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(Economic History Working Papers)

Italy and the First Age of Globalization, 1861-1940

by Harold James and Kevin O'Rourke

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# Italy and the first age of globalization, 1861-1940

Harold James \* and Kevin H. O'Rourke \*\*

## Abstract:

The paper presents trade policy as in line with that of other continental European powers, with a move to moderate levels of tariff protection for politically sensitive sectors such as steel and textiles and clothing, but also in agriculture, with levels of protection falling slightly before the First World War. Monetary policy was similarly driven by the constraints of capital scarcity, and by the political priority attached to reducing the cost of funding government debt. The most innovative area was probably in industrial policy, where after the 1880s and again in the 1930s in response to severe shocks, quite creative institutional policies were adopted. In particular financial restructuring was used as an opportunity to reshape the structure of industry.

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## **1. Introduction: Italian policies and performance in a comparative perspective**

There is a natural tension in economic history between the tendency of economists to generalise, and the insistence of the historian on what is specific to particular times and places. A comparative perspective then becomes particularly helpful, both in seeing what features of a country's economic development are specific to that country, and in placing this history within a broader international context. It is natural for economic historians to blame their country's failings on country-specific institutional weaknesses or policy mistakes, or to explain their country's successes in a similar manner. But when one looks at the broader international context, one may see similar behaviour elsewhere, suggesting that at least to some extent, these failures or successes may be part of a much bigger story.

The aim of this chapter is to show that such a comparative perspective is indispensable when thinking about Italian economic policy and performance in the years between Unification and the Second World War. In particular, Italian trade policy, monetary policy and industrial policy were not that unusual in the context of the time, and particularly when one remembers that Italy was a poor, capital-scarce economy trying to deal with the challenges which all European countries faced during this period: how to industrialise, how to become, or remain, militarily competitive, and how to grapple with the challenges of globalization. The fact that Italy was capital-scarce is crucial in explaining its trade policy, its monetary and financial policies, and its industrial policy, with all of these policies having ramifications for each other. We will argue that during our period, Italian trade and monetary policies were by no means out of the ordinary, however beneficial or harmful they may have been. If an Italian specificity can be located, this is more in the field of industrial policy, particularly during the interwar period, and one can argue that these innovations helped to set the stage for the Italian post-war miracle, if at an eventual cost. But again, as we will see, this development can also be understood by appealing to the interaction between the international economic situation of the time, and a banking and industrial system that were themselves the product of Italian capital scarcity.

In order to understand what follows, we need to begin at the beginning, and ask what were the challenges facing the newly unified Italian state.

The Kingdom of Italy was established in 1861, just at the time that the world was beginning to grapple with a new and intensive phase of globalization. Declining transport costs led to formerly sheltered sectors becoming exposed to international competition for the first time – including grain, olive oil, citrus fruits, all important in the Italian context. Market integration also made it more difficult for peripheral economies to industrialise, as they were faced with low cost competition from the expanding industrial core. In those parts of the world where local populations were deprived of the ability to determine their own trade policies, the Nineteenth century was a period of deindustrialisation, a dangerous phenomenon at a time of increasingly industrialised warfare.

Politically, the late Nineteenth century saw the beginnings of a rudimentary system of international economic governance. The 1860 Cobden-Chevalier treaty set up the basic institutional mechanism in the form of MFN clauses that would dominate trade negotiations between states for over a century. In 1863 an International Postal Congress in Paris began to work on the integration of local and national postal systems. But the globalization of the

1860s was not just a question of economics and economic governance: entertainment, ideologies, humanitarianism, all became internationalized. In the middle of the Nineteenth century, the world was galvanized by the transatlantic cable and the ubiquitous railroad, as well as by Verdi and Wagner's music and by the reforms of Cavour, Bismarck, Gladstone, and Lincoln. The battle of Solferino in the war of 1859 produced not just the final impetus for Italian unification but also the International Committee of the Red Cross, as the outcome of the experience of the Genevois businessman Henri Dunant in trying to care for the wounded on the battlefield.

Some commentators see the nation-state of the mid-Nineteenth century in Europe as a response to the challenges of globalization. There was an external and an internal challenge: how could political societies be strong enough to compete with existing and well-established nations; and how could they overcome internal divisions.

The developments of the 1860s were the outcome of vast and bitter civil wars. We should place the unification of Italy and the nearly simultaneous creation of the German empire alongside the drama of the much bloodier but also highly divisive American Civil War. In each case, a more industrialized north defeated a rural – and perhaps more romantic – south.

Italian as well as German businessmen, thinkers, but also politicians saw a need to catch-up with a new model of pre-eminence and power offered by Great Britain. Italy had included territories with the highest per capita income in the world between 1300 and 1600, but since then had undergone a significant relative decline, associated with absolute stagnation (Maddison 2010). But Britain had some rather unique advantages: above all it had security at a relatively cheap price because of its island location. For the small and comparatively dynamic *ancien regime* states that lay on the old historic Rhineland and Alpine trade route from the North Sea to the Mediterranean, such as the Netherlands, but also Tuscany, Venezia, or Baden, there was no such easy answer. Defence was too expensive, and territorial expansion would produce additional costs that could not be covered from additional revenue. Unconventionally shaped states had a greater incentive to change the status quo: Prussia, an odd amalgam of low quality agricultural land with some rich territories in the west of Germany, in the Rhine corridor; or Piemonte, a prosperous and heavily-French influenced territorial state linked to a large and poor Mediterranean island. These two states already incorporated huge contradictions, between rich and poor, between manufacturers and farmers, between Protestant and Catholic. An expansion might be a way of reducing or relativizing these differences by setting them in a larger context.

When the unconventional Italian and German state had triumphed, when Cavour and Bismarck stood supreme, there was a clear but problematical legacy of the way in which unity had been thought and fought. As Massimo d'Azeglio famously put it, Italy was made: now it was time to make Italians (“*L'Italia è fatta, ora restano da fare gli italiani.*”) There was a need for a developmental strategy, that fitted with the prevailing sense of the need for creating the sinews of a new state. But there was also a legacy of the security dilemma that had produced unification: that changing the state structure depended on altering the age-old continental Austro-French balance that went back to the rivalry of Habsburg and Valois. So it was likely that the developmental strategy should have a heavy military orientation. The German approach made the house of Krupp the iconic German enterprise of the Kaiserreich; and the apparent success of the German model pushed the Kingdom of Italy to a

developmentalism that in the 1880s focused on building up the improbable Umbrian town of Terni into a central Italian Krupp, a replica of Essen. So making Italians almost inevitably carried with it the demand for a strategy of developmentalism, which had major implications for both trade and banking policy.

## 2. Italian trade policy in a comparative context, 1861-1929

In 1851 and 1859, the Piedmontese government adopted tariff reforms which greatly liberalised trade policy in the Kingdom.<sup>1</sup> This was consistent both with the liberal philosophy of Cavour, and with the free trade philosophy of the time, which culminated with the signing of the Cobden-Chevalier Treaty between France and Britain in 1860. Toniolo notes that in contrast with other policy areas, unification of the Peninsula's customs policies happened suddenly and brutally, without the transition periods commonly imposed during more recent moves towards free trade areas or customs unions. The liberal Piedmontese tariff, as well as existing Piedmontese trade and navigation treaties, were extended to the new Kingdom with barely any modifications. This was followed in 1863 by the signing of a trade treaty with France, as a result of which Italy became a member of the nascent "European network of treaties" based on the most-favoured-nation clause. Bairoch (1989) notes that in the mid-1870s, at which stage this network of trade treaties was at its apogee, Italy had the second lowest tariffs of any major Continental European economy, with average tariffs on manufactured goods of between 8 and 10 percent (Table 1). Initially local producers retained some of the protection offered by poor transportation facilities, but as railways were constructed across the country, this protection was gradually eroded.

Such a liberal stance was entirely typical in the context of the period. It could also have been expected in a largely agricultural economy, with net exports of agricultural goods and a powerful landowning class.<sup>2</sup> However, manufacturers in a variety of industries, especially in the South (which had been heavily protected before Unification) lost as a result of this abrupt shift to what almost amounted to free trade, and it was predictable that they would seek to redress matters. In 1870 a commission of inquiry into Italian manufacturing was set up, on the grounds that the 1863 trade treaty with France would soon be up for renegotiation. The inquiry was the opportunity for businessmen in textiles and heavy industry (the latter supported by the military) to demand protection, and the outcome was the adoption of a tariff in May 1878 which is often taken to mark the end of free trade in Italy. The textile industry was the most favoured sector, while modest tariffs on wheat were also introduced. Overall, however, this was not a dramatic increase in protection, and tariffs were reduced as a result of trade treaties being signed, for example with France in 1881. This was not sufficient for industrialists; another commission led, finally, to the adoption of a far more protective tariff in 1887, which imposed high duties on textiles, and (especially) iron and steel products. The duty on yarn amounted to some 27% according to Toniolo (1990, p. 84), as compared with a tariff of just 7% on cloth (implying little or no effective protection for weaving); similarly engineering had to pay for the very high tariffs on iron and steel, without being compensated with high tariffs for its own output. Wheat tariffs were also dramatically increased, amounting to the equivalent of 25% *ad valorem* in 1885.

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<sup>1</sup> Our description of the course of Italian trade policy draws heavily upon such sources as Coppa (1970), Cohen and Federico (2001), Federico (2006), and Toniolo (1990).

