	YES	NO	YES
North West	Lombardia	Gallarate	1 – Textiles	LOW	YES	YES	YES
North West	Lombardia	Lecco	2 – Textiles	LOW	YES	YES	YES
North West	Lombardia	Lodi	2 - Clothing, leather	MEDIUM	YES	YES	YES
North West	Lombardia	Milano	7 - Clothing, leather	LOW	YES	YES	YES
North West	Lombardia	Monza	2 – Textiles	LOW	YES	YES	YES
North West	Lombardia	Mortara	1 – Food	MEDIUM	YES	YES	YES
North West	Lombardia	Pavia	2 - Clothing, leather	LOW	YES	YES	NO
North West	Lombardia	Sermide	1 - Clothing, leather	MEDIUM	NO	NO	NO
North West	Piemonte	Biella	2 – Textiles	LOW	YES	YES	YES
North West	Piemonte	Pallanza	2 – Furniture	LOW	YES	NO	YES
North West	Piemonte	Torino	7 - Textiles	LOW	YES	YES	YES
North West	Piemonte	Vercelli	1 - Food	LOW	YES	NO	NO
North East	Emilia Romagna	Bologna	1 - Clothing, leather	MEDIUM	YES	YES	YES
North East	Emilia Romagna	Ferrara	1 - Clothing, leather	MEDIUM	NO	NO	YES
North East	Veneto	Ampezzo	2 - Textiles	LOW	NO	NO	YES
North East	Veneto	Longarone	1- Metalmaking, engineering	LOW	NO	NO	YES
North East	Veneto	Maniago	2 - Metalmaking, engineering	MEDIUM	YES	YES	YES
North East	Veneto	Moggio Udinese	2 - Textiles	LOW	NO	NO	NO
North East	Veneto	Piove di Sacco	1 - Furniture	MEDIUM	NO	NO	YES
North East	Veneto	Venezia	3- Metalmaking, engineering	LOW	YES	YES	YES
North East	Veneto	Verona	1 - Food	LOW	YES	YES	YES
Center	Lazio	Roma	3- Metalmaking, engineering	MEDIUM	YES	YES	YES
Center	Marche	Fermo	1 - Clothing, leather	MEDIUM	NO	NO	YES
Center	Marche	Urbino	1 - Clothing, leather	MEDIUM	NO	NO	YES
Center	Toscana	Firenze	3 - Clothing, leather	MEDIUM	YES	YES	YES
Center	Toscana	Lcca	1 - Paper	MEDIUM	YES	YES	YES
Center	Toscana	Livorno	3 - Food	LOW	YES	YES	NO
Center	Toscana	Pisa	2 - Clothing, leather	MEDIUM	YES	YES	YES
Center	Toscana	S. Miniato	1 - Chemicals	MEDIUM	YES	YES	YES

Table 8, cont.

Area	Regions	District	Number of specializations and main sector	Illiteracy rate (1)	Persistence of the district into the industrial agglomerations of the years indicated (2)		
South and Islands	Calabria	Catanzaro	1 - Clothing, leather	HIGH	NO	NO	NO
South and Islands	Calabria	Palmi	1 - Clothing, leather	HIGH	NO	NO	NO
South and Islands	Campania	Casoria	2 - Textiles	MEDIUM	NO	NO	YES
South and Islands	Campania	Napoli	4 - Clothing, leather	MEDIUM	YES	NO	NO
South and Islands	Campania	Salerno	1 - Textiles	MEDIUM	YES	YES	YES
South and Islands	Campania	Vallo di Lucania	3 - Clothing, leather	MEDIUM	NO	NO	NO
South and Islands	Puglia	Bari	1 - Chemicals	MEDIUM	YES	YES	YES
South and Islands	Sardegna	Cagliari	1 - Clothing, leather	MEDIUM	NO	NO	YES
South and Islands	Sicilia	Catania	1 - Clothing, leather	MEDIUM	YES	YES	NO
South and Islands	Sicilia	Messina	1 - Clothing, leather	MEDIUM	NO	NO	NO
South and Islands	Sicilia	Palermo	4 - Clothing, leather	MEDIUM	YES	NO	NO

Source: own elaborations on Population census (1871) and Industrial census (1911, 1951 e 2001) (cf. *Methodological Note*).
(1) LOW if the share of illiterate population is below the first quartile of the national distribution (calculated by size of population of districts); HIGH if the same proportion is higher than the third quartile. MEDIUM otherwise. (2) YES if the district has at least one municipality in the industrial agglomerations of the year indicated, regardless of any changes in manufacturing specialization.

Table 9

Industrial agglomeration in 1911: distribution of manufacturing employment

(percentages)

Area	Highly specialized district in 1871	District 1911	Settore							Total
			Food	Textiles-Clothng	Leather and footwear	Wood and Furniture	Paper	Chemicals	Metalmaking, engineering	
Center	NO	Ancona	-	-	-	-	4,6	5,7	-	0,3
Center	NO	Camerino	-	-	-	-	1,3	-	-	0,0
Center	NO	Frosinone	-	-	-	-	2,5	-	-	0,0
Center	NO	Pistoia	2,5	-	-	-	-	-	1,1	0,5
Center	NO	Porto-Ferraio	-	-	-	-	-	-	0,7	0,2
Center	NO	Sora	-	-	-	-	9,1	-	-	0,2
Center	NO	Terni	-	-	-	-	-	6,2	2,4	0,9
Center	NO	Viterbo	-	-	2,8	-	-	-	-	0,2
Center	NO	Volterra	-	-	-	-	-	-	1,4	0,4
Center	**Sub Total NO**		**2,5**	**-**	**2,8**	**-**	**17,6**	**11,9**	**5,6**	**2,7**
Center	YES	Firenze	13,2	-	-	-	-	-	-	1,3
Center	YES	Lucca	-	-	-	3,2	6,9	6,2	-	0,7
Center	YES	Livorno	1,2	-	-	-	-	2,3	1,6	0,6
Center	YES	Pisa	-	-	-	2,8	-	-	-	0,2
Center	YES	Roma	-	-	8,6	-	6,4	-	-	0,7
Center	YES	S. Miniato	2,3	-	-	-	-	-	-	0,2
Center	**Sub Total YES**		**16,7**	**-**	**8,6**	**6,0**	**13,3**	**8,5**	**1,6**	**3,7**
Center Total			**19,2**	**-**	**11,3**	**6,0**	**40,9**	**20,4**	**7,3**	**6,5**
North East	NO	Guastalla	1,0	-	-	1,5	-	-	-	0,2
North East	NO	Modena	2,9	-	-	3,2	-	-	-	0,6
North East	NO	Padova	-	-	-	2,1	-	-	-	0,2
North East	NO	Parma	2,2	-	-	-	-	-	-	0,2
North East	NO	Piacenza	1,8	-	-	-	-	-	-	0,2
North East	NO	Reggio Emilia	2,2	-	-	-	-	-	-	0,2
North East	NO	Schio	0,9	1,7	-	-	-	-	-	0,8
North East	NO	Treviso	-	-	-	2,0	-	-	-	0,2
North East	NO	Udine	-	0,9	-	1,6	-	-	0,8	0,7
North East	**Sub Total NO**		**11,0**	**2,6**	**-**	**10,4**	**-**	**-**	**0,8**	**3,3**
North East	YES	Bologna	4,1	-	-	-	-	7,1	3,9	1,7
North East	YES	Pordenone	-	1,4	-	-	-	-	-	0,6
North East	YES	Venezia	-	-	-	2,6	-	4,4	2,7	1,1
North East	YES	Verona	-	1,1	-	-	-	-	1,6	0,9
North East	**Sub Total YES**		**4,1**	**2,5**	**-**	**2,6**	**-**	**11,6**	**8,1**	**4,3**
North East Total			**15,2**	**5,1**	**-**	**13,0**	**-**	**11,6**	**9,0**	**7,6**
North West		Abbiategrasso	1,4	3,0	-	-	-	-	-	1,5
North West	NO	Alessandria	-	-	-	-	-	-	1,4	0,3
North West	NO	Chiari	1,6	1,1	-	-	-	-	-	0,7
North West	NO	Clusone	-	2,2	-	-	-	-	-	1,0
North West	NO	Novara	2,6	3,1	-	-	2,5	-	-	1,7
North West	NO	Novi Ligure	-	1,0	-	-	-	-	-	0,5
North West	NO	Pinerolo	-	1,3	-	-	-	-	-	0,5
North West	NO	Salò	-	-	-	-	2,3	-	-	0,0
North West	NO	Spezia	-	-	-	-	-	-	4,3	1,1
North West	NO	Susa	-	-	-	-	-	-	1,2	0,3
North West	NO	Treviglio	-	2,6	-	-	-	-	-	1,2
North West	NO	Varallo	-	0,8	-	-	-	-	-	0,3
North West	NO	Varese	2,4	3,0	3,1	2,3	3,7	-	-	2,0
North West	**Sub Total NO**		**7,9**	**18,2**	**3,1**	**2,3**	**8,5**	**-**	**6,9**	**11,0**
North West	YES	Bergamo	2,8	6,4	-	-	3,9	-	-	3,2
North West	YES	Biella	-	5,7	-	-	5,3	-	-	2,6
North West	YES	Brescia	-	2,0	-	-	-	-	3,6	1,8
North West	YES	Como	-	6,9	-	5,1	-	-	-	3,4
North West	YES	Cremona	2,1	1,6	-	-	-	-	-	0,9
North West	YES	Gallarate	-	11,3	-	3,3	2,8	-	3,3	6,1
North West	YES	Genova	7,4	3,8	7,9	9,3	5,6	11,5	12,4	7,4
North West	YES	Lecco	-	5,1	-	-	-	-	2,2	2,8
North West	YES	Lodi	2,2	-	-	1,9	-	-	-	0,4
North West	YES	Milano	12,3	10,2	15,4	14,3	28,9	22,9	20,8	14,7
North West	YES	Monza	-	9,2	-	8,8	-	-	3,6	5,7
North West	YES	Mortara	-	1,6	3,8	-	-	-	-	0,9
North West	YES	Pallanza	-	1,6	-	-	3,4	-	1,0	1,0
North West	YES	Pavia	2,1	-	-	-	-	-	-	0,2
North West	YES	Savona	-	-	-	-	-	-	2,6	0,7
North West	YES	Torino	7,4	9,3	13,0	14,0	10,8	17,8	13,4	11,2
North West	YES	Vercelli	1,9	-	-	-	-	-	-	0,2
North West	**Sub Total YES**		**38,2**	**74,7**	**40,1**	**56,7**	**60,6**	**52,2**	**62,9**	**63,1**
North West Total			**46,2**	**92,9**	**43,2**	**59,0**	**69,1**	**52,2**	**69,8**	**74,2**
South and Islands	NO	Acireale	-	-	-	-	-	2,9	-	0,1
South and Islands	NO	Barletta	-	-	5,3	4,0	-	-	-	0,7
South and Islands	NO	Brindisi	-	-	2,6	-	-	-	-	0,2
South and Islands	NO	Caltagirone	-	-	2,1	-	-	-	-	0,1
South and Islands	NO	Castellammare	4,3	-	-	3,5	-	-	1,7	1,1
South and Islands	NO	Pozzuoli	0,9	-	-	-	-	-	1,4	0,5
South and Islands	NO	Sassari	1,0	-	-	-	-	-	-	0,1
South and Islands	NO	Taranto	-	-	2,9	-	-	-	1,6	0,6
South and Islands	NO	Trapani	1,9	-	2,5	2,2	-	-	-	0,5
South and Islands	**Sub Total NO**		**8,1**	**-**	**15,4**	**9,7**	**-**	**2,9**	**4,8**	**4,1**
South and Islands	YES	Bari	2,7	-	6,3	5,2	-	-	-	1,1
South and Islands	YES	Catania	-	-	3,9	-	-	4,0	-	0,4
South and Islands	YES	Napoli	5,8	-	13,6	7,1	-	9,0	9,3	4,8
South and Islands	YES	Palermo	-	-	6,2	-	-	-	-	0,4
South and Islands	YES	Salerno	2,9	2,0	-	-	-	-	-	1,2
South and Islands	**Sub Total YES**		**11,4**	**2,0**	**30,0**	**12,3**	**-**	**13,1**	**9,3**	**7,8**
South and Islands Total			**19,5**	**2,0**	**45,4**	**21,9**	**0,0**	**15,9**	**14,0**	**11,7**
Total			**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
(Number of employees)			*95.865*	*422.417*	*59.822*	*81.269*	*18.204*	*43.552*	*244.060*	*965.190*

Source: own elaborations on Population census (1871) and Industrial census (1911) (cf. *Methodological Note*).

