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run (1871–2001). Patterns and determinants**

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# Regional income inequality in Italy in the long run (1871–2001). Patterns and determinants

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**Abstract:** The chapter presents up-to-date estimates of Italy's regional GDP, with the present borders, in ten-year benchmarks from 1871 to 2001, and proposes a new interpretative hypothesis based on long-lasting socio-institutional differences. The inverted U-shape of income inequality is confirmed: rising divergence until the mid-twentieth century, then convergence. However, the latter was limited to the centre-north: Italy was divided into three parts by the time regional inequality peaked, in 1951, and appears to have been split into two halves by 2001. As a consequence of the falling back of the south, from 1871 to 2001 we record  $\sigma$ -divergence across Italy's regions, i.e. an increase in dispersion, and sluggish  $\beta$ -convergence. Geographical factors and the market size played a minor role: against them are both the evidence that most of the differences in GDP are due to employment rather than to productivity and the observed GDP patterns of many regions. The gradual converging of regional GDPs towards two equilibria instead follows social and institutional differences – in the political and economic institutions and in the levels of human and social capital – which originated in pre-unification states and did not die (but in part even increased) in post-unification Italy.

**Keywords:** Italy, regional convergence, long-run economic growth, geography, institutions

**JEL codes:** O11, O18, O52, N13, N14.

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## 1. Introduction

Italy's regional disparities are renowned throughout the world, in academia and beyond. The unification of the peninsula, one hundred and fifty years ago, was an event of paramount importance for the history of nineteenth-century Europe. Southern Italy, the former Kingdom of the Two Sicilies, was the most backward part of the country and has remained so until the present day. What strikes the observer, however, is that it has gained a firm position as a paradigmatic case of a backward society. There is probably no other part of the Western world that can boast such dubious fame. Before unification, in 1851, William Gladstone, who for a time served as the British Prime Minister, had famously defined the southern kingdom as "the negation of God erected into a system of government" (cited in Acton, 1961, p. 339). With unification, Alexander Dumas, one of the greatest novelists of his time, established himself in Naples for four years, and his regular reports from the former southern capital helped to create the image of a savage south that was prey to organized crime, where "murder is just a gesture" (Dumas, 2012, p. 12). Some years after unification, Italian scholars also began to tackle the *questione meridionale* (the problem of the south), to discuss its origins and the ways to solve it: the debate continued until the fascist dictatorship and involved an impressive list of prominent figures, among others the Prime Minister of the late liberal age Francesco Saverio Nitti (1900), the mathematician Corrado Gini (1914), father of the index of the same name, the liberal philosopher Benedetto Croce (1925) and the most important communist thinker (arguably of the Western world) Antonio Gramsci (1951), as well as other well-known international scholars, such as the founder of anthropological criminology Cesare Lombroso (1876). In literary and popular culture, the problem of the south was the subject of some of the most important and successful novels of their times, such as *Fontamara* by Ignazio Silone (1933) or the memoir *Christ stopped at Eboli* by Carlo Levi (1945). In the first half of the twentieth century, the south's poor reputation even crossed the ocean and reached the United States, brought there by millions of southern emigrants – and by the Sicilian Mafia, which travelled with some of them.

In the second half of the twentieth century, as modern economic growth spread from the north-west of the peninsula to the north-eastern and central regions, eventually making Italy one of the great industrial powers of the world, southern Italy remarkably failed to converge and even – more worryingly – to create any significant autonomous industrial enterprise. Since the 1950s, the American political scientist Edward Banfield has probably contributed the most to establishing the Italian *Mezzogiorno* (southern Italy) as the backward society *par excellence* (Banfield, 1958).

His view inspired the recent work by Robert Putnam, who saw the south and the north of the peninsula as two exemplar cases of different settings regarding social capital (and thus institutional performance), which he argued date back to the late Middle Ages (Putnam, 1993): as southern Italy remained the paradigm of bad government, another part of the country (the north-eastern and central regions) by contrast became a symbol of good government and civicness, the breeding ground of industrial districts that could embody the alternative to Fordism and big business.<sup>1</sup> Path dependence, the importance of culture and values, the role of local institutions, that of state intervention and even the bi-univocal relationship between democracy and modern economic growth: all these topics central to any economic history reasoning have found in the regional imbalances of Italy – probably more than in those of any other European country – a privileged arena in which to be tested and compared.

The article presents up-to-date estimates of Italy's regional GDP, at ten-year intervals spanning from 1871 to 2001, at current national and regional borders. In the light of our broad quantitative picture, the main explanations of the determinants of Italy's regional inequality are rediscussed and a new interpretative hypothesis – based on long-lasting socio-institutional differences – is proposed.

## **2. The long-run evolution of Italy's regional inequality**

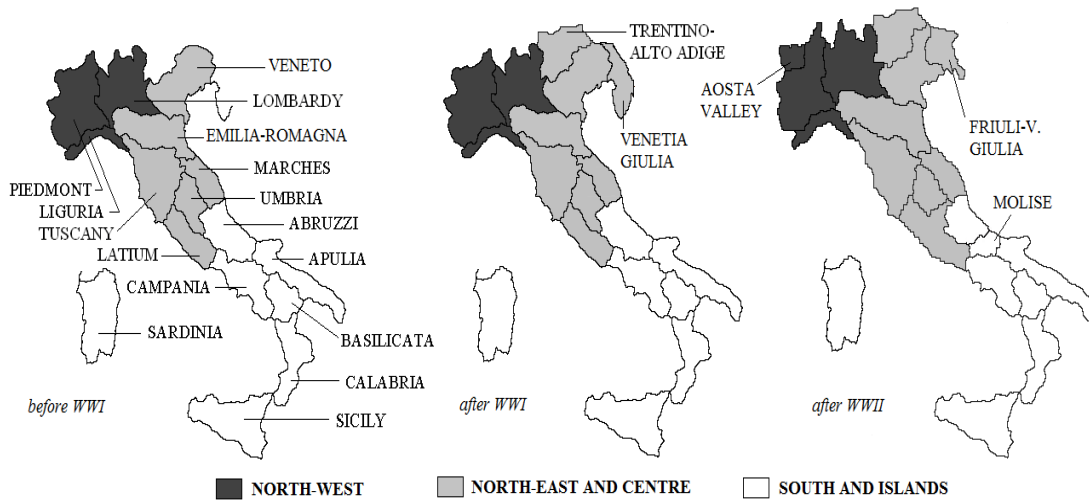
In order to obtain a long-run picture of regional inequality in Italy, regional GDP figures for eight benchmark years, spanning from 1871 to 1951 at regular ten-year intervals (the only exception is 1938 instead of 1941), have been produced; these have been linked to the estimates from 1961 to 2001, in five more ten-year benchmarks, available from official sources (Tagliacarne, 1962; Svimez, 1993; Istat, 1995, 2012). As a result, we can now observe the evolution of regional inequality in Italy from around the unification of the peninsula until the present day. For the benchmarks from 1871 to 1951, the estimate methodology is in line with that developed by Geary and Stark (2002): as a general rule, the national GDP has been allocated through regional employment, using differences in nominal wages as proxies for differences in productivity. In the case of Italy, however, it was possible to improve Geary and Stark's method in two main respects. Firstly, for most industry in the liberal age (the benchmarks from 1871 to 1911) and for agriculture throughout the period (1871–1951), it was possible to use direct production data, by taking advantage of the works by

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<sup>1</sup> The list of prominent international scholars who have extensively dealt with Italy's regional disparities should also include, at the very least, Arnold Toynbee (1965). Those who believe that there are genetic differences in the mean and variance of intelligence between the great human groups have also applied themselves to the Italian north–south divide, even in the latest years (Lynn, 2010; for a response, see Felice and Giugliano, 2011, and Daniele and Malanima, 2011).

Federico (2003) for agriculture<sup>2</sup> and by Fenoaltea (2004) and Ciccarelli and Fenoaltea (2006, 2008a, 2008b, 2008c, 2009a, 2009b, 2009c, 2010, 2012, forthcoming) for industry. Secondly, the level of sectoral decomposition is here much higher than in the work of Geary and Stark (who estimated three sectors: agriculture, industry and services), and this is partly due to the fact that the new Italy's national GDP was also highly detailed and reliable (Rey, 1992, 2000; Baffigi, 2013).<sup>3</sup>

**Map 1.** The changes in Italy's regions (1871-today)



Note: Molise was created in 1963.

With their historical regional borders, the estimates have been previously published (Felice, 2010, 2011b; Felice and Vecchi, 2013) for all the benchmarks minus three (1881, 1901 and 1921). In this chapter, however, all the estimates have been converted from the historical to the current regional borders, at the NUTS-2 level. The conversion resulted in some non-negligible changes and required us to return to the original sources (population censuses) and work with them at the provincial and even the district level, in order to estimate *ex novo* the GDP of some regions in the liberal age (Aosta Valley, Molise, Trentino-Alto Adige and part of Friuli), which were either included in bigger ones (Aosta Valley in Piedmont, Molise in Abruzzi) or part of the

<sup>2</sup> For four benchmarks (1891, 1911, 1938 and 1951); the others (1881, 1901, 1921 and 1931) have been reconstructed from official sources (the Italian Ministry of Agriculture, Industry and Commerce and later Istat, the national institute of statistics), after making their data uniform with Federico's results.