<sup>2</sup> The policy would have suited Northern landowners at least, if not the owners of Southern latifundia.



This shift to protection has been widely criticized in the Italian literature, but it was hardly an Italian peculiarity. Just as the 1860s saw a move towards freer trade across Western Europe, and not only in Italy, so the 1880s saw a reversion to protectionism. The Italian tariff increases are also exactly the reaction to the grain invasion that would be predicted by Rogowski's (1989) Heckscher-Ohlin model of the politics of trade policy during this period. Since Italy was, as we have emphasised above, a capital-scarce economy, Italian industrialists were bound to be protectionist, but initially they had to deal with the opposition of many landlords, since Italy was an agricultural exporter in the context of Europe. The worldwide reduction of transport costs, however, switched landowners to the protectionist camp, by exposing them to competition from the land-abundant frontier economies; a coalition of iron and wheat was a logical consequence, with socialists supporting the free trade which was in the interests of relatively abundant Italian labour (Bairoch 1989, p. 134).

The increase in protection implied by the 1887 tariff was exacerbated by a trade war with France which started in the following year, and which severely damaged the Italian silk and wine industries. Between 1887 and 1897, Italian exports to France fell by 57%, as compared with a 21% decline in bilateral trade in the opposite direction (Conybeare 1985, p. 161). The trade war was ended in stages: Italy abandoned its penalty tariffs against France in 1890, and France reciprocated in 1892. Even so, it was only in 1898 that France accorded Italy minimum tariff status (Conybeare 1985, p. 160).

Wheat tariffs were also increased again in 1888, and again in 1894; by 1913 wheat tariffs in Italy were equivalent to a roughly 40% *ad valorem* tariff (Table 2). On the other hand, a series of trade treaties subsequently lowered rates of Italian protection, favouring agricultural exports at the expense of protection for industry. Tariffs were thus on a downward trajectory between the mid-1890s and World War I, and indeed the wheat tariff was suspended when war broke out. Tariff policy remained relatively liberal until 1925: a tariff of 1921 was again watered down by a series of treaties, which had been the intention since the 1921 tariff was a *tarif de combat*. In 1925, however, wheat and sugar duties were sharply raised, ostensibly for revenue reasons, and in 1926 tariffs on manufactured goods were increased again.

The wisdom or otherwise of Italian protection during the late Nineteenth century has been the subject of ferocious debate among economic historians. On the one hand, some authors argue that grain tariffs helped smooth the disruption associated with the influx of cheap cereals from the frontiers, thus lowering adjustment costs, while tariffs on iron and steel helped establish Italian heavy industries which otherwise would never have been established, and which were crucial for industrialization in the long run. (A contemporary might have added that industrialization was crucial for military security, whatever the deadweight economic losses this might have implied.) On the other hand, others have argued that the structure of protection was irrational. Gerschenkron (1962), who in principle accepted that government intervention could be beneficial in a backward economy like Italy, argued that the lack of Italian coal reserves implied that Italian policy should have promoted industries which were not coal-intensive, such as engineering. Instead, the tariff favoured the iron and steel industries, which were heavy consumers of coal (and were thus uncompetitive), and placed engineering at a disadvantage. Moreover, the tariff failed to protect "the equally promising field of the chemical industry, pregnant with many

innovational possibilities and well suited to the conditions of the country,” while they promoted the cotton textile industry which was old, “with a moderate rate of modern technological progress and accordingly relatively limited possibilities in a backward country on the European continent” (Gerschenkron 1962, pp. 81, 83).<sup>3</sup> Gerschenkron also objected to the grain tariffs on the grounds that they damaged industry, and Fenoaltea (1993) has provided a formal rationale for this, in the form of a quasi-classical model in which grain tariffs increased nominal wages (since the real grain wage was exogenously given as a result of migration flows);<sup>4</sup> these higher nominal wages reduced employment in manufacturing, with the surplus labour emigrating.<sup>5</sup>

It is beyond the scope of this paper to adjudicate between the various arguments that have been made about the effectiveness or otherwise of Italian tariffs, but we can provide some guidance to the following questions: How high were Italian tariffs? How high were they in an international context? And were they sufficiently high as to have had a big impact on the Italian economy?

The first question we want to address is: how high were Italian tariffs? Tables 1-3 provide one answer to this question for the pre-1914 period, based on the work of Bairoch (1989), Liepmann (1938), and Estevadeordal (1997). We have already noted that average manufacturing tariffs were relatively low in Italy in 1875, so the focus here will be on average levels of protection on the eve of the First World War. The first two authors provide a range of percentage tariffs: the *ad valorem* tariff on wheat, as well as average tariffs for industrial products, agricultural products, and imports as a whole. For example, column (1) of Table 3 gives Bairoch’s average tariffs, computed as the ratio of customs duties to the value of imports. As is well known (Anderson and Neary 2005) this measure is biased downwards, since it amounts to an import-weighted average tariff, and as tariffs increase on particular products the weight on these products declines. On the other hand, it has the advantage of being easily measurable for many countries. Bairoch’s data suggest that in 1913, the Italian average tariff was 9.7%, somewhat higher than French or German average tariffs, but much lower than average tariffs in Portugal or Spain, as well as industrialised countries such as Belgium or the United States.<sup>6</sup> The overall impression one gets from the average tariff data in Tables 1-3 is that Italian tariffs were roughly comparable with tariffs in France, with manufacturing tariffs being generally a little lower in the Peninsula, while tariffs were clearly lower in Italy than in Spain and Portugal. On the other hand, the Italian wheat tariff was quite high in an international context.

Estevadeordal adopts a different approach, inspired by Leamer (1988). This approach assumes that trade is driven by Heckscher-Ohlin forces, and that any divergence from the

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<sup>3</sup> Toniolo (1977) confirms that the duties on iron and steel harmed the engineering sector, but doubts whether this had a significant impact on overall rates of Italian growth.

<sup>4</sup> ‘Quasi-classical’, since classical models achieved this fixity of the real grain wage by appealing to Malthusian mechanisms, rather than migration.

<sup>5</sup> This argument is of necessity a counterfactual one: as we will see, wheat prices were in fact declining, since Italian tariffs did not rise enough to counteract the impact of continually falling transport costs and declining supply prices on the frontiers of the New World. But one can certainly argue that in the absence of these tariffs, wheat prices would have declined by even more.

<sup>6</sup> The latter country is not included in these tables, but had very high tariffs: its average tariff in 1913 was 21.4%, according to Bairoch (1989, p. 76).

level of trade which the Heckscher-Ohlin model would predict must be due to protectionism. As can be seen from the tables, this method concludes that Italy was one of the most protectionist countries in Estevadeordal's sample, but the method is obviously suspect, since it is only as reliable as the econometric and theoretical framework which is used to generate the predicted "correct" level of trade.

The overall impression, then, is that Italian protection in 1913 or 1914, while non-negligible, was not out of the ordinary in the context of the time. This is the major theme of Federico and Tena (1998). However, there is one problem with judging Italy's protection by the yardstick of levels of protection Europe-wide in 1913: as we saw earlier, tariff levels were not constant over time, and indeed were falling in Italy from some point in the 1890s onwards. Figures 1 through 3 attempt to remedy this, by plotting average tariffs in Italy and four other major European economies (France, Germany, Sweden and the UK) between the mid-1870s and World War I. The graphs plot three different average tariffs: those on imports of agricultural goods; those for manufactured goods; and those for "exotic" goods (that is to say, revenue tariffs on goods clearly not produced domestically, or substituting for domestically produced goods).

These data suggest that, compared with other large European economies of the time, with whom Italy would have compared herself, Italian tariffs were towards the high end of the spectrum for most of this period. Her agricultural tariffs were similar to German ones: slightly higher for most of the period, but lower towards the end. It is however important to note that these agricultural tariffs include tariffs on sugar, which were extremely high in Italy. Her manufacturing tariffs were lower than tariffs in Sweden, but usually higher than tariffs in France or Germany. And her revenue tariffs (that is, tariffs levied on goods such as coffee, tea and other products clearly not produced domestically) were much higher than in other countries in the late 1880s and 1890s, if unremarkable at other times. On the other hand, Italian tariffs were not wildly out of line with tariffs in other European countries. They were surely lower than in countries like Spain (not included in the Lehmann-O'Rourke sample) or the highly protectionist United States. And it was Italian revenue tariffs which really stood out during the periods when Italian protection was at its highest in relative terms.

What about wheat tariffs, which have been particularly criticized in the Italian literature? While the authors do not yet have comparable data on wheat tariffs in Italy and other countries, we do have data on wheat prices. Figures 4 and 5 place Italian wheat prices in the late Nineteenth century into a comparative perspective. Figure 4 plots nominal wheat prices in four protectionist European economies: France, Germany, Italy and Sweden.<sup>7</sup> Tariffs were not enough to prevent wheat prices from falling in any of these countries: they could counteract the impact of cheaper transport between Western Europe and the granaries of Russia and the New World, but they were not high enough to counteract the impact of technological change which was lowering the supply price of wheat in these locations (O'Rourke 1997). The degree to which prices in the four countries moved together is noteworthy: tariffs and transport costs created wedges between prices in different countries, but grain markets remained fundamentally linked together. Italian prices were by no means out of line with prices in the other three countries, although they were slightly higher in the

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<sup>7</sup> The Italian prices are wholesale prices; the British prices are the Gazette averages; the other prices are market averages.

early years of the Twentieth century. Figure 5 provides the same data, as well as those for the UK, but expressed now as a percentage premium over prices in Odessa. There is a clear divergence between trends in the protectionist countries on the one hand, and the free-trading UK on the other; but Italy does not stand out within the former group of countries as being particularly protectionist, according to this criterion.