Table 10

Industrial agglomeration in 1951: distribution of manufacturing employment
(percentages)

Macro Area	Industrial agglomeration in 1911	Main Municipality 1951	Sector							Total
			Food	Textiles, clothing, leather and footwear	Wood, furniture and non-metallic minerals	Paper	Chemicals	Metalmaking	Engineering	
Center	NO	Citta' di Castello	9,4	-	-	-	-	-	-	0,3
Center	NO	Perugia	11,0	-	-	-	-	-	-	0,3
Center	**Sub Total NO**		**20,3**	**-**	**-**	**-**	**-**	**-**	**-**	**0,6**
Center	YES	Carrara	-	-	10,1	-	-	-	-	0,5
Center	YES	Cascina	-	-	4,6	-	-	-	-	0,2
Center	YES	Castelfidardo	-	-	-	-	3,2	-	-	0,3
Center	YES	Empoli	-	-	5,4	-	-	-	-	0,3
Center	YES	Firenze	-	-	-	7,7	-	-	3,2	1,9
Center	YES	Lucca	9,3	2,7	-	-	-	-	-	1,0
Center	YES	Pisa	-	-	9,6	-	-	-	-	0,5
Center	YES	Ponsacco	-	-	0,9	-	-	-	-	0,0
Center	YES	Pontedera	-	-	-	-	-	-	0,8	0,4
Center	YES	Prato	-	8,0	-	-	-	-	-	2,2
Center	YES	Roma	-	-	-	36,7	-	-	-	1,8
Center	YES	Sesto Fiorentino	-	-	5,2	-	-	-	-	0,3
Center	**Sub Total YES**		**9,3**	**10,7**	**35,7**	**44,4**	**3,2**	**-**	**4,0**	**9,5**
Center Total			**29,7**	**10,7**	**35,7**	**44,4**	**3,2**	**-**	**4,0**	**10,1**
North East	NO	Manzano	-	-	2,4	-	-	-	-	0,1
North East	NO	Monfalcone	-	-	-	-	-	-	1,9	0,9
North East	**Sub Total NO**		**-**	**-**	**2,4**	**-**	**-**	**-**	**1,9**	**1,1**
North East	YES	Bologna	-	-	-	-	-	-	3,7	1,8
North East	YES	Modena	-	-	-	-	-	-	1,5	0,7
North East	YES	Padova	-	-	-	-	-	-	1,6	0,8
North East	YES	Pordenone	-	1,9	-	-	-	-	-	0,5
North East	YES	Valdagno	-	5,7	-	-	-	-	-	1,5
North East	YES	Venezia	-	-	10,5	-	8,0	-	-	1,3
North East	YES	Verona	-	-	-	5,6	-	-	-	0,3
North East	**Sub Total YES**		**-**	**7,6**	**10,5**	**5,6**	**8,0**	**-**	**6,8**	**7,0**
North East Total			**-**	**7,6**	**12,9**	**5,6**	**8,0**	**-**	**8,7**	**8,0**
North West	NO	Asti	-	-	-	-	-	-	0,8	0,4
North West	NO	Casale Monferrato	-	-	5,5	-	-	-	-	0,3
North West	NO	Ivrea	-	-	-	-	-	-	1,4	0,7
North West	**Sub Total NO**		**-**	**-**	**5,5**	**-**	**-**	**-**	**2,2**	**1,4**
North West	YES	Bergamo	-	-	-	-	-	-	1,5	0,7
North West	YES	Biella	-	8,4	-	-	-	-	-	2,3
North West	YES	Borgosesia	-	2,8	-	-	-	-	-	0,7
North West	YES	Brescia	-	-	-	-	-	-	2,7	1,3
North West	YES	Busto Arsizio	-	32,0	-	-	-	-	-	8,7
North West	YES	Casalpusterlengo	-	-	3,2	-	-	-	-	0,2
North West	YES	Chieri	-	1,1	-	-	-	-	-	0,3
North West	YES	Como	-	4,0	-	-	-	-	-	1,1
North West	YES	Desio	-	6,0	-	-	-	-	-	1,6
North West	YES	Gardone Val Trompia	-	-	-	-	-	-	0,5	0,3
North West	YES	Genova	-	-	-	-	-	-	9,2	4,4
North West	YES	La Spezia	-	-	-	-	-	-	1,7	0,8
North West	YES	Lecco	-	-	-	-	-	26,9	1,5	1,2
North West	YES	Legnano	-	-	-	-	-	-	3,1	1,5
North West	YES	Lissone-Meda-Cantù	-	-	34,8	-	-	-	-	1,9
North West	YES	Lumezzane	-	-	-	-	-	-	0,6	0,3
North West	YES	Milano	-	-	-	50,0	67,3	-	35,1	25,8
North West	YES	Monza	-	5,4	-	-	-	-	-	1,5
North West	YES	Novara	-	5,0	-	-	-	-	-	1,4
North West	YES	Pavia	-	-	-	-	-	-	1,9	0,9
North West	YES	Sesto San Giovanni	-	-	-	-	-	73,1	-	1,4
North West	YES	Torino	-	-	-	-	21,5	-	25,7	14,4
North West	YES	Trivero	-	6,2	-	-	-	-	-	1,7
North West	YES	Valenza	-	-	-	-	-	-	0,5	0,2
North West	YES	Varese	-	2,2	-	-	-	-	1,1	1,1
North West	YES	Verbania	-	2,3	-	-	-	-	-	0,6
North West	YES	Vigevano	-	4,5	-	-	-	-	-	1,2
North West	YES	Trivero-Valle Mosso	-	1,8	-	-	-	-	-	0,5
North West	**Sub Total YES**		**-**	**81,7**	**38,1**	**50,0**	**88,8**	**100,0**	**85,1**	**78,0**
North West Total			**-**	**81,7**	**43,6**	**50,0**	**88,8**	**100,0**	**87,3**	**79,4**
South and Islands	NO	Battipaglia	17,8	-	-	-	-	-	-	0,5
South and Islands	NO	Calangianus	-	-	1,3	-	-	-	-	0,1
South and Islands	NO	Lanciano	4,3	-	-	-	-	-	-	0,1
South and Islands	NO	Lecce	10,2	-	-	-	-	-	-	0,3
South and Islands	NO	San Giovanni In Fiore	-	-	1,3	-	-	-	-	0,1
South and Islands	**Sub Total NO**		**32,2**	**-**	**2,6**	**-**	**-**	**-**	**-**	**1,1**
South and Islands	YES	Bari	14,9	-	-	-	-	-	-	0,5
South and Islands	YES	Catania	-	-	4,7	-	-	-	-	0,3
South and Islands	YES	Marano di Napoli	-	-	0,6	-	-	-	-	0,0
South and Islands	YES	Marsala	9,5	-	-	-	-	-	-	0,3
South and Islands	YES	Nocera Inferiore	6,0	-	-	-	-	-	-	0,2
South and Islands	YES	Torre Annunziata	7,7	-	-	-	-	-	-	0,2
South and Islands	**Sub Total YES**		**38,1**	**-**	**5,3**	**-**	**-**	**-**	**-**	**1,4**
South and Islands Total			**70,3**	**-**	**7,8**	**-**	**-**	**-**	**-**	**2,6**
Total			**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
(Number of employees)			*29.344*	*264.126*	*52.711*	*46.711*	*93.276*	*17.982*	*466.494*	*970.644*

Source: own elaborations on Industrial census 1911 and 1951. (cf. *Methodological Note*).

Source: own elaborations on Industrial census 1911 and 1951. *(cf. Methodological Note).*

Table 11

Effect of migration on the North-South differential in GDP per capita

Year	GDP per capita gap (South/ Center North)*100	Variation of the gap (percentage points)				
		Total	of which: GDP effect	of which: Population effect		
				Total	of which: international migration effect	of which: national migration effect
1881	98,5					
1901	88,0	-10,6	-10,7	0,1	-2,0	
1911	81,4	-6,5	-10,0	3,5	0,1	
1921	73,6	-7,8	-12,4	4,6	2,0	
1931	64,5	-9,1	-6,6	-2,6	-0,7	
1951	47,3	-17,2	-13,7	-3,5	-0,1	
1961	55,8	8,5	7,5	1,1	0,0	4,1
1971	67,0	11,2	6,5	4,8	0,0	7,0
1981	62,2	-4,8	-3,5	-1,4	0,0	2,9
1991	59,6	-2,5	-0,6	-1,9	0,0	1,6
2001	58,0	-1,6	-2,0	0,4	0,0	2,5
2009	61,6	3,6	0,1	3,6	0,0	2,0

Source: own elaborations on Daniele Malanima (2007) and Svimez (2011).

Table 12

Number of employees in manufacturing plants located in Southern Italy in 1977 (1)

Regions	Plants owned by non-Southern entrepreneurs				Plants owned by Southern entrepreneurs	Total
	Public industrial groups	Italian private industrial groups	Foreign private industrial groups	Total		
Abruzzo	12.907	11.063	4.470	28.440	20.655	49.095
Molise	690	3.389	0	4.079	1.847	5.926
Basso Lazio	5.569	29.074	26.465	61.108	29.268	90.376
Campania	63.291	27.179	19.768	110.238	103.676	213.914
Puglia	31.727	18.072	3.682	53.481	46.716	100.197
Basilicata	3.980	3.310	0	7.290	5.067	12.357
Calabria	4.059	3.271	2.633	9.963	9.942	19.905
Sicilia	21.919	17.526	3.003	42.448	30.080	72.528
Sardegna	8.303	14.714	1.218	24.235	20.021	44.256
Total	**152.445**	**127.598**	**61.239**	**341.282**	**267.272**	**608.554**

Source: CESAN (1978). (1) Only plants with 20 or more employees.

Table 13

Industrial agglomerations in geographical areas

Number of agglomerations					**Share of municipalities belonging to at least one industrial agglomeration**				
Year	North West	North East	Center	South and Islands	Anno	North West	North East	Center	South and Islands
1951	35	10	16	11	1951	3,5	1,0	2,9	0,9
1961	40	18	22	4	1961	3,5	2,1	5,9	0,4
1971	42	23	20	8	1971	4,6	4,2	9,2	0,4
1981	48	35	29	24	1981	8,1	11,9	16,4	2,2
1991	46	40	41	31	1991	10,7	20,7	18,0	3,7
2001	45	41	41	37	2001	11,5	24,0	18,9	4,5
Distribution of manufacturing employment in the industrial agglomeration by area (Italy=100)					**Share of manufacturing employment located in industrial agglomeration** (area=100)				
Year	North West	North East	Center	South and Islands	Anno	North West	North East	Center	South and Islands
1951	79,4	8,0	10,1	2,6	1951	41,7	12,7	20,5	4,5
1961	74,8	11,8	12,3	1,1	1961	41,0	16,8	23,3	2,4
1971	70,5	12,8	14,7	2,0	1971	38,8	15,5	23,8	3,9
1981	50,8	18,0	22,2	9,0	1981	32,6	20,7	33,3	15,5
1991	45,2	25,5	20,7	8,6	1991	32,1	27,1	32,1	13,9
2001	37,1	30,6	21,1	11,2	2001	28,5	30,2	33,5	18,4
Source: own elaborations on Industrial census 1951-2001 (cf. *Methodological Note*).									

Source: own elaborations on Industrial census 1951-2001 (cf. Methodological Note).

