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Italy's Growth and Decline, 1861-2011

Emanuele Felice and Giovanni Vecchi

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Emanuele Felice

(Universitat Autònoma de Barcelona)

and

Giovanni Vecchi

(Università di Roma "Tor Vergata")

Abstract

With the end of the celebrations marking the 150th anniversary of the unification of Italy, the availability of a large body of new historical statistical data calls for a redefinition of the features of Italian economic growth. The paper presents new estimates – at both national and regional level – of Italy's GDP from 1861 to 2011; we discuss their interpretation in the light of the changes in the institutions, in technological regimes and in the broader international context. In contrast with its successful long-term performance, Italy's economic growth has slackened since the 1990s and has now come to a halt. The paper deals with the question of whether fears that the country is on the road to economic decline are grounded. The answer is an affirmative one. Part of the problem is southern Italy's inability to converge towards the more virtuous part of the country.

Keywords: Italy; economic decline; modern economic growth; questione meridionale; GDP.

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1. Introduction

Through the course of its millenary history, Italy has undergone several ages of prosperity and decline. In Roman times, it was likely to be the most advanced country of the ancient world: according to Maddison [2007], at the time of the death of Emperor Augustus (14 DC), the Italic peninsula was (by far) the richest of all the Roman provinces of the Mediterranean basin. While Maddison's reconstruction of GDP referring to the Ancient Roman period is clearly adventurous from a methodological standpoint, the evidence from ancient sources corroborates Maddison's findings, and most scholars acknowledge Italy's primacy by the apex of the Roman empire [Tenney 1959; Duncan-Jones 1982; Goldsmith 1987: 55-58]. Conversely, the subsequent centuries were bleak and characterised by long swings of economic depression. Signs of recovery are only found around the 10th century [Lo Cascio and Malanima 2005: 204-5].

The earliest reliable estimates for per capita GDP of the Italian peninsula date back to 1300 [Malanima 2003]. They show that by the early 1300s Italy had returned to a leading role, at least in the European context. This is in line with Cipolla's [1952] thesis, according to which the Italian economy of the early Middle Ages had a mastery of the most advanced technology of the times. With the advent of the Modern Age, say from 1500, the overall GDP of the Italian economy started to rise, but it was accompanied by an even greater increase in the population, with the result of a slow but inexorable decline in per-capita income [Malanima 2011]. Despite an overall downward trend, Italy ranked among the most advanced countries until the mid-1700s [Malanima 2013]. After this time, the gap with other western European countries began to increase: "Things changed after 1750. For more than a century, with very short interruptions, the Italian economy experienced a decline which was at once absolute and relative." [Malanima 2006: 111].

At the time of its political unification (1861), Italy classifies as a relatively backward country, located in the European «periphery» [Toniolo 1980; Zamagni 1993]. Yet, after an impressive catching-up which took place mostly during the second half of the twentieth century, Italy has managed to reach the «centre» of the world economy: according to OECD statistics [2013], in GDP per person at market exchange rates Italy temporarily overtook Great Britain in 1987; according to Maddison [2010], in GDP per person at purchasing power parity (1990 international Geary-Khamis dollars) Italy overtook Great Britain in 1991. In the recent past, however, Italy's economic

performance has been disappointing, by any standards. Since the early 1990s economic growth has come to a halt, and according to most socio-economic indicators, the country is sliding down the chart. All this has brought back the fears that a new phase of economic decline might well be underway. Still in the mid-1990s, however, «no one could doubt that the industrial power ranked fifth or sixth in the world [was] anything but a success story» [Federico 1996: 764].

In this article we document the historical trajectory of Italy's modern economic growth, taking advantage of the last generation of long-run historical statistics that Italy's recent 150th birthday has made available. The focus will be on GDP, for the country as a whole and for its administrative regions, covering the period that goes from Italy's Unification until our days. How and to what extent, has Italy succeeded to reach the standards of the most advanced economies? How serious is the prospect of Italy's economic decline?

To diagnose whether or not a country is declining is a difficult and ambitious task. A first difficulty comes from the need to define "economic decline". Different people use this term with different meaning. A useful distinction is between an absolute decline (when a country cannot manage to maintain the level of wellbeing achieved in the past) and relative decline (when a country cannot keep up with the most dynamic economies and, although not experiencing any actual worsening of living conditions, goes down in the international ranking of prosperity). A second difficulty is that decline is slow and hardly perceptible: difficult to recognize at the beginning, it becomes a political and social problem only when its effects are very widespread and the cost of ignoring them becomes unbearable for the governing elite (sometimes due to shocks such as wars, revolutions and great financial crises). Decline often stems from the inability to adapt an old production model to new circumstances, and this inability to adjust is usually greater the more successful the previous model had been in the past [Toniolo 2004: 9-10].

Neither economists nor economic historians have developed a unified conceptual framework to analyse economic decline. Also, the multidimensional nature of decline adds to the complexity to carry out measurement exercises. In this article, our strategy is to rely on GDP as the main tool for analysing economic decline. Despite its shortcomings, the GDP remains the single best indicator capable of describing the performance of market economies, as Italy has been throughout the period under

consideration. The rules underlying the System of National Accounts make it sure that the value of GDP equals a country's overall income [Lequiller and Blades 2006]. This feature explains a significant part of GDP's popularity: to the extent that GDP can be interpreted as the total income of a country, then it's hard to resist the temptation to interpret GDP *per person* as the average income of the country, that is, a proxy measure of (average) well-being (no matter how theoretically inappropriate this line of argument is). On the other hand, GDP *per worker* can be interpreted as a measure of productivity, whose increase ultimately determines the sustained income rise observed during the process of modern economic growth. Either ways, both as a measure of well-being and as a measure of economic performance, GDP turns out to be useful when it comes to comparing the economies of the past. Economic historians have become masters in the art of reconstructing GDP time series, and Italy can be proud of its long tradition in this field. One of the main limitations – the lack of sub-national series of GDP – has been remedied by a number of recent studies that have made available new evidence. Time seems to be ripe for reassessing the long-run dynamics of Italy's economic progress.

2. Lessons from new long-run estimates of GDP

Thanks to the reconstruction published in 1957 by the Italian national statistics agency (ISTAT), Italy was one of the first countries to create its own historical series for GDP [Falco 2006].¹ This pioneering work did not really pay in terms of results. It is now widely recognized that Italy's first series of GDP, running from 1861 to 1955, had serious inconsistencies, which were not fully remedied by subsequent revisions.² The main criticism with regard to these "official" reconstructions of Italy's national accounts is that the statistical series were never accompanied by an adequate description of the methods and sources used: without these elements it is difficult – if not impossible – to evaluate the quality of the data. Therefore, the scientific community soon regarded the "first

¹ See Istat [1950, 1957, 1958]. The system of national accounting was introduced in Italy in the aftermath of World War II, shortly after "the governments of Britain, Canada and the United States had started to use it, during the war, in order to assess compatibility between aims and resources" [Falco 2006: 377; Vanoli 2005].

² Namely the one carried out in the 1960s by a group of scholars coordinated by Giorgio Fuà. See Fuà [1968] and Fenoaltea [2003].

generation” time series on Italy not up to international standards [e.g. Cohen and Federico 2001: 8-9].

In the following decades, the reconstruction of the historical series of Italian GDP has become an increasingly more practiced activity: new estimates of the same variable have been published at an average rate of one every four years.³ Despite the many activities, the scholars entrusted with producing the historical series of national accounting did not manage to assemble their own products to give shape to a system of consistent historical series for the entire post-unification period. It was only on occasion of the 150th anniversary of Italy’s unification, celebrated in 2011, that a project coordinated by the Bank of Italy in cooperation with Istat and Rome’s “Tor Vergata” University published a complete reconstruction of the national accounts [Baffigi 2013; Brunetti, Felice and Vecchi 2012]: on both method and contents, the break with the past was clear-cut: the study did not just connect all the existing series, but incorporated the results of new studies for uncovered sectors and periods, thereby yielding historical series covering the whole 150-year history of united Italy. This work has now been updated in light of the most recent contribution, which fills the last gap in the reconstruction of industrial GDP.⁴ Furthermore, by taking advantage of a recent work which reconstructs the Italian labor force [Broadberry, Giordano and Zollino 2013], we are now also able to discuss the new series of Italy’s GDP per worker (productivity), as a total and by sector of activity⁵.

The yearly series of Italy’s GDP per head and per worker, running from 1861 to 2011 at constant prices, are presented in the appendix of the article. As for now, Figure 1 has an even more ambitious goal: by connecting the reconstruction made by Malanima [2003] to the new estimates of the period 1861-2011, it displays the very long-run evolution of Italy’s per capita GDP, from the late middle ages to our time. The contrast with pre-Unification times highlights a defining characteristic of modern economic growth, that is a sustained increase in GDP per capita. Figure 1 also shows the distinctive feature of a pre-industrial economy, as medieval and Renaissance Italy was, that is the centuries-old stagnation of per-capita GDP. For that period, however, it is worth reminding that the graph’s scale hides as much the frequency as the intensity of the

³ Many contributions, however, are variations on the same theme, that is, the estimates published by Istat in 1957 [Vecchi 2003].

⁴ For the years 1938 to 1951 [Felice and Carreras 2012].

⁵ GDP per hour worked, an alternative measure of productivity, could not be calculated due to lack of suitable data [Brandolini and Vecchi 2013; Huberman 2004].

annual variations: even though at that time Italy was a leading economy, famines were recurring, even within the same generation [Livi Bacci 1991] with disastrous consequences on the population's standard of living [Ò Grada 2009]. But they were small cycles around the same, flat trend.

As we know, at the close of the 1700s Italy missed out on the first industrial revolution, not being able to adopt British technology based on steam and the railways [Allen 2009]. This is reflected in the GDP trend in the figure, which shows a smooth tendency in continuation of the past. The curve starts to rise in the last decades of the nineteenth century, during the second industrial revolution, based on electricity, oil and chemicals. This marks an epochal moment in the history of the Italians – a crossroads in history where Italy took the right road and embarked on the process of “modern economic development” described by Kuznets [1966]: rural backward Italy embarked on a deep transformation which would change its features, on both a qualitative and quantitative level, and turn it into an advanced economy within the space of a century or so.

When measured in absolute terms, and over the long-run, the increase in GDP per head in the century and a half from Unification until our days is truly remarkable. The estimates show that, on average, Italians today earn thirteen times more than their ancestors did at the time of unification. Figure 1 also shows that the most impressive progress in GDP per head is a much more recent phenomenon, largely coming about in the latter half of the twentieth century. Since World War II, per capita GDP has increased over seven fold, while in the previous hundred years or so (1861-1951) it had a little over doubled. In a nutshell, the income of the Italians made a long leap in a very short time [Toniolo and Vecchi 2010].

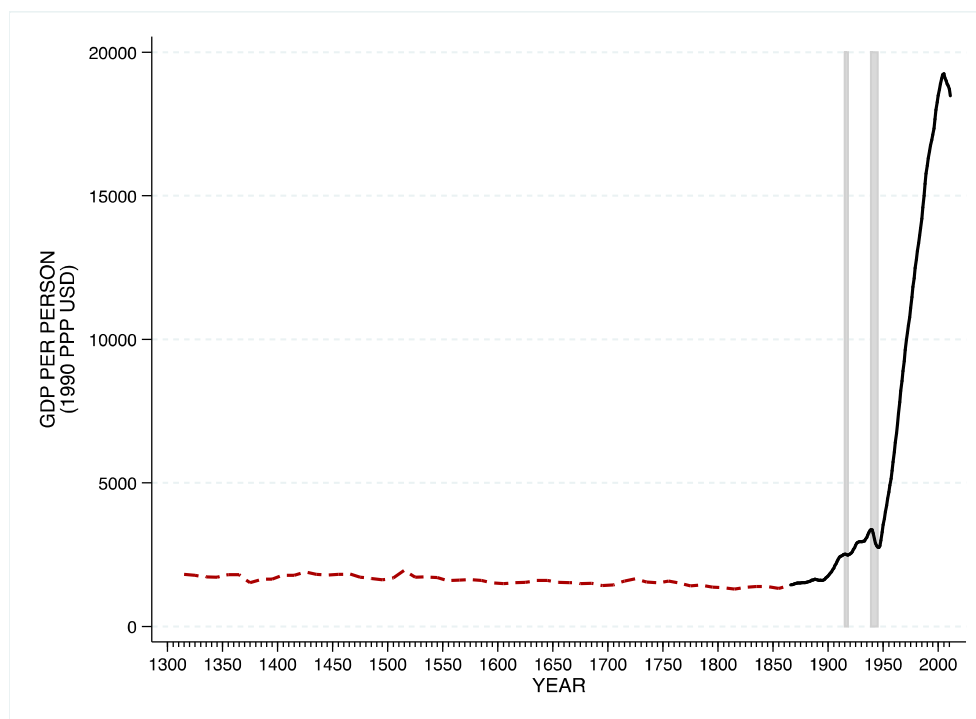


Figure 1. Italy's per capita GDP, 1300-2011

Note: for the years 1300-1861 the series refers to Northern Italy (see Malanima 2003), while for 1861-2011 the graph uses the new series (see the text).

Table 1. The changeable growth rate of Italy's GDP

	GDP/person Average annual variation (%)	Years necessary for GDP per capita to double	GDP/worker Average annual variation (%)
	(1)	(2)	(3)
Pre-unification Italy (1300-1860)	-0.06	-1,167	n.a.
Italy in the Liberal period (1861-1913)	0.91	77	0.89
1861-1881	0.61	115	0.26
1881-1901	0.71	99	1.15
1901-1913	1.73	40	1.53
Fascist Italy (1922-1938)	1.46	48	1.65
1922-1929	3.12	22	3.09
1929-1938	0.19	372	0.54
Republican Italy (1948-2011)	3.10	23	2.78
1948-1973	5.51	13	4.96
1973-1992	2.51	28	1.92
1992-2002	1.56	45	1.32
2002-2011	-0.48	-146	0.25
Italy 150 years on (1861-2011)	1.74	40	1.58

Note: Column (2) shows the number of years needed for per capita GDP to double, assuming that it changes at the average rate given in column 1; the negative values are interpreted as the number of years necessary for per capita GDP to halve.

Most action in Figure 1 takes place in the late 19th century. For post-unification Italy, the non-linear nature of the growth can best be grasped by looking at the *rate* at which GDP increased (or decreased) in the main periods of Italy's post-unification history (Table 1). If we wish to schematically summarise the main "facts" emerging from the Table, then we could draw up the following list.

a) 1861-1901. The first two generations of Italians in post-unification Italy did not experience high growth rates in per capita GDP. Indeed, the rate at which GDP increased over the first four decades of the new Kingdom of Italy (0.6-0.7% per year) would have required at least a century to double. The political unification of the country did not lead to any "take-off" with regard to the average income of its citizens, but to a slow and gradual increase.⁶ The growth of productivity, however, remarkably increased in the second half of the period: it anticipated the big change in per head GDP, which was about to come at the dawning of the twentieth century.

b) 1901-1913. The years of the so-called "Giolitti age" saw an acceleration in GDP: compared to the previous two decades, the economic growth rate more than doubled (1.7% per year in per capita terms). World War I marked a sharp break in this favourable period, but growth would resume rapidly once again in the aftermath of the Treaty of Versailles.

c) 1922-1938. The new estimates describe the inter-war period as the combination of two decades that were very different from one another: the 1930s were as bleak (average per capita GDP growth rate was +0.2%), as the 1920s were rosy (+3.1%); differences in productivity were less pronounced, but on the whole similar.

d) 1948-2011. The republican period shows features that are largely well known: *(a)* in the years 1948-1973 Italy sped along at an unprecedented rate it has not experienced again since (+5.5% per year in per capita terms); *(b)* the slowdown in the years 1973-1992 is very conspicuous; *(c)* in the last decade (1992-2011), per capita GDP actually *fell* by 0.5% per year, and also productivity slowed down.