<sup>3</sup> In four benchmarks (1891, 1911, 1938 and 1951), the workforce is allocated through a remarkably high number of sectors (for industry and the services about 130 sectors in 1891, 160 in 1911, 400 in 1938 and 100 in 1951); the wage data have the same sector decomposition in 1938 and 1951, which is less detailed but still high in 1891 (30 sectors) and 1911 (34) (Felice, 2005a, 2005b). The estimates for 1871, 1881, 1901, 1921 and 1931 are less detailed: a little more than 20 sectors in both cases. In all the benchmarks estimated, our data consider female and child employment separately, and the estimate assigns them lower weights than adult male employment (Felice, 2009). Thanks to this high level of detail, when changing from this method to direct production data (such as those by Ciccarelli and Fenoaltea), there are no significant differences (see Felice, 2011a); neither are there differences when relaxing the assumptions about the unitary elasticity of substitution between labour and capital, implicit in Geary and Stark's method (Di Vaio, 2007).

Austria-Hungarian empire, or to recompose the GDP of other regions (namely Latium, but also Friuli-Venezia Giulia and to a much minor degree Emilia-Romagna), which acquired territories from their neighbouring ones (Campania, Abruzzi, Umbria, Veneto, Tuscany, Lombardy). In order to grasp the main border changes at a glance, Map 1 displays the confines of the Italian regions in three different epochs: the liberal age (before the First World War), the interwar years (after the First World War) and republican Italy (after the Second World War, the latter being the map of today and of our estimates). As a general rule, the conversion was made via reallocating the population and the employment divided into four sectors (agriculture, industry, construction and services), under the hypothesis that the parcelled-out territories had the same sectoral GDP per worker as their original regional whole.<sup>4</sup> It goes without saying that the new figures have advantages over the previous ones: now, for the first time, we can compare the long-run evolution of regions (i.e. of observations) that are territorially homogeneous throughout the period; the sample does not change, and thus we have removed the variation (of the single regional indices and the aggregate average measures) due to the rearrangement of internal borders and the inclusion of new territories.

What was the pattern of regional inequality in Italy in the long run? To begin with, we can observe Figure 1, which depicts a population-weighted index of regional dispersion (the variation of GDP per capita in Italian NUTS-2 regions)<sup>5</sup> and therefore can be considered as a measure of  $\sigma$ -convergence.<sup>6</sup>

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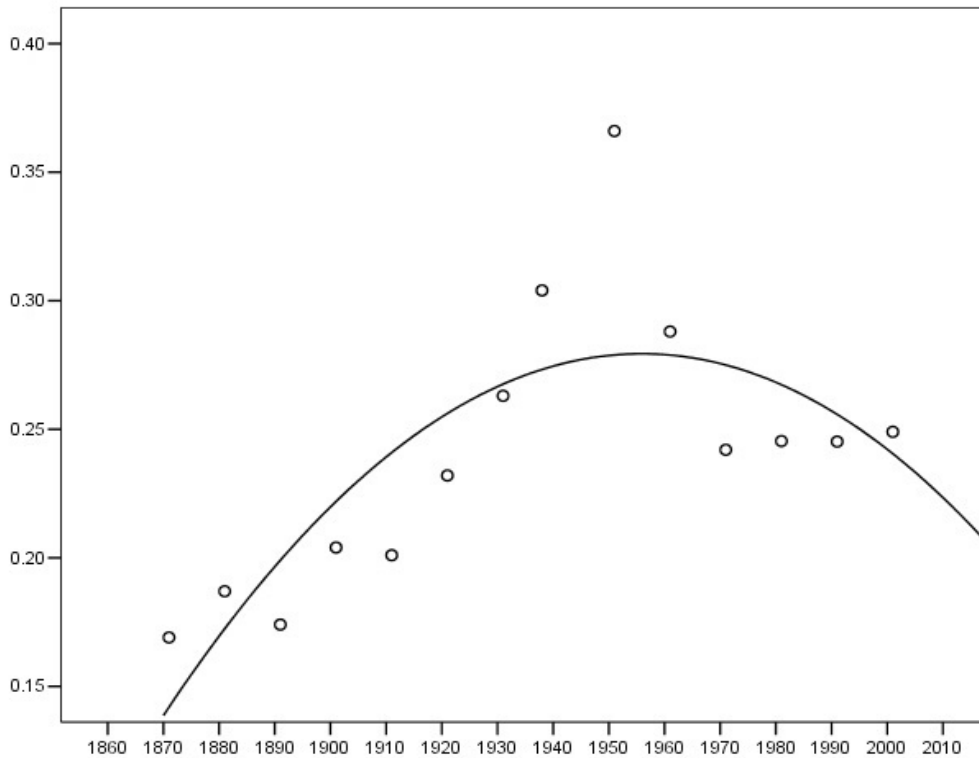
<sup>4</sup> In the past, current borders figures had been produced also by Daniele and Malanima (2007). They employed regional GDPs that now are partly out of date. Their methodology for conversion was not made explicit.

<sup>5</sup> I follow the formula in Williamson (1965): 
$$D = \sqrt{\left( \frac{y_i}{y_m} - 1 \right)^2 \times \frac{p_i}{p_m}};$$

where  $y$  is the per capita GDP,  $p$  is the population and  $i$  and  $m$  refer to the  $i$ -region and the national total, respectively.

<sup>6</sup> See Barro and Sala-i-Martin (1991, pp. 112–113) for a brief discussion of  $\sigma$ - and  $\beta$ -convergence.

**Figure 1.**  $\sigma$ -Convergence among the Italian regions (population-weighted coefficient of variation)



Source: Table 1.

Regional income inequality was on the rise from around unification until the end of the Second World War. We observe a decrease from 1951 to 1971, which were also the decades of the most intense growth of the Italian economy. From the 1970s onwards, however, when the national growth slowed down and ultimately came to a halt, the index of regional inequality also remained more or less unchanged; it even increased slightly. In the long run, the pattern has followed the inverted U-shaped curve (Williamson, 1965) only up to a certain point. It is true that there was a growth in inequality in the first half (1871–1951), then came a decrease, but this was unusual and disappointing at the same time: unusual since it began when the most advanced regions were also growing at their fastest; disappointing since it stopped as early as the 1970s. As a result, for the whole period from 1871 until 2001, but also for the entire twentieth century, even though the quadratic regression line (from Figure 1) reminds us of an inverted U-shape, we register a process of  $\sigma$ -divergence: convergence was the exception, limited to the golden age.

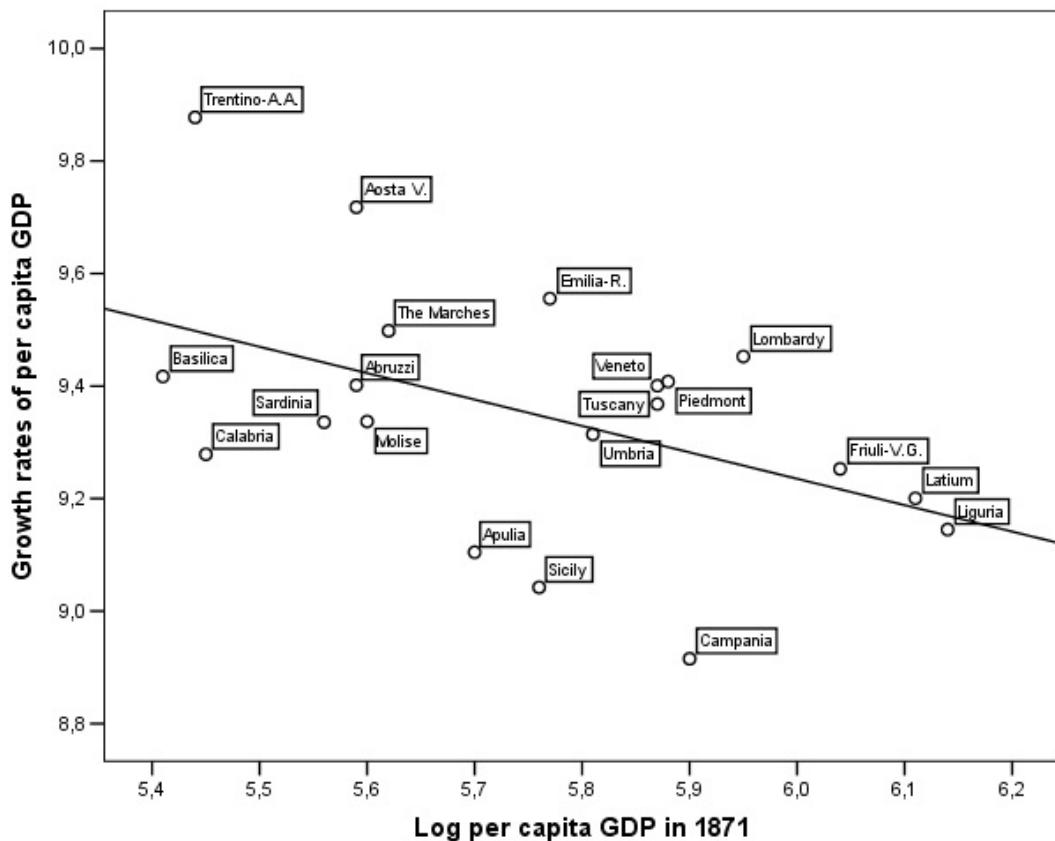
An increase in dispersion, however, is not incompatible with the possibility of the poorer regions growing faster than the richer ones. This has come to be known as  $\beta$ -convergence and is measured via growth regressions, as shown in Figure 2. The



correlation between the initial level of per capita GDP and the growth rate over the whole period is slightly negative, which means that in this case we have a convergence process. The implied convergence rate, however, is barely above 1%, thus considerably lower than the 2% observed for other countries and periods – and is also the predicted rate of the Solow growth model (Sala-i-Martin, 1996). It is true that the most backward regions grew above average, but the difference was small and not enough to reduce the overall dispersion.