Table 14

Ranking of regional inequality in GDP per capita in 2005

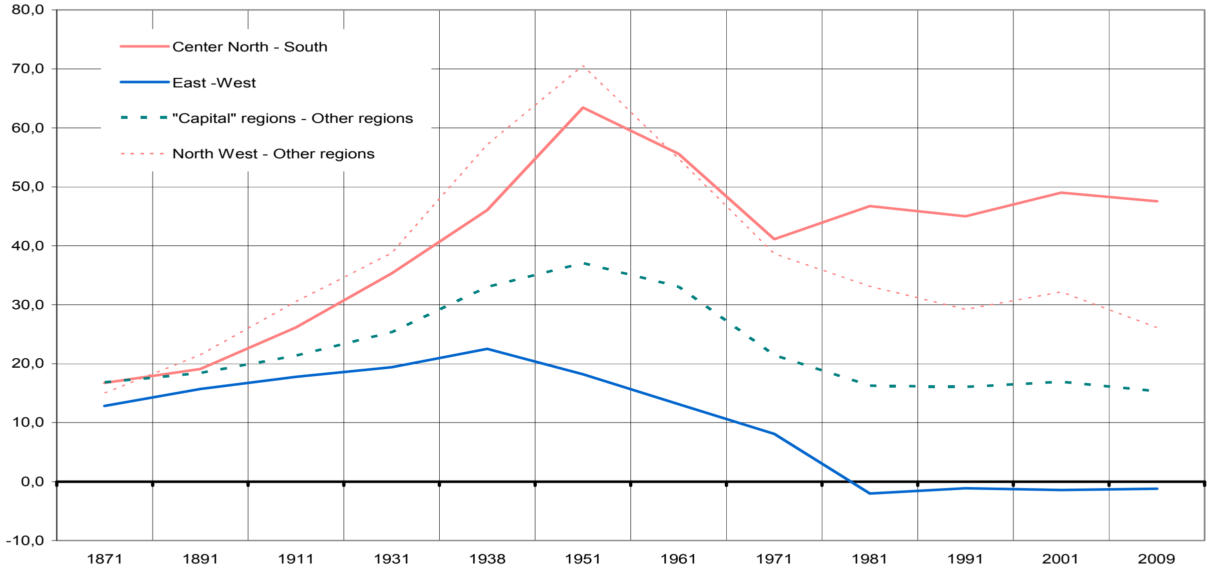
Countries	Number of regions	Theil indices (1)			Theil index Italy=100		
		Total regions	net of the "capital" region	net of the richest region	Total regions	net of the "capital" region	net of the richest region
Mexico	32	0,1435	0,0786	0,0786	400	208	219
Slovak Republic	4	0,1037	0,0076	0,0076	289	20	21
Hungary	7	0,0803	0,0163	0,0163	224	43	45
Turkey	26	0,0758	0,0779	0,0673	211	206	188
Czech Republic	8	0,0631	0,0017	0,0017	176	4	5
Belgium	3	0,0503	0,0108	0,0108	140	29	30
Italy	21	0,0358	0,0377	0,0359	100	100	100
Greece	4	0,0353	0,0007	0,0007	98	2	2
Poland	16	0,0321	0,0114	0,0114	90	30	32
Portugal	7	0,0317	0,0061	0,0061	88	16	17
France	22	0,0302	0,0027	0,0027	84	7	8
Norway	7	0,0287	0,0044	0,0044	80	12	12
United Kingdom	12	0,0224	0,0044	0,0044	63	12	12
Austria	9	0,0216	0,0071	0,0071	60	19	20
Canada	12	0,0208	0,0338	0,0204	58	90	57
Sweden	8	0,0205	0,0012	0,0012	57	3	3
Spain	19	0,0196	0,0159	0,0159	55	42	44
Germany	16	0,0195	0,0198	0,0151	54	52	42
Ireland	2	0,0147	..	..	41	..	..
Denmark	3	0,0134	0,0186	0,0027	38	49	7
Finland	5	0,0124	0,0030	0,0124	35	8	35
United States	51	0,0119	0,0085	0,0085	33	22	24
Japan	10	0,0077	0,0060	0,0078	21	16	22
Netherlands	4	0,0054	0,0066	0,0022	15	18	6
Australia	8	0,0052	0,0047	0,0049	15	12	14
New Zealand	2	0,0020	..	..	6	..	..
Korea	7	0,0015	0,0026	0,0010	4	7	3

Source: own elaborations on OCSE.
"…": Not significant because the number of regions considered is less than 3.
(1) The ranking does not change significantly using alternative indicators of inequality (cf. Iuzzolino, 2009, tab. 1).

Figure 1

GDP per capita gaps between macro-regions

(indices, Italy=100; percentages)

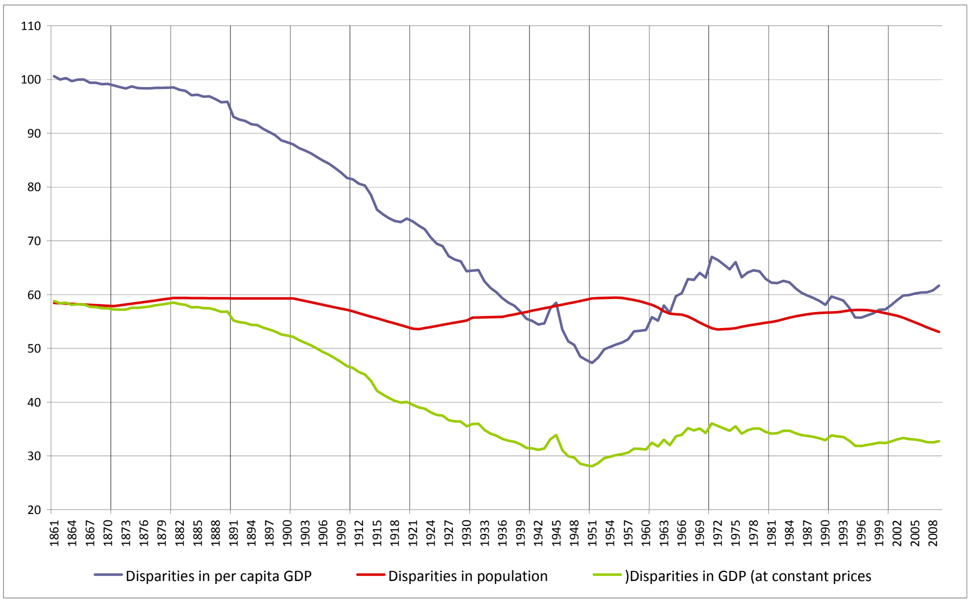


Source: own elaborations on Brunetti-Felice-Vecchi, 2011. The West includes the north-western regions, Toscana, Lazio, Campania, Calabria and the Islands (the East includes all other regions). The regions 'capital' are: Piemonte, Lombardia, Toscana, Lazio and Campania.

Figure 2

Disparities in population, GDP and GDP per capita between Center North and Southern Italy

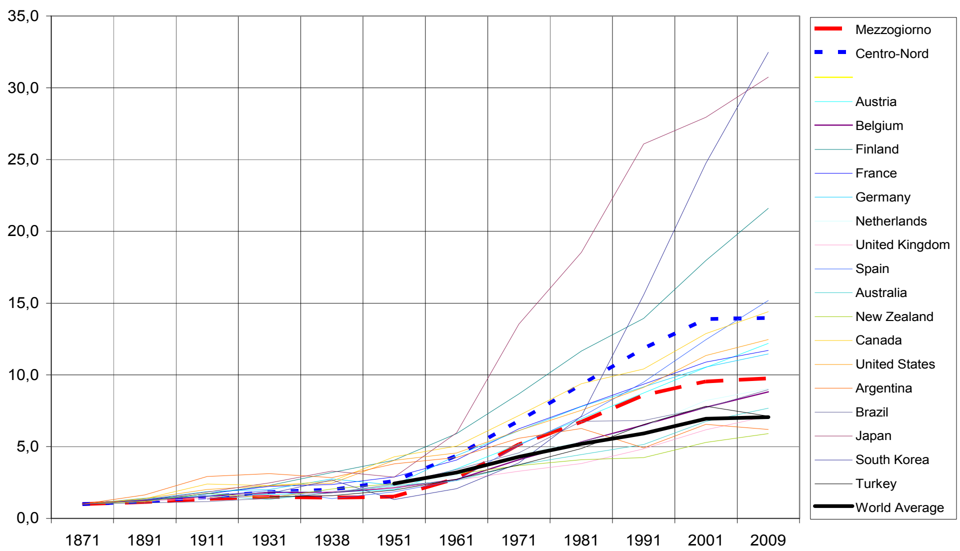
(Southern Italy as % of Centre North)



Source: own elaborations on Daniele-Malanima, 2007. GDP at constant prices 1911.

Figure 3

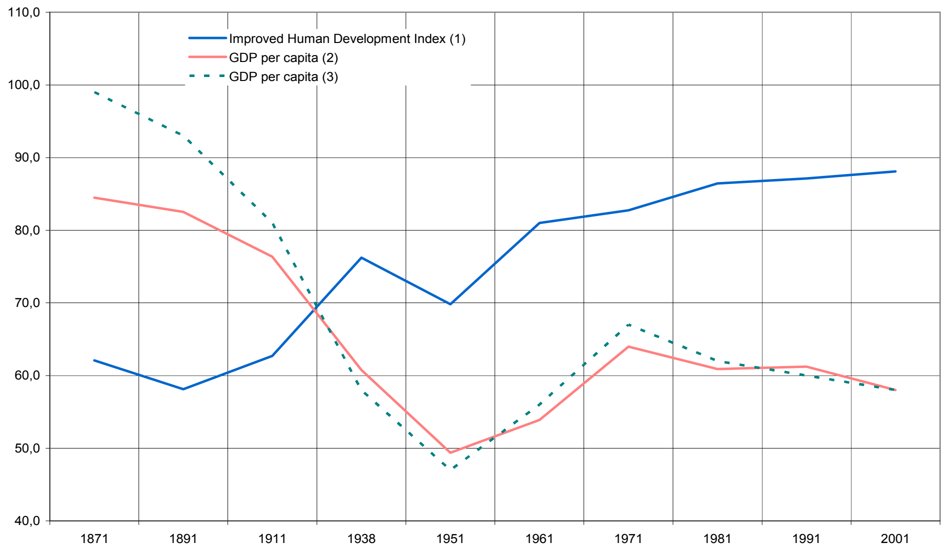
Secular trends in GDP per capita
(indices 1871=1)



Source: Mezzogiorno e Center-North: Brunetti-Felice-Vecchi, 2011; Countries: Maddison: *Historical Statistics for the World Economy*.

Figure 4

Income and human development in the Mezzogiorno
(indices Center-North=100)

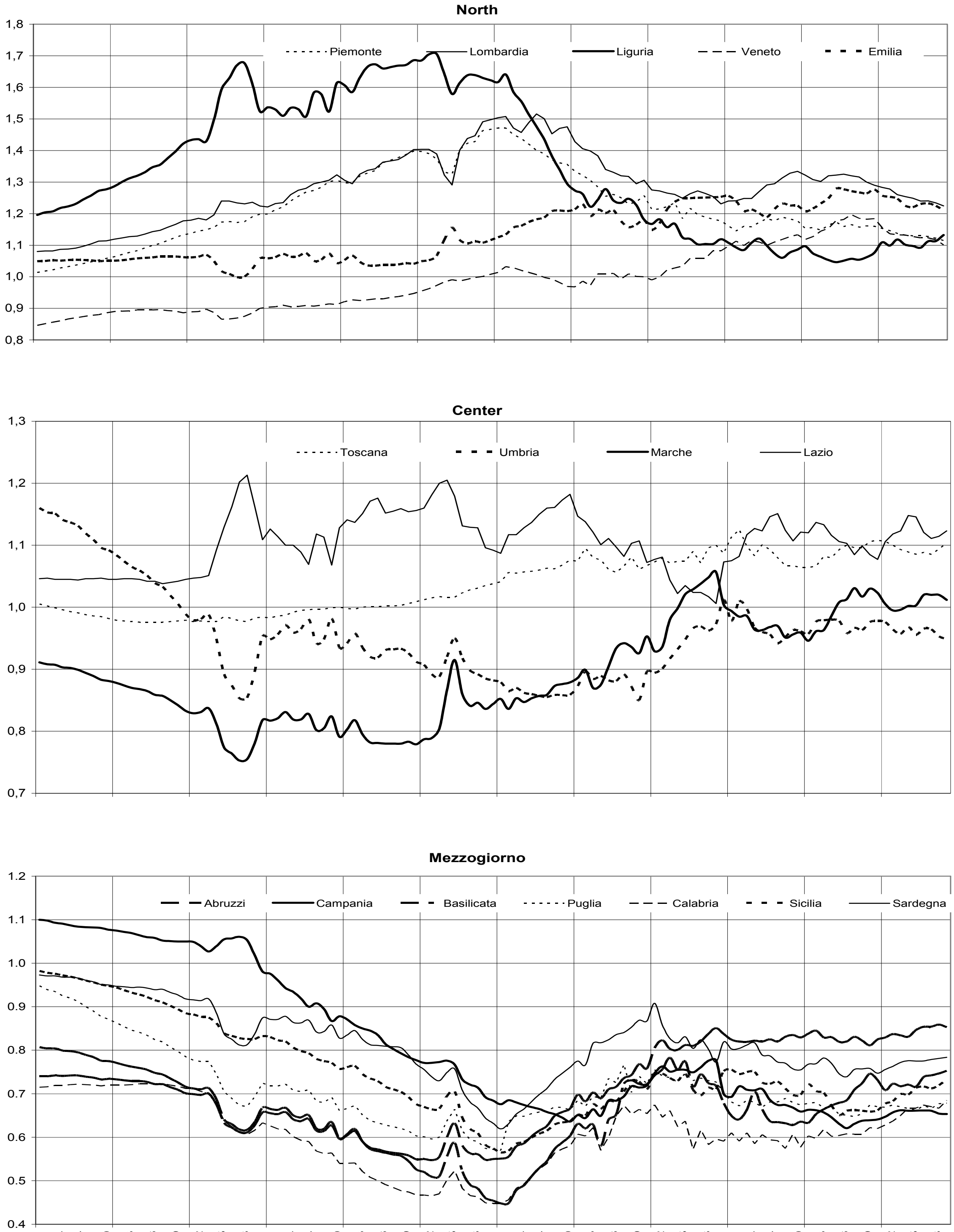


Source: (1) Felice, 2007: the indicator summarizes the level of income, education and life expectancy. (2) Brunetti-Felice-Vecchi, 2011. (3) Daniele-Malanima, 2007.