⁶ Toniolo [2013] gives two reasons for the deadlock of this period. On the one hand, there was the sluggishness *(a)* of the process for creating a single national market (political, administrative and economic unification did not come about overnight), *(b)* of the formation of an adequate human capital stock (schooling of the population was difficult) and *(c)* in the establishment of the new legal institutions (from the single currency to the approval of the commercial and administrative codes). On the other hand, there were external shocks (two wars of independence, the problem of banditry in the south of the country) and economic policy mistakes with regard to trade and monetary matters.

3. Italy as an open economy

Nations do not live in isolation, of course. How does Italy's performance compare to other countries? To what extent did Italy participate in the international scenario? The task of tracking Italy's participation in the international economy is now facilitated by the availability of new long-term statistical series. The evolution of the degree of openness to international trade is shown in Figure 2, using the ratio of the sum of imports and exports to GDP [Vasta 2010; Federico et al. 2011; Baffigi 2013]. The increase in the degree of openness is particularly marked in the early stages of industrialisation, namely between 1892 and 1914, despite the country's propensity for protectionism which was, in fact, more apparent than real [Federico and Tena 1998]. After an interruption owing to World War I, the increase in the degree of openness resumed in the 1920s to then decline following the autarchic policies of the Fascist regime. Economic recovery during the boom years of the so-called "economic miracle" coincided with Italy's inclusion in the new international order and her joining the European Common Market that, amongst other things, involved a gradual abatement of international tariffs: the great fluctuations in the 1970s and 1980s were due to sharp changes in oil prices. On the whole, the correlation between GDP and long-term trade openness is positive: causality goes from GDP to exports in the liberal age, from exports to GDP in the period following World War II [Rinaldi and Pistorresi 2012].

A second aspect concerns migration flows. Between 1869 – the first year for which reliable estimates are available – and 2005, over 28 million Italians emigrated: over half of them to places beyond Europe (such as the United States, Canada, Argentina and Brazil).⁷ Figure 2 shows the gross emigration rate (emigrants per 1000 inhabitants): from the initial values of less than 5 per thousand of the late 1860s, we find almost 25 per thousand in the years leading up to World War I. The war brusquely interrupted and almost completely stopped migration flows. After a brief resumption, Italian emigration found a new obstacle in the US restrictive quotas of 1921 (Emergency Quota Act) and 1924 (Immigration Act), in the Fascist laws of 1927 and the world crisis of 1930. The combined effects of lower supply and demand with regard to migrants led to a real drop

⁷ The data reported here refer to gross emigration rates [Gomellini and Ó Gráda 2013]. For an analysis of regional flows, see Felice 2007a: 42-54.

in the emigration rate. When emigration picked up again after World War II, the Italians mainly went to western European countries. Although the (gross) emigration rate was always below 10 per thousand, one should consider that the actual number of people emigrating was significant: 2.5 to 3 million Italians emigrated in each of the two decades of the 1950s and 1960s. In what is probably the most accurate analysis carried out so far on the underlying causes of migratory flows, Gomellini and Ó Gráda concluded that “relative wages, relative per capita incomes and network effects (proxied by previous migrants) are the variables that explain most” [2013: 282].⁸ In particular, the role of emigrant networks seems to be the single most important factor driving Italian emigration flows.

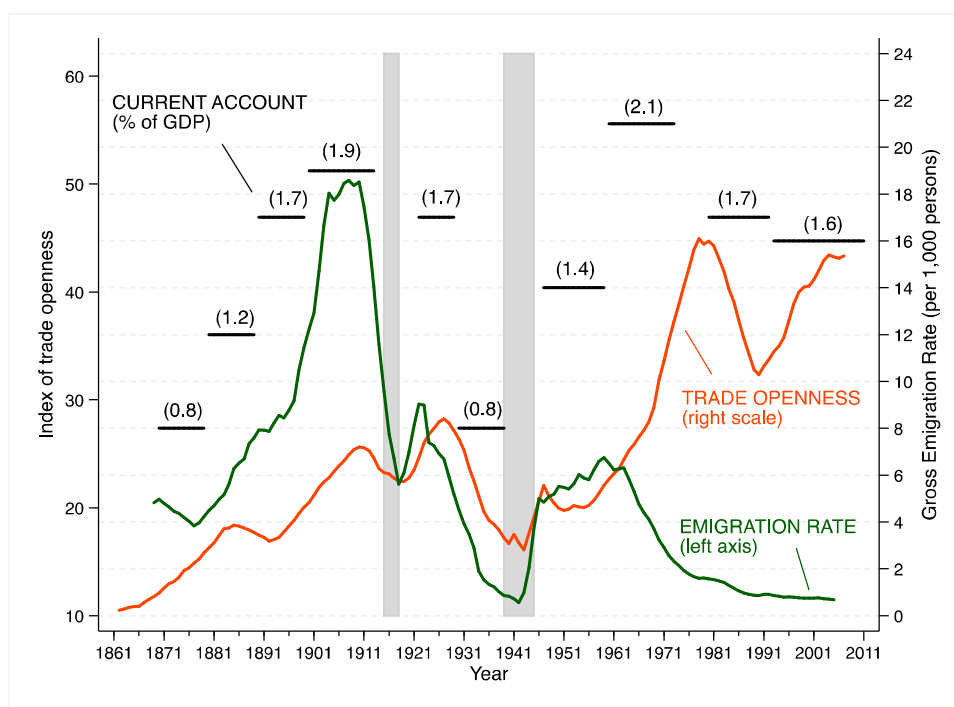


Figure 2. International factor mobility, Italy 1861-2011

Sources: Current account as a percentage of GDP, 1870-1939: Mitchell 2007; Obstfeld and Taylor 1998; International Monetary Fund 2012. The emigration rate is our own calculation on Istat data; trade openness was kindly provided to the authors by Michelangelo Vasta.

The third aspect concerns capital movements, which have significant implications for economic growth – from both a theoretical and empirical standpoint. The mobility of

⁸ For the post-World War II period, see Venturini 2004.

international capital enables breaking the bond constraining domestic investments to a country's saving capacity, and is one of the most important factors promoting economic growth in the more backward economies. Obstfeld and Taylor's estimates of the mean absolute value of current account for Italy show high values – indicating high capital mobility – as far back as the first globalisation: the 1900s and 1920s, which were the years of the highest economic growth before world war II, were also those of the most intense capital movements. Then capital flows reached a low in the 1930s, in line with what we know about the Italian Fascist period, and began rising again during the years of the economic miracle: they peaked in the 1960s, that is when also GDP growth was at its best. Conversely, in the final decades of the twentieth century capital movements show a gentle downward trend, despite worldwide they were on the rise: as we have seen, this has also been the period when the economic performance of the country has remarkably worsened. On the whole, Italy's economic growth seems to be strongly correlated with the degree of openness to foreign capital movements:⁹ participating in the international economy was vital to the country.

4. Technology and institutions: reinterpreting the Italian economy

The debate about Italy's industrialization and economic growth has a long tradition. Rosario Romeo [1959] and Alexander Gerschenkron [1959] disputed about capital accumulation and the “prerequisites” of industrialization more than half a century ago [Gerschenkron and Romeo 1961]. Since then, much road has been done, but the debate is still lively and contentious. The new body of quantitative evidence makes it possible to add new insights to the interpretation of the Italian economy over the long-run. In this section, we shall segment Italy's per-capita GDP series into the three periods corresponding to the political history of the country over the 150 years since its unification: the Liberal age (1861-1913), the Fascist period (1922-1938) and Republican Italy (since 1946). Each phase will be examined in sequence, placing the GDP series

⁹ Available data do not allow to distinguish between short and long term flows, but it is plausible that during the golden age long term investments were predominant, since short term ones were restricted under Bretton Woods rules.

within a broader context in which we introduce the technological progress and institutions – two key factors to explain a country’s long-term economic performance.

Technology (and organization) is behind increases in productivity (per worker GDP) and via this represents the main determinant of per capita GDP [Jovanovic and Rosseau 2005]. Over the 150 years since its unification, Italy has gone through as many as four technological regimes: (a) the first (1861-1875) is the one identified by the three main inventions of the previous decades, the steam engine, the spinning machine and the railways; (b) the second (1875-1908) coincides with the “second industrial revolution”, characterized by heavy industry (steel, first and foremost, to which the mechanical industry is connected) and electricity; (c) the third (1908-1970s) is defined by the establishment of mass production, such as with Henry Ford, in which petroleum plays a key role and there is the take-off and affirmation of durable consumer goods, starting with the automobile; (d) the fourth and last regime corresponds to the “third industrial revolution” (1970s-today) triggered by the advent of information technology and telecommunications: the industries showing the fastest growth in this phase are linked to electronics and particularly to computer technology [Freeman and Perez 1988; Gordon 2012].¹⁰

Technology represents a necessary but not sufficient condition for a country to feed its own course towards prosperity: the technological changes must be accompanied by changes in the institutions, in the broadest sense, and in the society’s ideology.¹¹ Did the new technological paradigms – exogenous factors with regard to the Italian economy – find fertile terrain in the country owing to the fact that institutions and ideologies were favorable to their adoption?

Much has been written on the economic history of Liberal period Italy.¹² The question at the heart of the historiographical debate has often been the following: *when* and *why* – from being a rural country, “poor” and backward, as it had been for centuries – did Italy become an industrial country, “wealthy” and modern? The “giant who dominated the

¹⁰ The dates marking the shift from one regime to another are obviously approximate and only serve to outline the timeline with which the main innovations have followed on from one another. Amatori, Bugamelli and Colli [2013] provides an excellent and up-to-date account of how unified Italy went through different technological paradigms over the past 150 years.

¹¹ This is a fundamental point in the speech Simon Kuznets made in Stockholm when he received the Nobel prize for economics [Kuznets 1973], taken up again in various forms by Abramowitz [1986], and more recently by Acemoglu and Robinson [e.g. 2012]. See also Felice and Vecchi [2013].

¹² Among the more important recent monographs, see Toniolo [1988, 2013], Zamagni [1993], Fenoaltea [2006] and Ciocca [2007].

Italian debate” [Fenoaltea 2007: 352] after World War II was Alexander Gerschenkron and it is worth starting from his thesis. Gerschenkron identified the “big industrial push” of the country around the mid-1890s and put it down to the creation of *mixed banks* – *Banca Commerciale Italiana (Comit)*, founded in 1894 with German capital, *Credito Italiano (Credit)*, *Banco di Roma*, and later on *Banca Italiana di Sconto*. Mixed banks, or universal banks, are so called because they collect capital (the prerogative of commercial banks) and channel it to favor industrial development (the prerogative of investment banks). Through their network of branches, mixed banks collect deposits *short-term* from ordinary citizens to then invest the capital in shares: that is, they turn the capital into *long-term* credit to industry: precisely what is needed, according to Gerschenkron, to favor the industrialization of a backward country.¹³ For Gerschenkron, this was the institutional innovation that acted as the “engine of growth”, in Italy and in Germany: it was the mixed banks which managed to compensate for the country’s drawbacks (the scarcity of natural resources, the political instability and hesitations of governments during the first decades after unification, the insipience of economic policies) on the path toward Italy’s industrialization [Gerschenkron 1955, 1959 and 1962].

The debate following Gerschenkron’s work was intense and remained so over the following decades. The common denominator of all the interpretations put forward in the successive years – Romeo [1959], Cafagna [1961, 1965], Bonelli [1978] – was that of assuming that economic development followed a stage-by-stage model [Fenoaltea 2006: 38]. According to this view, a country develops following an orderly sequence of stages (or phases). Initially, the *prerequisites* for growth must be created (for instance, infrastructure and human capital); the second stage envisages an economic *take-off* – economic growth starts up with a great boost and marks a break with the GDP series trend; the next stage marks a *rise to maturity* (technology opens up new investment opportunities and the economy becomes more complex), and, finally, there is the age of *mass wellbeing* [Rostow 1960].

It is difficult to establish whether the per-capita GDP series in figure 3 shows a trend in line with the explanation offered by stage-based models. The figure displays the series

¹³ In return, the mixed banks typically entered the boards of the firms they financed and obtained access to strategic information. The advantages associated with the presence of a mixed bank must be weighed up against the greater fragility of the economic system, due to the interweave that is created between credit capital (banking system) and industrial capital (the real economy).

of GDP per person and per worker against the background of technological changes (indicated with a different background color intensity), and the main political and economic innovations. The first two decades of post-unification Italy reveal an uncertain start, and it is only with the beginning of the “Historical Left” and the Depretis Government (1876) that GDP began to grow at an increased rate. The trend does not show any trace of the crisis of the 1880s, while the slowdown in the 1890s is well visible. On the whole, however, the terms “take-off” or “big industrial push” are quite inappropriate to describe the trend of GDP per capita with regard to the latter half of the 1890s (and this is all the more true if we look at GDP per worker).

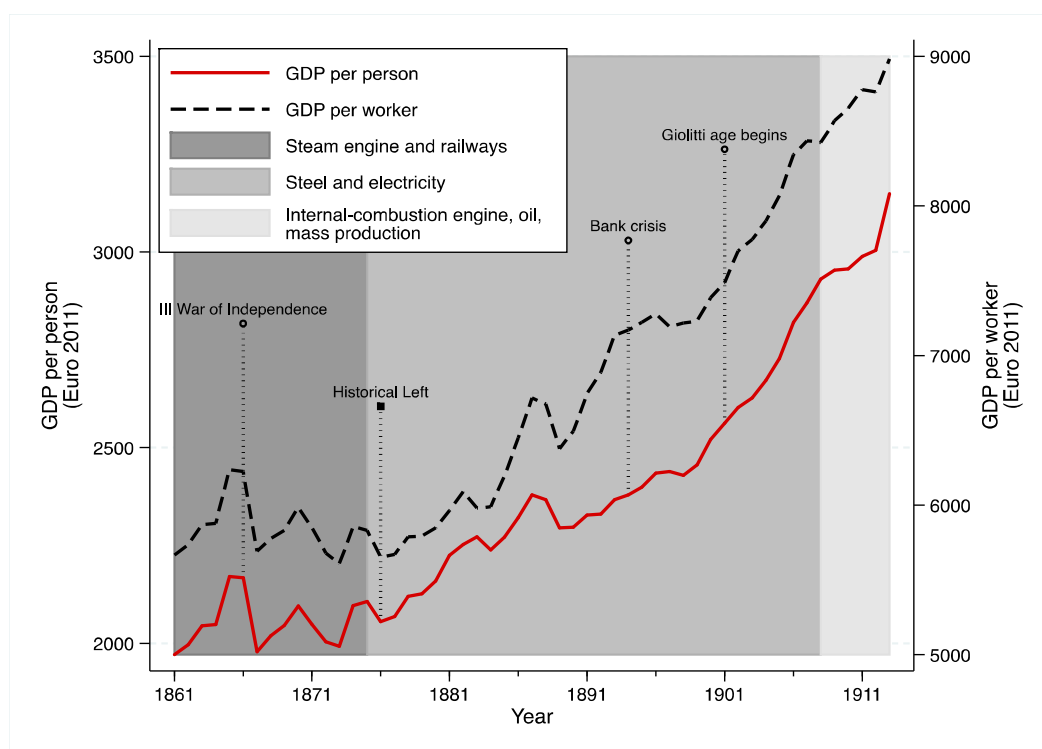


Figure 3. GDP per person and per worker, 1861-1913

Source: elaborations from Table A.1.