A closer look at Figure 2 provides us with some answers regarding the discrepancy between  $\beta$ - and  $\sigma$ -convergence. Firstly, it should be noticed that all the southern regions are below the regression line: thus, given their initial income and their potential for convergence, they grew less than expected. Conversely – and secondly – the regions that grew the most were those relatively poor regions in 1871 that were part of the centre-north: Trentino-Alto Adige and Aosta Valley, mountainous territories that were “naturally” backward in an agricultural world, but are now among the richest Italian regions, mainly thanks to tourism. By ending up well above the average, in the long run (1871 to 2001), they have had a remarkable impact upon  $\beta$ -convergence, but practically a null one upon  $\sigma$ -convergence. Third, the opposite has occurred in the most populous southern region, Campania: in 1871, regarding GDP per capita, it was above the Italian average, but in the long run this region grew the least in the entire sample. From 1871 to 2001, its performance contributed to an increase in  $\beta$ -convergence, but to a decrease in  $\sigma$ -convergence. In short, the discrepancy between  $\beta$ - and  $\sigma$ -convergence is due to the disappointing performance of the southern regions, in contrast to the excellent performance of the once poorest regions of the centre-north.

**Figure 2.**  $\beta$ -Convergence among the Italian regions, 1871-2001

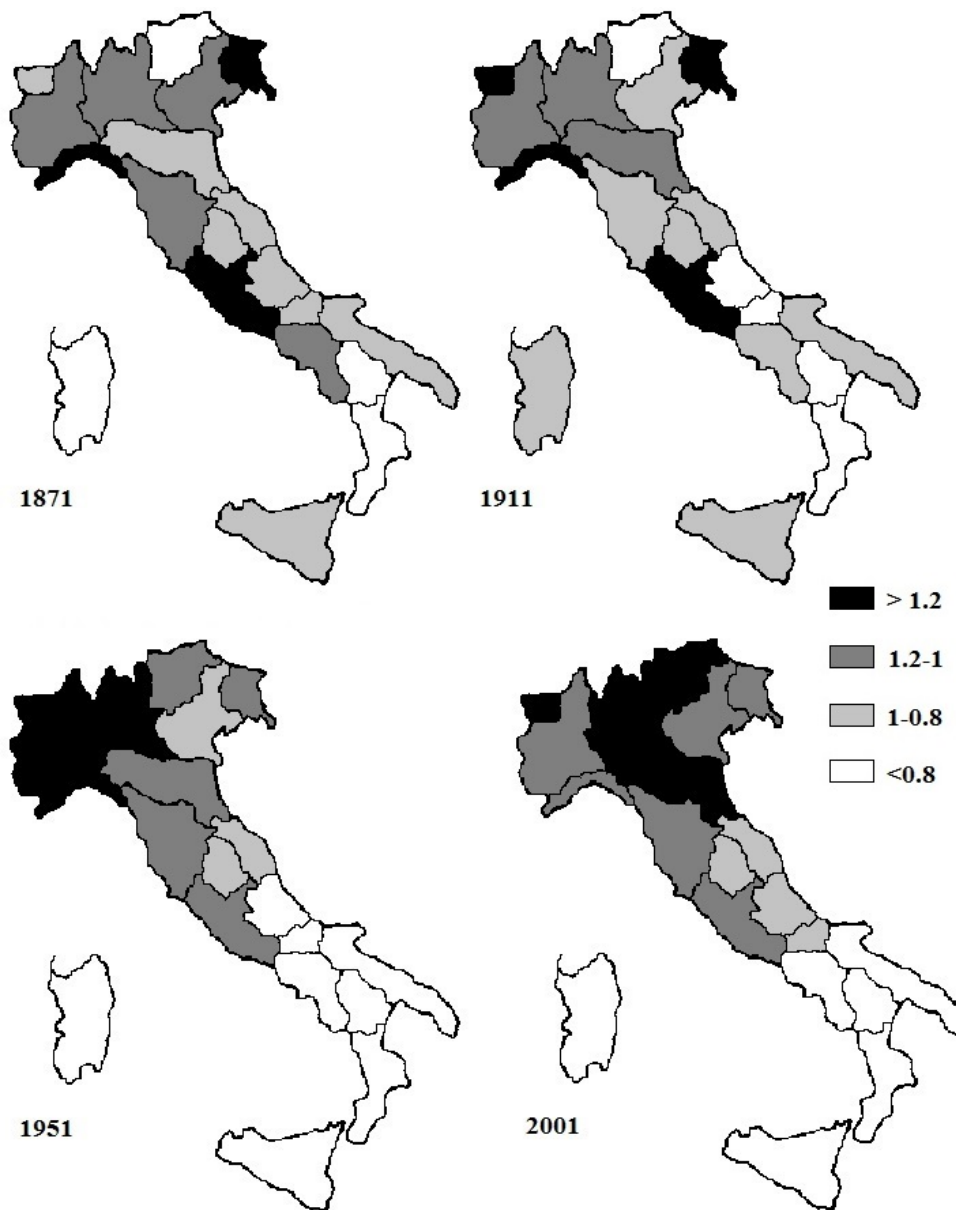


Source: Table 1.

This line of reasoning takes us to Table 1, which displays the relative per capita income of the Italian regions for each of the benchmarks estimated, and to Map 2, which offers a spatial perspective of the regional distribution of per capita GDP in four crucial benchmarks throughout the period (1871, 1911, 1951 and 2001). Around unification, a clear north–south divide still cannot be detected. Although the south was on average below the centre-north, as mentioned, its most important regions were above the average. Campania hosted the ancient capital of the former Kingdom of the Two Sicilies, Naples, which was also the greatest Italian city at that time. Other southern regions were not so far from the average: this is the case for Sicily, which could count on export-oriented agricultural and mining production (citrus fruits, sulphur) but also on a diversified urban structure with several services and manufacturing activities, and even for Apulia, mostly thanks to its diversified agriculture (grain, olive oil, wine). Within the centre-north, the differences were even more pronounced. The richest Italian regions were those that could boast the most developed tertiary sector: Liguria, with its credit and transportation activities, which served all the regions of the future “industrial triangle” (that is, Piedmont and Lombardy); Latium, which hosted the

new capital, Rome; as well as Friuli-Venezia Giulia, where Trieste served as practically the only sea harbour of the entire Austro-Hungarian empire. Lombardy and Piedmont were above the average, but it should be noticed that the latter was not so much in a better position than Veneto or Tuscany, or Campania in the south. Some regions of the centre-north were very poor: Trentino-Alto Adige and Aosta Valley, the two growth champions of Italian regional development, were still in a position comparable to that of the most backward southern regions (Calabria, Basilicata, Abruzzi and Molise); even the Marche in the centre were only a few points above the neighbouring Abruzzi.

**Map 2.** The relative per capita GDP of the Italian regions, 1871-2001 (Italy = 1)



Source: Table 1.