What about the 1920s? Federico and Tena (1998) show that what was true of 1913 was true also for the mid-1920s: Italy was very much an average country when it came to tariff levels. According to League of Nations data, Italy came either 9<sup>th</sup> out of 20 countries, or 8<sup>th</sup> out of 16 countries, in the protectionist league table; according to the data presented in Liepmann (1938), it came 9<sup>th</sup> out of 15. Table 4 shows that, as in the late Nineteenth century, it was Italian revenue tariffs that were particularly high, although the relatively high tariffs on semi-manufactured goods also suggests an overall tariff policy that was not as consistently pro-industrial development as it might have been. On the other hand, as we have seen in earlier years Italian protection had been reasonably high in the context of other major Western European economies. Was it high enough to have had a big impact on the Italian economy?

The first issue we need to deal with in order to answer this question is to ask what was the structure of protection: what sectors were most protected, especially taking into account the fact that some of their inputs might have been made more expensive as a result of tariff policy? Federico and Tena provide data on effective rates of protection in 35 sectors in 1911. Their results show that the highest effective rates of protection were enjoyed by sugar beet processors (126%) and the coal and tar sector (136.3%). Within industry, steel-making was a big winner, with an effective rate of protection of 74.2%; textiles (26.9%) and clothing (15.3%) also benefitted; the effective rate of protection enjoyed by the promising engineering and chemical sectors was far more modest (8.2% and 17.9%), but at least it was not negative (unlike the case for foundries and ship-building). Overall, the big winners were wheat (30.7%) and sugar production, textiles, and iron and steel production, as the conventional wisdom has suggested. The choices that were made seem to be more easily explained by appealing to the political power of landowners, and the nascent military-industrial complex, than by positing a deeply thought-out strategy of industrialisation behind tariff barriers. On the other hand, Italy was hardly alone in tailoring its trade policy to the interests of landowners, or in worrying about her military security.

What was the impact of these tariffs? In order to answer this question, one inevitably has to commit to a model of the Italian economy, and different models will give different answers. Our answer here is based on a fairly standard static model, outlined in Federico and O'Rourke (2000); obviously this will not satisfy those who believe that the important effects of trade policy are dynamic, and can only be understood within the context of models that involve non-convexities of one sort or another. Our finding will be that tariffs were probably not high enough to have a big impact one way or another, but it is important to recognise that there are alternative modelling frameworks in which small distortions can end up having big consequences in the long run.

Federico and O'Rourke distinguish between nine sectors, four of them agricultural and five non-agricultural. The agricultural sectors are: wheat and sugar, lumped together since they were so highly protected (WHEAT); non-wheat tillage crops (TILL); Mediterranean products such as wine and oil (MED); and animal products (ANIMAL). The non-agricultural

sectors are: the military-industrial complex (steel-making, the production of rolling stock and ship-building) (MIC); other capital-intensive sectors such as chemicals and other engineering activities (KII); textiles (TEXT); other industries (largely consumer industries such as clothing and food-processing) (OTHER); and non-traded goods including utilities and services (NT). There are four primary factors of production: unskilled or raw labour (L), skills (H), capital (K) and land (R). Land is only used in the agricultural sectors, and is sometimes sector-specific; skills are only used in the non-agricultural sectors, and are assumed to be sector-specific; capital and raw labour are mobile across sectors, although labour is imperfectly mobile between agriculture and the rest of the economy so as to account for the reality of rural-urban wage gaps.

Having constructed the model, which replicates the state of the economy in 1911, we can then impose various tariff-related shocks on it, and see how the economy adjusts. The most obvious shock is to impose free trade on the economy: this means setting all existing tariffs to zero. The impact of the shock will obviously depend on the sizes of the initial tariffs, which are given in the second column of Table 5. Since wheat and sugar production enjoyed the highest level of protection, their output would have changed by the most, declining by 53.2%; in other words, protection led to the combined sugar and wheat sector being roughly twice the size that it would have had under free trade. This decline in the WHEAT sector would have led to land being reallocated to other agricultural sectors, with the result that the output of non-wheat tillage crops would have expanded by some 21.5%, and animal production would have increased by almost 10%. Within industry, the big loser from a switch to free trade would not surprisingly have been the military industrial complex, whose output would have fallen by 14.2%. The big beneficiary would not have been engineering (whose output would have declined marginally), but textiles production, whose output would have expanded by 27%. This may seem surprising in the light of the literature reviewed above, but it makes sense, given that the initial tariff on textiles production in 1911 was relatively low, and that as a labour-intensive industry in a labour-abundant country it should have benefitted from a move to free trade. Overall, agricultural output would have contracted by some 2%, while industry would have expanded by 6%: the overall structure of the economy would not have changed by very much. Nevertheless, protection did have a major impact on individual sectors, and would have had an even bigger impact in 1897, when (as can be seen from the table) the level of protection was higher.

Overall, the conclusion has to be that Italian tariff policy during this period was hardly out of the ordinary: it followed the ebbs and flows of international trends towards and away from freer international markets fairly faithfully. The pattern of production was not dissimilar from that in other European countries with a similar industrial structure: as everywhere, Italy protected grain, while the protection afforded to heavy industry was similar to that in Germany, and reflected Italy's capital-scarce status. That capital scarcity had even more direct implications for Italian monetary and banking policy, as we will now see.

### **3. Monetary and fiscal policy, from Unification to the resumption of the gold standard**

The exchange rate and its management constitute one of the most direct ways in which a national economy is connected to the world monetary system. In the course of the last third

of the Nineteenth century, the world's major countries adopted the gold standard. There might even have been a more ambitious monetary unification. In 1867, at the instigation of Napoleon III, who launched an International Monetary Conference in Paris, it looked as if there would be a single world money, broken into divisions of pounds, worth 5 dollars, which in turn would be worth 5 lire or francs.

Unified Italy for a short time looked as if it was on this path: a law of 1862 adopted a bimetallic gold and silver standard on the French pattern. In 1865, when Italy joined in the Latin Monetary Union, managed by France and by Napoleon III, it looked as if the new currency bloc would move in the direction of a pure gold standard – which was the intention of Napoleon III's advisers.

But then war intervened and Italy moved in another direction. In 1866, at the outbreak of the last of the wars of unification with Austria, the issue banks suspended convertibility in the so-called *corso forzoso*; and by 1868, the currency had depreciated by some 12 percent. It was only in 1883 that convertibility was resumed. The banks of issue very quickly stopped free conversion, however, although the exchange rate was carefully managed to be close to the gold parity before 1893, and then again after 1899. Italy thus belonged to the periphery, rather than the core, of the prewar gold standard. The periods of formal adherence to all the rules of the gold standard, 1862-1866, 1883, and then again between 1924 and 1932 (when exchange controls were introduced), were thus rather brief.

For peripheral, capital-scarce countries such as Italy, the attraction of the gold standard lay mostly in opening up international capital markets, and allowing a lowered cost of borrowing. That was the irresistible attraction that drew them to the golden magnet. Stefano Fenoaltea (1988) has argued convincingly that Italy's success in attracting capital inflows, which was largely dependent on world capital market conditions, was a key determinant of the Italian construction cycle. However, because these capital movements were channelled through financial intermediaries, they also had consequences for Italian financial stability, of a sort which is still familiar today.

Italy's formal attachment to the gold standard in 1883, and the maintenance of the parity even after the end of free conversion, did produce some of the benefits associated with the gold standard in other countries. It sparked off a substantial surge in growth, financed in large part by inflows of foreign credits, and a real estate boom. There was a substantial current account deficit, reflecting the inflows of external money. Between 1882 and 1887, the lending of commercial banks increased by 15 per cent a year (Toniolo 1990, p. 77). When the boom slowed down in 1887-88, the Italian banks ran into great difficulties. The inflows now stopped, while the current account moved into surplus in 1891 and 1892 (Figure 6).

The sudden stop was fundamentally unsustainable in the political and economic circumstances on Italy, and a wave of scandals and crises erupted that required a complete reorganization of Italian banking, with a new central bank (the Banca d'Italia) taking the place of the previous banks of issue, and new commercial banks. 1893 was a major financial crisis in which the two largest commercial banks, the Credito Mobiliare and the Banca Generale, failed, in addition to one of the note-issuing banks, the Banca Romana. For most of the period following the re-establishment of the gold standard, the lira-sterling and lira-pound exchange rate was very close to parity, but after June 1893 the exchange rate fell sharply. The depreciation of the lira reached as much as 13 percent.

The subsequent bank reform led on the one hand to the creation of a new major note-issuing bank, the Banca d'Italia, which absorbed the Banca Romana; and to the institution of new mixed or universal banks, explicitly copied from the German model, and financed at first largely by international consortia in which the German financial establishment was preponderant. The new banks, the Banca Commerciale Italiano, often called the Comit (1894), and the Credito Italiano (Credit, 1895), were intended to contribute to the financing of industrial development, and we will explore the implications of this in the next section. In practice they set off a new wave of capital inflows, that lasted until the next financial crisis.