An alternative interpretation to the one suggested by the stage-based models was proposed by Fenoaltea [1988, 2006]. In this case, the story begins by observing that the new GDP series has an upward trend with no breaks or take-offs, but with fluctuations: these are “economic cycles”, mainly caused by the construction industry and more generally by the infrastructure sector. According to Fenoaltea, construction and infrastructure were in turn driven by foreign investment, especially British at the time:

therefore, what decided the various stages of Italian economic growth during the Liberal period was the foreign investment cycle. In this model, Italy behaves like any other European fringe country: when the political climate positively influences investor expectations, capital flows in and the economy gets going; when greater risk is perceived, capital flows cease, indeed, they flow out of the country and the economy contracts. The view of Italy as an open economy does not require any stage-based development process and does not envisage any take-off stage: the process is guided by the interweaving of the international economic cycle, investor expectations and the domestic political cycle. Fenoaltea's interpretation appears largely consistent with a cyclical development along an increasing trend, as the one shown in figure 3. Less convincing is the fact that it overlooks the role played by national institutions and domestic economic policy decisions. This point has been well reasoned out by Gianni Toniolo:

In order to profit from the international boom, Italy had to abandon expensive colonial adventures and put order to its public finances, rebuild almost from zero a banking system that laid in tatters, create a central bank, overcome the credibility shock generated by the suspension of gold convertibility. More than that: Italy had to overcome a social and political crisis that threatened to undermine the very foundations of the liberal state. Both politics and society stood up to the occasion: the crisis (...) was overcome. Democracy was maintained, the disastrous African policy was discontinued, sound economic institutions were put in place and the banking system was revitalized. In the following years successive governments maintained a time-consistent fiscal and monetary policy, the gold standard was shadowed but cleverly not officially reinstated, commercial treaties brought back the fresh air of freer trade. All this lies behind Italy's ability to surf the long wave of international growth. *It did not need to be so: even sailing with the tide requires expert skippers.* [Toniolo 2007, p. 132. Our italics]

On a more technical level, the estimates by Felice and Carreras [2012] with regard to just industry for the period 1911-1951, when combined with those by Fenoaltea (1861-1913), suggest that the cyclical model is valid only up to the mid-1890s. From that time on, more or less coinciding with the creation of the mixed banks, for the cycle of Italian industry not only does the production of durable goods count, but also the production of consumer goods. In short, the new quantitative evidence is consistent with a narrative where the cyclical model (exogenous) and the institutional innovations (endogenous) combine: domestic policy intervenes to reinforce the upward curve cycle of foreign capitals.

Compared to the Liberal period, the interwar years have received a lot less attention.¹⁴ This is certainly to blame because it was a decisive period in which Italy modernized and enhanced the sectors of the second industrial revolution (chemicals and heavy industry at the expense of textiles and foodstuffs), and also saw progress at the institutional level by creating the foundations which would accompany the subsequent economic miracle.

Previous GDP estimates had depicted World War I as a period of exceptional boom for the Italian economy, which found no parallels in the experience of other belligerent countries: from 1913 to 1918, Italy's total GDP at constant prices would have increased by 33.3% according to Maddison [1995: 148-151], by 45.4% according to Rossi, Sorgato and Toniolo [1993]; scholars were skeptical, to say the least, about these figures [Broadberry 2005], which sharply contrast with those of the other main countries of continental Europe (Germany: -18.0%; Austria: -26.7%; France: -36.1%) and are even remarkably higher of those of the UK (+13.2%) or the US (+14.8%). This over-optimistic view is now challenged by the new estimates for both the services sector [Battilani, Felice and Zamagni 2011] and industry [Carreras and Felice 2010], according to which the performance of the Italian economy looks more in line with that of the other warring countries: from 1913 to 1918, Italy's total GDP reduced by 2.7%, Italy's per capita GDP by 4.6%. After the interval of the war years, when imports of crucial materials were favoured by Italy's alliances, from the mid-1920s Italy re-oriented itself towards a more inward-looking industrialization, which culminated in the autarchy of the 1930s. Even though it was a rather difficult time, to say the least, at a domestic level and even more so at the international one, in the period 1919-1938 the per-capita GDP growth rate (1.5% a year) was significantly higher than the one recorded during the Liberal period (0.9%). Behind this overall figure, however, lie very diverse movements, ups and downs which characterized the 1920s and 1930s. As mentioned, in fact, the interwar period was characterized by very marked economic cycles: figure 4 shows a boom in the decade after the Treaty of Versailles (1919-1929), the recession following the 1929 crisis and the lively recovery starting in the latter half of the 1930s.

The growth of the 1920s was rapid, the result of an increase in productivity; if the war had any beneficial consequence, then it was its positive effect on the preexisting technological backwardness – progress in the chemical industry, in motor vehicle

¹⁴ Among the exceptions: Toniolo [1980], Gualerni [1995], Galimberti and Paolazzi [1998], Petri [2002], Feinstein, Temin and Toniolo [2008], and Felice and Carreras [2012].

production and in aeronautics was greatly stimulated by the war effort [Feinstein, Temin and Toniolo 1998: 87]. Between 1919 and 1929, Italy grew at a high rate – over 3% a year, on average. The 1920s were really “Roaring Twenties” for the Italians, although growth significantly slowed down after the introduction of deflationist measures in 1926 (and the first autarkic turn of the fascist regime). However, it is with the new decade that things would have worsened, economically and even more so politically. The Great Depression of 1929 appears to have had a greater impact than previously thought: between 1929 and 1933 Italy suffered an 8% decrease in per-capita GDP compared to the 3.5% decrease previously estimated by the “old” series [Vitali 1969]. This is higher than the UK figure (-4%), close to the French (-10%) and German (-12%) ones, but a long way off from the catastrophic figure recorded in the USA, where GDP decreased by 27%.

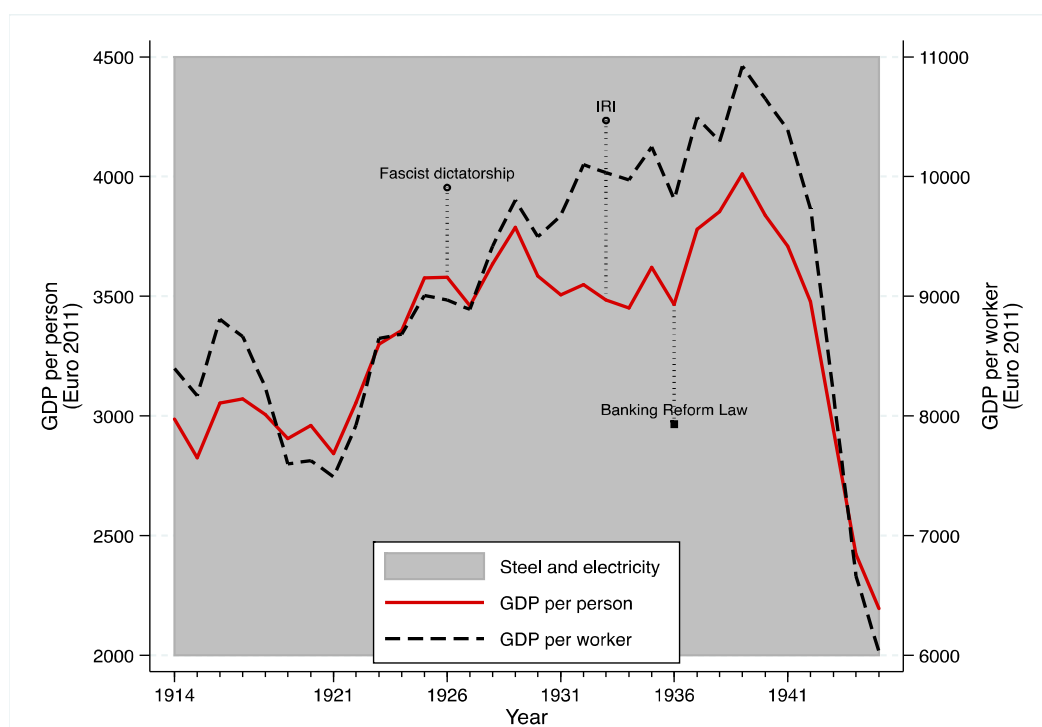


Figure 4. GDP per person and per worker from World War I to World War II

Source: elaborations from Table A.1.

Paradoxically, but perhaps not so much, it was the very autarchic policies which steered modernization and thus the expansion of the Italian productive base. This is clear in the graph from the difference between GDP per person and GDP per worker, the latter performing remarkably better from the second half of the 1920s until the advent of world

war II. The deflationary turning point of 1926 (with the drastic revaluation of the Italian lira) made the price of imported materials (e.g. cast iron) and of machinery drop, thereby benefiting industry which could use inputs at lower prices. At the same time, however, it made prices rise for traditional Italian exports in light industries such as textiles, thereby damaging the less advanced Italian production sectors. The 1929 crisis led to a broad reform of the Italian production system. On the one hand, it forced the industrial sector to substitute labor (now more expensive¹⁵) with capital, and this led to an increase in mechanization; on the other, the calamitous effects of the crisis on the real economy and on finance led to the institutional reorganization of the whole edifice of national capitalism. The institute for industrial reconstruction IRI (*Istituto per la Ricostruzione Industriale*) was created in 1933, and in 1936 the banking reform law achieved the separation between banks and industry, that is, between short-term and long-term credit.

According to Rolf Petri [2002: 336-347], state intervention was decisive in supporting strategic sectors – metal-making, engineering and chemicals – during an extremely difficult phase, the interwar years, and thus paved the way for the following economic boom. As argued by James and O’Rourke, amongst others, “financial restructuring was used as an opportunity to reshape the structure of industry” [2011: 3]. On the whole, the widespread view today in interpreting the interwar period is that the Fascist years were not a break in the long-term path of the Italian economy, but rather a premise for the great leap which would take place after World War II [Gualerni 1995; De Cecco 2000]. This view is consistent with the new series for what regards the aggregate picture, as we have seen, but also with regard to the development of the industrial sectors and structure [Felice and Carreras 2012].

The new GDP estimates (figure 5) for the years following World War II do not add very much to what we already knew. GDP in the decades after World War II is characterized by an upward trend – in per capita and even more in per worker terms – and by a conspicuous slowdown starting in the 1990s, leading to stagnation with the advent of the new millennium.

¹⁵ Deflation, i.e. price decreases, led to a rise in real wages, or to an increase in the labor factor of production, which became more expensive compared to other goods [Mattesini and Quintieri, 1997].

Once post-war reconstruction was completed, Italy “put on wings” and embarked on a period of growth which history would call the “economic miracle”.¹⁶ The new estimates confirm the exceptional performance of the 1950s and 1960s which emphasize – as we saw in Figure 1 – an actual break in the centuries old trend. It is these two decades which saw Italy complete its transition from the “periphery to the centre”, according to the fortunate definition put forward by Vera Zamagni [1993]: the country became a modern industrial one, with a great shift in labor from rural areas to industry, even in Italy’s *Mezzogiorno* or southern regions. There were many reasons for this achievement, starting from some decisions in the geopolitical and international arena. Firstly, the Marshall Plan, whose funds were used better in Italy (to renovate the industrial apparatus) than in other countries [Zamagni 1997; Fauri 2010]. Secondly, the far-seeing anchorage to the European edifice [Fauri 2001; Ciocca 2007]. Other factors also moved in the right direction. The fixed exchange rate system based on the dollar (and the Italian lira undervalued) [Di Nino, Eichengreen and Sbracia 2013: 361], low prices for oil and other natural resources, the gradual liberalization of international trade brought their benefits to more or less all advanced countries, and particularly to Italy: for example, the decrease in raw material prices in the 1950s and 1960s was particularly advantageous for a country lacking in natural resources.

Among the important elements explaining the country’s growth after World War II there is also the continuity with the past, and particularly with regard to the interwar years. This is the case with the system of *partecipazioni statali* (that is, joint stock companies under private law indirectly owned by the state), which was created in the 1930s and made an important contribution to growth in the 1950s and 1960s, becoming the driving force of industrial modernization. There is no counter-evidence, obviously, but the idea which has been put forward is that these state holdings played a key role making it possible to devise “far-seeing strategic plans which were instead absent – if we exclude FIAT of Valletta – in large scale private industry” [Barca and Trento 1997: 197].

By the end of the 1960s, Italian industry appeared broadly diversified and even impressive, in some respects: the country excelled in the automobile and IT sector, developed an important chemicals industry and was at the forefront of the aerospace

¹⁶ In actual fact, GDP showed a miraculous trend in most countries in western Europe: not surprisingly, the period 1950-1973 became known as “Europe’s golden age”. For an economic history of the “Italian miracle”, see Crainz [2005] and Crafts and Magnani [2013].

industry. At the same time, there were also those traditional sectors of *made in Italy* (particularly textiles, footwear, food and home furnishings), supported by a widespread fabric of small and medium-sized enterprises [Amatori 1980, 2011; Colli and Vasta 2010].

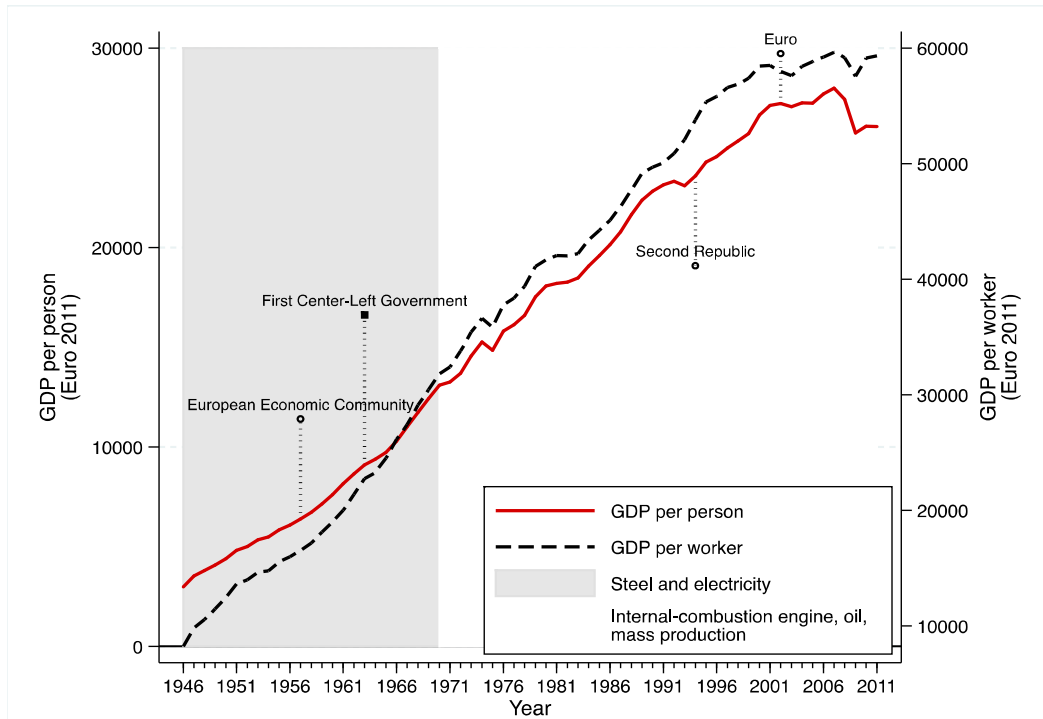


Figure 5. GDP per person and per worker after World War II

Source: elaborations from Table A.1.