**Table 1.** The relative per capita GDP of the Italian regions (Italy =1)

	1871	1881	1891	1901	1911	1921	1931	1938	1951	1961	1971	1981	1991	2001
Piedmont	1.07	1.08	1.07	1.19	1.16	1.28	1.23	1.38	1.51	1.31	1.24	1.19	1.14	1.15
Aosta Valley	0.80	0.99	1.06	1.19	1.29	1.43	1.43	1.44	1.58	1.68	1.44	1.40	1.42	1.24
Liguria	1.38	1.42	1.39	1.48	1.57	1.42	1.64	1.67	1.62	1.25	1.04	1.01	1.06	1.09
Lombardy	1.14	1.15	1.14	1.23	1.18	1.24	1.23	1.38	1.53	1.45	1.36	1.30	1.32	1.30
Trentino-Alto A.	0.69	0.73	0.78	0.82	0.78	0.88	0.92	0.94	1.05	1.01	1.07	1.27	1.30	1.30
Veneto	1.06	0.89	0.81	0.84	0.88	0.78	0.73	0.83	0.98	0.97	0.98	1.09	1.12	1.13
Friuli-Venezia G.	1.25	1.23	1.22	1.25	1.28	1.06	1.17	1.23	1.11	0.91	0.95	0.97	1.04	1.12
Emilia-Romagna	0.96	1.07	1.06	1.02	1.09	1.10	1.09	1.04	1.12	1.17	1.14	1.30	1.22	1.23
Tuscany	1.06	1.08	1.03	0.93	0.98	1.04	1.06	1.01	1.05	1.05	1.08	1.11	1.05	1.09
The Marches	0.83	0.78	0.88	0.83	0.82	0.78	0.71	0.78	0.86	0.87	0.88	1.00	0.95	0.99
Umbria	0.99	1.03	1.06	1.00	0.92	0.93	1.00	0.95	0.90	0.93	0.93	1.01	0.96	0.96
Latium	1.34	1.45	1.37	1.35	1.33	1.36	1.40	1.19	1.07	1.11	1.10	1.06	1.14	1.13
Abruzzi	0.80	0.77	0.68	0.67	0.70	0.72	0.62	0.57	0.58	0.72	0.79	0.85	0.90	0.85
Molise	0.80	0.77	0.67	0.65	0.68	0.72	0.64	0.59	0.57	0.67	0.66	0.76	0.78	0.80
Campania	1.09	1.01	0.99	0.96	0.96	0.88	0.81	0.81	0.69	0.72	0.70	0.65	0.66	0.65
Apulia	0.89	0.95	1.04	0.94	0.87	0.92	0.85	0.72	0.65	0.71	0.71	0.67	0.68	0.67
Basilicata	0.67	0.63	0.75	0.73	0.74	0.75	0.70	0.57	0.46	0.64	0.73	0.69	0.67	0.73
Calabria	0.69	0.66	0.68	0.66	0.71	0.61	0.55	0.49	0.47	0.59	0.66	0.62	0.62	0.64
Sicily	0.95	0.92	0.95	0.89	0.87	0.72	0.82	0.72	0.58	0.61	0.69	0.72	0.72	0.66
Sardinia	0.77	0.81	0.97	0.91	0.93	0.91	0.85	0.82	0.63	0.75	0.85	0.75	0.77	0.77
North-West	1.14	1.15	1.14	1.25	1.22	1.28	1.29	1.42	1.54	1.38	1.29	1.23	1.24	1.24
North-East & Centre	1.00	1.01	0.99	0.97	0.98	1.01	1.02	1.00	1.04	1.04	1.05	1.12	1.12	1.13
South and islands	0.90	0.88	0.90	0.86	0.85	0.79	0.77	0.70	0.61	0.68	0.71	0.69	0.70	0.68
Centre-North	1.06	1.07	1.06	1.08	1.08	1.12	1.13	1.17	1.23	1.18	1.15	1.16	1.17	1.17

*Sources:* see the text. *Note:* for the composition of the three macro-areas, see Map 1.

Things began to change during the liberal age, but slowly. Although regional inequality was on the rise, with the industrial triangle now beginning to take shape and the south falling behind, in 1911 we can still observe great diversification within the three macro-areas displayed: in the south, Campania was only a few points below the national average, as well as (and even more so) in the north-east and centre, where Latium and Friuli-Venezia Giulia continued to be richer than Lombardy or Piedmont. It was during the interwar years that the big divide truly emerged. By 1951, the industrial triangle had reached its peak, and Italy was clearly defined into the three macro-areas displayed in Map 1: all the regions of the north-west were above the regions of the north-east and centre (henceforth NEC), which were in turn all above the regions of southern Italy. This means that there was an impressive convergence within these three macro-areas, which at the same time continued to diverge from each other.

The second half of the twentieth century, in turn, can be divided into two quarters. During the Italian “miracle”, internationally known as the “golden age”, we register some catching-up of southern Italy, which significantly contributed to the increase in sigma convergence (the reduction of dispersion) observed in those years. However, it came to a halt in the 1970s, never to revive. But exactly when southern Italy began to

fall slowly back again, in the 1970s, the NEC regions accelerated their rate of convergence with the north-west. As a consequence, by 2001, we no longer have three Italies, as in 1951, but only two: the centre-north, which is now much more internally homogeneous than it was half a century before, and southern Italy, where even the most “virtuous” region (Abruzzi) is more than 30 points below the average of the centre-north (Italy settled equal to 100).

When looking at the regional distribution of income (Table 2), we receive further confirmation of the above-sketched trends. Around unification, the share of southern Italy out of the total Italian GDP was around one-third. After remaining more or less unchanged during the second half of the nineteenth century, from 1901 to 1951 it fell from 32 to 22%: this was an impressive redistribution of income, which moved from the south to both the north-west and the NEC. The share of southern Italy improved slightly during the golden age, but from the 1970s onwards it remained stationary. In the long run, the south’s reduction in the share of the total GDP is even more impressive than that in the relative per capita GDP, since from 1871 to 2001 the south’s percentage of the population decreased slightly, from 36.7 to 35.5%, its higher level of fertility notwithstanding: given that the differences in mortality were relatively low, the reason is, of course, a higher level of emigration. On the other side, the big winner is not the north-west, which only gained 3 points from 1871 to 2001 (from 29.6 to 32.5), but the NEC, which in the same period gained almost 6 points (from 37.4 to 43.3): almost all of this expansion was concentrated in six decades, the first three (1901–1931) and the last three (1971–2001) of the twentieth century; it should also be noticed that in the latter three decades almost all of the NEC increase was made to the detriment of the north-west.

**Table 2.** The share of Italian regions in Italian GDP, 1871-2001 (per cent)

	1871	1881	1891	1901	1911	1921	1931	1938	1951	1961	1971	1981	1991	2001
Piedmont	10.8	11.1	10.7	11.6	10.8	11.1	10.4	11.3	11.1	10.4	10.2	9.4	8.6	8.5
Aosta Valley	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Liguria	4.2	4.3	4.4	4.8	5.3	4.9	5.8	5.9	5.4	4.4	3.6	3.3	3.1	3.0
Lombardy	14.3	14.4	14.5	15.8	15.9	16.6	16.8	19.0	21.1	21.4	21.6	20.4	20.7	20.7
Trentino-Alto A.	1.3	1.3	1.2	1.3	1.2	1.6	1.5	1.6	1.7	1.6	1.7	2.0	2.1	2.2
Veneto	8.3	6.9	6.3	6.4	7.2	6.7	6.1	6.9	8.0	7.4	7.5	8.4	8.7	9.1
Friuli-Venezia G.	2.2	2.2	2.2	2.2	2.2	2.8	3.2	3.3	2.8	2.1	2.2	2.2	2.2	2.3
Emilia-Romagna	7.5	8.2	8.1	7.7	8.4	8.7	8.7	8.1	8.4	8.5	8.2	9.2	8.5	8.7
Tuscany	8.0	8.0	7.7	6.9	7.2	7.5	7.6	7.1	7.1	6.9	7.0	7.1	6.6	6.8
The Marches	2.7	2.5	2.8	2.7	2.5	2.4	2.1	2.3	2.5	2.3	2.2	2.5	2.4	2.6
Umbria	1.7	1.7	1.8	1.7	1.5	1.5	1.7	1.6	1.5	1.5	1.3	1.5	1.4	1.4
Latium	5.7	6.4	6.4	6.6	6.6	7.1	8.3	7.5	7.7	8.9	9.8	9.5	10.5	10.2
Abruzzi	2.5	2.4	2.1	2.0	2.0	2.0	1.7	1.6	1.5	1.6	1.7	1.8	2.0	1.9
Molise	1.1	1.0	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Campania	9.9	9.1	8.7	8.2	8.1	7.4	7.0	7.1	6.3	6.7	6.5	6.3	6.5	6.5
Apulia	4.6	5.2	5.9	5.6	5.3	5.6	5.2	4.5	4.4	4.7	4.6	4.5	4.7	4.6
Basilicata	1.2	1.1	1.2	1.1	1.0	0.9	0.9	0.7	0.6	0.8	0.8	0.7	0.7	0.7
Calabria	3.0	2.8	2.8	2.7	2.8	2.4	2.3	2.0	2.0	2.3	2.3	2.2	2.2	2.2
Sicily	8.9	9.2	9.8	9.4	8.9	7.7	7.9	6.7	5.4	5.7	5.8	6.2	6.2	5.7
Sardinia	1.8	1.9	2.3	2.2	2.2	2.1	2.0	2.0	1.7	2.1	2.3	2.1	2.2	2.2
North-West	29.6	30.1	29.9	32.5	32.3	33.0	33.4	36.4	37.9	36.5	35.7	33.3	32.7	32.5
North-East & Centre	37.4	37.2	36.5	35.5	36.9	38.3	39.1	38.4	39.6	39.2	40.0	42.4	42.3	43.3
South and islands	33.0	32.7	33.6	31.9	30.9	28.7	27.5	25.1	22.4	24.4	24.3	24.2	25.0	24.2
Centre-North	67.0	67.3	66.4	68.1	69.1	71.3	72.5	74.9	77.6	75.6	75.7	75.8	75.0	75.8

*Sources:* see the text. *Note:* for the composition of the three macro-areas, see Map 1.

In terms of the total GDP, however, by considering the three macro-areas we cannot see the full story. There are significant differences within the macro-areas that are worth stressing. The Italian region that gained the most, by far, is Lombardy, which from 1871 to 2001 increased by more than 6 points, in sharp contrast to the other two north-western regions, Liguria and Piedmont, which both lost (although Piedmont rose in per capita GDP, it decreased in the share of population, from 10.2 to 7.4). Lombardy alone ended up, by 2001, with more than one-fifth of the total Italian GDP, only a few points below the entire southern part of Italy! When compared with those of Lombardy, the gains of the north-eastern regions look only modest. If we look within the centre, we discover that some other winners in per capita GDP are instead losers in total GDP (Tuscany, the Marches). Quite unexpectedly, the NEC region with the largest increase in the total GDP is Latium (+4.5 from 1871 to 2001), a less manufacturing-oriented region and indeed one that has considerably fallen behind in relative per capita GDP, but it has more than compensated with its faster population growth (with constant present borders, its share of inhabitants rose from 4.2 to 9.1). The big losers are instead the two most important regions of the south, Campania and Sicily (-3.4 and -

3.2, respectively), and this does not come as a surprise; they are followed by Piedmont (-2.3). The third most important region of the south, Apulia, still had the same share in 2001 as in 1871, and this is a success relative to the rest of the *Mezzogiorno*.