A major driver of exchange rate policy during this period was the problem of handling the government debt. At the time of Italian unification, public debt amounted to about half of GDP, but the ratio doubled over eight years, and the interest on debt amounted to almost 40 percent of government expenditure. In the 1870s, there was a serious attempt at fiscal consolidation in preparation for the readoption of the gold standard, but the largest bank of issue, the Banca Nazionale continued to monetize a substantial part of the government debt.

Government bonds (*rendita*) were mostly sold abroad, chiefly on the Paris market, and paid in foreign currency at the official parity. There was thus a strong incentive for Italian investors to buy *renditas* but to collect their coupon payments in the foreign currency. In 1873 an affidavit was introduced that required a declaration under oath that the owner was not an Italian citizen, but the new regime was not vigorously enforced and was abolished in 1881 (Tattara 2003). While in the 1870s some 40 percent of the Italian government debt was paid out abroad, by the early 1880s the ratio had reached 80 percent, and the readoption of a gold standard in consequence now looked as if it was a relatively costless operation, as the government debt was serviced in gold anyway. When the financial crisis of 1893 shook Italy, the affidavit was reintroduced.

Prewar Italy was tested by two crises: while 1893 fundamentally shook every part of the Italian banking and financial system, and led to a sharp drop in capital inflows, 1907 showed the resilience of the new order. The financial crisis, associated with a stock market decline (28 percent from August 1906 to July 1908), and a radical contraction of bank lending in 1907, barely affected the exchange rate. Italy had reached a new level of financial maturity.

The Banca d'Italia under Bonaldo Stringher had managed a conversion of state debt in 1903 and then tried to encourage the purchase of government bonds through easy money and low interest rates (Confalonieri 1977, p. 137; Forsyth 1993, p. 43). But borrowing in Italy remained expensive. As Figures 7 and 8 show, the difference between long term bond yields in France and Italy (which had reached a height of 2.1 percent in January 1894) fell in the course of the 1900s, but it did not disappear (unlike in Switzerland, where the same premium had existed relative to the French market before 1907, but virtually vanished in the aftermath of the establishment of a new National Bank) (Bordo and James 2007). At the end of 1910, the difference was still 0.6 percent, but by 1914 it had faded to between 0.1 and 0.2 percent.

Like other European countries, Italy suspended convertibility at the outset of the First World War. The wartime era produced high levels of inflation, which continued in the atmosphere of social violence that immediately followed the peace; with a sharp deflation following in 1920 that produced a new wave of banking difficulties. But as elsewhere, Italian leaders were determined to reintroduce the gold standard, and they eventually succeeded in doing so.

In August 1926 Mussolini announced his intention to revalue the lira, and Italy began a package of stabilization measures that included raising interest rates, budgetary stabilization and debt consolidation, and restriction of note issue by the Banca d'Italia. The idea behind the currency stabilization was to allow Italian business as well as the government to borrow on international markets. There seemed to be an international trend in favour of gold. In particular the major western central banks, the Bank of England and the Federal Reserve, as well as the British and U.S. governments pressed continental Europeans to return to gold. The reward would be – as before the First World War – a “good housekeeping seal of approval” and access to capital markets. The operation was a trade-off, in that the chosen exchange rate of the *quota novanta* represented a considerable overvaluation of the lira, and a blow to the competitiveness of Italian industry; but the major attraction lay not simply in prestige calculations (Cohen 1972) but above all – yet again – in a lowered cost of borrowing. However, the yield on long term government bonds remained more or less constant, at around 5 percent. In contrast, France, with a stabilization that undervalued the French franc, achieved a much more dramatic reduction in the cost of government borrowing. Italy's formal return to the gold standard occurred on December 21, 1927, with a 40 percent gold coverage requirement.

#### **4. Industrial policy from Unification to the Depression**

The history of Italian economic development through much of the Nineteenth century is a story of a capital scarce country's response to economic backwardness and a poor resource endowment for the crucial technologies of the European industrial revolution: in particular, the absence of large iron ore and coal fields. It is not surprising that Alexander Gerschenkron chose Italy as a case study not only for the economics of “backwardness,” but also for the question of how state action could overcome backwardness. The imbalance between state provision of financing and private control of policy was widely seen as the key to an Italian phenomenon of “capitalism without capital.”

What pre-existing Italian advantages there were lay in wide-reaching networks of relationships, with a strong family content, that was combined with an interest in technical progress. The great Milanese economist Carlo Cattaneo developed a theory according to which intelligence formed the major principle of public economy: “Control of new arts gave plentiful and reliable food to a number of families. They took their secrets from land to land; their wealth was the idea they had developed. They often remained divided from the crowd owing to their foreign origin and their different religion. Their knowledge became an inheritance, a perpetual privilege; they became a caste.”<sup>8</sup> Especially in Lombardy, the commitment to technical education became institutionalized at an early stage through the Milan Society for the Encouragement of Arts and Sciences established in 1838.<sup>9</sup> That was never a solution, however, that could be hoped to apply to every region of Italy. So politicians embarked on a search for a new way of galvanizing growth.

Soon after unification the emphasis shifted dramatically to an insistence that state action was needed to make good the weaknesses of the private sector. Other countries, especially Germany, seemed to have evolved in a different way from the United Kingdom:

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<sup>8</sup> Cattaneo (2002), pp. 72-73.

<sup>9</sup> See Lacaita (1990).



should not Italy imitate the new model of success? In the 1880s, Italy adopted a spectacular policy of economic development. The origins of the new approach lay in debates of the 1860s and 1870s about how an Italian political entity could best be built. Emulation of a foreign model seemed a necessity for launching Italy on a path to greater power and greater economic dynamism (the two being connected).

The construction of a steel industry, which seemed to be the foundation of British and German strength, looked like a national imperative that also might be the foundation for a native armaments industry. Already in 1867, in the immediate aftermath of the Austro-Prussian war, the Venetian businessman and politician Vincenzo Stefano Breda had proposed a “patriotic effort” to build cannon according to the latest Krupp method, using steel made by the brand-new Bessemer process. Breda proposed a mixed private-public form of enterprise. The proposal was rejected by the centre-right governments, but after 1876 governments of the left were more sympathetic. Breda argued strongly for a location away from traditional iron centres in Turin or in Lombardy, as they were too near the frontier and vulnerable to attack. By the 1870s he focused his attention on the Umbrian town of Terni, home of an established jute industry but with no obvious locational advantages for steel-making (except for a plentiful water supply that could also be used as an energy source). In 1879 he founded a company in Terni, Cassian Bon, which acted as a proxy for his own construction company, Società Veneta, and worked closely with the naval engineer and Minister of the Navy Admiral Benedetto Brin in securing a law of 1884 which created a large steel-making and armaments industry in Terni. It was heavily financed by banks – above all the Credito Mobiliare – but its major asset was always its political linkage. In particular, the personal commitment of the monarch seems to have been crucial. In the same way as Wilhelm I supported Alfred Krupp, Umberto I bubbled over with enthusiasm for the Terni project, and endorsed it with an official visit in 1887.

The whole affair of the origins of Terni was surrounded by a miasma of charges of corruption and bribery. It was an inauspicious beginning to the new policy of developmentalism. Terni became the most obvious symbol of what liberal commentators such as Amatori and Colli (1999) politely term “a precocious state capitalism,” not so much the direct control of the state through ownership but a preponderant role of the state as a result of procurements as well as of tariff policy. Alternately, socialist critics detect the capture of the state by special business interests and see the steel sector as what Ernesto Rossi termed “la grande parassitaria.”<sup>10</sup>

From the last years of the Nineteenth century, the Italian story shifted to the politics of the search for institutional mechanisms for overcoming backwardness. The principal feature of Italian backwardness appeared to be the under-development of the capital market. At first, many business leaders believed that the best device for transcending Italy’s institutional limits lay in financial institutions that could mobilize domestic investment resources and also attract foreign investments. But such institutions were themselves quite vulnerable. In 1893, as we have seen, there was a general banking crisis following a severe economic downturn, in which two of the largest Italian commercial banks, Credito Mobiliare and the Banca Generale, failed. After this episode, there was more or less continual political intervention in business structures, with the result that business and financial and political interests became

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<sup>10</sup> Balconi (1991), p. 82.

closely interconnected. A new set of banks, closely linked to a German model of industrialization, became very powerful, but also immediately became the subject of political attention. Periodic crises destroyed financial values and demanded restructuring: after the First World War, such restructuring usually occurred at the public initiative and with public funds. The financial story of Twentieth century Italy can be summarized as the repeated destruction of capital, both of investors in the stock market, and of the government's contributions.

The first hope of liberal Italy at the beginning of the Twentieth century was that Italy could be made financially and economically more robust through the operations of the newly-established Banca Commerciale and the Credito Italiano. These Milanese banks<sup>11</sup> rapidly became intertwined with factions in the political elite of liberal Italy. In addition to a German business model, these institutions initially operated with German capital. They derived most of their earnings from underwriting, and promoted quite speculative enterprises. After a sharp setback in the stock market following the U.S. crisis of 1907, the stock-buying public turned away from this kind of asset, and the banks had to retrench their position.<sup>12</sup> The Banca d'Italia and its energetic general manager Bonaldo Stringher played a vital part in the rescues of a major bank but also in the restructuring of particular industries, notably in the creation of the Ilva steel trust of 1911.

During the First World War, the state launched a new round of developmentalism, with a particular concentration on the ability of hydro-electric power to substitute for those resources needed for the development of heavy industry. A government decree of September 1916 (the Bonomi decree) gave favourable treatment to enterprises that would construct their own generators, networks and distribution systems. The decree gave a boost to the already well-developed hydro-electrical industry, and to new industries that used electricity rather than coal as the fuel for steel-making.