Growth slowed down in the 1970s and 1980s, starting with the first energy crisis in 1973: the system of *partecipazioni statali* degenerated and ended up by obeying clientele-type political demands which led to setting up manufacturing plants in locations that were far from convenient [Felice 2010a; Rinaldi and Vasta 2012]. Large scale enterprises lost ground and a tertiarization of the economy – that is, a GDP shift from industry to services – took hold in Italy, too.

In any case, the GDP increase in this period still appeared in line with that of the main European competitors, driven by exports and by the country’s industrial districts. The latter seem to take on a new paradigm in the history of enterprise [Becattini 1979], but some critical observers [De Cecco 2000] noted how their rise owed more to the

devaluation of the lira and to a lack of fiscal control: a view confirmed in the light of their disappointing performance in recent years.

The years since 1992 have witnessed a decrease in growth, more than halving even with respect to the previous twenty-year period. As Salvatore Rossi [2010: 15] observed, “Adapting to the ICT revolution and globalization (...) was, and is, not an easy operation, above all with regard to the change in technological paradigm.” What has characterized the last twenty years is, in sum, a hitherto unprecedented inability to adapt to the context – once again exogenously given – that Italy has to operate in [Paolazzi and Sylos Labini 2012]. At the turn of the millennium, as Italy was falling behind, even compared to its main European partners, which in turn have lost ground to the USA and even more to emerging Asian countries (we shall see this in section VI), both the national press and public opinion spoke in terms of an economic decline.

5. The long-run divergence of Italian regions

Once Italy’s national accounts had been reconstructed, some economic historians began to pursue the aim of reconstructing Italy’s regional accounts. The first attempt on this was made by Vera Zamagni in 1978 by drawing up an income estimation of the Italian regions for the year 1911. Hers was an isolated attempt: silence soon returned and in the next two decades the measurement of regional differences in GDP remained a poorly researched field.¹⁷ The new millennium heralded new studies enabling, at last, an outline of long-term per-capita GDP development for each of the country’s regions. The summary picture we offer in this section is a premise for understanding the origins of territorial imbalances today.

The trend of regional differences in per-capita GDP for the five large macro-areas of the country is summarized in figure 6. A first comment concerns the so-called initial conditions. In our baseline year (1871), Italy showed non-negligible per-capita GDP

¹⁷ Official statistics on regional GDP only started to be published in 1970 [Svimez 1993]. Esposto [1997] produced estimates for 1871 (macro-regions), 1891 and 1911; Svimez [1961] for 1938 and 1951; Daniele and Malanima [2007, 2011] produced annual estimates from 1861 to 1951, by linking estimates made by Federico [2003b], Fenoaltea [2003b] and Felice [2005a, 2005b], in the assumption that, for each sector of economic activity (agriculture, industry or the services), the regional cycles would be the same as the national cycle. This section is based on Felice [2011] and on hitherto unpublished estimates for 1871 and 1931.

differences: the richest area of the country, the North-West, had around a 25% advantage over the poorest area, the South (about 2,000 Euros per person a year in the North-West versus 1,600 Euros in the South). This is a significant difference, consistent with what emerges in other social indicators [Vecchi 2011; Felice and Vasta 2012], and with what we know about the distribution of transport and credit infrastructure, which point to a clear advantage for the northern regions [Zamagni 1993: 42; Giuntini 1999: 597]. The situation in other countries was rather similar: new data for Spain [Rosés, Martínez-Galarraga and Tirado 2010] or for the Austria-Hungarian empire [Schulze 2007] indicate a gap in favor of regions with an industrial or services base – Madrid and Catalonia, in the former case, and Vienna, in the latter – but, on the whole, also a relatively modest dispersion of average incomes compared to what would happen as industrialization progressed.

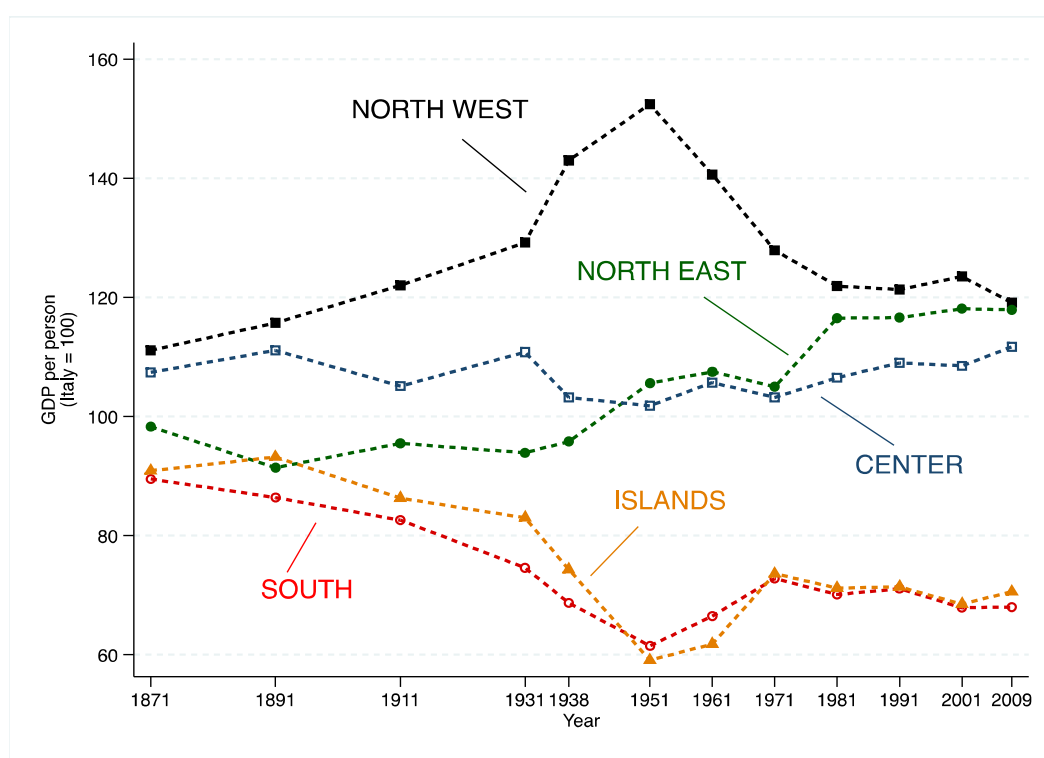


Figure 6. The great Italian divide, 1871-date

Note: The composition of each macro-region is the following. North-West: Piedmont, Liguria, Lombardy, Aosta Valley. North-East: Veneto, Emilia-Romagna, Trentino-Alto Adige, Friuli-Venezia Giulia. Center: Tuscany, The Marches, Umbria, Latium. South: Abruzzi, Molise, Campania, Apulia, Lucania, Calabria. Islands: Sicily and Sardinia. All the estimates are at the historical borders.

Sources: see the Appendix.

A second comment concerns the spectacular long-term *divergence* process: the North-West regions start from slightly more advantageous baseline conditions, but then proceed at such a pace that in the aftermath of World War II they are a “world apart”: in 1951 the citizens of the north-western regions would enjoy a 50% higher GDP than the national average. The southern regions, instead, show a diametrically opposite trend, falling behind the rest of the country, such that in the aftermath of World War II they become a sort of second Italy: per-capita GDP in the south is less than half the one of the central-northern regions. Once again, if figure 6 would not surprise historians – the southern question has been on the scholars’ table since the last century – what remains striking is the sheer *scale* of these differences. It is the actual *amounts* emerging in figure 6 that are stunning: in 1951, after 90 years of post-unification history, the southern regions had a per-capita GDP accounting for barely 40% of the north-western regions. The average income in Calabria was less than a third (29%) of the one in Liguria.

The third result deserving particular attention concerns what occurred in the interwar years: regional differences increased conspicuously. In this period the North-West progressed along the path of industrialization and modernization, while the *Mezzogiorno* remained dramatically still.¹⁸ A factor favoring development in the North-West was the country’s great effort in World War I (1915-1918) which steered public procurement towards enterprises of the so-called “industrial triangle” (Lombardy, Piedmont and Liguria), the only ones that could deal with the production demands of the war. The North also benefited from deflationary measures and an autarchic policy which meant an intensification of industrial production towards advanced sectors, mostly located in that part of the country. Instead, the *Mezzogiorno* suffered from the demographic policies of the Fascist regime, with restrictions to emigration, and this increased the demographic pressure on the poorest regions. To this must be added the effect of the so-called “wheat battle” (in 1925 Mussolini proclaimed the need for Italy to achieve self-sufficiency in food, starting with wheat), which favored cereal growing at the expense of more profitable crops of Puglia and Sicily (wine, grapes and citrus fruits), and the immobilism of the social order that guaranteed the rents of great landowners even when the land itself

¹⁸ This can be illustrated by the following data: between 1911 and 1951, the percentage of agricultural labor in southern Italy did not decrease (remaining at around 60%), while in the north-west of the country, in the same period, it fell by almost 20 points from 47% to 28% [Felice 2011].

was not productive, thereby hindering modernization in southern agriculture [Bevilacqua 1980; Felice 2007].

Regional differences greatly decreased from 1951 to 1971. Convergence of the south during the 1950s and 1960s was exceptional and made possible both by considerable inter-regional migration from south to north of the country as well as by a *deus ex machina* – the great State intervention [Felice 2010b: 72-73]. The *Cassa per il Mezzogiorno* (the Southern Italy Development Fund), set up in 1950, was the instrument through which the State promoted the creation of great infrastructural works in the southern regions – from aqueducts to roads and industrial plants. As well as direct intervention for creating the necessary infrastructure, the *Cassa* also provided for indirect funding of production activities. The initiatives involved public enterprises, which were obliged by law to devote a considerable amount of their investment to the *Mezzogiorno*, but also private ones: both kinds of enterprises received lower interest rate loans and free contributions. It was a top-down action focusing on “heavy”, higher added value sectors such as the chemical, steel and advanced mechanical industries [La Spina 2003; Felice 2007; Lepore 2011], led by state-owned enterprises [Amatori 2013: 30-39; De Benedetti 2013]. In terms of resources allocated in relation to GDP, the investment was on a scale unparalleled in any other western European country [Felice 2002].

This convergence of the *Mezzogiorno* turned out to be short-lived, however: the economic policy was not enough to trigger a continuous self-generating process in the South. With the oil crisis of the 1970s, the fordist model of production based on large energy-intensive factories suffered a setback, and in Italy this was particularly felt by the weaker links of the chain, that is, the plants in southern Italy that had been located there not for market convenience, but because of State incentives or dispositions. At this point, public intervention proved to be incapable of reinventing itself and indeed became entangled in a great many welfare or income support trickles, bloating the staff of public administrations and even benefiting organized crime.¹⁹

Figure 6 clearly shows that from the 1970s onwards, albeit slowly, the southern regions started to fall behind again. The north-eastern regions instead started to pick up pace in their convergence with the north-western ones, followed by the central regions of the country. The driving force of the north-east was a growing capillary network of

¹⁹ See Bevilacqua [1993: 126-7, 132] and Trigilia [1992]. The *Cassa per il Mezzogiorno* was dissolved in 1984, followed by the short-lived Agensud (1986-1992).

export-gearred manufacturing firms [Bagnasco 1977; Becattini 1979]. The most recent data, of 2009, confirm broad gaps – broader than the ones estimated for the time of Italy’s unification.²⁰

6. Italy’s GDP in international perspective

Between 1870 and 2011 Italy’s GDP per head increased twelve-fold – a result that is better than the average figure for the twelve countries making up western Europe (whose per-capita GDP increased eleven-fold over the same period) [Conference Board 2013]. Italy managed to do better than the United Kingdom (7-fold), kept up with France and Germany (12-fold), but increased its gap with the United States (13-fold). It fared worse than Spain and Greece (14- and 16-fold, respectively), and with regard to some Scandinavian countries (Norway and Finland increased their incomes 21-fold in the same period, while Sweden 19-fold), not to mention Japan and South Korea (whose per-capita GDP rose 30- and 37-fold, respectively). If we look at the long-term picture, Italians have good reason to feel satisfied with their own performance [Rossi, Toniolo and Vecchi 2011]. It must be pointed out, however, that the performance of the southern Italy was radically different from the one of the Centre-North: while per-capita GDP in Northern regions increased almost fourteen-fold, thus in line with Spain and significantly better than France and Germany, the increase in the *Mezzogiorno* was less than ten-fold, despite the higher potential for convergence: Southern Italy went much worse than any other country of the European periphery, thereby weakening the performance of the country as a whole.

Figure 7 focuses on the post World War II years: these are the years in which the Italians, in the space of two generations, completed the country’s reconstruction and their road to wellbeing. How does Italy’s post-war economic growth compare with that of other countries? To answer, the graph compares Italian per-capita GDP growth with that of the United States (red line), with the average figure for the European Union of 15

²⁰ Per-capita GDP differences between the various geographical macro-regions can not even be explained by the price differences found in these areas: Brunetti, Felice and Vecchi [2011] showed that by correcting GDP to allow for differences in purchasing power does not change the key features of the historical picture described in figure 5.

countries (EU, black line), with the OECD average (blue line) and with the world average (purple line), which are all set 100.

Let us begin by examining the starting conditions. In 1950 the gap between the average income of the Italians and that of the Americans was huge, but Italy was also significantly poorer than the average of the European countries making up EU15. The years going from 1950 to 1973 are the “golden years” of western Europe since a general stability of macroeconomic indicators (acceptable inflation and limited cyclical fluctuations) went hand in hand with extraordinarily high growth rates [Toniolo 1998: 252]: but while Europe grew rapidly on the whole, in the same years Italy managed to grow at an even faster rate. One more remark concerns the growth of the countries making up the “world” group. Figure 7 shows an upward trend with a turning point around the years 1991-1992: this means that during the first 40 years (1950-1992), Italian growth was systematically faster than that of the whole world (Italy grew at an average annual rate 3.5% faster than the average of the other countries). In the following two decades (1992-2011) not only was there an inverse trend, with Italy growing less rapidly than the rest of the world, but this happened at an increasing rate (every year, on average, Italy grew at a 4.4% lower rate than the other countries).²¹ The diagnosis seems to be that of a country in decline.

²¹ This pattern is *not* the consequence of the “China effect”. If we compare Italy’s relative growth with the rest of the world, after excluding the most dynamic and demographically important countries from the latter (Brazil, India and China), the conclusions reported in the text do not change: between 1950 and 1992 Italy grew faster than the rest of the world (+2.4% a year, on average), while between 1992 and 2011 it grew less rapidly (-0.9% a year).