Figure 5

GDP per capita of the Italian regions: 1891-2009

(1911 constant prices, indices Italy=1)

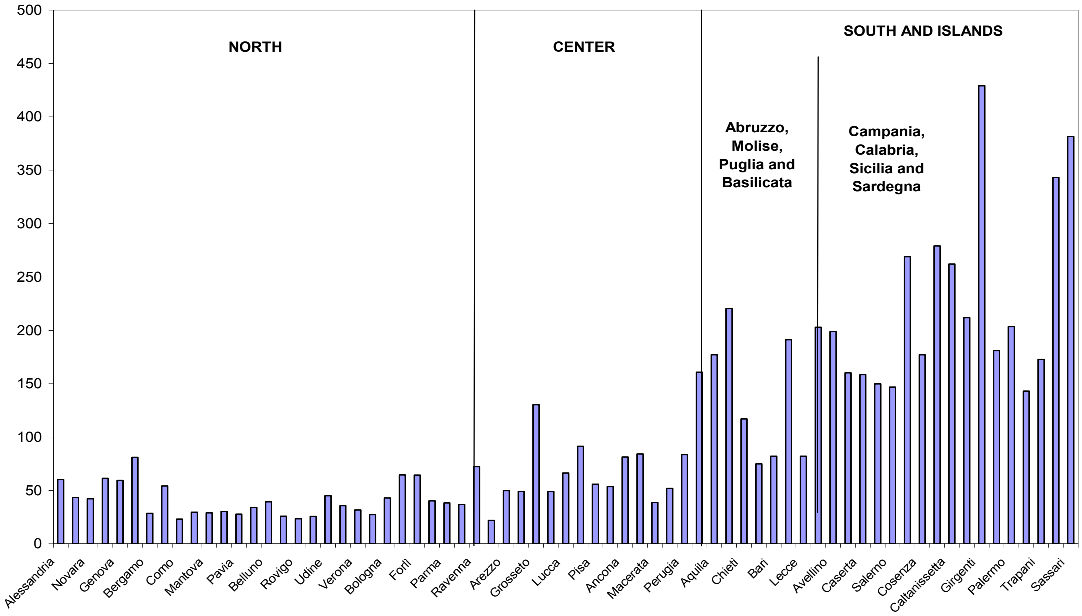


Source: Daniele-Malanima (2007). *Piemonte* includes Valle'Aosta, *Veneto* includes il Trentino Alto Adige e il Friuli Venezia Giulia; *Abruzzi* includes Molise.

Figure 6

Crimes reported per 100.000 inhabitants (murders, robberies, extortion, usurpation and damages) **in 69 Italian provinces. years 1893-95**

(indices Italy=100)

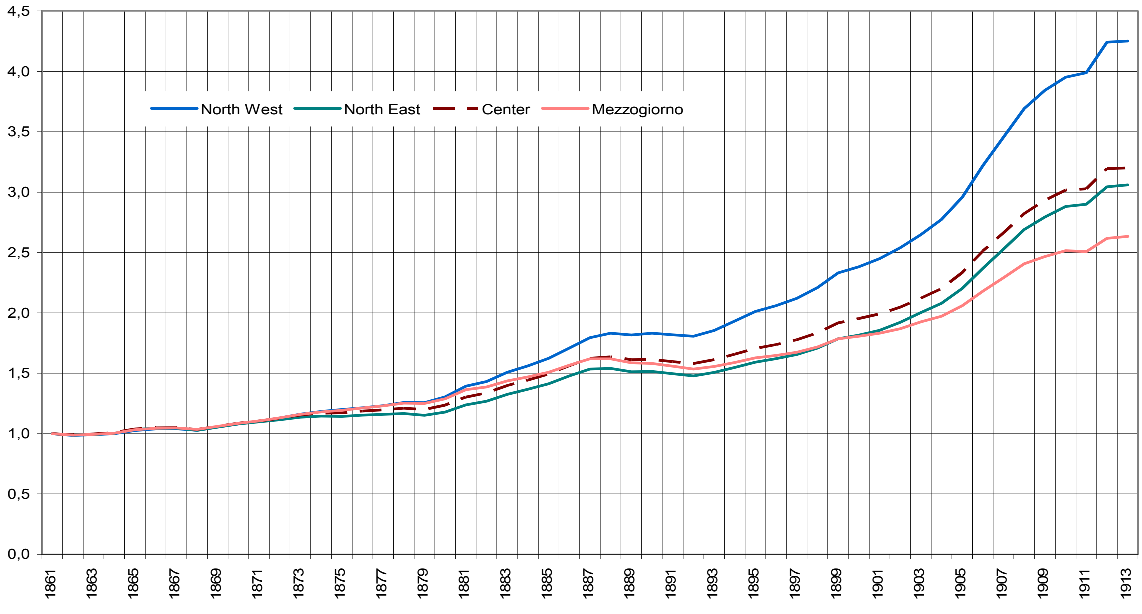


Source: Own elaborations on "Ministero della Giustizia" data.

Figure 7

Manufacturing value added

(at 1911 prices; indices 1871=1)

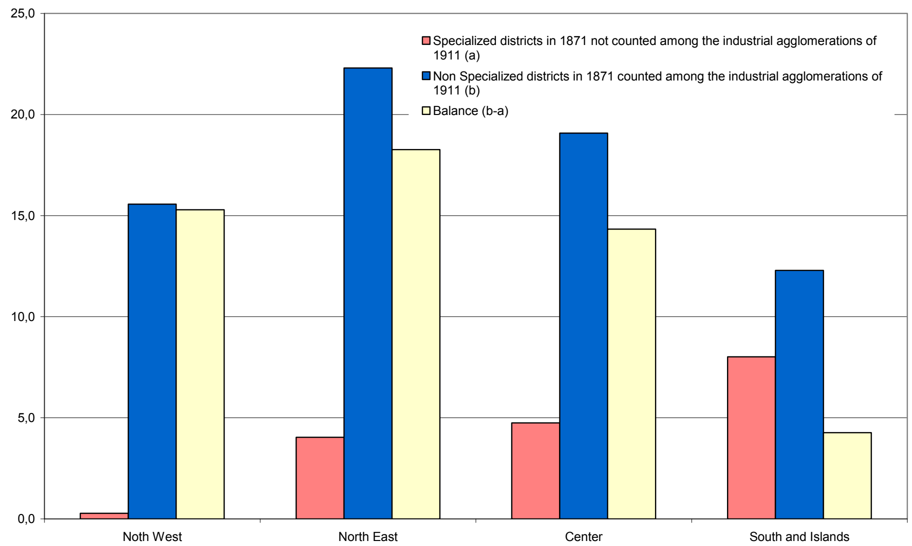


Source: Own elaborations on Ciccarelli-Fenoaltea (2009).

Figure 8

Administrative districts with high manufacturing specializations in 1871: population

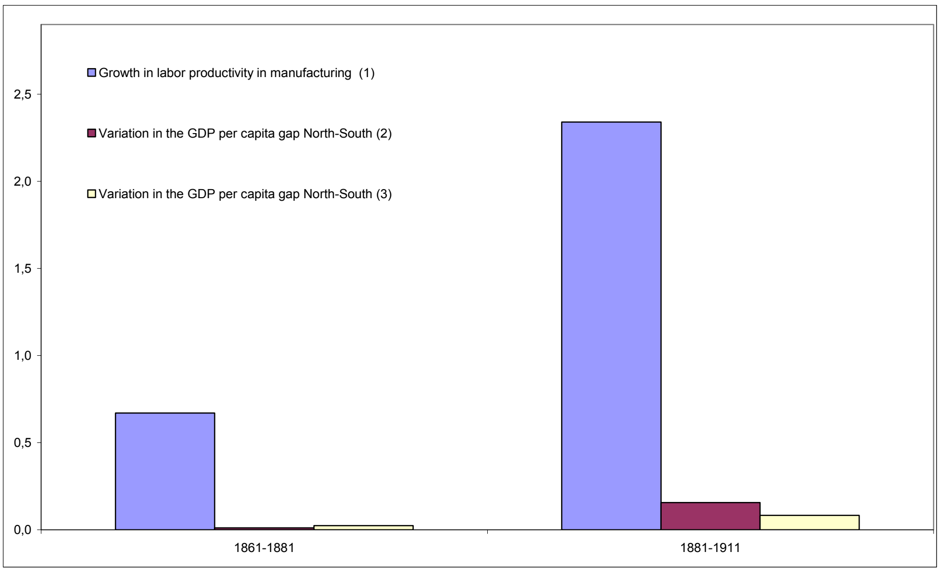
(shares on total population of the areas; percentages)



Source: own elaborations on Population census (1871) and Industrial census (1911) (cf. *Methodological Note*)

Figure 9

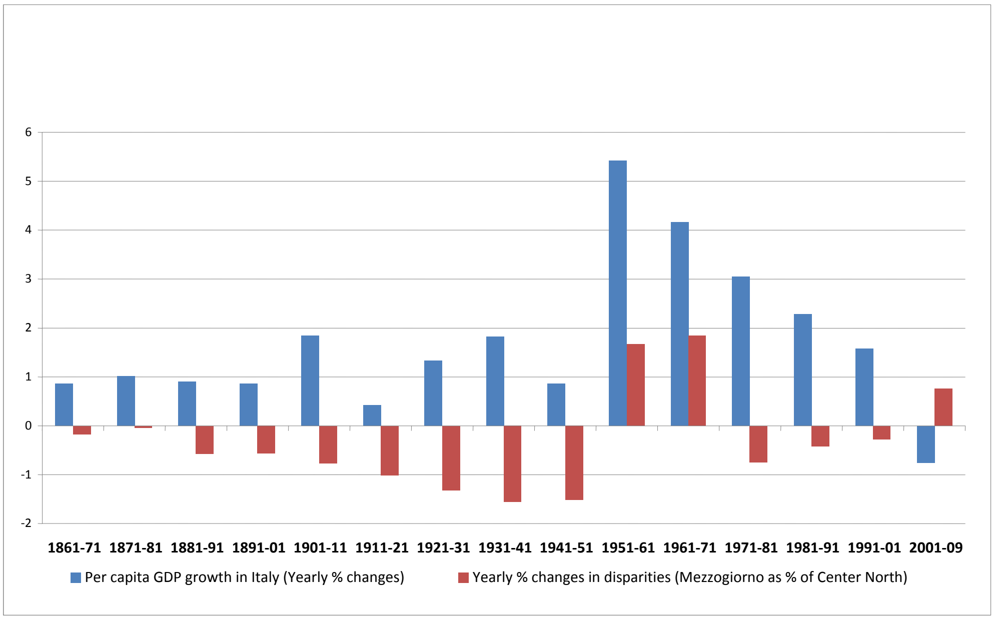
Industrial take-off and regional disparities in Italy



Source: (1) output per FTE worker percentage changes; yearly average in periods: Broadberry-Giordano-Zollino (2011). (2) Daniele-Malanima, 2007. (3) Brunetti-Felice-Vecchi, 2011: the first two periods are 1871-1891 e 1891-1911.

Figure 10

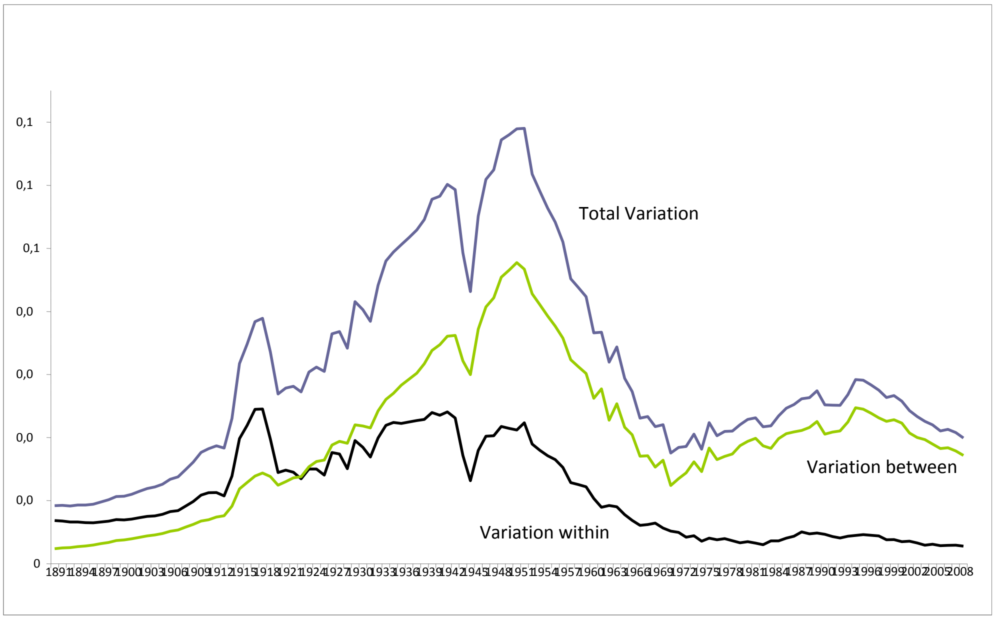
**Per capita GDP growth and North-Sud disparities
(Yearly average; % changes)**



Source: own elaborations on Daniele-Malanima (2007) and Svimez (2011).