### **3. The forces behind regional inequality in Italy**

Stemming from an extraordinarily rich debate, which dates back to the late nineteenth century, a number of different explanations have been proposed to account for Italy's regional inequality. Broadly speaking, we can regroup into the "first-nature" causes those factors linked to geography: the characteristics of the territory, the size of the market as a consequence of position and geology, and infrastructures, as long as these too are a consequence of geography (for instance, the tunnels through the Alps, which connect Italy with the rest of Europe, could be constructed only in the north). Among the "second-nature" causes we can include factors that mostly depend on the human element: of these, we will consider the regional differences in social indicators, culture and economic and political institutions.<sup>7</sup>

#### *3.a. Geography: natural endowments and market potential*

Italy is a large country, by European standards. It comprises several environmental settings with marked differences in terms of natural endowments. The four big regions of the north (Piedmont, Lombardy, Veneto and Emilia), plus a fifth smaller one (Friuli-Venezia Giulia), are home to the fertile valley of the Po, the main Italian river, which, together with its affluents, forms a copious hydro-geological basin: as a consequence, water resources are much more abundant in the north than in the south. Important rivers are also present in the rest of the peninsula: such as the Arno in Tuscany (running through Florence and Pisa), the Tiber in Latium (running through Rome) and the Volturno in Campania (running through Capua, now a small town north of Naples, but one of the most important Italian cities in ancient times). Although the Po Valley represents almost two-thirds of the total plain area of the country, fertile plains are also present in the centre-south, namely in Apulia and, to a minor degree, in Latium, Campania, Tuscany and even Calabria. On the other hand, almost 40% of the Italian territory is mountainous and a portion of this share can be found in practically all the regions. In turn, regions that are prevalently mountainous or made up only of mountains and hills are located in the north (Trentino-Alto Adige, Aosta Valley and

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<sup>7</sup> I elaborate on the differentiation between "first-nature" and "second-nature" causes originally presented by Krugman (1991a).

Liguria) as well as in the centre (Umbria, Marches) and the south (Abruzzi, Molise and Basilicata). Two more Italian regions – Sicily and Sardinia – are islands, the most important ones of the Mediterranean sea, both of which can boast a decent variety of geographical and hydro-geological settings, with a good percentage of plain areas and even of water resources (although in both cases these are below the national average). Italy as a whole is not rich in natural resources, with a few exceptions: zinc, lead and copper in Sardinia; sulphur in Sicily; and iron ores on the island of Elba (Tuscany).

All things considered, we can say that in terms of natural endowments southern Italy (which also includes the two big islands) could have been a little disadvantaged; nevertheless, it was in a position comparable to that of central Italy. The differences from the north were not dramatic; they were indeed more pronounced *within* the macro-areas than *between* them. We may be right in thinking that in pre- and early-industrial times geographical characteristics had immediate consequences for agriculture, important branches of industries (mining, but also a non-negligible part of manufacturing) and services (transportation and commerce), but precisely because of this, their impact in terms of the regional GDP should not result in a clear north–south divide, but rather in a variety of positions overlapping across the northern and the southern regions. This is what we know beyond any reasonable doubt from the history of pre-modern Italy (some regions of the South – Sicily, Campania and Apulia – were renowned throughout the classical world and later in medieval times for their agricultural products), and this is also what emerges from the estimates of regional GDP in the liberal age (1861–1913): the differences within the centre-north and within southern Italy were as pronounced as those within Italy as a whole, as we have seen, and agriculture played an important part in this result (Federico, 2003, pp. 373–375; Federico, 2007a; Felice, 2007a, p. 133).

If there was a clear geographical divide between north and south, it was in terms of position, the former being closer to the most advanced northern Europe, at least via land, and thus nearer to the economic “core”; moreover, the northern regions had better transport infrastructures and a less demanding territory by far, which helped communications. One could infer that the north was favoured at least in terms of market access, both domestic and international. However, even this conclusion should not be taken for granted. Southern regions were not particularly disadvantaged in terms of sea transportation, which for most of the liberal age remained superior to land transportation, at least concerning international trade (but also in part domestic trade, through coastal navigation). There are indeed competing estimates about market potential in the liberal age, but the latest one (Missiaia, 2013) is probably the most accurate, since it does not compute air distances but tries to calculate the real transport



costs: it clearly indicates that Campania and Apulia had market potential above the Italian average, while Apulia was around the average.<sup>8</sup> In particular, Campania appears to have been the third Italian region in terms of market potential, behind Liguria and Lombardy, but that was also the region that in relative GDP fell behind the most during the liberal age (-13 points from 1871 to 1911, Italy settling equal to 100).

During the course of the twentieth century, the market potential increased in the centre-north more than in the south, as the main rail lines and later on the big highways were completed and linked northern Italy more strongly to the rest of continental Europe; in turn, European partners grew in importance, not least because after the birth of the European Community in 1957 trade tariffs and other international barriers were progressively reduced and finally eliminated. In addition, concerning the national market, land infrastructures continued to be by far the most developed in the north, which also enjoyed a higher population density. In fact, the available estimates point out that in the second half of the twentieth century the north attained a clear advantage in terms of market potential, both domestic and international (A'Hearn and Venables, 2013). Nevertheless, not even on this point do our data support the validity of the geographical explanation: firstly, because in the second half of the twentieth century the north-west declined in relative terms, while the regions growing at the speediest rate were the NEC ones, which were more distant from the rest of Europe and had lower market potential; secondly, because GDP patterns in the south have followed the predictions from the new economic geography only up to a certain point. If it is true that Abruzzi and Molise – the two northernmost regions of the south – are also those that have ended up closer to the centre-north, all the rest have moved in the opposite direction: by 2001, the third region in terms of per capita GDP was Sardinia, the most isolated one; from 1951 to 2001, Basilicata, with market potential below that of Apulia and Campania, could boast a performance comparable to that of Abruzzi (+27 points in both cases); above all, the southern region with the highest market potential was still Campania (A'Hearn and Venables, 2013, p. 603), yet it also remained the big loser, even in the second half of the twentieth century. Is market potential the decisive factor? It does not seem so. Rather, it should not pass unnoticed that all the best-performing regions of the south (Abruzzi, Molise, Basilicata and Sardinia) were those that were substantially free of organized crime.

In short, first-nature causes may explain the initial differences we observe among the Italian regions, but not their subsequent evolution – if not to a very minor degree. From 1871 to 2001, as we have seen, the best-performing Italian region was Trentino-

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<sup>8</sup> However, the alternative estimate by A'Hearn and Venables (2013) also does not assign a clear advantage to the centre-north in this period.

Alto Adige, arguably the one in the north with the lowest market potential (together with Aosta Valley, the second best performing); the worst-performing region was Campania, the one in the south with the highest market potential.

*3.b. The human element: human capital, social capital and institutions*

It is not chance, nor fortune or misfortune, but rather the human element that we must examine to find more convincing (and comprehensive) explanations for Italy's regional inequality. Around the time of unification, the centre-north was ahead of southern Italy in a number of crucial indicators apart from economic ones: the most striking differences were in human capital (literacy, but also the enrolment rate), but there were also imbalances in the level of trust and political and social participation, i.e. in what can usually be defined as social capital (Felice, 2012), as well as – as far as we know – in the personal distribution of income (Felice, 2014, pp. 41–49). In all of these dimensions, the differences were indeed much more profound than those estimated for income: a clear north–south divide was already apparent. What is more important, in the long run, it was the pattern of per capita GDP that followed that of these meta-economic indicators, not vice versa. Regression tests suggest that human capital was a significant conditioning variable in the first part of the history of post-unification Italy (1891–1951): in this period, the regions that forged ahead were those of the industrial triangle, which could also boast higher levels of education. The same tests, plus others (Helliwell and Putnam, 1995; Lyon, 2005), suggest that instead social capital was the significant conditioning variable in the last period: from 1971 onwards, the regions growing faster, those of the north-east and centre, were the ones endowed with more trust and civiness. The discrepancy between the two periods in terms of conditioning variables may be due to the different requirements of the technological regimes prevailing in those ages: the Fordist firm of the Second Industrial Revolution internalized transaction costs and required low social capital in comparison with human capital (at that time, basic education of the working class and higher education of the white-collar workers and managers), unlike the industrial districts and network economies of the post-Fordist age.