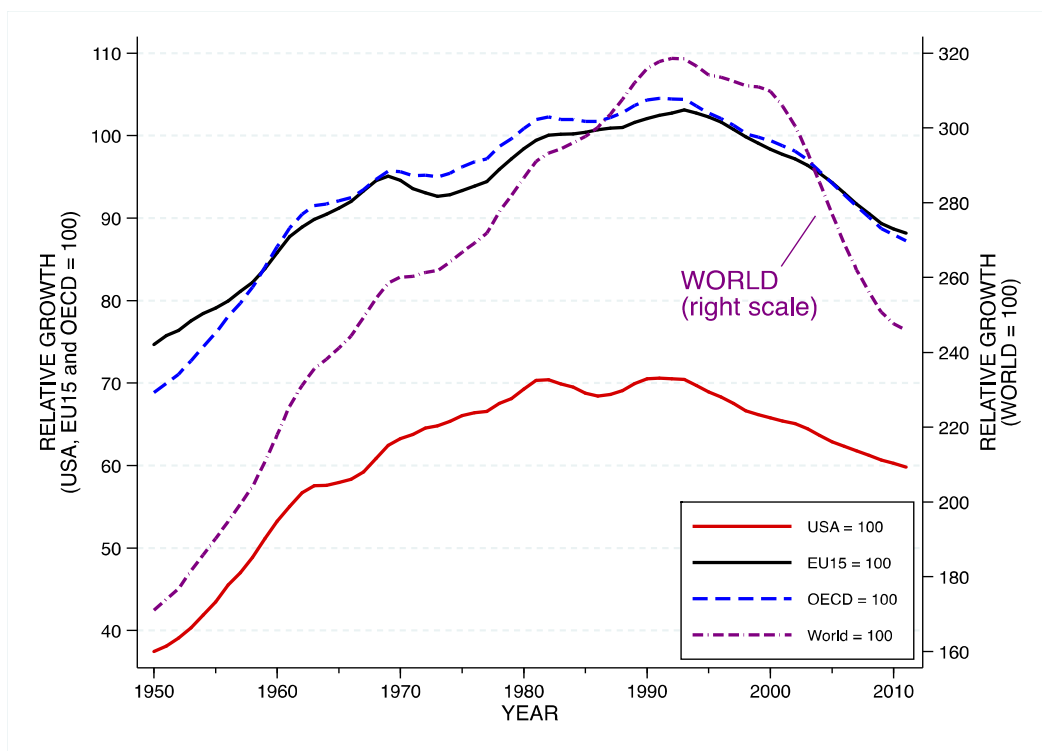


Figure 7. The rise and fall of per-capita GDP, 1950-2011

Sources: see the text.

Figure 8 strongly confirms this diagnosis. The graph has the ambitious task of comparing Italy's per-capita GDP growth rates with that of *all* the other countries of the world (or, rather, all those countries for which we have reliable per capita GDP figures)²² over the 150 years since the country's unification. For each decade on the horizontal axis, after working out the (average annual) growth rate of per-capita GDP for all the countries in the decade concerned, we have indicated (a) the growth rate of the country which grew *more* quickly (on average, over the decade) and (b) the growth rate of the country which instead wins the wooden spoon for the slowest growth in the same decade. Between these two extremes we have shown Italy's position (the small red circle): the red line shows the trend for Italy over the period concerned, which can be compared with the OECD average (black line).

²² We exclude countries of sub-Saharan Africa and the oil-based Middle-Eastern economies; we also exclude countries with a population below one million people. Data are from the Conference Board Total Economy Database (consulted in October 2012). For certain countries and certain years we reconstructed the GDP trend by log-linear interpolation. The title of the graph is an expression taken from Marcello De Cecco [2000: 119].

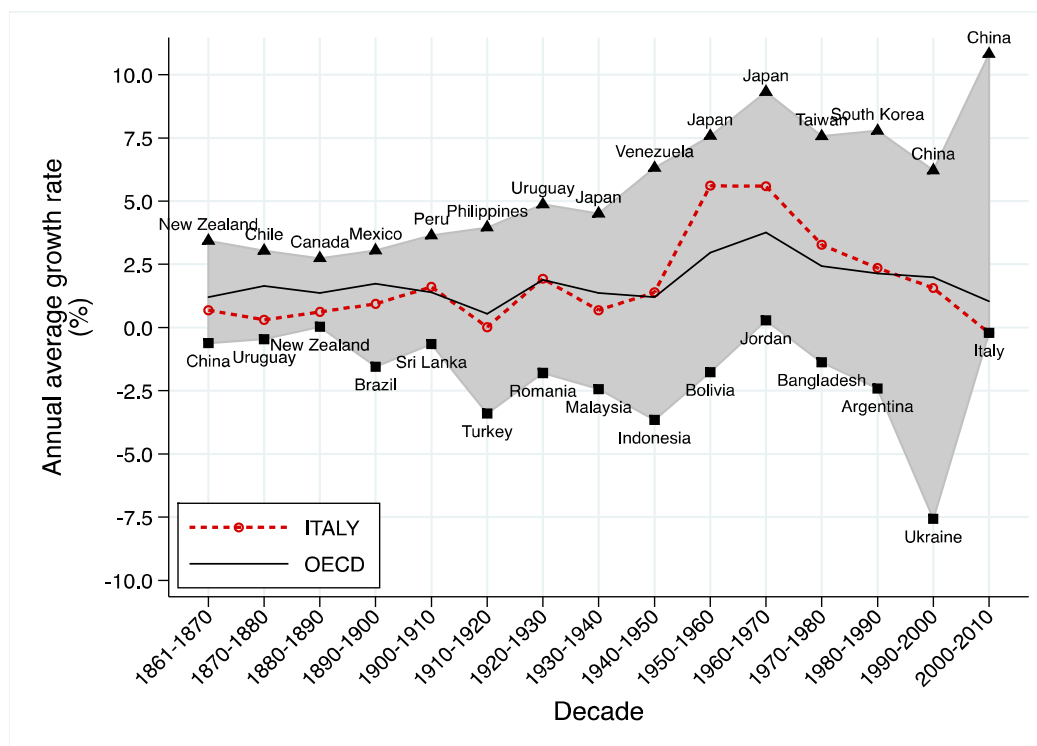


Figure 8. From the periphery to the center, and back again

Sources and notes: see the text.

The main “facts” can be quickly summarized. Firstly, the new Kingdom of Italy, which was born poor in 1861, grew below the OECD average over the following forty years since it was unable to fully exploit the advantages of its own backwardness [Abramovitz and David 1996; Toniolo 2013]. Secondly, during the first decade of the 1900s, Italy managed to align its own growth rate with the OECD *average*: growth in the Giolitti years (1900-1910), which was considered “exceptional” according to domestic standards, was nothing of the kind once we compare the country at an international level. Thirdly, once having reached the growth rate of the OECD countries, for many decades Italy managed to do little more than “grow with the average”. This was the case for the whole first half of the 20th century. Fourthly, we find a real leap in the years 1950-1970: this marks an extraordinary phase in which the country comes closer, albeit not too much, to the front-runners’ frontier. For as many as two decades, the country would keep up an annual average growth rate of 5%, but would then have to slow down its pace and fall behind. Part of this slowdown is quite normal: it is not easy to “stay at the forefront”, while it is easier to grow by starting from a position behind the frontline, having the advantage of being able to emulate the frontrunners. However, figure 8 does not seem to

convey Italy's difficulty in staying close to the frontier of the virtuous countries, but rather its inability to avoid slipping behind towards the frontier of those countries incapable of growing. This is the fifth and final "fact" to emerge from the graph. Since the 1980s the country has embarked on a phase of relative decline: the red line cuts the black line "from above" and enters negative territory. This means that Italy has not only slowed down its GDP pace more markedly than that of the OECD country average, but has actually embarked on a regression process (the per-capita GDP growth rates become negative) – something not found at all with the OECD countries. The decline consolidated in the following decades (in the 1990s the red line continued to diverge from the black one and headed towards the laggards' frontier) until it shamed the country by coming last in the world ranking: it is Italy that has the worst average growth rate *in the world* for the years 2001-2010. Italy's relative economic decline started in the 1990s, but came out with all its drama in the following decade.

7. Concluding thoughts

Over the one hundred and fifty years or so since the country's unification, Italy managed to bridge the gap – in terms of average national income – with the most advanced European countries of the time of unification (1861): Britain, France and Germany. From the periphery, the Italians reached the centre, accomplishing a feat that few would have betted on, and on which nobody had ever harbored any expectations. In 1916 Louis Bonnefon Craponne, a brilliant French industrialist and first president of *Confindustria*, published *L'Italie au travail*, a wonderful little book whose very existence was recalled to our attention by Marcello De Cecco [2013]. Bonnefon tells of French incredulity in learning that the Italians had not only started to produce automobiles, but had even begun taking part in the first car races of the times: "La première apparition de ces machines inconnues avait été accueillie par des sourires passablement ironiques. Quoi? on construisait des autos en Italie? Et ces fabriques – sans importance certainement osaient se mesurer avec nos Renault, nos Panhard nos de Dion? Passe encore l'Allemagne et ses Mercedes, mais l'Italie!..." [Bonnefon 1916: 114]. Over fifty years had gone by since the birth of the new Kingdom of Italy and the observers of the day

were still unable to update the country's image from the European champion of backwardness to one of a country well on its way to modern economic development. The GDP estimates presented in this article have reconstructed the process with which the country accomplished its transition from a pre-industrial rural economy to an advanced economy ranking among the major industrial powers of the world. Stagnation gradually gave way to growth: today, average per-capita income is almost 13 times what it was at the time of Italian unification. The process has been a discontinuous one, however, and the country has remained deeply unequal inside its borders. During the first century of its existence, the economic system grew slowly, to then accelerate after World War II, when it literally leaped ahead. Not surprisingly, there was talk of an "economic miracle". The miracle did not, however, cancel the line dividing the north and south of the country, an original feature of the Kingdom of Italy. The empirical evidence presented in this chapter shows that integration (or convergence, if preferred) has been the exception rather than the rule, and was only seen in the space of two decades (1951-1971); the remaining one hundred and seventy years were marked by divergence or immobility, at least with regard to the North-South divide (there was indeed convergence within the Centre-North and within the South). The last twenty years have seen Italy's per-capita GDP stop growing (+0.6 per cent per year), while even regional convergence came to a halt: it would have sufficed that Southern Italy continued to converge toward the Centre-North, to significantly improve Italy's performance. But not even this happened. The Italian recent falling back has naturally nurtured fears of failure, of decline [Toniolo and Visco 2004].

Not all analysts share these apprehensions. Some defend irreducibly optimistic theses: "On what principle is it that, when we see nothing but improvement behind us, we are to expect nothing but deterioration before us?".²³ The point was made in another context (the British one) and in another time (early 19th century), but it expresses a very topical view: is it not, perhaps, the habit of generations of every epoch to look back on the past with nostalgia, to complain about how things are going in their own times, and to paint a black picture of the future? If contemplating the past in order to find comfort with regard to the future is an old and licit activity, it is also an exercise that is quite groundless: history does not lend itself to mere extrapolation. The question we thus ask ourselves, as a sort of conclusion, is whether, by analyzing the ultra-centennial historical series of

²³ The quotation is from the British historian and Whig politician, Thomas Macaulay, who wrote in 1930 in response to the poet Southey [cited in Supple 1994: 442].

Italian GDP, Italy can be considered a country in (relative) decline. The answer which emerges from our analysis is affirmative. An analysis of the trend in the per-capita GDP series suggests that Italy has embarked on its return journey towards the periphery, that is, it is living through a relative decline. And although a relative decline is a necessary, but not sufficient condition, for an absolute decline, we may also have indeed the first signals of this latter: the growth rate of per capita GDP has been negative in the last decade, a trend which has not been reversed thus far.

Caution is the watchword, here, since we lack a suitable temporal perspective in order to judge whether the malaise is temporary, albeit prolonged, reversible or irreparable. There is also the hope that the Italians can be capable of an admirable “burst of pride”: it has happened before and we cannot exclude it happening again [Toniolo 2013]. However, GDP is not the only dimension where Italy has been losing ground in the last decades: after a century-long decline poverty indicators and economic inequality have started to rise [Brandolini and Vecchi 2013]. Equally revealing is what comes out from a number of inquiries which recently have been produced worldwide with the aim of measuring institutional efficiency or political and personal freedom. In the last years Italy is the worst country of Western Europe in the freedom press index [Reporters Without Borders 2013] and in the corruptions perception index [Transparency International 2012]. Italy also ends up last, although close to the core, in the index of political rights and civil freedom [Freedom House 2013]. Each one of these indicators can be subject to a number of methodological criticisms, of course, and may reflect only a part of the story, but they are all in agreement with the hypothesis of Italy’s decline. If the evidence concerning GDP that we have discussed in this paper is interpreted along with the trend seen in other socioeconomic indicators, and with the whole political system and civil freedoms, then what comes to light is the country’s structural weakness which does away with our many hesitations.

References

Abramovitz, M.A. [1989], *Thinking about growth and other essays on economic growth & welfare*, Cambridge, Cambridge University Press.

Abramovitz, M.A., David, P.A., [1996], *Convergence and Deferred Catch-up: Productivity Leadership and the Waning of American Exceptionalism*, CEPR Publication n. 401. Stanford University, Stanford.

Acemoglu, D. and Robinson, J.A. [2012], *Why nations fail: the origins of power, prosperity, and poverty*, London, Profile Books, 2012.

Allen, R.C. [2009], *The British Industrial Revolution in Global Perspective*, Cambridge, MA, Cambridge University Press.

Amatori, F. [1980], *Entrepreneurial Typologies in the History of Industrial Italy (1880-1960): A Review Article*, in "Business History Review", 54 (3), pp. 359-186..

Amatori, F. [2011], *Entrepreneurial Typologies in the History of Industrial Italy: Reconsiderations*, in "Business History Review", 85 (1), pp. 151-180.

Amatori, F. [2013], *Un profilo d'insieme: l'età dell'IRI*, in *Storia dell'IRI. Vol. 2. Il miracolo economico e il ruolo dell'IRI, 1949-1972*, ed. by F. Amatori, Rome-Bari, Laterza, pp. 3-56.

Amatori, F., M. Bugamelli and A. Colli [2013], *Technology, Firm Size, and Entrepreneurship*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 455-484.

Baffigi, A. [2013], *National Accounts, 1861-2011*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 157-186.

Bagnasco, A. [1977], *Tre Italie. La problematica territoriale dello sviluppo italiano*, Bologna, Il Mulino.

Barca, F. and Trento, S. [1997], *State Ownership and the Evolution of Italian Corporate Governance*, in "Industrial and Corporate Change", 6: 533-560.

Battilani, P., Felice, E. and Zamagni, V. [2011], *Il valore aggiunto dei servizi a prezzi correnti (1861-1951)*, Banca d'Italia, mimeo.

Becattini, G. [1979], *Dal «settore» industriale al «distretto» industriale. Alcune considerazioni sull'unità di indagine dell'economia industriale*, in “Rivista di economia e politica industriale”, 5, 1, pp. 7-21.

Bevilacqua, P. [1980], *Le campagne del Mezzogiorno tra fascismo e dopoguerra: il caso della Calabria*, Torino, Einaudi.