Figure 11

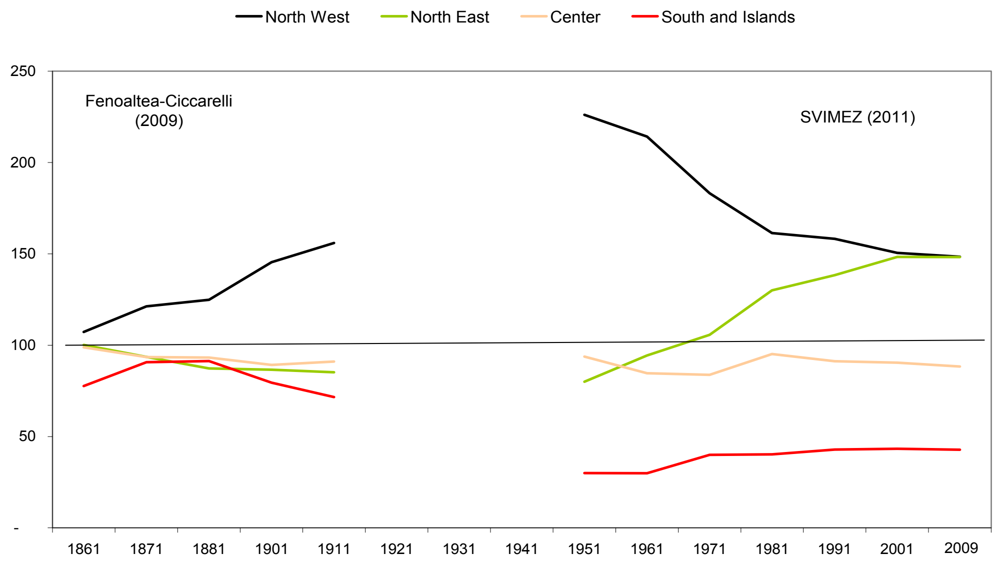
**Per capita GDP variability in Northen and Southern regions:
variation between areas and variation within areas**



Source: own elaborations on Daniele-Malanima (2007).

Figure 12

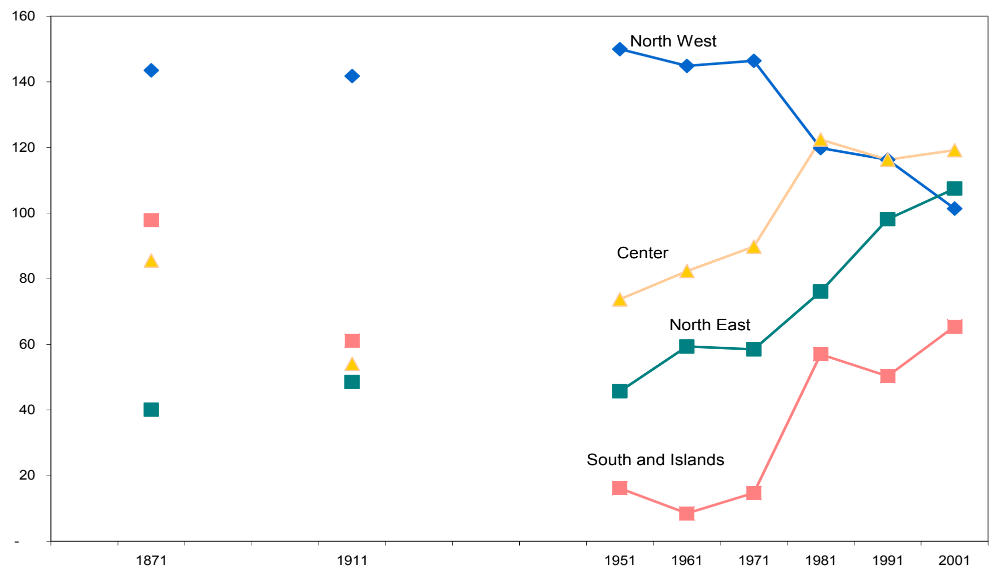
Industrial value added per capita
(indices Italy=100)



Source: value added is taken from the publications mentioned; population is taken from the Census years indicated.

Figure 13

Manufacturing employment located in industrial agglomerations
(share of manufacturing employment in the areas; indices Italy=100)

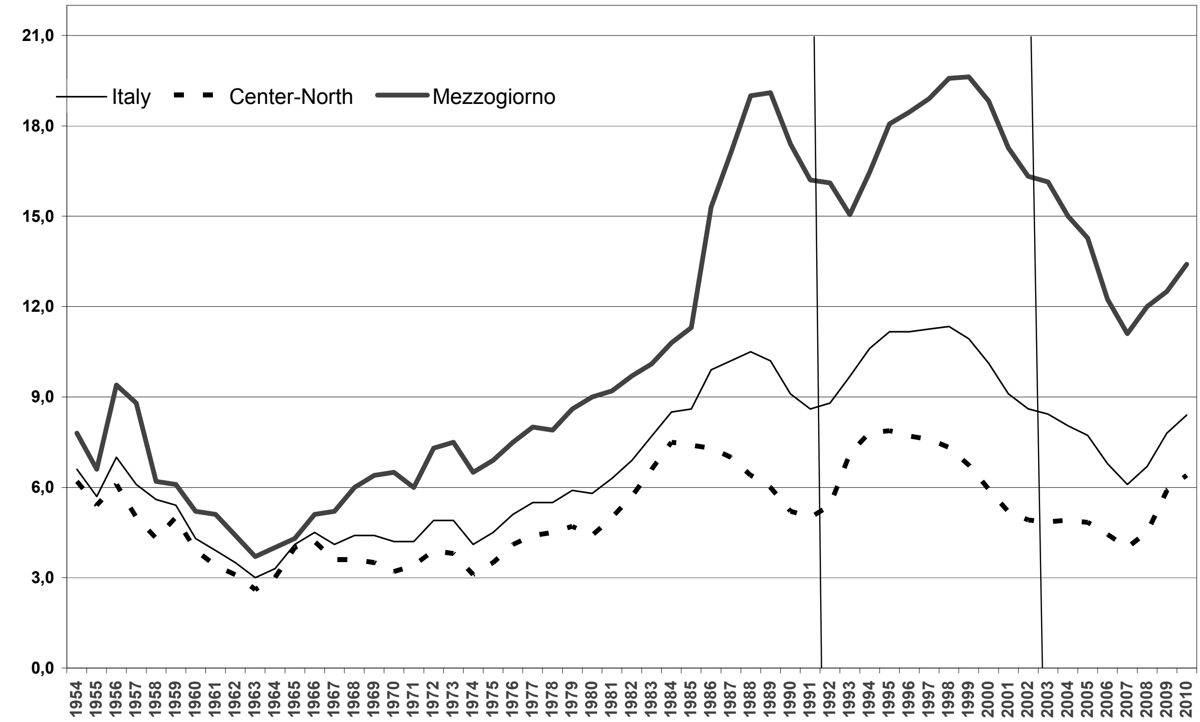


Source: own elaborations on Population census (1871) and Industrial census in the years indicated. The data of 1871 and 1911 are calculated on the basis of information not consistent with each other and different from those of subsequent years (cf. *Methodological Note*).

Figure 14

Unemployment rate

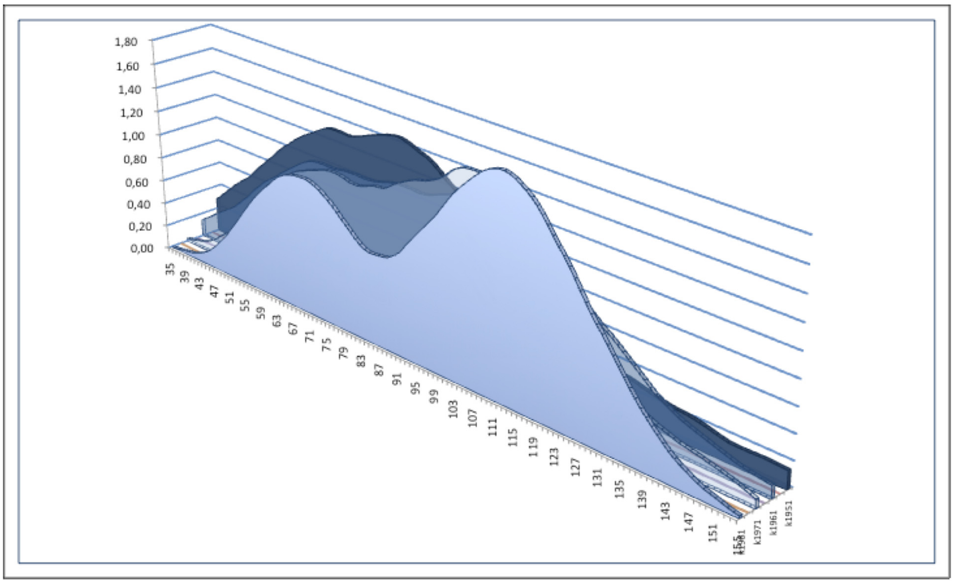
(Percentages)



Source: period 1954-1992: Casavola (1994). Period 1993-2003: Istat estimates. From 2004: Istat, *Rilevazione continua delle forze di lavoro*.

Figure 15

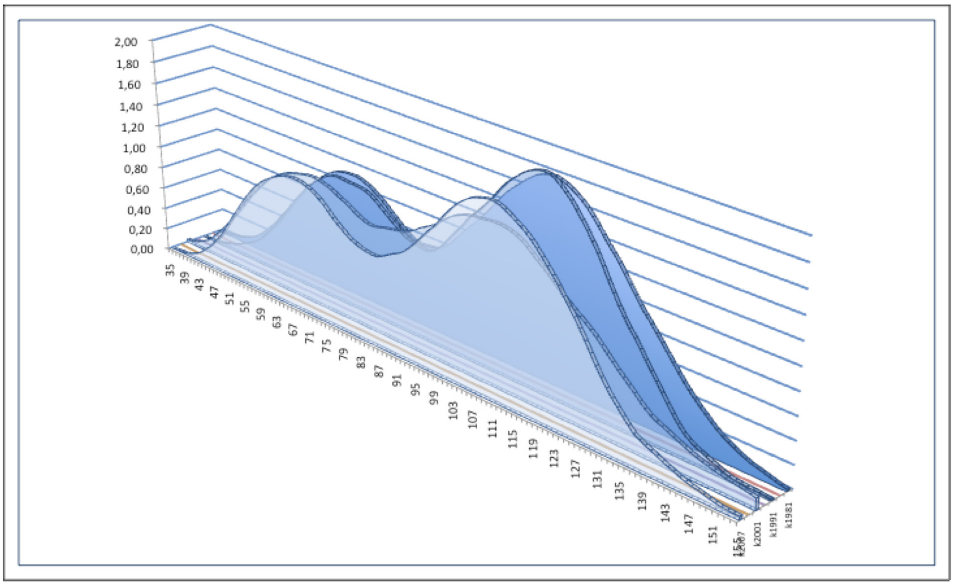
Provincial distribution of GDP per capita at current prices (in relation to the Italian average) 1951, 1961, 1971, 1981 (1)



Source: own elaborations on Istituto Guglielmo Tagliacarne and Svimez data. (1) Data refer to 95 provinces in 1951.