In the 1920s and 1930s, many prominent managers of the steel industry again used politics as a way of gaining support for their vision of a business model in which Italy would develop its own alternatives to a competitive and open international economy. They emphasized the necessity of the "*ciclo integrale*" in a large-scale path of developing a big steel and metallurgy sector, and which ignored the economics of resource scarcity.<sup>13</sup> These managers seemed to manage the shift of the political system from liberalism to fascism just as surely and confidently as they would manage the transition back in the opposite direction in the 1940s. The ideology of the state mattered less than a developmental philosophy. Oscar Sinigaglia, the brilliant technocrat who played a central role in the development of the state sector and then became the director of the state steel holding company Finsider, before he was ousted in the aftermath of the 1938 racial law, later referred to the slowness of the adoption of such a cycle as the characteristic "Italian problem." By the 1930s, the large-scale state steel industry seemed to be competing on unfavourable terms with private producers. Sinigaglia designed schemes for autarky behind which the idea of the complete cycle could be realized. An adequate national production of steel could then provide the basis for a modern engineering industry.

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<sup>11</sup> The Credito Italiano was founded in Genoa as the Banco di Genova, but in 1907 moved its headquarters to Milan.

<sup>12</sup> See Forsyth (1993), pp. 35-36.

<sup>13</sup> Sinigaglia (1946).

As it turned out, the interaction between the universal banking model of development, and the deflation which followed the resumption of the gold standard, and the outbreak of the Depression, would provide the conditions within which the State could become the dominant actor in Italian heavy industry. Ilva had in 1920 been rescued by the Banca Commerciale and the Credito Italiano in a highly costly operation, through a newly created Istituto Finanziaria, but its business continued to remain highly problematical, and it is not surprising that its bank-owners looked for some way out. The banks emerged as the effective controllers of much of Italian heavy industry, and in particular of steel. But that made them highly vulnerable in the deflationary business climate of the 1920s, following the stabilization of the Italian lira in 1927 at the over-valued *quota novanta*. As we will see in the next section, the result was that the industrial hegemony of the universal banks was destroyed by new deflation during the world depression at the end of the 1920s and in the early 1930s, with the state definitively taking their place.

## **5. The Great Depression, IRI, and Italy's switch to autarky**

The deflation associated with the return to the gold standard is usually thought to be responsible for a falling off of growth in 1926 and in 1927, but the renewed expansion of 1928 looks at first like a vindication of the government's strategy. Capital flowed in, and borrowing rates were lower (Figure 9).

But after 1929, deficit countries were pushed into adjustment by the freezing up of international capital markets. From 1929 to 1935 a contraction of the monetary base of about 25 percent was experienced. There was a sharp loss of reserves in 1931, in the midst of the Central European banking and financial crisis, but the cover ratio stayed above the 40 percent level. It was only when that cover ratio fell below 40 that Italy formally ended the commitment to the Gold Standard, in September 1936.

The response of Italy to the 1931 banking crisis is often held to be particularly resourceful and even constructive. Unlike Austria, Hungary, and Germany, where there was a very similar mixed or universal banking system, in which banks were vulnerable because of the large portfolio of industrial participations that they held in their portfolio, there was no open banking crisis, though this is what some outside observers, such as the well-informed Swiss financier Felix Somary, had predicted (Toniolo 1995). Bank deposits indeed only fell by 3.6 percent in 1931 (Mattesini and Quintieri, 1997, p. 275). But the major banks were insolvent, in large part because of the extensive holdings of industrial securities that they had been pushed to take over in the early 1920s as part of the rescue operation for Italian industry. The Credito Italiano, Italy's second largest bank, was insolvent by the end of 1930, and the largest bank the Banca Commerciale by May 1931. There was also a substantial degree of political tension between the Banca Commerciale and the government, which saw the Commerciale as dominated by figures from the liberal era. A few days after the collapse of the German Darmstädter und Nationalbank, on July 19, 1931, the general manager of the Banca Commerciale, Giuseppe Toeplitz, appealed to the Bank of Italy for support. In September he was received by Mussolini. The next month a new holding company, SOFINDIT, was created to take over the industrial assets of the Commerciale. Together with parallel holding companies, SFI (which had taken over the assets of the Credito Italiano) and Elettrofinanziaria, the industrial assets were transferred to a new state holding company IRI. By January 1934, IRI held 48.5 percent of the share capital of Italy. Then, in March 1934,

IRI acquired the capital of the banks themselves. By 1937, it controlled all the capital of the military steel sector (Terni, Ansaldo, Cogne), 40% of non-military steel and 30% of the electrical industry. In the aftermath of the creation of a bad bank, a new banking law (1936) limited the industrial engagement of banks (see also Toniolo and Guarino 1993).

In a dramatic series of speeches, Mussolini seemed to come back to the anti-capitalist rhetoric of the early days of fascism. In the immediate aftermath of the financial crisis, he explained that “if I tried to harness the capitalistic force up to now, it was because it was already active. But when the first resistance occurs, it will be replaced without hesitation by a new, entirely different and more worthy force” (Avagliano 1991, p. 35). He saw the major members of the Consorzio Siderurgico on March 13, 1933. He explained that the steel makers were not responding adequately to the fascist initiatives for industrial reorganization: “Unfortunately it is a question of one of these circumstances which have recently become quite common, in which the business leaders say that the company can be completely cured if particular measures are taken. I make the appropriate orders, and things develop worse than they were before.”<sup>14</sup>

In May 1934, as the process of IRI’s takeover of bank assets was being worked out, Mussolini announced that: “Those who still speak of a liberal economy make me laugh – laugh or weep, both at the same time. But three quarters of the Italian industrial and agricultural economy is in the hands of the state. And if I dare to introduce to Italy state capitalism or state socialism, which is the reverse side of the medal, I will have the necessary subjective and objective conditions to do it” (Giordano 2007, p. 35).

The financial and economic crisis of the early 1930s thus opened the opportunity to launch a new wave of developmentalism. Again, there was a strong emphasis on hydro-electric power as a way of solving the sensitive issue of energy dependence. From 1925 to 1937, the output of hydro-electric power more than doubled. And in the geopolitical context of the 1930s, military action was another way in which the state influenced economic development. Indeed, according to Toniolo (1980, p. 272), it was only with the putting into practice of the plans for invading Ethiopia that the Italian economy received the stimulus necessary for economic recovery. The decision to activate the invasion plans was taken in December 1934, and the invasion itself took place in October 1935. The undertaking implied massive military expenditure. This may plausibly be taken to have had Keynesian effects on Italian GDP, since Italian deficits exceeded 10 per cent of GDP in 1936 and 1937 (Almunia *et al.* 2010), despite increases in taxation of various sorts. Various types of compulsion were used to ensure that government bonds be taken up; expenditure was also financed by nationalising foreign investment in 1935, and by the 1936 “day of the wedding ring,” when Italians were asked to hand over their gold to the regime (Zamagni 1993, pp. 253-254). Monetary financing of the deficit was also resorted to. There were large military orders for industrial output, which rose by almost 15 percent in 1937, by 3 percent in 1938 and by almost 9 percent in 1939. Overall, Italian GDP grew by 9.1 percent in 1937, by 2.1 percent in 1938, and by 5.3 percent in 1939.<sup>15</sup>

Increasing control by the state in industry and banking coincided with a shift towards much greater intervention in monetary and trade affairs as well. The currency decree of May

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<sup>14</sup> *Archivio Storico Banca Intesa*, BCI, Sofindit.

<sup>15</sup> Banca d’Italia database.

26, 1934 (Decree 804) introduced a wide-ranging exchange control and *de facto* ended the period of the gold standard, marking Italy's turn away from the globalized world of convertibility and international capital flows. Subsequent decrees tightened the controls: on December 8, 1934, (Decree 1942) it was required that foreign securities owned by Italians should be registered with the *Istituto nazionale per i cambi con l'estero*; and in August 1936 (Decree 1631), such securities were compulsorily sold to the government in exchange for treasury bonds. Foreign bank accounts had to be declared. Even though at the beginning of August 1936 Italy joined France in devaluing relative to gold, the abandonment of the gold parity was not used as an opportunity to move back to convertibility or to end exchange controls.

At the same time, trade policy was turned into a tool of diplomacy. The bilateralization of trade was a way of contributing to the political reordering of Central Europe. In May 1934, Italy for instance concluded an agreement with Hungary to buy one million quintals of Hungarian wheat, with an option for a further million, at prices double those prevailing on the world market (Ránki 1983, p. 139). Within two years, Italy's share of Hungarian trade grew from 7.8 to 13.6 percent. Italian trade was also reoriented towards her colonies: Italian colonies accounted for less than 3 per cent of Italian exports in the late 1920s, but a quarter of total exports between 1936 and 1939. They were a particularly important market for "advanced" industries such as chemicals and engineering (Federico 1998). Again, however, it is important to stress that this was a general phenomenon during the 1930s, and not one limited to Italy, as Table 6 makes clear.

Unlike in some countries, notably Britain and Germany in 1931 or the United States in 1933, the turn away from the principles of an open world economy was not directly associated with financial crisis. Openness to the world economy seemed a less attractive strategy once the state of capital markets ruled out the possibilities of access and renewed borrowing. The Great Depression killed off this major attraction of a globalized world for the Italian state, concerned as ever with the implications of Italian capital scarcity. But it was the currency implications of managed trade that really made for the final shift of Italian politics against the liberal economic view – or against globalization – in May 1934.