The problem with southern Italy was that, in each of the periods during which that factor was more important, it lacked the key conditioning variable. Namely, there was some convergence in human capital over the course of the twentieth century, albeit incomplete (Felice and Vasta, 2012), but the south continued to fall dramatically behind in social capital by the time this had become the key conditioning variable, in the last stretch of the twentieth century. However, such a lack of “preconditions” in southern Italy – which for instance raised production costs and reduced Marshallian externalities

even in Campania, a region with good market potential – was not a product of misfortune, rather the result of different institutional settings that pre-existed the unification of the peninsula, and persisted and were even reinforced after it. Political institutions were arguably extractive in the former Kingdom of the Two Sicilies, while inclusive in the pre-unification states of the north (Felice, 2014):<sup>9</sup> from this divide, the north–south differences in education, in the distribution of income and wealth and in trust and participation followed. After unification, even though they became formally the same throughout the country, political institutions continued to work differently in the centre-north – where an efficient liberal democracy was progressively set in place – and the south – where power continued to be allocated rather through nepotism and personal loyalty (and even through violence in some cases). Furthermore, the economic institutions (and incentives) were not even formally the same: organized crime, which so patently influenced the social and economic life of the most important southern regions (Campania, Sicily, Calabria, then Apulia) in the liberal age and later on in the second half of the twentieth century, should be regarded as a formal (although illegal) economic institution, which established and enforced economic rules that differed from those applicable in the rest of the country. Among others, it created monopolies that discouraged free-market competition and innovation. Organization crime too – which, however, was only the iceberg tip of a more profound *weltanschauung* – ***was a legacy of the Kingdom of the Two Sicilies, but its power was also considerably strengthened with the creation of the new unified state (which for the same reason was never capable of fully eradicating it: between the two there was not only hostility, but also a mutual relationship of power) (Felice, 2014, pp. 61–74 and 150–163).***

In short, in terms of social conditions and institutional settings, and thus of conditioning variables, there were two Italies and – more importantly – such a divide was never bridged: one should not be surprised if in the long run the pattern of per capita GDP followed that of the pre-existing socio-institutional differences. This is confirmed by what emerges from the sectoral decomposition of our estimates: the north–south divide is nowadays driven by the differences in employment and structural change, rather than by those in sectoral productivity (Felice, 2011b, pp. 937–941), which would suggest that the problem comes from the production side (people do not enter into new businesses), rather than from the demand side (the existing enterprises have more or less the same productivity and thus economies of scale as in the north). But why then was the socio-institutional divide never bridged? A full discussion of this

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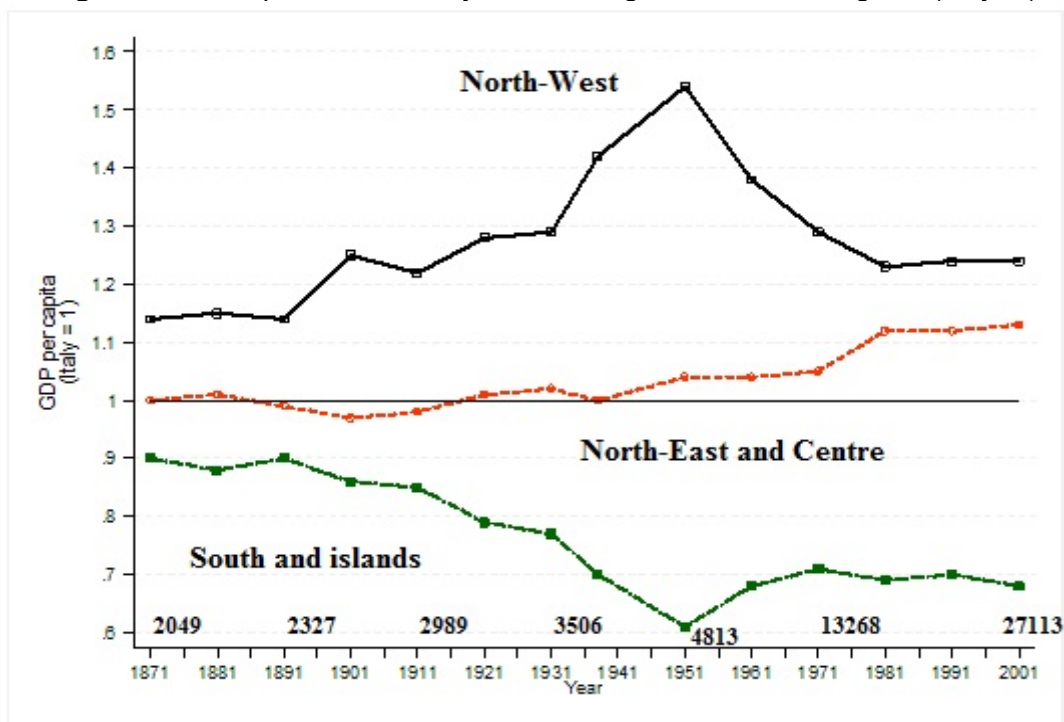
<sup>9</sup> I borrow the basics of the distinction between inclusive and extractive institutions from Acemoglu and Robinson (2012, pp. 74–81).

point would take us too far from the scope of this chapter. It is only worth noticing that institutional settings tend to reproduce themselves over time, along tracks of path dependence, unless some kind of external shock intervenes. The first external shock, unification, actually did not break the path but rather reinforced it. The other external shock could have been the massive regional policy pursued in southern Italy in the second half of the twentieth century: as we will see, however, that one too – in part but not entirely due to misfortune – ended up reinforcing rather than weakening the existent extractive institutions.

#### 4. The periodization of regional inequality in Italy

The main periods in the history of Italy’s regional inequality can be grasped at a glance by looking at Figure 4, which displays the evolution from 1871 to 2001 of the per capita GDP of the three Italian macro-regions. The per capita GDP is measured according to the Italian average (settled 1), and thus is in relative terms. On the x-axis, however, the values of Italy’s per capita GDP at constant 2011 euros have been reported in benchmark years (1871, 1891, 1911, 1931, 1951, 1971 and 2001), with the aim of giving an idea of the overall growth of the country – and thus of that of its regions – also in absolute terms.

**Figure 3.** Per capita GDP of Italy’s macro-regions over the long-run (Italy=1)



*Source:* Table 1. Italy's per capita GDP in 2011 euros (x-axis) is from Felice and Vecchi (2013).

We can distinguish four phases: moderate divergence, during the liberal age (1871–1911); great divergence, in the interwar years (1911–1951); general convergence, during the economic miracle (1951–1971); and convergence limited to the centre-north, in the last decades (1971–2001).<sup>10</sup> The attentive reader will have noticed that these phases also roughly coincide with the periodization of Italy's economic history as a whole (and even with that of its political and social history) – which is a sign in itself of how regional inequality in this country is strongly entangled with broader economic and political issues, as well as with modernization and growth at the national level.

#### *4.a. Moderate divergence (1871–1911)*

Soon after unification, the regional imbalances increased at a very slow rate. The idea that the south was somehow exploited in order to provide for the industrialization of the north (Gramsci, 1951; Romeo, 1959, pp. 197 passim) does not find confirmation in the estimates presented here.<sup>11</sup> It must be acknowledged that in the first decades the growth of the whole country was disappointing: Italy did not industrialize yet and, where sleepiness prevailed, even the scope for a marked increase in regional inequality was all but small. At that time, Italy ranked among the European champions of free trade, the liberal tariff of Piedmont having been extended to the rest of the country, including of course the former southern kingdom, which by contrast had been one of the most protectionist states in Europe. The active competition of the most advanced (and thus cheaper) industrial products from northern Europe, together with a tight fiscal policy in order to pay down the high public debt coming from the independence wars, contributed to preventing industrial enterprises from developing in the north. In the south, it is true that the new tariff harmed the existing (and highly protected) industrial enterprises, but it is also true that agricultural exports boomed, thus more than balancing the manufacturing crisis at least in terms of GDP. In those years, the main railways running from north to south were built (Reggio Calabria, in the southern tip of the peninsula, was reached in 1875) (Federico, 2007b, p. 304), yet these had a limited impact, remaining uncompetitive in comparison with coastal navigation (Fenoaltea, 1983) and also because the flows of goods and people between the two Italies were

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<sup>10</sup> Iuzzolino, Pellegrino and Viesti (2013) follow a similar periodization, the main difference being that they consider a fifth phase in the last period, which they name the great stagnation (1992–2009).

<sup>11</sup> See also the arguments put forward by Cafagna (1965, 1999, pp. 300–317).

still relatively modest (Cafagna, 1965).<sup>12</sup> As a result, in terms of regional inequality, little changed from 1871 to 1891.

In the second half of the liberal age (1891–1911), divergence accelerated. The north-west emerged as the industrial triangle, accounting for around one-third of the Italian industrial employment. In this area, practically all the manufacturing activities were above the national average, from those of the First Industrial Revolution (textiles, food) to those of the Second (engineering, chemicals).<sup>13</sup> industrialization was the product of general systemic advantages, rather than sector-specific ones. It was in fact the consequence of several factors, all of which had been able to work at their best since the last two decades of the nineteenth century: richer natural resources, namely hydraulic power, which became crucial following the introduction of electricity in industrial processes (since the 1880s); higher human capital, comparable to the standards of the other European countries that embarked on the Industrial Revolution (well above that of southern Italy at that time) and further reinforced by the creation of technical schools and universities; better transport infrastructures, which in those years were improved via the completion of the secondary rail lines, mostly running through the centre-north (Fenoaltea, 1972, 1983; Ciccarelli and Fenoaltea, 2012); higher development of the credit sector, which included a tight network of local banks (*Casse di Risparmio, Banche Popolari*) (Polsi, 1993); and, from the mid-1890s, the two main universal banks created in the country (mostly with German capital), *Credito italiano* and *Banca commerciale italiana*. The economic policies of the central state also helped, through effective credit reforms (which created the Bank of Italy in 1893 and permitted universal banking), and the implicit adherence to the gold standard, which meant a relatively stable exchange rate favouring the inflows of foreign capital (James and O'Rourke, 2013, pp. 51–54; Toniolo, 2013, pp. 16–17),<sup>14</sup> but also, it should not be overlooked, via industrial incentives for the navy and military industries, which were concentrated in Liguria (Doria, 1973). On the other side, our estimates support the view that protectionism harmed exports from southern agriculture, since it reinforced wheat farming to the detriment of Mediterranean products (wine, oil, citrus and other fruits) with higher value-added and better comparative advantages.