— [1993], *Breve storia dell'Italia meridionale dall'Ottocento a oggi*, Roma, Donzelli.

Bonelli, F. [1978], *Il capitalismo italiano. Linee generali di interpretazione*, in *Storia d'Italia. Dal feudalesimo al capitalismo*, eds. by G. Romano and C. Vivanti, Turin, Einaudi, pp. 1193-1255.

Bonnefon-Craponne L. [1916], *L'Italie au travail*, Paris, Roger.

Brandolini, A. and G. Vecchi [2013], *Standards of Living*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 227-248.

Broadberry, N. [2005], “Appendix: Italy’s GDP in World War I,” in Stephen N. Broadberry and Mark Harrison (eds.), *The Economics of World War I*, Cambridge, Mass., Cambridge University Press: 305-7.

S. Broadberry, C. Giordano and F. Zollino [2013], *Productivity*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 187-226.

Brunetti, A., Felice, E. and Vecchi, G. [2011], *Reddito*, in Giovanni Vecchi, *In ricchezza e in povertà. Il benessere degli italiani dall'Unità a oggi*, Bologna, il Mulino, 2011, pp. 209-34 and 427-9.

Cafagna, L. [1961], *L'industrializzazione italiana. La formazione di una 'base industriale' in Italia fra il 1896 e il 1914*, in «Studi storici», 2, 3-4, pp. 690-724.

Cafagna, L. [1965], *Intorno alle origini del dualismo economico in Italia*, in *Problemi storici dell'industrializzazione e dello sviluppo*, ed. by A. Caracciolo, Urbino, Argalia, 1965, pp. 103-150.

Carreras, A. and Felice, E. [2010], *L'industria italiana dal 1911 al 1938: ricostruzione della serie del valore aggiunto e interpretazioni*, in “Rivista di storia economica”, 26, 3, pp. 285-333.

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

Cipolla, C.M. [1952], *Note sulla storia del saggio d'interesse, corso dividendi e sconto dei dividendi del Banco di S. Giorgio nel Sec. XVI*, in "Economia Internazionale", n. 2, pp. 255-274.

Cohen, J. and Federico, G. [2001], *The Growth of the Italian Economy, 1820-1960*, Cambridge, Cambridge University Press.

Colli, A. and Vasta, M. [2010], *Introduction: forms of enterprise in 20th century Italy*, in *Forms of Enterprise in 20th Century Italy: Boundaries, Structures and Strategies*, eds. by A. Colli and M. Vasta, Cheltenham, Edward Elgar: 1-21.

P.P. Combes, M. Lafourcade, J.F. Thisse, J.C. Toutain [2011], *The rise and fall of spatial inequalities in France: A long-run perspective*, in «Explorations in Economic History», 48, n. 2, pp. 243-271.

Conference Board [2013], *Total Economy Database*, <http://www.conference-board.org/data/economydatabase/>.

Crafts, N. [2005], *Regional GDP in Britain, 1871-1911: Some Estimates*, in «Scottish Journal of Political Economy», 52, no. 1, pp. 54-64

Crafts, N. and Toniolo, G. [2010], *Aggregate growth, 1950-2005*. In: Broadberry, S. and O'Rourke, K. H. (Eds.), *The Cambridge Economic History of Modern Europe, vol. 2*. Cambridge, Cambridge University Press, pp. 296-332.

Crafts, N. and Magnani, M. [2013], *The Golden Age and the Second Globalization in Italy*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 69-107.

Crainz, G. [2005], *Storia del miracolo italiano: culture, identità, trasformazioni fra anni cinquanta e sessanta*, Roma, Donzelli.

Daniele, V. and Malanima, P. [2007], *Il prodotto delle regioni e il divario Nord-Sud in Italia (1861-2004)*, in "Rivista di politica economica", 67, 3-4, pp. 267-315.

— [2011], *Il divario Nord-Sud in Italia. 1861-2011*, Soveria Mannelli (Ct), Rubbettino.

De Benedetti, A. [2013], *L'IRI e il Mezzogiorno. Una interpretazione*, in *Storia dell'IRI. Vol. 2. Il miracolo economico e il ruolo dell'IRI, 1949-1972*, ed. by F. Amatori, Rome-Bari, Laterza, pp. 563-673.

De Cecco, M. [2000], *L'economia di Lucignolo. Opportunità e vincoli dello sviluppo italiano*, Roma, Donzelli.

De Cecco, M. [2013], *The Italian Economy Seen from Abroad*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 134-154.

Di Nino, V., B. Eichengreen and M. Sbracia [2013], *Real Exchange Rates, Trade and Growth*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 351-377.

Duncan-Jones, R. (1982). *The Economy of the Roman Empire: Quantitative Studies*, Cambridge, Cambridge University Press.

Esposito, A.G. [1997], *Estimating Regional per Capita Income: Italy, 1861-1914*, in "Journal of European Economic History", 26, 3, pp. 585-604.

Falco, G.C. [2006]. "La contabilità nazionale italiana (1890-1995)", in *Storia d'Italia nel secolo ventesimo: strumenti e fonti*, a cura di C. Pavone. Vol 1. Roma: Ministero per i beni e le attività culturali, pp. 375-476.

Fauri, F. [2001], *L'Italia e l'integrazione economica europea, 1947-2000*, Bologna, Il Mulino.

— [2010], *Il piano Marshall e l'Italia*, Bologna, Il Mulino.

Feldstein, M. and Horioka, C. [1980], "Domestic Saving and International Capital Flows," *Economic Journal* 90, June: 314-329.

Federico, G. [1996], *Italy, 1860-1940: a little-known success-story*, in «The Economic History Review», 49, n. 4, pp. 764-786.

Federico, G., Natoli, S., Tattara, G. and Vasta, M. [2011], *Il commercio estero italiano, 1862-1950*, Rome-Bari, Laterza.

Federico, G. and Tena, A. [1998], "Was Italy a protectionist country?," *European Review of Economic History*, 2, 1: 73-97.

Feinstein, C.H., Temin, P. and Toniolo, G. [2008], *The World Economy between the World Wars*, Oxford, Oxford University Press.

Felice, E. [2002], *Le politiche regionali in Italia e nel Regno Unito (1950-1989)*, in "Rivista economica del Mezzogiorno", 16, nn. 1-2, pp. 175-235.

— [2007], *Divari regionali e intervento pubblico. Per una rilettura dello sviluppo in Italia*, Bologna, Il Mulino.

— [2010a], *State Ownership and International Competitiveness: the Italian Finmeccanica from Alfa Romeo to Aerospace and Defence*, in “Enterprise and Society”, 11, n. 3, pp. 594-635.

— [2010b], *Regional Development: Reviewing the Italian Mosaic*, in “Journal of Modern Italian Studies”, 15, n. 1, pp. 64-80.

— [2011], *Regional Value Added in Italy (1891-2001) and the Foundation of a Long Term Picture*, in “The Economic History Review”, 64, n. 3, pp. 929–950.

Felice, E. and A. Carreras [2012], *When did modernization begin? Italy’s industrial growth reconsidered in light of new value-added series, 1911–1951*, “Explorations in Economic History”, 49, n. 4: 443-60.

Felice, E. and M. Vasta [2012], *Passive Modernization? The New Human Development Index and Its Components in Italy’s Regions (1871-2007)*. Universitat Autònoma de Barcelona. Departament d’Economia i d’Història Econòmica. UHE Working Paper 2012_10.

Fenoaltea, S. [1988], *International Resource Flows and Construction Movements in the Atlantic Economy: The Kuznets Cycle in Italy, 1861-1913*, in “The Journal of Economic History”, 48, 3, pp. 605-638.

— [1998], *Lo sviluppo economico dell’Italia nel lungo periodo: riflessioni su tre fallimenti*. In: Ciocca, Pierluigi, Toniolo, Gianni (Eds.), *Storia economica d’Italia, vol. 1*. Laterza, Rome-Bari, pp. 3–41.

— [2003], *Notes on the Rate of Industrial Growth in Italy, 1861-1913*, in “The Journal of Economic History”, 63, 3, pp. 695-735.

— [2006], *L’economia italiana dall’Unità alla Grande Guerra*, Roma-Bari, Laterza.

— [2007], *I due fallimenti della storia economica: il periodo post-unitario*, in “Rivista di politica economica”, III-IV, pp. 341-358.

Freedom House [2013], *Freedom in the World 2013*, available at <http://www.freedomhouse.org>

Fuà, G. (ed.) [1968], *Lo sviluppo economico in Italia, III: Studi di settore e documentazione di base*, Milano, Franco Angeli.

Freeman, C. and Perez, C. [1988], *Structural crises of adjustment, business cycles and investment behaviour*. In: Dosi, G., Freeman, C., Nelson, R., Silverberg, G., Soete, L. Eds. , *Technical Change and Economic Theory*. Pinter, London, pp. 38–66.

Galimberti, F. and Paolazzi, L. [1998], *Il volo del calabrone. Breve storia dell'economia del Novecento*, Quaderni di Storia, Firenze, Le Monnier.

Gerschenkron, A. [1955], *Notes on the Rate of Industrial Growth in Italy, 1881-1913*, in "Journal of Economic History", vol. 15, n. 4, pp. 360-375.

— [1959], *Rosario Romeo e l'accumulazione primitiva del capitale*, in "Rivista Storica Italiana", vol. 71, n. 4, pp. 557-586.

— [1962], *Economic Backwardness in Historical Perspective*, Cambridge, Cambridge University Press.

Gerschenkron, A. and R. Romeo [1961], "Lo sviluppo industriale italiano [testo del dibattito tenuto a Roma, presso la Svimez, il 13 luglio 1960]," in *Nord e Sud*, 8, n. 23, pp. 30-56.

Giuntini, A. [1999], *Nascita, sviluppo e tracollo della rete infrastrutturale*, in F. Amatori, D. Bigazzi, R. Giannetti and L. Segreto (eds.), *Storia d'Italia. Annali, XV, L'industria*, Torino, Einaudi, pp. 551-616.

Goldsmith, R.W. [1987], *Premodern financial systems. A Historical Comparative Study*, Cambridge, Cambridge University Press.

Gomellini, M. and Ó Gráda, C. [2013], *Migrations*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 271-302.

Gordon, R. J. [2012], NBER Working Papers 18315, National Bureau of Economic Research, Inc.

Gualerni, G. [1995], *Storia dell'Italia industriale. Dall'Unità alla Seconda Repubblica*, Milano, Etas Libri.

Huberman, M. [2004], "Working Hours of the World Unite? New International Evidence of Worktime, 1870-1913", in *The Journal of Economic History*, 64, n. 4, pp. 964-1001.

IMF (International Monetary Fund) [2012], <http://www.imf.org/external/pubs/ft/weo/2012/02/weodata/index.aspx> (accessed on October 2012).

Istat (Istituto centrale di statistica) [1950], *Studi sul reddito nazionale*, Roma, tip. F. Failli.

— [1957], *Indagine statistica sullo sviluppo del reddito nazionale dell'Italia dal 1861 al 1956*, in “Annali di statistica”, s. VIII, 9.

— [1958], *Sommario di statistiche storiche italiane 1861-1955*, Roma.

James, H. and O'Rourke, K. [2011], *Italy and the First Age of Globalization, 1861-1940*, Bank of Italy Economic History Working Papers, Number 16 – October 2011.

Jovanovic, B. and P.L. Rousseau, [2005], “General Purpose Technologies,” in P. Aghion and S. Durlauf (eds.), *Handbook of Economic Growth*, vol. 1, cap.18, pp. 1181-1224 Elsevier.

Kuznets, S. [1966], *Modern Economic Growth: Rate, Structure and Spread*, New Haven: Yale University Press.

— [1973], “Modern Economic Growth: Findings and Reflections,” *American Economic Review* 63, vol. 3: 247-258.

La Spina, A. [2003], *La politica per il Mezzogiorno*, Bologna, il Mulino.

Lepore, A. [2011], *La valutazione dell'operato della Cassa per il Mezzogiorno e il suo ruolo strategico per lo sviluppo del Paese*, in “Rivista Giuridica del Mezzogiorno”, 25, n. 12, pp. 281-317.

Lequiller, F. and Blades, D. [2006], *Understanding National Accounts*, Paris, OECD.

Livi Bacci, M. [1991], *Population and Nutrition. An Essay on European Demographic History*, Cambridge, Cambridge University Press.

Lo Cascio, E. and Malanima, P. [2005], *Cycles and Stability. Italian Population before the Demographic Transition*, in “Rivista di Storia Economica”, 21, n. 3, pp. 197-232.

Maddison, A. [1991], *A Revised Estimate of Italian Economic Growth, 1861-1989*, in “Banca Nazionale del Lavoro Quarterly Review”, 177, pp. 225-241.

Maddison, A. [1995], *Monitoring the World Economy, 1820-1992*, Paris, Organisation for Economic Cooperation and Development.

Maddison, A. [2007], *Contours of the World Economy 1-2030 Ad: Essays in Macroeconomic History*, Oxford, Oxford University Press.

— [2010], *Historical Statistics of the World Economy: 1-2008 AD*, www.ggdc.net/maddison/content.shtml

Malanima, P. [2003], *Measuring the Italian Economy 1300-1861*, in “Rivista di storia economica”, XIX, pp. 265-295

— [2006], *Alle origini della crescita in Italia 1820-1913*, in “Rivista di storia economica”, n.s., XXII, pp. 306-330.

— [2011], *The long decline of a leading economy: GDP in central and northern Italy, 1300-1913*, in “European Review of Economic History”, 15, n. 2, pp. 169-219.

— [2013] *When did England overtake Italy? Medieval and early modern divergence in prices and wages*, in “European Review of Economic History”, 17, n. 1, pp. 45-70.

Mattesini, F. and Quintieri, B. [1997], *Italy and the Great Depression: An Analysis of the Italian Economy, 1929–1936*, in “Explorations in Economic History”, 34, pp. 265–94.

Mitchell, B. [2007], *International Historical Statistics: Europe 1750-2005*. London, MacMillan.

Obstfeld, M. and Taylor, A.M. [1998], “The Great Depression as a Watershed: International Capital Mobility over the Long Run”, in Michael D. Bordo, Claudia Goldin and Eugene N. White (eds.), *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, Chicago, The University of Chicago Press, 353-402.

OECD (Organisation for Economic Co-operation and Development) [2013], <http://stats.oecd.org/> (accessed on July 2013).

Petri R. [2002], *Storia economica d'Italia. Dalla grande guerra al miracolo economico (1918-1963)*, Bologna, Il Mulino.

Reporters Without Borders [2013], *World Press Freedom Index 2013*, Paris, available at <http://en.rsf.org/press-freedom-index-2013.1054.html>

Rinaldi, A. and Pistori, B. [2012], “Exports, imports and growth: New evidence on Italy: 1863-2004,” *Explorations in Economic History* 49, no. 2: 241-54.

Rinaldi, A. and Vasta, M. [2012], “The Italian Corporate Network after the “Golden Age” (1972-1983): From Centrality to Marginalization of State-Owned Enterprises,” *Enterprise & Society* 13, no. 2: 378-413.

Romeo, R. [1959], *Risorgimento e capitalismo*, Bari, Laterza.

Rosés, J.R., Martínez-Galarraga, J. and Tirado, D.A. [2010], *The upswing of regional income inequality in Spain (1860-1930)*, in «Explorations in Economic History», 47, n. 2, pp. 244-257.