Figure 16

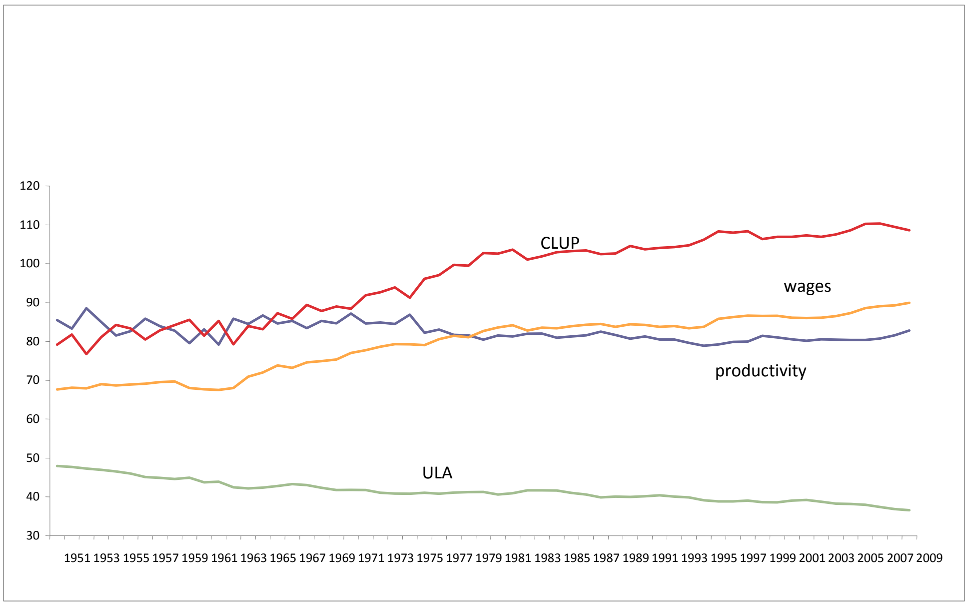
Provincial distribution of GDP per capita at current prices (in relation to the Italian average) for the years 1981,1991,2001,2007 (1)



Source: own elaborations on Istituto Guglielmo Tagliacarne and Svimez data. (1) Data refer to 95 provinces in 1951.

Figure 17

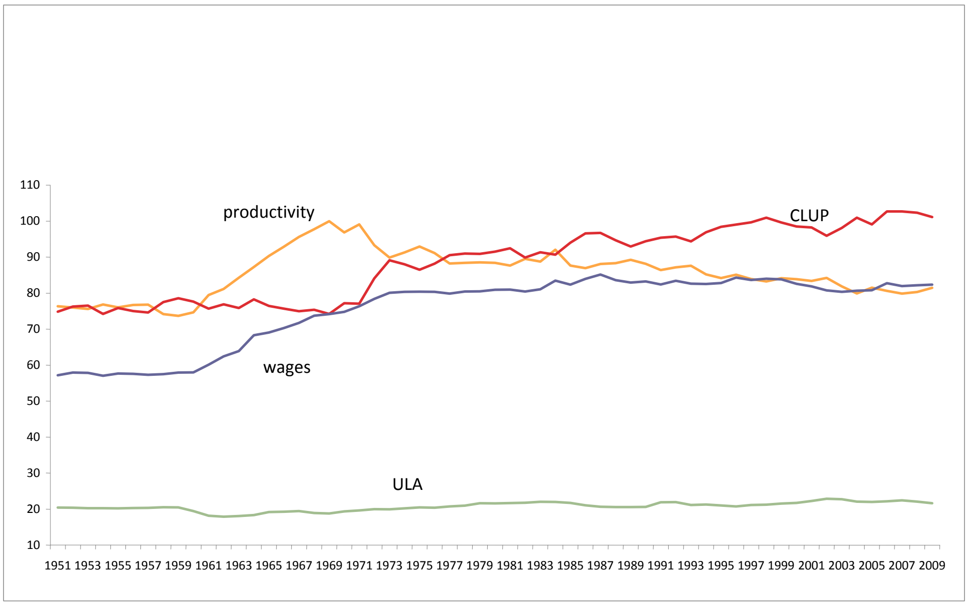
Productivity (2000 prices), Units of labour (ULA), wages, Unit labour cost (CLUP) : South as % of Centre North



Source: own elaborations on Svimez (2011).

Figure 18

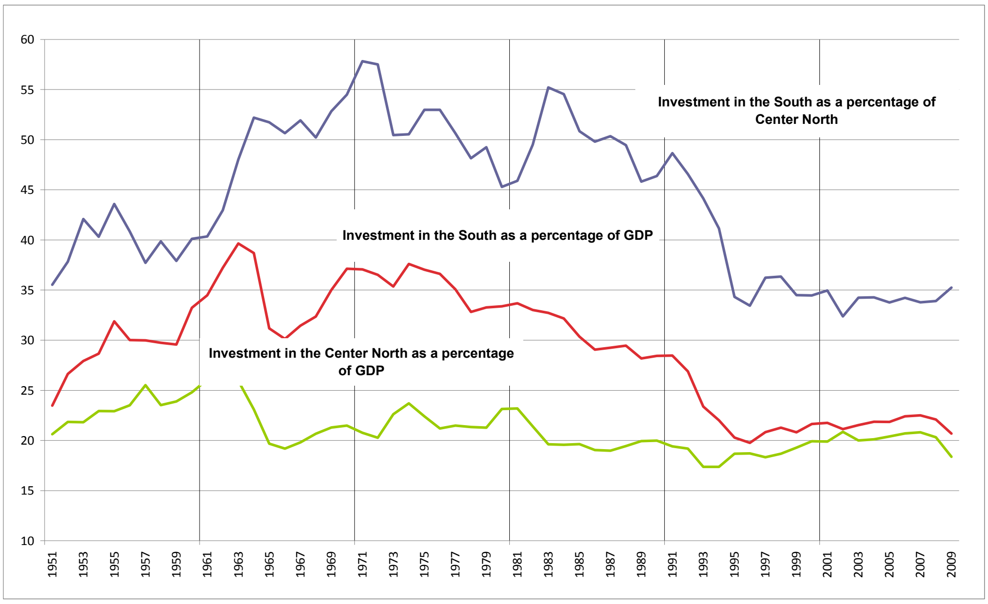
Productivity (2000 prices), Units of labour (ULA), wages, Unit labour cost (CLUP) in manufactury and energy sectors: South as % of Centre North



Source: own elaborations on Svimez (2011).

Figure 19

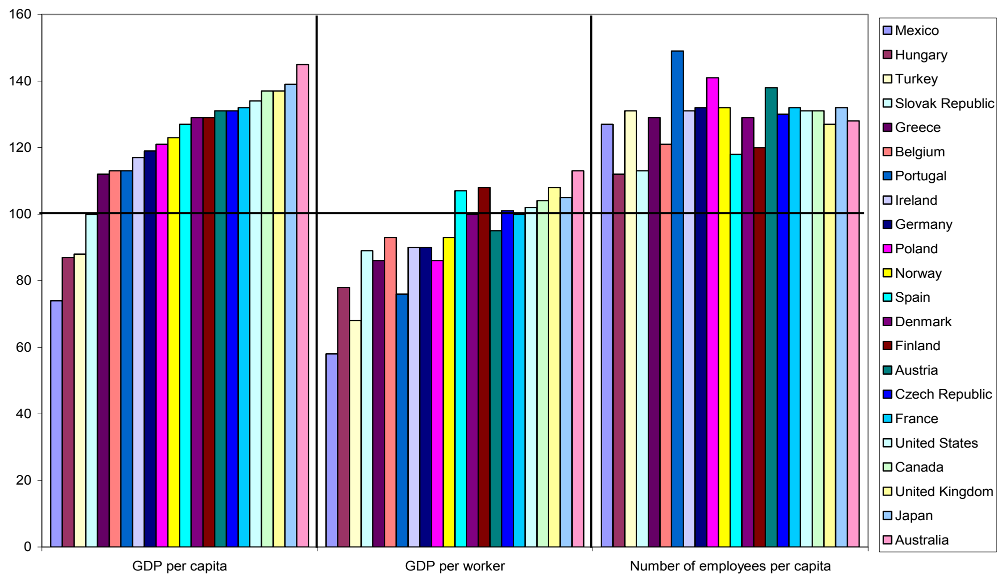
Rate of accumulation and investment by area (current prices)



Source: own elaborations on Svimez (2011).

Figure 20

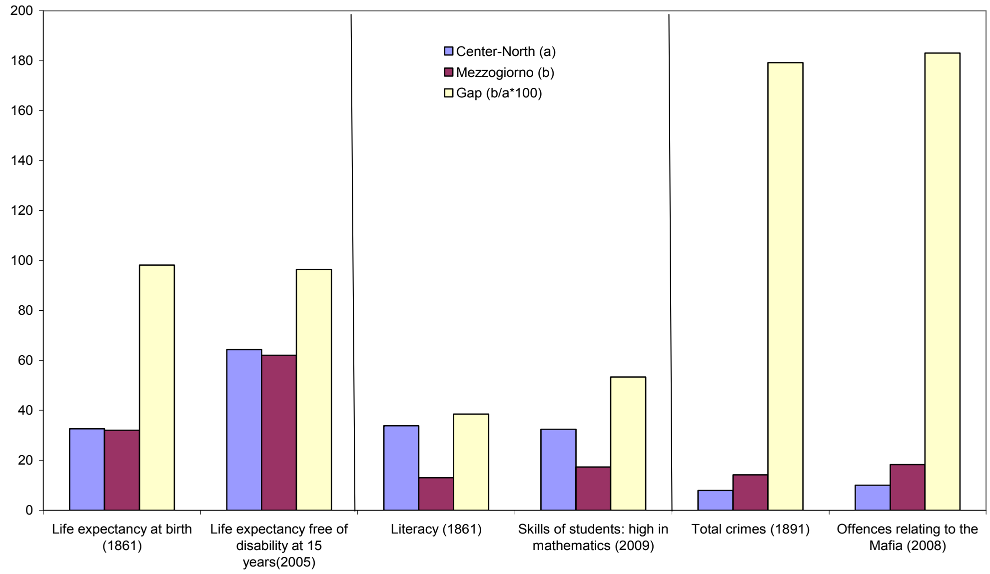
Regional disparities in income, productivity and employment in OECD countries (1)
(year 2005, indices Italy=100)



Source: own elaborations on OCSE data. (1) Distance between the economically backward regions and the rest of the country. The "backward" regions are those with GDP per capita less than 85 percent of the national average.

Figure 21

Indicators of health, education and crime



Source: own elaborations on Vecchi, 2011 and SVIMEZ, 2011 (for 1861 and 1891 data, respectively) and Istat (for recent years). Life expectancy is measured in years; literacy and skills of students as a percentage of the population aged 15-19 years, in the first case, and 15 years in the second. Total crimes from 1891 is related to one thousand inhabitants. Crimes linked to the Mafia in 2008 are expressed in relation to 100 000 inhabitants and is composed of the following offenses: Mafia association, Mafia murders, extortion, bombings and usury.

Methodological Note

An operational definition of industrial agglomeration

Description of the algorithm

Writing z^{ip} for the number of employees in the i^{th} region and in the p^{th} industry and Z^p for the employment in the whole country in the same industry, a frequently used index of geographical concentration is given by:

$$\boldsymbol{G} = \sum_{i=1}^{n} \left(\boldsymbol{s}_i{}^{p} - \boldsymbol{x}_i\right)^2 \text{, with } \boldsymbol{s}_i{}^{p} = \frac{\boldsymbol{z}_i{}^{p}}{\boldsymbol{Z}^{p}} \text{ and } \boldsymbol{x}_i = \frac{\sum_p \boldsymbol{z}_i{}^{p}}{\sum_p \boldsymbol{Z}^{p}}.$$

In the random location choice model proposed by Ellison and Glaeser (1997) the expected value of the G index becomes:

$$E(G) = \left(1 - \sum_{i=1}^{n} x_i{}^2\right)[\gamma + (1-\gamma)H]$$

where H is the Herfindahl index of the distribution of the industry plant size and γ is a parameter positively correlated to the intensity of agglomerating forces in the industry. If such forces are negligible (γ=0), we have:

$$\widetilde{G}^{\gamma=0} \sim \Phi(\mu,\sigma^2); \mu = (1 - \sum x_i^2)H > 0$$

We can therefore verify that the G index is not a correct measure of agglomeration because a spatial random distribution of a few plants may lead to a high value of G (through the H effect) even if agglomeration forces are not in action. Therefore G can be viewed as a "raw concentration" index that must be corrected for the share of concentration that would be expected to arise randomly.

In Iuzzolino (2004) we propose an algorithm to find industrial agglomerations based on this intuition of Ellison and Glaeser. As a first step, where no agglomeration advantages exist, we can split the random variable G into mutually independent "local components" ($\widetilde{G}^{\gamma=0} = \sum_{i=1}^{n} \widetilde{G}^{\gamma=0}{}_i$) so that we can let:

$$\widetilde{G}^{\gamma=0}{}_i \sim \Phi(\mu_i, \sigma^2{}_i) \text{ with } \mu = \sum_{i=1}^{n} \mu_i ; \sigma^2 = \sum_{i=1}^{n} \sigma^2{}_i .$$

In such a way we build an analytical link between the geographical concentration of an industry and the industrial specialization of a region. G_i can be viewed indeed as being both the contribution of the i^{th} region to the "raw concentration" in the industry and the degree of "raw specialization" of this region in that industry.