The much larger interventions of the 1930s left a troubled legacy for the postwar period. The establishment of the industrial holding company IRI made virtually all of Italian large scale industry dependent on the state. It thus provided an immediate lever for quite spectacular growth at a time when the world economic environment was favourable. In this way, the interwar period's policies can be seen as having created a springboard for the postwar miracle.<sup>16</sup> But they also created and augmented a host of political economy problems: in particular, the heavy engagement of the state in wage bargaining and wage determination, and a corporate governance in which managers were attached to ideas of gigantism or elephantism. This tension was not a uniquely Italian phenomenon, of course. As Eichengreen (2007) has pointed out, institutional environments which were well-suited to producing catch-up growth across Europe after 1950 were not necessarily appropriate once convergence on the technological frontier had been largely achieved.

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<sup>16</sup> Similarly, Alexander Field (2011) has argued that the interwar period provided the springboard for postwar US growth.

## 6. The institutional bases for convergence in a capital-scarce economy

We have seen that Italian trade, financial and industrial policies all reflected the capital-scarce nature of the Italian economy, and reflected a desire to achieve both military security and economic convergence on the leading economies of the day. Italian military history is beyond the scope of this paper, but how well did Italy succeed in achieving the latter aim?

Standard neoclassical economics suggests that economically backward countries should be able to benefit from globalization, and see their convergence on the technological frontier speeded up as a result of technological transfers, trade, and capital imports. Furthermore, emigration may help them to achieve convergence in per capita terms, if at a cost in terms of a diminishing population. But a vast empirical literature emphasises that this convergence is not automatic: it requires that various social and institutional pre-requisites be put in place in order for convergence to be achieved. As we have seen, the Italian economy saw major institutional reforms over the course of our period, which were in fact successful in spurring growth in the short run, but which would eventually outlive their usefulness as the international economic environment changed.

The first major wave of reforms which we have highlighted was the banking reforms instituted after the financial crisis of 1893. This crisis was intimately linked, as we have seen, with the capital inflows which the new Italian state had actively sought, but with whose consequences its banks (no more than the Thai and Korean banks in the 1990s or Icelandic, Irish or Spanish banks of our own day) were ill-suited to cope. This crisis was a salutary one in many ways, with the new universal banks ushering in a period of faster economic growth (Figure 10). Between Unification and 1899, economic growth in Italy was just 0.6% per annum, but it more than doubled to a respectable 1.3% between 1899 and 1915. Figure 11 shows that 1900 marks the dividing line between a period when Italian incomes were falling steadily further behind incomes in the leading economies of the day, and a period when, at least for a time, Italy managed some convergence *vis à vis* France, Britain, and Western Europe as a whole, and stopped losing ground relative to Germany and the United States.<sup>17</sup> Between 1921 and 1929, the Italian economy experienced extremely strong growth, at a rate of 3.1% per annum.<sup>18</sup>

Unfortunately, the deflation of the 1920s – which was a worldwide rather than an Italian phenomenon – placed the universal banking model under severe strain, and the worldwide Depression which followed finished it off. The result was another, crisis-driven response, which again can be seen as salutary, if we restrict our attention to its economic dimension. As Figures 10 and 11 show, the Italian recovery from the Depression was quite strong both in absolute and in relative terms, especially in the second half of the 1930s, and as we suggested above, it paved the way for the extraordinary success of the postwar period (Figure 12): between 1945 and 2008, per capita GDP increased more than tenfold, an astonishing performance, even taking into account the collapse in output during World War II. This was a period of supremely successful convergence on the international technological

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<sup>17</sup> The exercise is a crude one: the new Banca d'Italia data are rebased using Maddison's (2010) figure for 1990 (expressed in 1990 Geary-Khamis dollars) as a benchmark.

<sup>18</sup> Growth rates here and subsequently are all based on regressions of the log of per capita income against a time trend.

frontier internationally, but Italy in large part because it had a long way to catch up was one of Europe's star performers (Figure 13).

Yet again, however, the new institutional framework became less of an advantage, and more of a handicap, in Italy as in other of the rapidly growing catch-up economies. By the end of the century, Italy faced a crisis of slow economic growth, in large part a result of its successful convergence experience, but until now this crisis has been insufficiently dramatic to force another round of major structural change in the economy. In the past, notably in the 1890s and the 1930s, deep crises were associated with a fundamental change of the policy paradigm. Crises were a learning experience. Will the intensification of the crisis in 2011, the 150<sup>th</sup> anniversary of Unification, change this assessment? In Italy, as in the rest of Europe, we have not yet come to the end of (economic) history.

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## Tables and figures

**Table 1**

### European manufacturing tariffs, 1875 & 1913

Country	1875 (percent)	1913 (1) (percent)	1913 (2) (percent)	1914 (percent)	1913 (3) (rank)	1913 (4) (rank)
Belgium	9-10	9	9	10	11	11
Denmark	15-20	14	n.a.	18	16	14
France	12-15	20	21	22	12	12
Germany	4-6	13	13	17	6	3
Italy	8-10	18	20	18	15	17
Norway	2-4	n.a.	n.a.	12	8	8
Portugal	20-25	n.a.	n.a.	n.a.	14	13
Spain	15-20	41	34	42	18	18
Sweden	3-5	20	25	23	5	6
Switzerland	4-6	9	8	7	3	7
The Netherlands	3-5	4	n.a.	3	1	1
United Kingdom	0	0	0	n.a.	4	5

Source: Bairoch (1989, p. 76), O'Rourke and Williamson (1999), pp. 98-9.

Notes: 1875: average levels of duties on manufactured products in 1875, from Bairoch (1989), Table 5, p. 42; 1913 (1): League of Nations estimate, as reported in Bairoch (1989), Table 9, p. 76; 1913 (2): Liepmann (1938) estimate, as reported in Bairoch (1989), Table 9, p. 76; 1914: average duties on British manufactures, Bairoch (1989, p. 76); 1913 (3): rank among 18 countries (1=least protectionist, 18=most protectionist), based on the adjusted trade intensity ratios in Estevadeordal (1997), Table 6, p. 104; 1913 (4): rank among 18 countries (1=least protectionist, 18=most protectionist), based on the openness measures in Estevadeordal (1997), Table 6, p. 105.

**Table 2**

### Agricultural protection, 1913

Country	Wheat 1913 (percent)	1913 (1) (rank)	1913 (2) (rank)
Belgium	0	8	7
Denmark	0	1	1
France	38	10	12
Germany	36	6	6
Italy	40	12	16
Norway	4	16	13
Portugal	Prohibitive	18	18
Spain	43	14	17
Sweden	28	7	8
Switzerland	2	17	14
The Netherlands	0	3	3
United Kingdom	0	4	2

Source: O'Rourke and Williamson (1999), pp. 98-99.

Notes: Wheat 1913: levels of duties on wheat, calculated by Bairoch (1989), Table 9, p. 76; 1913 (1): rank among 18 countries (1=least protectionist, 18=most protectionist), based on the adjusted trade intensity ratios in Estevadeordal (1997), Table 6, p. 104; 1913 (2): rank among 18 countries (1=least protectionist, 18=most protectionist), based on the openness measures in Estevadeordal (1997), Table 6, p. 105.

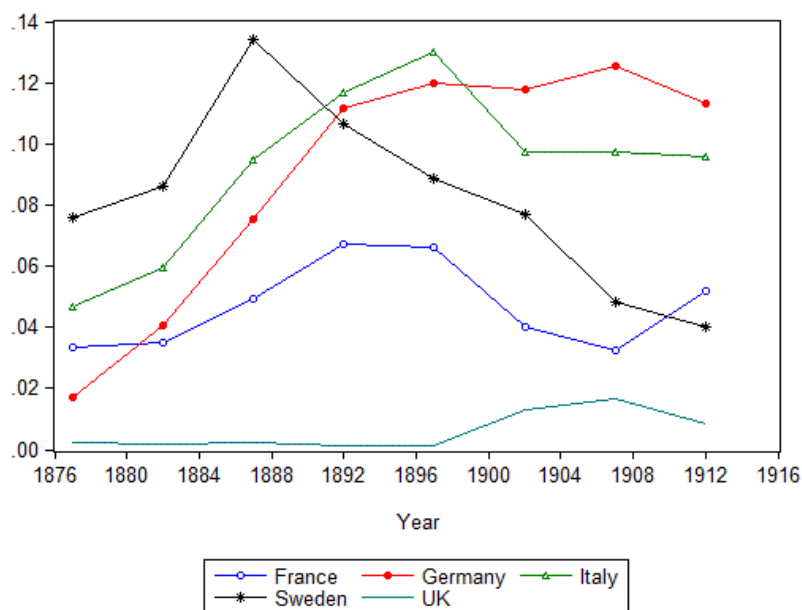
**Table 3**  
**Overall protection, 1913**

Country	1913 (1) ( percent)	1913 (2) ( percent)	1913 (3) ( percent)	1913 (4) (rank)	1913 (5) (rank)
Belgium	15.8	6	14	10	10
Denmark	5.8	9	n.a.	2	4
France	8.7	18	24	14	14
Germany	7.9	12	17	8	8
Italy	9.7	17	25	16	17
Norway	11.4	n.a.	n.a.	11	12
Portugal	23.7	n.a.	n.a.	17	15
Spain	14.3	33	37	18	18
Sweden	9	16	28	7	7
Switzerland	4.4	7	11	9	9
The Netherlands	0.4	3	n.a.	1	1
United Kingdom	5.6	0	0	3	3

Source: O'Rourke and Williamson (1999), pp. 98-99.