All this considered, however, the regional divergence was relatively mild. Why? It was the very participation of the country in the first globalization processes that counter-balanced, in the south, the rise of the north-west. To be precise, we should

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<sup>12</sup> Regression tests confirm that most of the nationwide convergence was due to progress in maritime transportation, “which exposed all Italian markets to competition from overseas producers”. The construction of the railways had a prime effect on the northern markets, before and not after unification (Federico, 2007b, p. 312).

<sup>13</sup> At the same time, here remarkable shares of some national production were concentrated (for instance, 50% of textiles were in Lombardy) (Fenoaltea, 2003, 2004).

<sup>14</sup> The efficacy of protectionism in favouring industry has been seriously questioned instead (Federico and Tena, 1999).

point out the massive emigration outflow, which from 1891 to the First World War resulted in as many as 11.5 million Italians emigrating (including returns), from a population of 30–35 million inhabitants.<sup>15</sup> The majority of these people came from the south (4.8 million, moving mostly to extra-European countries and in particular to the US, thus with lower return rates) and from one region in the north-east, Veneto (2.5 million, mostly to other European and Mediterranean countries and thus with higher returns). In the south, the higher rates were recorded from the poorest regions – Abruzzi, Molise, Basilicata and Calabria – some of them (Molise and Basilicata) literally depopulating in this period. Not by chance, these were also the regions that slowly converged in per capita GDP from 1891 to 1911, unlike the other southern regions, where emigration was lower, which instead fell back: Apulia, Sicily, Sardinia and to a minor degree Campania, which benefitted from a special law that favoured the industrialization of Naples (Felice, 2007a, pp. 65–72). In the home territories, emigration raised the per capita GDP – at least in the short run – through several channels: the difference between the supply and the demand of labour reduced, and thus the activity rates rose; for the same reason, wages tended to increase; and the emigrants sent remittances to their home families, and this extra money (although not included in the GDP figures, unlike the GNI) contributed to revitalizing consumption; when the emigrants returned, they brought with them human and financial capital that sometimes (not always) was used to start up new business activities. *When* they returned. The point is that, as mentioned, in the south the returns were lower in comparison with those in Veneto and thus emigration resulted, in the long run, in a massive draining of the brilliant and the brave. In fact, from 1891 to 1911, the catching up in per capita GDP was much stronger in Veneto than in the four converging southern regions (Table 1), and these four regions in the same period saw a reduction in their share of the national GDP, unlike Veneto (Table 2).

#### *4.b. Great divergence (1911–1951)*

Divergence continued at full speed from the First World War to the Second World War. During this period, the north-west forged ahead, for a number of reasons. Firstly, state intervention was now entirely focused on supporting industry in the triangle: the First World War redirected public subsidies towards the existing manufacturers, i.e. towards those of Lombardy, Piedmont and Liguria, in order to win the conflict; soon afterwards, the reconversion following the end of the war resulted in a crisis of those very industries that had expanded enormously, and thus called for more state funds in

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<sup>15</sup> There were 2.5 million emigrants from 1876 to 1890. In both cases, emigration from the territories of the former Austro-Hungarian empire is not considered. For a regional picture by sub-periods, with the borders of the time, see Felice (2007a, pp. 46 passim). For a long-run picture (and analysis), see also Gomellini and Ó Grada (2013).

order to save them (Zamagni, 2002). Later on came the 1929 crisis, meaning new bailouts and subsidies, again in favour of the northern factories; autarchic fascist policies also contributed to promoting some of the most advanced industrial sectors (chemicals above all), which were concentrated in the north. Secondly, even in unprecedented dire conditions (two world wars, the 1929 crisis), the ruling elites in the north proved themselves capable of engaging in modernization (and of taking the risks). In automobiles, the first mass-production lines were implanted in this period (the Lingotto plant of Fiat was inaugurated in 1922) (Felice, 2011c, pp. 62 passim); after the Second World War, which arguably caused more damage to the southern industrial plants than to the northern ones (De Benedetti, 1990, pp. 604–605), came the reconstruction, which in the north was more rapid and resulted in a new leap towards mass production, not least thanks to the use the industrialists made of the aid from the Marshall Plan (Fauri, 2010). Thirdly, the north-west continued to benefit from the systemic advantages of the previous period: now in particular higher human capital and better infrastructures and credit networks – together with the political and economic upheavals described above, such as the First World War and the 1929 crisis – helped to concentrate the existing (and now almost entirely national) capital flows there. In a similar fashion, protectionism and eventually autarchy entailed a reorientation of the national production from international to internal markets, which were much more developed in the north: there the enterprises could produce at lower costs, due not only to the general systemic advantages, but also to the beginning of some economies of scale.

At the other end, some of the conditions that had mitigated the south's falling back of the previous period had been lost. International emigration had come to a halt, because of more restricting immigration laws in the US, but also as a consequence of the new demographic policies of the fascist regime, which actively discouraged it. In agriculture, protectionism was on the rise and Mussolini's "battle for grain" (since 1925) further increased cereal production in the south to the detriment of more profitable crops; what is even worse, it provided incentives and protection to the existing, inefficient latifundia. The "battle for births" (since 1927) promoted fertility and was undertaken more successfully in the south: given the lack of industrial alternatives (and of the emigration relief valve), it resulted in further worsening of the living conditions of the peasants. Not least, the regime failed to change the existing – and atavic – agrarian regimes: latifundia were not reformed, neither could they have been, indeed, as the large landowners were among the pillars of the regime; instead, as mentioned, extensive cultivation was incentivized and somehow protected (at least from foreign competition) (e.g. Bevilacqua, 1997, pp. 172–179).



From 1911 to 1951, in the north-west, the share of industrial employment out of the total rose from 33 to 42%; industrialization also made some progress in the neighbouring NEC areas, from Emilia to Veneto, down to the Marches and Umbria. Employment in the services increased even more in both the two macro-areas, and as a consequence that in agriculture strongly decreased, from 47 to 28% out of the total employment in the north-west and from 57 to 44% in the NEC. In the south, by contrast, from 1911 to 1951, the agricultural share remained practically unchanged, around 60%, and that of the industrial workforce had even shrunk, from 21 to 16%. However, the *Mezzogiorno's* falling back was not only the result of a laggard structural change. It was also due to a widening gap in agricultural productivity: although around 1911 in the south the GDP per worker in agriculture was still around the Italian average, by 1951 it had fallen to 80% of it – while in the north-west it was now 130% (Felice, 2011b, pp. 937–940). Such trends are the product of the economic policies we have seen above. Nevertheless, one more factor – more subtle maybe, but not at all less important – should be added: unlike in the centre-north, the ruling classes of the south found themselves at ease with the economic stagnation of their territories, as long as their privileges were protected and saved, and as a general rule, at the local level, the fascist regime also tended to favour that part of the southern society that was less keen to modernize, which was now vested with more political power than during the liberal age. In the south, policy and economy rested in the same hands, and these were particularly responsive to nepotism and conformity, more so than in the rest of the country.

#### *4.c. General convergence (1951–1971)*

When Italy entered the economic miracle, it also entered a phase of general regional convergence. Industry now spread to the NEC regions, as well as – for the first time – to the southern ones. Such convergence is at odds with what is expected from the conventional models, either the inverted U-shape of Williamson (1965), focusing on structural change, or the new economic geography, stressing the size of the market and consequent differences in productivity (Krugman, 1991b), for three reasons. First, convergence began when the north-west was also growing at its fastest speed, and does not seem to be the result of congestion costs or of some change from increasing to decreasing returns. Second, the south, which was more backward and distant, converged at a faster rate than the NEC, which was closer geographically, economically and socially (and even institutionally and culturally) to the north-west. Third, convergence in the south was due not only to structural change – the reallocation of employment from agriculture to industry and services – but also to an

impressive rise in productivity, in particular in the industrial sector. Following the new economic geography, this would suggest that some economies of scale were at work in the *Mezzogiorno* and that the cost differences between north and south had been at least partly bridged, but we know that this was not so – actually if ever the contrary was true – given that with the opening of the European market, the completion of the great highway networks and the remarkable increase in GDP per capita of the previous decades (and the massive inflow of southern immigrants in the 1950s and 1960s), it was in this period that the north-west attained a clear advantage in terms of market size. Fourth, the south's convergence is unusual because it ended in the 1970s, which is precisely when the north-west began to slow down, costs of congestion did emerge and the search to relocate the northern big business became manifest.