If available census data allow us to estimate for each area (down to the level of the municipality) both G_i and mean and variance parameters, we can test if the level of raw specialization of a local area is statistically consistent with the presence of agglomeration economies.

In particular, the basic step of the algorithm we propose is the selection of the areas where the difference between raw specialization (G_i) and the sample mean, under the null of γ_i=0, is larger than α time its standard deviation:

(1) $G_i > \mu_i + \alpha * \sigma_i$.

A few calculations show that (1) corresponds to:[72]

$$(s_i - x_i)^2 > s_i^2 h_i \left(1 - \sum_{i=1}^{n} x_i^{\,2}\right) + \alpha \left\{ s_i^2 h_i Hk - s_i^4 \sum_{j=1}^{k_i} \frac{z_{ij}^4}{Z_i^4} y \right\}$$

It is interesting to note that, raw specialization being equal (that is holding fixed the value of s_i and $x_{i,}$), the difference between the two sides of inequality (1) depends on the h_i and therefore on the number and on the relative dimension of the firms located in the area. Sorting the areas by descending levels of this difference, we expect then to find at the top of the list those areas whose specialization is due to the presence of a great number of homogeneous firms: a condition that fits well with the intuitive notion of agglomeration.

In censuses prior to 1981, there is no information on the distributions of employees by size of plants (necessary for the calculation of H), broken down by industry and municipality. As shown in Iuzzolino-Menon (2010) in the absence of this information you can use the average size of firm (number of employees/number of firms), correspondingly increasing the threshold of significance $\tilde{\alpha}$

With (1) we can select the single municipality with a strong industrial specialization that can be ascribed to agglomeration advantages. The next question we have to answer is the building up, around those municipalities, of an agglomerated area (AA) that could approach the space of probable diffusion of such advantages.

In this regard we think that the cross-border spillover mechanism from a "point of agglomeration" tends to determine relatively high levels of specialization (at least in the sense of $\gamma_i > 0 \Leftrightarrow \boldsymbol{G_i > \mu_i}$) also in the neighbouring areas. Denoting with $d(i,j)$ a dichotomic variable that holds zero only if the i^{th} and j^{th} areas are neighbouring, an AA can be depicted by:

(2) $AA = \bigcup_{i=1}^{s} i : \gamma_i > 0$ and $\exists$ j$\in$AA: $\forall i$, $d(i,j)$=0.

In this way, an AA expands until no-specialized areas border each one of its i^{th} components. Such a property, which we impose on our algorithm, can be interpreted as an example of the process of spatial correlation that is peculiar to several economic phenomena:

---

[72] k and y are variable equal to :

$$k = 2\left\{\left[\sum_{i=1}^{n} x_i^{\,2} - 2\sum_{i=1}^{n} x_i^{\,3} + \left(\sum_{i=1}^{n} x_i^{\,2}\right)^2\right]\right\};\ y = 2\left\{\left[\sum_{i=1}^{n} x_i^{\,2} - 4\sum_{i=1}^{n} x_i^{\,3} + 3\left(\sum_{i=1}^{n} x_i^{\,2}\right)^2\right]\right\}$$

in fact, an area with a large value of G_i (beyond the "1" threshold) may represent a "centre of agglomeration" so that firms will locate their plants in the neighbourhood. Therefore, the likelihood of finding other specialized area around the "centre" will be high. Moreover, if we suppose that the intensity of agglomeration advantages falls off with distance, this likelihood will decrease as we move away from the "centre". The presence of non-specialized areas that enclose the AA may then announce the exhaustion of localization advantages.

After we have built the "more agglomerated area", starting from the municipality with the maximum value of Gi fulfilling the condition (1), we look for other possible agglomerations, repeating the process up to a complete exploration of the country.

In conclusion, from (1) and (2) we can define as AA a continuum of municipalities, all specialized in a predetermined industry, at least one of which exceeds the degree of specialization calculated under the null hypothesis of absence of agglomeration advantages.

Problems arising from incomplete census information

Intertemporal comparisons reported in the text should be interpreted with caution: only the census data from 1951 to 2001 have the same observation field, both sectoral and territorial. That of of 1871 and 1911 are calculated on the basis of information not consistent with each other and different from those of subsequent years. In particular, the following issues should be mentioned:

1. In the population census of 1871 the total employment local data (necessary for the calculation of $\mathbf{x_i}$) are not very reliable: the proportion of unoccupied population (reported in the census category number 17 "people charged to others or without profession") is actually extremely variable even within the same region (between the districts of the Veneto, for example, it varies between 33 and 98 percent). For this reason we chose the population size, instead of employment, as a parameter for comparison.

2. The data of 1871 are not available at the municipality level, but that of the district administration. This tends to oversize the extension of specialized areas. To reduce the impact of this problem, the significance threshold was was set equal to twice that used for industrial census of the following years.

3. For the construction of the test, data from the population census of 1871 have been adjusted and integrated to address the numerous problems of missing information:

- *identification of population employed in manufacturing sectors:* we have selected the classes and subclasses of economic activity using the procedures in Fenoaltea (2001). This procedure was implemented at the provincial level (in the absence of sufficiently disaggregated data for the district). Subsequently, each crossing district/sector is assigned the same coefficient of the province. We considered all employed males reported in the Census of the population. The employed women were instead calculated on the basis of female/male employment ratio reported for each sector in *Ellena, V. (1879);*

- *estimate of the average size of firms*: for the industries surveyed by Ellena, V. (1879) we used the regional data, attributing them to each district in the region. For sectors not surveyed in Ellena, V. (1879), we used the parameters of the census of 1911, assuming that variations in these parameters between 1871 and 1911 were similar to the average of other (surveyed) sectors.

4. According to Fenoaltea (2007) census data of 1911 severely underestimate the size of the handicrafts; the underestimation would also be geographically uneven, especially for Southern regions where the craft industry was relatively more important. In the analysis reported in the text, it means that the agglomerations of 1911 are particularly representative of the most modern and structured Italian industry. For this reason, comparisons with 1871 are useful primarily in the sense of "birth" (how many districts specialized become "strong" industrial agglomerations). Instead, the comparisons with 1951 are especially useful in the sense of "mortality" (how many "strong" industrial agglomerations do not survive to the sequence "war-fascism-war").

References

A'Hearn B. (2000), *Could southern italians cooperate? Banche popolari in the Mezzogiorno,* The Journal of Economic History, vol. 60, n. 1.

A'Hearn B., Auria C., Vecchi G. (2011), *Istruzione*, in Vecchi G. (a cura di) (2011).

Amendola N., Brandolini A., Vecchi G. (2011), "Disuguaglianza", in Vecchi G.(a cura di) (2011).

Amendola N., Salsano F., Vecchi G. (2011), *Povertà*, in Vecchi G. (a cura di) (2011).

Atella V., Francisci S., Vecchi G. (2011), *Salute*, in Vecchi G. (a cura di) (2011).

Banca d'Italia (2010) *Il Mezzogiorno e la politica economica dell'Italia*

Bagnasco, A. (1977) *Tre Italie: la problematica territoriale dello sviluppo italiano*, Bologna: Il Mulino.

Barbagallo, F. (2010) *Storia della Camorra* , Roma-Bari: Laterza.

Barca F. (1997), (a cura di), *Storia del capitalismo italiano*, Roma: Donzelli.

Barca F. (1997), *Compromesso senza riforme*, in Barca, F. (a cura di) 1997.

Barca F. e Trento, S. (1997), *La parabola delle partecipazioni statali: una missione tradita*, in Barca, F. (a cura di) 1997.

Barone, G. (1986), *Mezzogiorno e modernizzazione. Elettricità, irrigazione e bonifica nell'Italia contemporanea*, Torino: Einaudi.

Barucci P. (1978), *Ricostruzione, pianificazione, Mezzogiorno. La politica economica in Italia dal 1943 al 1955,* Bologna: Il Mulino.

Barucci P. (2003), *La condizione del Mezzogiorno – ieri, oggi e domani – tra vincoli ed opportunità* SVIMEZ*, Quaderno di informazioni, n.21* Roma.

Barucci, P, Pellegrini, G., Miotti, D. (2011) *I divari territoriali in una prospettiva storica: dall'unità d'Italia ad oggi*, pp. 123-153, in Guido Pescosolido (a cura di) "Cento anni di attività dell'Associazione Nazionale per gli Interessi del Mezzogiorno d'Italia e la questione meridionale oggi", Rubettino editore 2011.

Bevilacqua P. (1993), *Breve storia dell'Italia meridionale,* Roma: Donzelli.

Bevilacqua P., Rossi Doria M. (1984), *Le bonifiche in Italia dal '700 a oggi,* Roma-Bari: Laterza.

Bianchi L., Masselli M. e Pellegrini G. (2008), *L'efficacia economico-sociale dei Contratti di programma. I risultati di una ricerca valutativa* Rivista di Economia e Statistica del Territorio n.3 settembre-dicembre 2008, Franco Angeli Editore.

Bodo G., Sestito P. (1991), *Le vie dello sviluppo*, Bologna: Il Mulino.

Bodo G., Viesti G. (1997), *La Grande Svolta*, Roma: Donzelli.

Broadberry, S., Giordano, C., Zollino, F. (2011) *A Sectoral Analysis of Italy's Development: 1861-2011* mimeo.

Brunetti A., Felice E., Vecchi G. (2011), *Reddito*, in Vecchi G. (a cura di) (2011).

Brusco, S. e Paba, S. (1997), *Per una storia dei distretti industriali italiani dal secondo dopoguerra agli anni novanta* in Barca F., 1997.

Cafagna L. (1994), *Nord e Sud*, Padova: Marsilio.

Cafiero S. (1976), *Sviluppo industriale e questione urbana nel Mezzogiorno*, Monografie Svimez, Giuffrè Editore, Milano;

Cafiero S. (1996), *Questione meridionale e unità nazionale* (1861-1995), Roma: La Nuova Italia Scientifica.

Caizzi B. (1998). *Meridionalismo critico. Scritti sulla questione meridionale 1945-73*, Roma: Pietro Lacaita.

Cannari, L. e Chiri, S. (2002) *Le infrastrutture economiche dall'Unità*, in Ciocca, P.L. e Toniolo, G. (a cura di), Storia Economica d'Italia, Vol. III, Tomo I Roma-Bari: Laterza.

Cannari, L., Magnani, M. e Pellegrini, G. (2010) *Critica della ragione meridionale*, Roma-Bari: Laterza.

Canosa, R. (1991) *Storia della criminalità in Italia: 1845-1945* Torino: Einaudi.

Carey J.P. Clark e Carey A. Galbraith (1955), *The South of Italy and the Cassa per il Mezzogiorno*, *Political Research Quarterly* December 1955 8: 569-588.

Casavola, P. (1994) *Occupazione e disoccupazione: è cambiato il mercato del lavoro italiano*?, Banca d'Italia aprile 1994, mimeo.

Castronovo V. (1975), *La storia economica,* in *Storia d'Italia. Dall'unità ad oggi. Da contadini ad operai,* Torino: Einaudi.

Castronovo V. (2010), *L'Italia del miracolo economico*, Roma-Bari: Laterza.

CESAN (Centro Studi Aziendali G.Cenzato) (1978) *Di chi è l'industria meridionale*, Napoli 1978.

Chenery H.B. (1962) *Development policies for southern Italy*, "The quarterly journal of economics" n. 4.

Ciccarelli, C. e Fenoaltea, S. (2010), *Attraverso la lente d'ingrandimento: aspetti provinciali della crescita industriale nell'Italia postunitaria*, Banca d'Italia, Quaderni di storia economica, numero 4 luglio 2010.

Cingano, F. e Schivardi, F. (2005), *Struttura produttiva locale e crescita* in Signorini, F. e Omiccioli, M. (a cura di) *Economie locali e competizione globale* Bologna: Il Mulino.

Ciocca, P. (2007) *Ricchi per sempre? Una storia economica d'Italia, 1796-2005* Torino: Bollati Boringhieri.

Clough S.B. e Livi C. (1956) *Economic growth in Italy: an analysis of the uneven development of North and South*, "The journal of economic history", vol. 16, n. 3.

Cohen e Federico (2001) *Lo sviluppo economico italiano: 1820-1960*, Bologna: Il Mulino.

Confindustria, Centro Studi (2010), *Libertà e benessere: l'Italia al futuro*, aprile 2010.

Conte L., Della Torre G., Vasta M. (2007), *The Human development index in historical perspective: Italy from political unification to the present day,* Università di Siena, Dip economia politica-Quaderni, n. 491.