Notes: 1913 (1): import duties as percent of special total imports (1909-1913), calculated by Bairoch (1989), Table 9, p. 76; 1913 (2): League of Nations estimate, as reported in Bairoch (1989), Table 9, p. 76; 1913 (3): Liepmann (1938) estimate, as reported in Bairoch (1989), Table 9, p. 76; 1913 (4): rank among 18 countries (1=least protectionist, 18=most protectionist), based on the adjusted trade intensity ratios in Estevadeordal (1997), Table 8, p. 107; 1913 (5): rank among 18 countries (1=least protectionist, 18=most protectionist), based on the openness measures in Estevadeordal (1997), Table 8, p. 107.

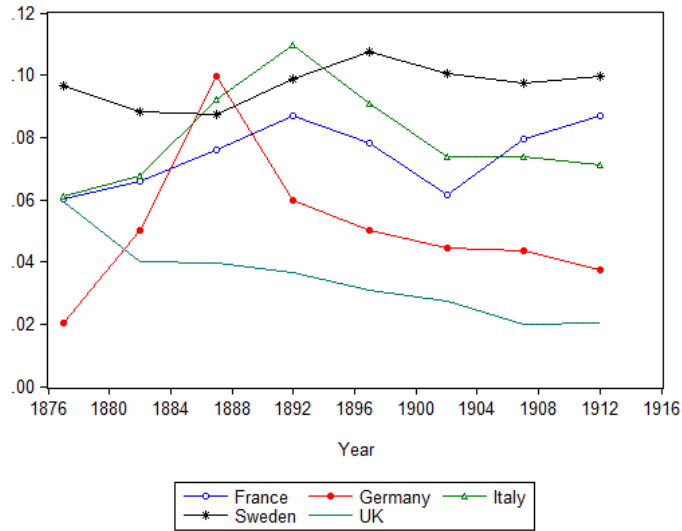
**Figure 1**  
**Average agricultural tariffs, 1870-1913**



Source: Lehmann and O'Rourke (2010)

**Figure 2**

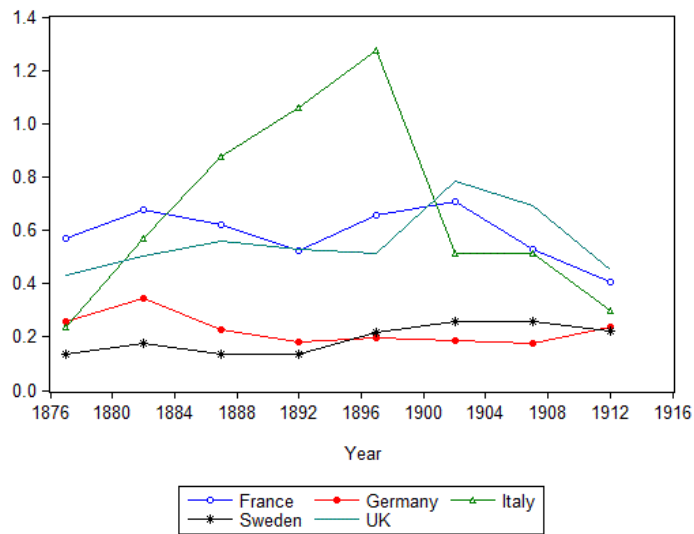
**Average manufacturing tariffs, 1870-1913**



Source: Lehmann and O'Rourke (2010)

**Figure 3**

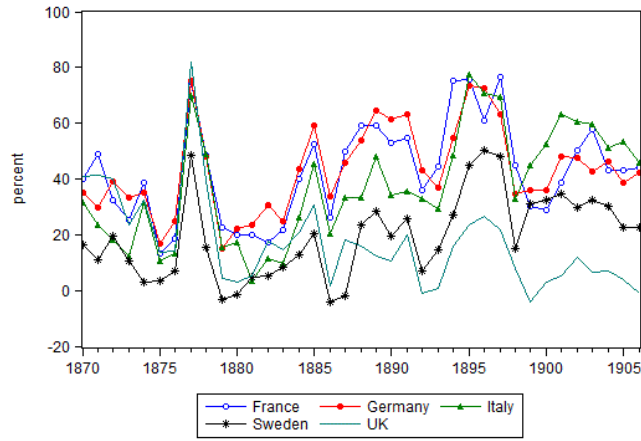
**Average revenue ("exotic") tariffs, 1870-1913**



Source: Lehmann and O'Rourke (2010)

**Figure 4**

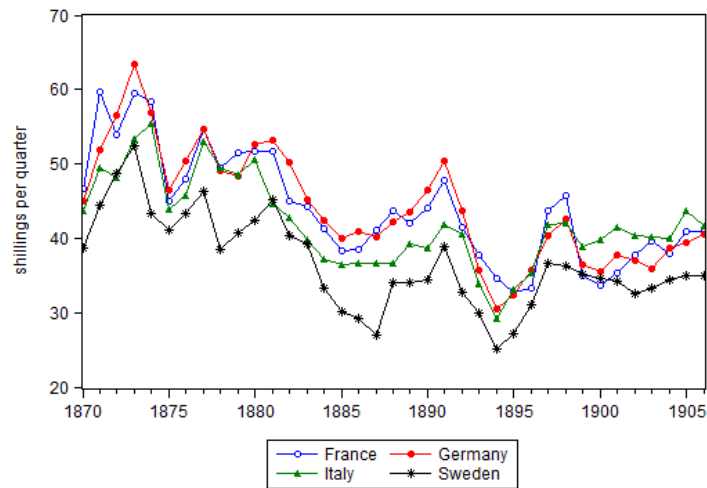
**Nominal wheat prices (shillings per imperial quarter), 1870-1906**



Source: O'Rourke (1997) and data graciously provided by Giovanni Federico.

**Figure 5**

**Wheat prices relative to Odessa, 1870-1906 (% price gaps)**



Source: O'Rourke (1997) and data graciously provided by Giovanni Federico.

**Table 4**  
**Nominal tariff rates, 1927**

	France	Germany	Italy
Fiscal goods	30.9	51.0	61.1
Foodstuffs	12.7	19.6	15.8
Semi-manufactures	12.0	10.4	22.2
Manufactures	21.6	15.5	22.2

Source: Federico and Tena (1998), Table 7, p. 89.

**Table 5**  
**Tariff Levels, 1897-1911**  
(Ad valorem equivalents, percent)

Sector	1897	1911
WHEAT	97.7	29.6
TILL	5.7	4.0
MED	17.8	8.1
ANIMAL	2.9	3.6
MIC	26.1	15.7
KII	15.8	6.6
TEXT	6.8	4.1
OTHER	8	8.4
EXOT	95.4	74.5

Source: see Federico and O'Rourke (2000).



Figure 6

Italian balance of payments 1860-1914

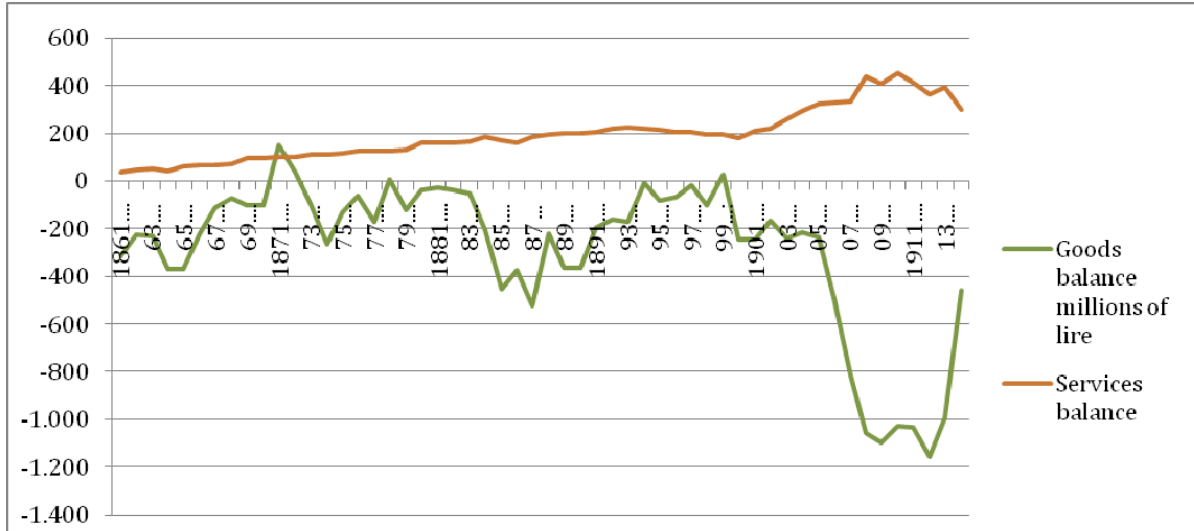
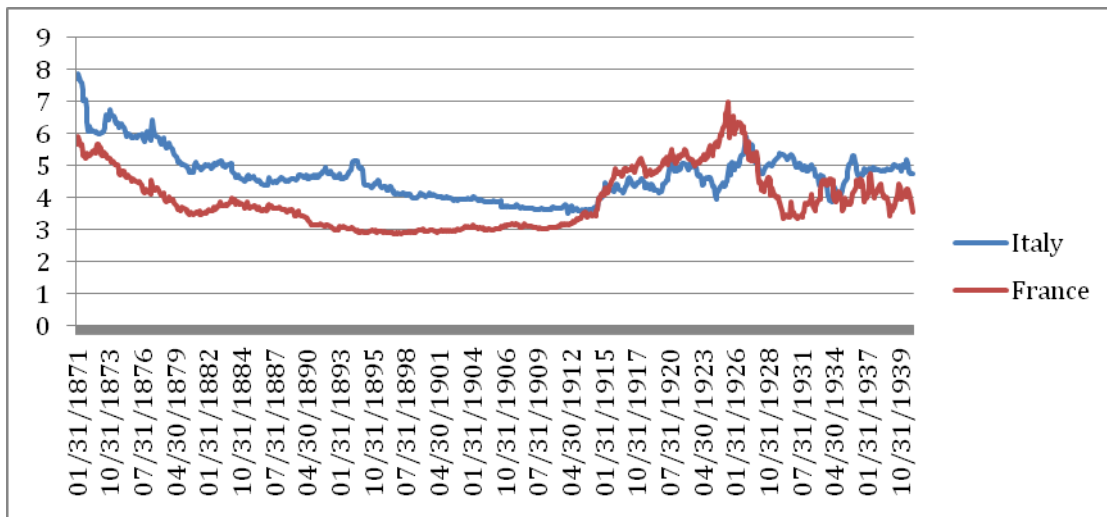