Rossi, N., Sorgato, A. and Toniolo, G. [1993], *I conti economici italiani: una ricostruzione statistica 1890-1990*, in «Rivista di Storia Economica», 10, n. 1: 1-47.

Rossi, N., Toniolo, G., Vecchi, G. [2011], *Introduzione*, in Giovanni Vecchi, *In ricchezza e in povertà. Il benessere degli italiani dall'Unità a oggi*, Bologna, il Mulino, 2011: XI-XXVII.

Rostow, W.W. [1960], *The Stages of Economic Growth*, Cambridge, Cambridge University Press; trad. it. *Gli stadi dello sviluppo economico*, Torino, Einaudi, 1962.

Schulze, M. [2007], *Regional income dispersion and market potential in the late nineteenth century Habsburg Empire*, LSE Working Paper, 106/07.

Supple, B. [1994], *The Economic History of Britain since 1700*, Cambridge, Ma, Cambridge University Press.

Taylor, A.M. [1996], "International Capital Mobility in History: The Saving-Investment Relationship," *NBER Working Paper Series, Working Paper n. 5743* (September 1996).

Tenney, F. [1959], *An Economic Survey of Ancient Rome, Volume V: Rome and Italy of the Empire*. Paterson, NJ: Pageant Books.

Toniolo, G. [1980], *L'economia dell'Italia fascista*, Roma-Bari, Laterza.

— [1988], *Storia economica dell'Italia liberale (1850-1918)*, Bologna, Il Mulino.

— [1998], *Europe's Golden Age, 1950-1973: Speculations from a Long-run Perspective*, in "The Economic History Review", 51, 2, 252-267.

— [2004], *L'Italia verso il declino economico?* in G. Toniolo e V. Visco (eds.), *Il declino economico dell'Italia. Cause e rimedi*. Milano: Mondadori, pp. 7-29.

— [2007], *Stefano Fenoaltea, L'economia italiana dall'Unità alla Grande Guerra (Rome and Bari, Laterza, 2006)*, in "Journal of Modern Italian Studies", 12, 1, pp. 130-132.

— [2013], *An Overview of Italy's Economic Growth*, in *The Oxford Handbook of the Italian Economy Since Unification*, ed. by G. Toniolo, Oxford, Oxford University Press, pp. 3-36.

Toniolo, G. e Vecchi, G. [2010], *Nel secolo breve il lungo balzo del benessere degli italiani*, in L. Paolazzi (ed.), *Libertà e benessere: l'Italia al futuro*, Roma, Centro studi Confindustria, pp. 15-59.

Toniolo, G. and Visco, V. (eds.) [2004], *Il declino economico dell'Italia. Cause e rimedi*, Milano, B. Mondadori.

Transparency International [2012], *Corruption Perceptions Index 2012*, available at

<http://www.transparency.org/cpi2012/results>

Trigilia, C. [1992], *Sviluppo senza autonomia. Effetti perversi delle politiche nel Mezzogiorno*, Bologna, il Mulino.

Vanoli, A. [2005], *A History of National Accounting*, IOS Press.

Vasta, M. [2010], "Italian export capacity in the long-run perspective (1861-2009): a tortuous path to stay in place," *Journal of Modern Italian Studies* 15, no. 1: 133-56.

Vecchi, G. [2003], *Il benessere dell'Italia liberale (1861-1913)*, in P. Ciocca and G. Toniolo (eds.), *Storia economica d'Italia*, Roma-Bari, Laterza, pp. 71-98.

— [2011], *In ricchezza e in povertà. Il benessere degli italiani dall'Unità a oggi*, Bologna, Il Mulino.

Venturini, A. [2004], *Postwar Migration in Southern Europe, 1950-2000. An Economic Analysis*, Cambridge (MA), Cambridge University Press.

Vitali, O. (1969), *La stima del valore aggiunto a prezzi costanti per rami di attività*. In: Fuà, Giorgio (Ed.), *Lo sviluppo economico in Italia: Studi di settore e documentazione di base*, 3. Franco Angeli, Milan, pp. 463-477.

Zamagni, V. [1978], *Industrializzazione e squilibri regionali in Italia. Bilancio dell'età giolittiana*, Bologna, Il Mulino.

— [1993], *Dalla periferia al centro. La seconda rinascita economica dell'Italia (1861-1990)*, new revised and extended edition, Bologna, Il Mulino.

— (ed.) [1997], *Come perdere la guerra e vincere la pace: l'economia italiana tra guerra e dopoguerra, 1938-1947*, Bologna, Il Mulino.

Appendix – Sources and Methods

Italy's GDP, 1861-2011. These are the sources: *Industry*: Fenoaltea [2005] for the years 1861-1913, along with estimates by Fenoaltea [1992] for 1911, by Fenoaltea and Bardini [2000] for 1891, 1938 and 1951, by Felice and Carreras [2012] for the years 1911-1951. *Agriculture*: Federico [1992] for 1911, [2000] for 1891, 1938 and 1951, [2003b] 1861-1911. *Services*: Zamagni [1992] for 1911, Zamagni and Battilani [2000] for 1891, 1938 and 1951, Battilani, Felice and Zamagni [2011] for 1861-1951. *Credit*, De Bonis et al. [2011]. For 1970 we used estimates by Picozzi [2012] concerning resource accounting and allocation. With regard to method, see Baffigi [2013] and Brunetti, Felice and Vecchi [2011].

Italy's regional GDP, 1871-2009. For the years 1871-1951, the regional estimates are obtained by dividing the new estimates of national GDP by regional employment and then correcting the results with the nominal wages per region that approximate the differences in productivity per worker. This procedure, formalized by Geary and Stark [2002], is widely used also internationally [Crafts 2005; Schulze 2007; Enflo, Henning and Schon 2010; Rosés, Martínez-Galarraga and Tirado 2010; Combes et al. 2011] and is based on the assumption that capital gains are distributed along the lines of incomes from labor, that is to say, that the elasticity of substitution between capital and labor is equal to one. The method is all the more effective the higher the degree of sector decomposition. In our case, for the four original benchmark years of 1891, 1911, 1938 and 1951, we can refer to an exceptionally high level of detail unparalleled in other countries: the workforce separately considers also data on women and child labor, and is divided by quite a broad 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 an identical sector decomposition in 1938 and 1951, less detailed but still high in 1891 (30 sectors) and 1911 (34) – Felice [2005a, 2005b]. The estimates for 1871 and 1931 are less detailed, a little over twenty sectors in both cases [Felice 2009a]. For 1871, given the lack of data on wages for the tertiary sector, the productivity of services is estimated by assuming that in every region the ratio between the productivity of individual branches of the services and industry as a whole were similar to that of 1891. In all the benchmarks, a different procedure was used with regard to agriculture. This was based on the direct reconstruction of saleable gross production: worked out by Federico [2003] for the years 1891, 1911, 1938 and 1951, or reconstructed from scratch by means of official sources for 1871 [Felice 2009a] and 1931. With regard to a part of the industrial sectors from 1871 to 1911, we used the new estimates produced by Ciccarelli and Fenoaltea [2006, 2008a, 2008b, 2008c, 2009a, 2009b, 2009c, 2010, 2012], based on employment and wages, but in some cases also on industrial plants and direct production data (for the results of the revision of the estimates of 1891 and 1911, and a comparison of the various hypotheses, see Felice [2009b, 2011]: the latter estimates were also used for revising regional production by sector in 1891, necessary for the 1871 estimate. Estimates from 1961 onwards are from official sources [Tagliacarne 1962; Svimez 1993; Istat 1995, 2012].

Statistical Appendix

Table A.1. GDP per person and per worker, by sector (1861-2011)

years	GDP per person				GDP per worker			
	Total (2011 euros)	%Agr.	% Ind.	% Serv.	Total (2011 euros)	Agr./Tot.	Ind./Tot.	Ser./Tot.
1861	1,971	48.70	23.32	27.98	6,103	0.77	1.32	1.47
1862	1,996	48.42	22.70	28.88	6,178	0.76	1.31	1.51
1863	2,044	47.55	22.55	29.89	6,321	0.75	1.32	1.55
1864	2,047	46.19	23.14	30.67	6,333	0.72	1.38	1.58
1865	2,171	48.07	21.71	30.22	6,720	0.75	1.31	1.56
1866	2,167	46.44	22.29	31.26	6,704	0.72	1.38	1.59
1867	1,979	47.93	23.00	29.07	6,132	0.74	1.44	1.47
1868	2,019	48.87	21.87	29.26	6,222	0.76	1.40	1.47
1869	2,045	47.51	22.79	29.70	6,284	0.73	1.48	1.49
1870	2,095	48.33	22.07	29.60	6,448	0.75	1.46	1.48
1871	2,049	47.31	23.03	29.65	6,302	0.73	1.55	1.47
1872	2,003	46.76	23.67	29.57	6,119	0.72	1.56	1.46
1873	1,993	48.83	22.96	28.21	6,043	0.76	1.48	1.38
1874	2,096	50.52	21.00	28.48	6,311	0.80	1.33	1.37
1875	2,107	46.17	23.08	30.76	6,283	0.73	1.43	1.47
1876	2,055	44.77	23.43	31.80	6,089	0.72	1.42	1.51
1877	2,068	47.33	23.14	29.53	6,110	0.76	1.38	1.39
1878	2,120	48.09	22.02	29.89	6,235	0.78	1.29	1.40
1879	2,126	47.34	21.01	31.66	6,242	0.77	1.21	1.49
1880	2,159	48.51	20.63	30.86	6,300	0.80	1.17	1.44
1881	2,225	46.84	21.46	31.70	6,423	0.78	1.19	1.47
1882	2,252	46.71	22.10	31.20	6,562	0.77	1.25	1.43
1883	2,272	44.81	22.32	32.87	6,442	0.77	1.11	1.54
1884	2,238	42.69	22.68	34.62	6,452	0.72	1.18	1.60
1885	2,271	43.12	23.08	33.80	6,675	0.72	1.27	1.53
1886	2,321	43.65	22.99	33.36	6,949	0.72	1.33	1.49
1887	2,379	41.66	22.31	36.02	7,234	0.68	1.38	1.58
1888	2,367	40.98	22.19	36.84	7,193	0.68	1.33	1.61
1889	2,295	41.84	22.13	36.02	6,871	0.71	1.21	1.60
1890	2,296	43.95	21.34	34.71	6,996	0.73	1.22	1.53
1891	2,327	44.53	20.93	34.54	7,266	0.73	1.32	1.49
1892	2,330	42.11	21.33	36.56	7,419	0.68	1.45	1.56
1893	2,366	41.60	21.63	36.77	7,686	0.66	1.61	1.55
1894	2,379	41.31	21.11	37.58	7,724	0.66	1.50	1.59
1895	2,399	42.97	20.45	36.58	7,781	0.69	1.40	1.56
1896	2,435	42.11	20.67	37.23	7,841	0.69	1.33	1.60
1897	2,439	42.11	20.38	37.50	7,749	0.70	1.21	1.63
1898	2,429	41.81	20.78	37.41	7,775	0.70	1.24	1.62
1899	2,456	41.40	21.91	36.69	7,790	0.70	1.23	1.61
1900	2,521	41.72	20.85	37.44	7,956	0.71	1.12	1.65
1901	2,562	41.60	21.34	37.06	8,068	0.71	1.12	1.63
1902	2,603	40.75	21.63	37.62	8,294	0.69	1.18	1.64
1903	2,626	41.15	21.20	37.65	8,376	0.70	1.13	1.65
1904	2,672	40.73	21.02	38.25	8,512	0.70	1.11	1.67
1905	2,727	39.84	21.98	38.18	8,695	0.69	1.14	1.67
1906	2,820	40.06	22.36	37.57	8,987	0.70	1.14	1.65
1907	2,870	39.85	23.74	36.40	9,087	0.70	1.18	1.59
1908	2,930	37.68	23.90	38.42	9,076	0.68	1.09	1.70

years	GDP per person				GDP per worker			
	Total (2011 euros)	%Agr.	% Ind.	% Serv.	Total (2011 euros)	Agr./Tot.	Ind./Tot.	Ser./Tot.
1909	2,954	37.06	24.67	38.27	9,231	0.67	1.14	1.68
1910	2,957	36.41	25.02	38.56	9,322	0.65	1.18	1.69
1911	2,989	38.47	23.78	37.75	9,455	0.69	1.10	1.66
1912	3,004	37.21	25.32	37.48	9,480	0.67	1.19	1.65
1913	3,149	37.96	24.64	37.40	9,729	0.69	1.11	1.67
1914	2,987	36.89	24.76	38.35	9,126	0.66	1.12	1.72
1915	2,825	37.16	22.27	40.57	8,837	0.65	1.11	1.78
1916	3,054	38.31	21.98	39.71	9,518	0.67	1.11	1.73
1917	3,071	37.29	23.36	39.35	9,386	0.65	1.15	1.73
1918	3,005	39.43	23.31	37.27	8,961	0.69	1.13	1.65
1919	2,906	40.06	21.96	37.98	8,326	0.71	1.05	1.67
1920	2,960	42.54	21.58	35.89	8,314	0.76	1.02	1.57
1921	2,843	41.65	21.47	36.88	8,120	0.73	1.12	1.57
1922	3,055	38.78	24.30	36.92	8,601	0.69	1.22	1.55
1923	3,300	37.10	25.44	37.46	9,373	0.66	1.29	1.56
1924	3,357	33.56	27.40	39.04	9,406	0.61	1.29	1.66
1925	3,577	35.58	27.46	36.96	9,813	0.66	1.21	1.57
1926	3,579	36.32	26.44	37.24	9,787	0.68	1.15	1.55
1927	3,461	33.07	27.33	39.60	9,637	0.61	1.27	1.60
1928	3,635	33.96	27.14	38.89	10,182	0.63	1.24	1.59
1929	3,788	32.48	28.54	38.98	10,598	0.61	1.25	1.64
1930	3,585	28.18	30.47	41.34	10,260	0.52	1.42	1.72
1931	3,506	28.25	28.21	43.54	10,425	0.50	1.45	1.79
1932	3,548	31.36	25.03	43.61	10,862	0.56	1.43	1.67
1933	3,484	27.66	28.64	43.69	10,802	0.50	1.63	1.64
1934	3,452	27.45	28.89	43.66	10,750	0.50	1.57	1.62
1935	3,621	29.93	27.98	42.09	11,085	0.57	1.34	1.56
1936	3,466	27.89	28.77	43.34	10,611	0.55	1.36	1.55
1937	3,779	28.99	29.53	41.48	11,341	0.59	1.26	1.52
1938	3,853	28.55	30.36	41.09	11,111	0.61	1.14	1.54
1939	4,011	28.42	30.26	41.31	11,651	0.61	1.13	1.54
1940	3,837	27.89	29.79	42.32	11,183	0.61	1.12	1.53
1941	3,709	32.14	25.53	42.33	10,821	0.71	0.97	1.49
1942	3,479	39.12	20.20	40.68	10,132	0.88	0.77	1.39
1943	2,940	43.42	18.45	38.14	8,541	0.99	0.70	1.27
1944	2,423	52.01	14.83	33.16	7,122	1.18	0.56	1.12
1945	2,196	48.40	16.79	34.81	6,530	1.10	0.62	1.20
1946	2,989	42.18	27.85	29.97	9,009	0.95	1.02	1.05
1947	3,527	36.86	32.22	30.92	10,722	0.84	1.18	1.08
1948	3,809	34.01	32.70	33.29	11,660	0.78	1.19	1.16
1949	4,071	30.24	33.43	36.33	12,557	0.70	1.21	1.25
1950	4,407	29.24	33.38	37.38	13,725	0.68	1.20	1.29
1951	4,813	25.85	35.65	38.50	15,106	0.60	1.28	1.32
1952	5,006	24.13	35.11	40.76	15,457	0.58	1.24	1.36
1953	5,338	24.86	34.50	40.64	16,169	0.62	1.18	1.33
1954	5,500	22.73	35.42	41.84	16,306	0.58	1.19	1.35
1955	5,838	21.99	35.35	42.66	17,181	0.59	1.16	1.33
1956	6,087	20.66	35.07	44.27	17,653	0.57	1.13	1.34
1957	6,397	19.07	35.65	45.27	18,274	0.56	1.12	1.32
1958	6,720	19.47	35.16	45.36	18,958	0.59	1.10	1.30
1959	7,151	17.51	35.87	46.61	20,008	0.54	1.11	1.32
1960	7,605	15.22	37.21	47.58	21,010	0.49	1.13	1.33
1961	8,158	15.62	37.37	47.01	22,094	0.54	1.08	1.30
1962	8,650	15.05	37.65	47.29	23,638	0.53	1.07	1.29
1963	9,110	13.77	37.88	48.34	25,136	0.53	1.04	1.30
1964	9,386	13.17	37.37	49.46	25,733	0.53	1.02	1.29
1965	9,724	12.81	36.34	50.85	27,131	0.51	1.00	1.31