Such a puzzle is solved once a new actor is introduced: regional policy, as embodied by the state-owned agency “Cassa per il Mezzogiorno” (Cassa, henceforth). It was a massive state intervention, with no parallels in terms of funds (as a percentage of GDP) in any other western European country (Felice, 2002). The Cassa operated through infrastructural “direct” works, carried out autonomously by the state agency in a wide range of sectors (but mainly roads and aqueducts), and “indirect” aid in favour of firms: this could take the form of soft loans or grants, which were supplied to both private and state-owned enterprises that decided to invest in the south; in addition, state-owned enterprises were obliged by the law to locate 60% of their new investments and 40% of their total assets in the south. What resulted was a remarkable channelling of funds to capital-intensive industries, from chemicals to metallurgy to engineering. These were *naturaliter* more financed than light ones, for two reasons: in the Italian economic miracle, the heavy-industrial activities were expanding more rapidly, and thus were more keen to invest (not least, to gain in turn more public funds); more importantly, state-owned enterprises, which to abide by the law and also for political reasons pioneered investment in the south and paved the way to (northern and international) private business, for the most part operated in those heavy sectors, as a legacy of the bailouts following the 1929 crisis (e.g. La Spina, 2003; Felice, 2007, pp. 72–102). Through the Cassa, the Italian state forced the market rules, *de facto* superimposing upon theoretical predictions an unexpected catching-up of the most backward part of the country. Other factors were in favour of convergence, though, particularly massive internal migration, from the south to the north. However, this was less important overall, as proved by the fact that the south did not converge in the activity rate, at the same time that it caught up in both the industrial productivity and the labour share of industrial employment (Felice, 2011d).

Nonetheless, the top-down strategy of the Cassa was expensive. A different strategy, which would have paid more attention to the comparative advantages in the south (thus promoting labour-intensive sectors rather than capital-intensive ones) would probably have resulted in slower convergence, but with minor costs and maybe more sound results (Lutz, 1962; Fenoaltea, 2007). Instead, such “passive industrialization” of the south (Felice, 2014, pp. 107–117) was fragile, because it was not based upon market efficiency, but also because, as sharply noted by Zamagni (1978, p. 216), it was an attempt to change the economy without changing the society (the two weaknesses are interrelated). Here we come to explain the fourth discrepancy with the expected predictions, i.e. why convergence came to a halt in the 1970s and has never resumed since then. When with the oil shocks came the crisis of capital-intensive sectors, in the 1970s, in Italy it was in the south that the plants closed down, since those were less efficient than their counterparts in the north. Regional policies in favour of the south continued; however, funds as a share of the GDP did not diminish throughout the 1970s and were also consistent in the 1980s (Felice and Lepore, 2014), but they were redirected towards unproductive expenditure and even came to favour illegal activities (Felice, 2014, pp. 156–163). Southern society had not changed in the short-lived age of convergence (truly, it could have begun to do so, but slowly, and the 1970s crisis came too soon), and now that state intervention had lost its modernizing strategy, nepotistic rules and political (and criminal) lobbies regained the upper hand, confirming themselves as the norm (Trigilia, 1992). With a few, minor exceptions (Viesti, 2000), southern Italy remained locked in chronic underdevelopment.

#### *4.d. Convergence in the centre-north, or a tale of two Italies (1971–2001)*

In sharp contrast to the falling back of southern Italy, it was precisely in the 1970s that the catching-up of the NEC increased its speed, and since then it has continued up to the present day. Convergence in per capita GDP has been a consequence of industrialization, thus of the reallocation of employment from agriculture to industry (and services, to a minor degree): by 2001, some of the NEC regions, namely the Marches and Veneto, had become those with the highest share of the industrial labour force, having overtaken even Lombardy. Significantly enough, convergence in sectoral productivity was less pronounced: it has been at work in the regions of the north-east (Veneto and Emilia), not in those of the centre (the Marches and Umbria).<sup>16</sup> However, by way of either productivity or structural change, or both, in this period – limited to the centre-north – the full prediction of the inverted U-shape model was fulfilled: the neighbouring areas of the (former) industrial triangle began to grow faster when the

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<sup>16</sup> For all these data, as for those referring to southern Italy, see again Felice (2011b, pp. 937–940).

triangle slowed down its pace, with big business relocating plants from the “core” to the north-eastern and central closest “periphery”, and complementary activities germinating in the latter. Actually, state incentives were also important (Spadavecchia, 2005a, 2005b), more so than conventional wisdom tells us, but soon a process of endogenous growth – which we have not seen in southern Italy – began.

During the course of the 1970s, it became clear that the growth of the NEC was not only due to manufacturers as an accessory or complement to the leading ones in the north-west. Rather, in the NEC, an autonomous industrial morphology was taking place, and even (maybe) a new industrial paradigm, capable of challenging Fordism, by now in decline. The industrial districts were networks of small and medium-sized enterprises that succeeded in light industrial production (textile, clothing, furniture, light mechanics, ceramics, foodstuffs) and were usually highly specialized in the production of one single good and strongly export-oriented (Becattini, 1979). They were able to conquer foreign markets (this was the well-known “Made in Italy”), but at the same time industrial districts were strongly linked to their home territory, literally “embedded” in it (Colli, 2002a, p. 278). In fact, this link was the key to their success: they took advantage of a wide range of common goods available in their social environment (efficient local institutions and infrastructures, widespread tacit knowledge and a high level of trust that reduced transaction costs) to compensate for their small dimensions and thus to become competitive with the traditional big businesses. Such a peculiar industrial morphology developed from the pre-existing agricultural environment and land regimes, the sharecropping that favoured the rise of the entrepreneurial mentality in small family businesses (Bagnasco, 1988) and maybe also from the long-run urban tradition of historical autonomy and civiness, which resulted in high social capital and efficient local institutions (Putnam, 1993).

The success of the industrial districts in the 1970s led some scholars to talk about a “third” Italy – the one coinciding roughly with the NEC regions, minus Latium – as something different from both the “first” Italy (the traditional industrial triangle) and the “second” one (the *Mezzogiorno*) (Bagnasco, 1977). As we have seen, the differences were both in the pattern of regional development and time of convergence and in the industrial structure: the traditional big business (or “first” capitalism) in the first Italy, state-owned enterprises (or “second” capitalism) in the second one and the industrial districts (or “third” capitalism) in the third. However, in the last two decades, the differences between the first and the third Italy, that is, between the north-west and the NEC, have considerably reduced. Not only has there been almost full convergence in terms of per capita GDP, but also the industrial structures are now more similar. On the one hand, the industrial districts spread (or were “discovered”) in the neighbouring

Lombardy and Piedmont as well, and even indeed in some southern regions, from Abruzzi to Apulia and Basilicata. On the other hand, and more importantly, the districts went through a deep process of reorganization, as a result of which medium-sized enterprises emerged (the so-called “fourth” capitalism), which were able to coordinate the production of small firms in their territories – and of course remained strongly export-oriented (Colli, 2002b). Together with a new generation of industrial leaders, a certain “hierarchy” returned, making these territories more similar to the traditional industrial triangle.

By contrast, in the south, even the recent convergence of the smaller regions (Abruzzi, Molise and Basilicata) was mainly due to the outsourcing of Fiat’s plants in these areas and thus, again, to investments from abroad, in the form of northern enterprises, which moreover benefited from state subsidies (Chiarello and Corigliano, 2002; Felice, 2007b). Nowadays, the number of regional differentiations notwithstanding, Italy appears to be divided into two halves (maybe with the region of Rome, Latium, as a special case): the centre-north, home to active industrialization and endogenous growth, and the south and islands, where passive industrialization – i.e. economic growth brought from northern, state-owned and foreign enterprises – prevails.

## **5. Conclusions**

After presenting regional estimates of the GDP in Italy, at ten-year intervals from 1871 to 2001, this paper discussed the main determinants behind the pattern of Italy’s regional inequality. The differences were relatively mild in the second half of the nineteenth century, but since then they have increased, at a slower pace in the last decades of the liberal age and with greater speed from the First World War to the Second World War. As a consequence, in terms of per capita GDP, Italy appeared to be divided into three thirds by the time regional inequality reached its peak, around 1951: the industrialized north-west, the regions of the north-east and centre close to the Italian average and the backward south. Some convergence of the south took place during the economic miracle, mostly thanks to the massive regional policy pursued by the Italian state, but it came to a halt in the 1970s and since then has never revived; at the same time, in the last decades, the convergence of the north-east and centre accelerated remarkably. As a result of these trends, by 2001, Italy was parted into two halves, the centre-north and southern Italy. It is true that we have some confirmation of an inverted U-shape of income inequality – rising divergence until the mid-twentieth century, then convergence – but actually the latter has been limited to the centre-north.

As a consequence of the falling back of southern Italy, over the long run (1871–2001), we observe  $\sigma$ -divergence, i.e. an increase in dispersion, and only a sluggish  $\beta$ -convergence.

The timing and modality of the evolution of Italy's regional inequality suggest that here geographical factors and the market size played a minor role. Against them are both the fact that most of the differences in GDP are due to employment rather than to productivity, and the observed GDP patterns of many regions; for instance, the worst-performing Italian region was Campania, by far the most favoured in the south in terms of market size. Rather, the gradual converging of regional GDPs towards two equilibria seems to follow the social and institutional imbalances of pre-unification Italy: at the time of unification, there was a socio-institutional divide – in the levels of human and social capital as well as in the nature and functioning of the political and economic institutions – which was transferred to the new state, in different forms, and since then it has not been overcome (indeed, it has even been reinforced). The paramount examples are organized crime in some southern regions regarding economic institutions and the widespread cronyism in the south concerning the working of political institutions; both go along with the renowned differences in social capital. This socio-institutional divide appears to be the ultimate determinant of Italy's regional inequality.

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