Conte L., Rossi M., Vecchi G. (2011), *Vulnerabilità*, in Vecchi G. (a cura di) (2011)

Conti S., Sforzi F. (1997), *Il sistema produttivo italiano* in Coppola P. (a cura di) *Geografia politica delle regioni* italiane, Torino: Einaudi.

Corbino, E. (1957) *Annali dell'Economia Italiana* vol. II 1871-1880, Città di Castello.

Crafts N., (2004), *Regional GDP in Britain, 1871-1911: Some Estimates* London School of Economics, Department of Economic History Working Paper No. 03/04.

Crafts N., Magnani M. (2011), *Italy's policy responses to postwar changes in the world economy*, mimeo;

Davis J.A. (1999), "Mutamenti di prospettiva sul cammino dell'Italia verso il XX secolo", in Ciocca P., Toniolo G. (a cura di), *Storia economica d'Italia. 1. Interpretazioni*, Roma-Bari: Laterza.

D'Antone, L. (1997) *Staordinarietà e Stato ordinario*, in Barca, F. (1997).

D'Antone L. (2011), *L'IRI da ente transitorio a ente permanente*, mimeo;

D'Antone L. (2011a), *Infrastrutture,* mimeo, Roma, Camera dei Deputati, 30 maggio

Daniele V., Malanima P. (2007), *Il prodotto delle regioni e il divario Nord-Sud in Italia (1861-2004)*, Rivista di politica economica marzo-aprile 2007, pp. 267-315.

D'Aurizio L. e Ilardi G. (2011), *Occupazione e investimenti nel mezzogiorno: il ruolo delle imprese del Centro Nord*, lavoro presentato al workshop della Banca d'Italia su *Integrazione economica tra il Mezzogiorno e il Centro Nord* , Roma: 15 marzo 2011.

De Rosa, L. (1968) *Iniziativa e capitale straniero nell'industria metalmeccanica del Mezzogiorno 1840-1904*, Napoli: Giannini Editore.

Ellena, V. *La statistica di alcune industrie italiane*, Tip. Elzeviriana, 1879.

Ellison, G. and Glaeser, E.L. (1997), *Geographic Concentration in U.S. Manufacturing Industries: A Dartboard Approach*, Journal of Political Economy, Vol. 105, No. 5, pp. 889-927.

Eckaus R.S. (1961), *The North-South differential in Italian economic development*, in "The journal of economic history, n. 3, september;

Faini, R. (1983), *Cumulative processes of de-industrialisation in an open region. The case of Southern Italy, 1951-1973*, in "Journal of development economics", n. 3;

Federico, G. (2007), *Ma l'agricoltura meridionale era davvero arretrata?* Rivista di politica economica marzo-aprile 2007, pp. 317-340.

Federico, G. e Giannetti, R., (1998), *Le politiche industriali* in Storia d'Italia, Annali 15, L'industria, [a cura di] Amatori F., Bigazzi D., Riannetti R. e Segreto L., Torino: Einaudi pp. 1127-1159.

Felice, E. (2007), *Divari regionali e intervento pubblico*, Bologna: Il Mulino.

Felice E. (2007a), *I divari regionali in Italia sulla base degli indicatori sociali*, Rivista di politica economica marzo-aprile 2007, pp. 359-405.

Fenoaltea S. (2001), *La crescita industriale delle regioni d'Italia dall'unità alla Grande Guerra: una prima stima per gli anni censuari*, Banca d'Italia, Quaderni dell'Ufficio ricerche Storiche, n.1;

Fenoaltea S. (2006), *L'economia italiana dall'Unità alla Grande Guerra,* Laterza

Fenoaltea S. (2007), *I due fallimenti della storia economica: il periodo post-unitario,* Rivista di politica economica marzo-aprile 2007, pp. 341-358.

Ferri, G. e Trento, S. (1997), *La dirigenza delle grandi banche e delle grandi imprese: ricambio e legami*, in Barca F., 1997.

Francese, M. e Pace, A. (2008) *Il debito pubblico italiano dall'Unità a oggi. Una ricostruzione della serie storica* Questioni di Economia e Finanza num. 31, ottobre 2008, Roma: Banca d'Italia.

Fuà, G. e Zacchia, C. (1984) *Industrializzazione senza fratture*, Bologna: Il Mulino.

Galasso, G. (2010) *Storia del Regno di Napoli*, 6 voll., Torino: UTET 2008-2010.

Giannola A., (2010), *Il Mezzogiorno nell'economia italiana. Nord e Sud a 150 anni dall'Unità*, Rivista economica del Mezzogiorno. Anno XXIII, 2010, n. 3.

Del Monte, A. e Giannola A., (1978), *Il Mezzogiorno nell'economia italiana*, Bologna: Il Mulino.

Del Monte, A. e Giannola A., (1997), *Istituzioni economiche e Mezzogiorno nell'economia italiana*, Roma: La Nuova Italia Scientifica.

Gerschenkron A. (1965), *Il problema storico dell'arretratezza economica*, Torino: Einaudi.

Graziani A. e Pugliese E. (a cura di) (1979) *Investimenti e disoccupazione nel Mezzogiorno*, Bologna: Il Mulino.

Iuzzolino G. (2004), "Costruzione di un algoritmo di identificazione delle agglomerazioni territoriali di imprese manifatturiere", in *Economie locali, modelli di agglomerazione e apertura internazionale*, Roma, Banca d'Italia.

Iuzzolino G. (2009), *I divari territoriali di sviluppo in Italia nel confronto internazionale*, in *Mezzogiorno e politiche regionali*, Roma: Banca d'Italia.

Iuzzolino G. e Menon C. (2011), *Le agglomerazioni industriali del Nord Es: segnali di discontinuità negli anni duemila*, mimeo.

La Marca, N. (1973), *Il dualismo imprenditoriale italiano. Indagine sulle cause storiche del divario Nord-Sud*, Roma: Bulzoni.

Marshall, A. (1890) *Principles of Economics*, London: Macmillan.

Martinez-Gallaraga, J. (2007) *New Estimates of Regional GDP in Spain, 1860-1930.*, Documents de Treball de la Facultat de Ciències Econòmiques I Empresarials, Collecciò d'Economia, Universitat de Barcelona, 2007.

Mauro, L. e F. Pigliaru, F. (2011) *Social Capital, Institutions and Growth: Further Lessons from the Italian Regional Divide* CRENOS, working paper, no.3

Meriggi. M. (2011) *Gli stati italiani prima dell'Unità*, Bologna: Il Mulino.

Ministero dell'economia e delle finanze, Dipartimento della Ragioneria generale dello Stato (2011), *La spesa dello Stato dall'Unità d'Italia, anni 1862*-2009, Roma, gennaio 2011.

Ministero del Bilancio (1962), *Problemi e prospettive dello sviluppo economico italiano*. Nota presentata al Parlamento dal ministro del Bilancio Ugo La Malfa il 22 maggio.

Monnier, M. (1863) *La camorra: notizie storiche raccolte e documentate*, Firenza: G. Barbera editore, terza edizione.

Nitti, F.S. (1903) *Napoli e la questione meridionale*, ristampato da Arti Tipografiche Napoli (2004).

Nitti F.S. (1958), *Scritti sulla questione meridionale,*vol I e II, Roma-Bari: Laterza.

Nitti F.S. (1993), *Nord e Sud,* Rionero in V. (PZ): Calice Editori.

Pescosolido G. (1998), *Unità nazionale e sviluppo economico*, Roma-Bari: Laterza.

Petri R. (1991), *Industria, territorio, intervento speciale. Riflessioni su una tradizione non solo meridionalista*, Meridiana, n. 1

Pilloton F. (1960), *Effetti moltiplicativi degli investimenti della "Cassa per il Mezzogiorno"*, Monografie Svimez, Roma: Giuffrè Editore.

Pinotti P. (2010), Commissione parlamentare di inchiesta sul fenomeno della mafia e sulle altre associazioni criminali, anche straniere. Seduta del 17.11.2010. *Studio della Banca d'Italia su* *“i costi economici della criminalità organizzata” annesso alla proposta di relazione*, luglio 2010.

Romeo R. (1959), *Risorgimento e capitalismo*, Laterza, Roma-Bari;

Romeo R. (1979), *Un contributo al bilancio di venticinque anni di storia del Mezzogiorno*, in Svimez, *Nord e Sud dal 1951 al 1976*, documenti Svimez, Roma;

Romeo R. (1988), *Breve storia della grande industria in Italia 1861-1961*, Il Saggiatore, Milano;

Rossi, S. (1998), *La politica economica italiana* Roma-Bari: Laterza.

Rossi Doria, M. (1957), *Dieci anni di politica agraria nel Mezzogiorno*, Roma-Bari: Laterza.

Rossi Doria, M. (1982), *Scritti sul Mezzogiorno*, Torino: Einaudi.

Salvadori, M.L. 2011 L’Italia e i suoi tre stati. Il cammino di una nazione, Roma-Bari: Laterza.

Saraceno P. (1977), *Intervista sulla ricostruzione (1943-1953)*, Roma-Bari: Laterza.

Saraceno P. (1974), *Il meridionalismo dopo la ricostruzione (1948-1957)*, Monografie Svimez, Roma: Giuffrè Editore.

Saraceno P. (a cura di) (1974), *Ricostruzione e pianificazione (1943-1948)*, Monografie Svimez, Roma: Giuffrè Editore.

Servidio G., Prezioso S. (2011), *Industria meridionale e politica industriale dall’unità ad oggi,* Roma, maggio

Siracusano F., Tresoldi C., Zen G. (1986), *Domanda di lavoro e trasformazione dell’economia del Mezzogiorno*, Banca d’Italia “Temi di discussione” , n. 83, Roma.

Siracusano F. e Tresoldi C. (1990) *Le piccole imprese manifatturiere: diseconomie esterne, incentivi, equilibri gestionali e finanziari*, in Banca d'Italia “Il sistema finanziario nel Mezzogiorno”, Roma 1990.

Schultze, M.S. (2007), *Regional Income Dispersion and Market Potential in the Late Nineteenth Century Hapsburg Empire* London School of Economics, Department of Economic History Working Paper No. 106/07.

Svimez (1979), Nord e Sud dal 1951 al 1976, documenti Svimez, Roma;

Svimez (1978), *Un quarto di secolo nelle statistiche Nord-Sud 1951-1976*, Roma: Giuffrè Editore.

Svimez (1961), *Un secolo di statistiche italiane Nord e Sud 1861-1961*, Roma: Giuffrè Editore.

Svimez (1954), *Statistiche sul Mezzogiorno d’Italia (1861-1953)*, Roma: Giuffrè Editore.

Svimez (2011), *150 anni di statistiche italiane: Nord e Sud 1861-2011*, Bologna: Il Mulino.

Sylos-Labini P. (1985), *L’evoluzione economica del Mezzogiorno negli ultimi trent’anni*, “Temi di discussione”, n. 46, Banca d’Italia, Roma.

Sylos-Labini P. (2001), *Sottosviluppo - una strategia di riforme* Roma-Bari: Laterza.

Toniolo G. (1980), *L’economia dell’Italia fascista*, Roma-Bari: Laterza.

Toniolo G., (1988), *Storia economica dell’Italia liberale1850-1918,* Bologna: Il Mulino.

Trigilia C. (1992) *Sviluppo senza autonomia. Effetti perversi delle politiche nel* Mezzogiorno, Bologna: Il Mulino.

Vecchi G. (2001) *In ricchezza e in povertà. Il benessere degli italiani dall’Unità ad oggi*, Bologna: Il Mulino.

Viesti, G. (1995) *La geografia delle esportazioni italiane*, Rivista di politica economica 85(4), 1995, pp. 69-9.

Viesti, G. (2000) *Come nascono i distretti industriali*, Roma-Bari: Laterza.

Viesti G. (2009), *Mezzogiorno a tradimento. Il Nord, il Sud e la politica che non c'è*, Roma-Bari: Laterza.

Williamson J.G. (1965), *Regional Inequality and the Process of National Development: A Description of the Patterns*, "Economic Development and Cultural Change", 13.

Wolleb E., Wolleb G. (1990), *Divari regionali e dualismo* economico, Bologna: Il Mulino.

Zamagni,. V., (1987) *A Century of change: trends in the composition of the Italian Labour Force, 1881-1981,* Historical Social Research, XLIV.

Zamagni V. (1993), *Dalla periferia al centro. La seconda rinascita economica dell'Italia 1861-1990*, Bologna: Il Mulino.

Zamagni V. (2002), *La Grande guerra come elemento di rottura della crescita equilibrata dell'economia italiana*, in Garcia Sanz F. (ed.), *Espana e Italia en la Europa contemporanea: desde finales de siglo XIX a las dictaduras*, Csic, Madrid.

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