years	GDP per person				GDP per worker			
	Total (2011 euros)	%Agr.	% Ind.	% Serv.	Total (2011 euros)	Agr./Tot.	Ind./Tot.	Ser./Tot.
1966	10,292	12.07	36.22	51.70	28,952	0.50	1.00	1.30
1967	11,004	11.87	36.47	51.66	30,376	0.51	1.00	1.28
1968	11,726	10.22	36.98	52.80	32,278	0.47	0.99	1.28
1969	12,421	10.12	37.56	52.32	33,730	0.50	1.00	1.25
1970	13,096	8.99	38.62	52.39	35,243	0.48	1.00	1.23
1971	13,268	8.47	37.66	53.87	35,925	0.45	0.98	1.26
1972	13,695	7.68	36.87	55.46	37,451	0.44	0.97	1.25
1973	14,560	8.18	38.09	53.74	39,253	0.49	1.00	1.19
1974	15,260	7.33	39.68	52.99	40,598	0.46	1.05	1.15
1975	14,847	7.58	38.08	54.34	39,719	0.49	1.02	1.15
1976	15,810	7.10	39.07	53.83	41,873	0.47	1.06	1.12
1977	16,138	6.90	38.37	54.73	42,509	0.48	1.03	1.13
1978	16,596	6.74	37.45	55.81	43,650	0.47	1.02	1.14
1979	17,522	6.52	37.26	56.21	45,543	0.47	1.02	1.13
1980	18,074	6.15	37.51	56.34	46,198	0.46	1.03	1.13
1981	18,202	5.76	36.54	57.70	46,604	0.45	1.02	1.12
1982	18,266	5.52	35.68	58.80	46,545	0.46	1.02	1.11
1983	18,468	5.63	34.55	59.82	46,787	0.47	1.02	1.10
1984	19,063	5.11	34.29	60.60	48,107	0.44	1.07	1.08
1985	19,588	4.81	33.75	61.44	49,013	0.44	1.07	1.07
1986	20,145	4.62	32.81	62.57	49,984	0.44	1.05	1.07
1987	20,788	4.48	32.56	62.96	51,311	0.44	1.06	1.07
1988	21,650	4.03	32.23	63.74	52,895	0.42	1.04	1.07
1989	22,367	3.94	32.55	63.51	54,502	0.44	1.05	1.06
1990	22,809	3.65	31.58	64.77	55,080	0.42	1.02	1.07
1991	23,141	3.73	30.65	65.62	55,486	0.44	1.00	1.08
1992	23,318	3.61	30.15	66.25	56,389	0.43	1.01	1.07
1993	23,100	3.50	29.77	66.73	57,729	0.44	1.01	1.07
1994	23,588	3.47	29.76	66.77	59,603	0.45	1.01	1.06
1995	24,268	3.47	29.89	66.64	61,344	0.46	1.01	1.06
1996	24,543	3.45	29.31	67.23	61,832	0.47	1.01	1.06
1997	24,987	3.34	29.08	67.58	62,715	0.47	1.00	1.06
1998	25,337	3.29	28.80	67.91	63,041	0.48	0.99	1.06
1999	25,702	3.24	28.18	68.58	63,610	0.50	0.98	1.06
2000	26,634	3.03	27.72	69.25	64,759	0.48	0.97	1.06
2001	27,113	2.93	27.29	69.77	64,813	0.47	0.96	1.07
2002	27,219	2.84	27.01	70.15	64,285	0.47	0.96	1.07
2003	27,051	2.76	26.39	70.86	63,856	0.48	0.93	1.07
2004	27,250	2.71	26.42	70.86	64,721	0.48	0.94	1.07
2005	27,234	2.46	26.26	71.28	65,221	0.45	0.93	1.07
2006	27,695	2.45	26.63	70.93	65,641	0.45	0.95	1.07
2007	27,981	2.35	26.99	70.66	66,112	0.45	0.96	1.06
2008	27,431	2.32	26.55	71.13	65,578	0.45	0.95	1.06
2009	25,740	2.36	24.75	72.89	63,793	0.45	0.92	1.07
2010	26,076	2.23	24.93	72.84	65,525	0.42	0.95	1.06
2011	26,065	2.32	24.44	73.24	65,743	0.45	0.94	1.06

Sources: see the text. Per person GDP is based on resident population. Full-time equivalent (FTE) workers are from Broadberry, Giordano and Zollino [2013]; sectoral figures are from data at current prices. All estimates are at present boundaries.

Table A.2. GDP per person of Italy's regions, 1871-2009 (euro 2011)

	1871	1891	1911	1931	1938	1951	1961	1971	1981	1991	2001	2009
Piedmont	2116	2516	3446	4354	5348	7061	10768	16054	21278	26473	31125	27953
Aosta Valley	-	-	-	-	-	7604	14472	17964	22771	28047	33593	33436
Liguria	2844	3349	4597	5763	6469	7778	10678	15417	19858	26867	29499	27490
Lombardy	2272	2681	3566	4319	5356	7369	11992	17752	23735	29111	35220	32355
<i>North-West</i>	2276	2692	3646	4529	5510	7335	11470	16969	22188	28070	33484	30656
Trentino Alto Adige	n.a.	n.a.	n.a.	3211	3664	5092	9495	13440	20441	27769	35084	33230
Veneto	2071	1864	2579	2615	3236	4721	8565	13148	19640	26057	30665	29446
Friuli Venezia Giulia	n.a.	n.a.	n.a.	4424	4573	5362	7505	13307	19840	26867	30366	28880
Emilia Romagna	1944	2460	3225	3832	4011	5381	9234	15125	23462	27862	33240	31068
<i>North-East</i>	2014	2127	2854	3292	3691	5082	8769	13931	21205	26982	32020	30347
Tuscany	2151	2376	2911	3720	3888	5058	8663	13958	20040	24506	29526	28494
Marche	1682	2043	2421	2496	3036	4125	7130	12060	19148	23673	26869	26177
Umbria	2034	2362	2759	3499	3687	4336	6950	12299	17783	21683	25920	23990
Lazio	2997	3644	4459	4901	4585	5145	9406	14170	18985	26751	30583	30399
<i>Center</i>	2200	2585	3141	3884	3976	4900	8623	13692	19385	25224	29417	28751
Abruzzo	1635	1573	2032	2223	2239	2796	5466	10986	15763	20526	22965	21158
Molise	-	-	-	-	-	-	4960	9248	13524	16893	22504	20592
Campania	2196	2253	2815	2854	3159	3331	5825	9447	12159	16291	17705	16679
Puglia	1828	2367	2543	2987	2766	3128	5572	9964	13160	17101	18193	17091
Basilicata	1371	1722	2194	2461	2185	2267	4797	9937	12450	13885	19738	19047
Calabria	1418	1552	2095	1967	1884	2257	4462	8850	11704	13815	17434	17297
<i>South</i>	1834	2011	2469	2615	2647	2960	5425	9659	12760	16453	18410	17503
Sicily	1928	2160	2543	2885	2766	2796	4788	9301	12341	16129	17894	17426
Sardinia	1598	2180	2744	2997	3183	3032	5882	11251	12942	17703	20660	20437
<i>Islands</i>	1862	2169	2579	2910	2863	2844	5041	9765	12960	16523	18572	18172
Centre-North	2180	2502	3279	3937	4477	5920	9822	15138	21078	26913	31830	29987
South	1842	2064	2505	2713	2720	2921	5294	9685	12832	16476	18464	17709
ITALY (euro 2011)	2049	2327	2989	3506	3853	4813	8158	13268	18202	23141	27113	25740

Source: see the text. All estimates are at historical boundaries and based on present population. Aosta Valley is included in Piedmont until 1938; Molise is included in Abruzzi until 1951.

Additional appendix references

Ciccarelli, C. and S. Fenoaltea [2006], *Mining production in Italy, 1861-1913: national and regional time series*, in “Rivista di Storia Economica”, 22, 2006, n. 2, pp. 141-208.

Ciccarelli, C. and S. Fenoaltea [2008a], *The chemicals, coal and petroleum products, and rubber industries in Italy's regions, 1861-1913: time-series estimates*, in “Rivista di Storia Economica”, 24, 1, pp. 3-58.

Ciccarelli, C. and S. Fenoaltea [2008b], *The growth of the utilities industries in Italy's regions, 1861-1913*, in “Rivista di Storia Economica”, 24, 2, pp. 175-206.

Ciccarelli, C. and S. Fenoaltea [2008c], *Construction in Italy's regions, 1861-1913*, in “Rivista di Storia Economica”, 24, 3, pp. 303-340;

Ciccarelli, C. and S. Fenoaltea [2009a], *La produzione industriale delle regioni d'Italia, 1861-1913: una ricostruzione quantitativa. 1. Le industrie non manifatturiere*, Roma, Banca d'Italia.

Ciccarelli, C. and S. Fenoaltea [2009b], *Shipbuilding in Italy, 1861-1913: The Burden of the Evidence*, in “Historical Social Research”, 34, 2, pp. 333-373.

Ciccarelli, C. and S. Fenoaltea [2009c], *Private correspondence with the authors*.

Ciccarelli, C. and S. Fenoaltea [2010], *Metalmaking in Italy, 1861-1913: national and regional time series*, in “Rivista di Storia Economica”, 26, 1, pp. 121-153.

Ciccarelli, C. and S. Fenoaltea [2012], *The Rail-guided Vehicles Industry in Italy, 1861-1913: The Burden of the Evidence*, in “Research in Economic History”, 28, pp. 43-115.

De Bonis, R., Farabullini, F., Rocchelli, M. and Salvio, A. [2011], *Il valore aggiunto del settore del credito dal 1861 al 2010*, Banca d'Italia, mimeo.

K. Enflo, M. Henning e L. Schon [2010], *Swedish regional GDP 1855-2000: Estimations and general trends in the Swedish regional system*, Universidad Carlos III de Madrid, Working Papers in Economic History 10-03.

Federico, G. [1992], *Il valore aggiunto dell'agricoltura*, in G.M. Rey (ed.), *I conti economici dell'Italia, 2. Una stima del valore aggiunto per il 1911*, Roma-Bari, Laterza, pp. 3-103.

— [2003], *Le nuove stime della produzione agricola italiana, 1860-1910: primi risultati e implicazioni*, in “Rivista di storia economica”, 19, 3, pp. 359-381.

Felice, E. [2005a], *Il reddito delle regioni italiane nel 1938 e nel 1951. Una stima basata sul costo del lavoro*, in “Rivista di storia economica”, 21, 1, pp. 3-30.

— [2005b], *Il valore aggiunto regionale. Una stima per il 1891 e per il 1911 e alcune elaborazioni di lungo periodo (1891-1971)*, in “Rivista di storia economica”, 21, 3, pp. 83-124.

— [2009a], *Estimating Regional GDP in Italy (1871-2001): Sources, Methodology, and Results*, Universidad Carlos III de Madrid, Departamento de Historia Económica e Instituciones, Working Papers in Economic History n. 7, <http://e-archivo.uc3m.es/handle/10016/5334>.

— [2009b], *Regional Value Added in Italy (1891-2001) and the Backbone of a Long Term Picture*, Universidad Carlos III de Madrid, Working Papers in Economic History.

Fenoaltea, S. [1992], *Il valore aggiunto dell'industria nel 1911*, in G.M. Rey (ed.), *I conti economici dell'Italia*, 2. *Una stima del valore aggiunto per il 1911*, Roma-Bari, Laterza, pp. 105-190.

— [2005], *La crescita economica dell'Italia postunitaria: le nuove serie storiche*, in “Rivista di storia economica”, 21, 2, pp. 91-121.

Fenoaltea, S. e Bardini, C. [2000], *Il valore aggiunto dell'industria*, in G.M. Rey (ed.), *I conti economici dell'Italia*, 3. *Il valore aggiunto per gli anni 1891, 1938, 1951*, Roma-Bari, Laterza, pp. 113-238.

Geary, F. and Stark, T. [2002], *Examining Ireland's Post-famine Economic Growth Performance*, in “Economic Journal”, 112, 482, pp. 919-935.

Istat (Istituto centrale di statistica) [1995], *Conti economici regionali: anni 1980–92*, Rome.

— [2012], *Sistemi di indicatori territoriali, Contabilità nazionale*, <http://sitis.istat.it/sitis/html/> (last access on April 2012).

Picozzi, L. [2012], *La ricostruzione del conto delle risorse e degli impieghi per l'anno 1970*, in G.M. Rey, L. Picozzi, P. Piselli, S. Clementi [2012], *Una revisione dei conti nazionali dell'Italia (1951-1970)*, Banca d'Italia, Quaderni di Storia Economica, 27.

Svimez, (Associazione per lo sviluppo dell'industria nel Mezzogiorno) [1993], *I conti del Mezzogiorno e del Centro-Nord nel ventennio 1970–1989*, Bologna, Il Mulino.

Tagliacarne, G. [1962], *Calcolo del reddito prodotto dal settore privato e dalla pubblica amministrazione nelle provincie e regioni d'Italia nel 1961 e confronto con gli anni 1960 e 1951. Indici di alcuni consumi e del risparmio bancario*, in «Moneta e credito», 15, n. 59, pp. 339-419.

Zamagni, V. [1992], *Il valore aggiunto del settore terziario italiano nel 1911*, in G.M. Rey (ed.), *I conti economici dell'Italia*, 2. *Una stima del valore aggiunto per il 1911*, Roma-Bari, Laterza, pp. 191-239.

Zamagni, V. and Battilani, P. [2000], *Stima del valore aggiunto dei servizi*, in G.M. Rey (ed.), *I conti economici dell'Italia*, 3. *Il valore aggiunto per gli anni 1891, 1938, 1951*, Roma-Bari, Laterza, pp. 239-371.

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