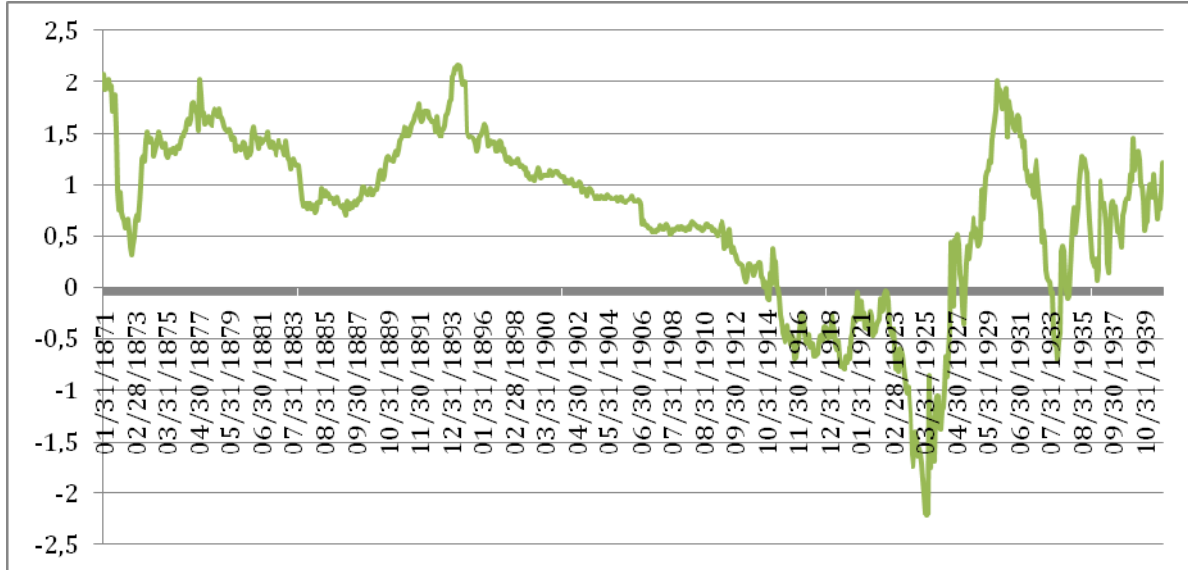
Figure 7

Yields on French and Italian 10 Year government bonds



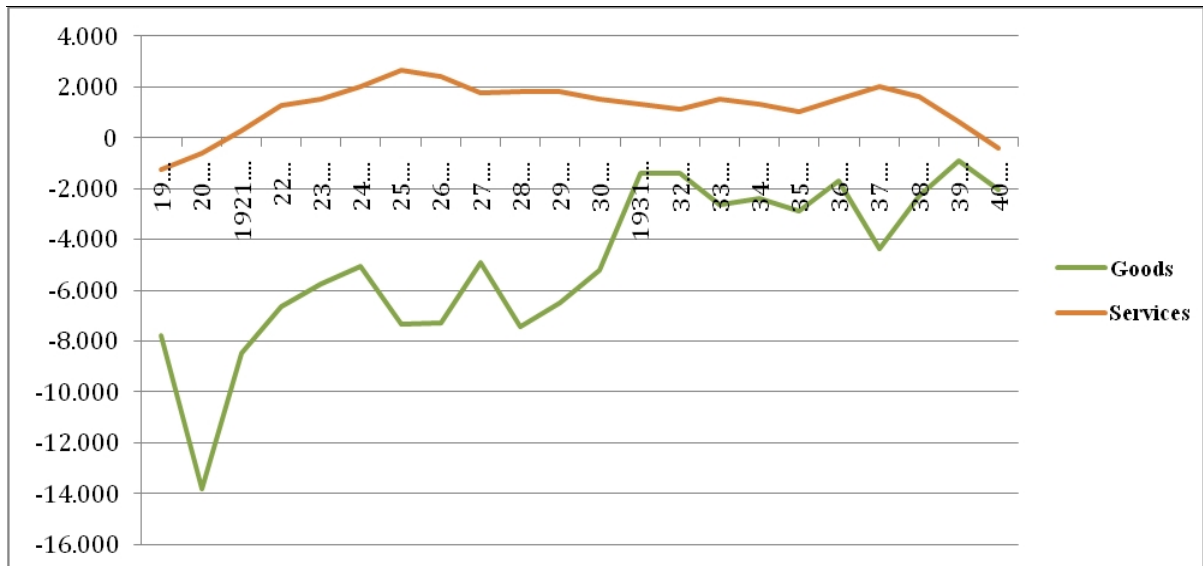
**Figure 8**

**Difference in yields of French & Italian 10 year government bonds**



**Figure 9**

**Italy's Balance of Payments 1920-1940**



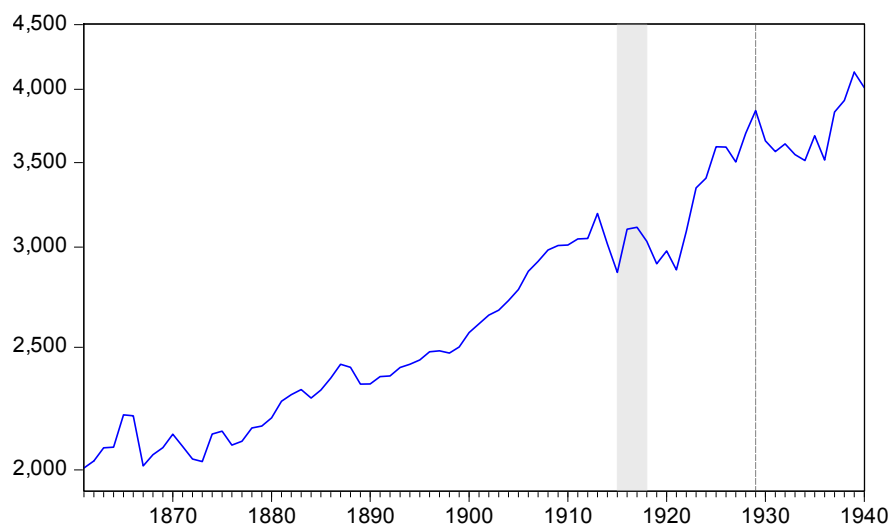
**Table 6**  
**The share of formal and informal empire trade, 1929-1938**  
 (percent)

Trade of	Share of	In imports			In exports		
		1929	1932	1938	1929	1932	1938
United Kingdom	British Commonwealth, colonies, protectorates, etc.	30.2	36.4	41.9	44.4	45.4	49.9
United States	Phillippines	2.9	6.1	4.8	1.6	2.8	2.8
France	French colonies, protectorates and mandated territories	12	20.9	25.8	18.8	31.5	27.5
Belgium	Belgian Congo	3.9	3.8	8.3	2.6	1.3	1.9
Netherlands	Netherlands overseas territories	5.5	5	8.8	9.4	5.9	10.7
Italy	Italian colonies and Ethiopia	1.5	1.1	1.8	2.1	3.6	23.3
Portugal	Portuguese overseas territories	7.9	10.4	10.2	12.7	13.9	12.2
Japan	<i>Korea and Formosa</i>	12.3	26.2	30	16.8	21.6	32.9
	<i>Kwantung</i>	6	4	1.6	4.8	6.8	13.7
	<i>Manchuria</i>	1.9	2.7	9	2.5	1.5	8.1
	<i>Rest of China</i>	5.8	4	4.4	10.9	7.3	8
	Total Japanese sphere of influence	26	36.9	45	35	37.2	62.7
Germany	<i>Bulgaria, Greece, Hungary, Romania, Turkey, Yugoslavia</i>	4.5	5.5	12	5	3.9	13.2
	<i>Latin America</i>	12.2	11.2	15.6	7.8	4.3	11.5
	Total German sphere of influence	16.7	16.7	27.6	12.8	8.2	24.7

Source: League of Nations (1939), pp.34-35.

**Figure 10**

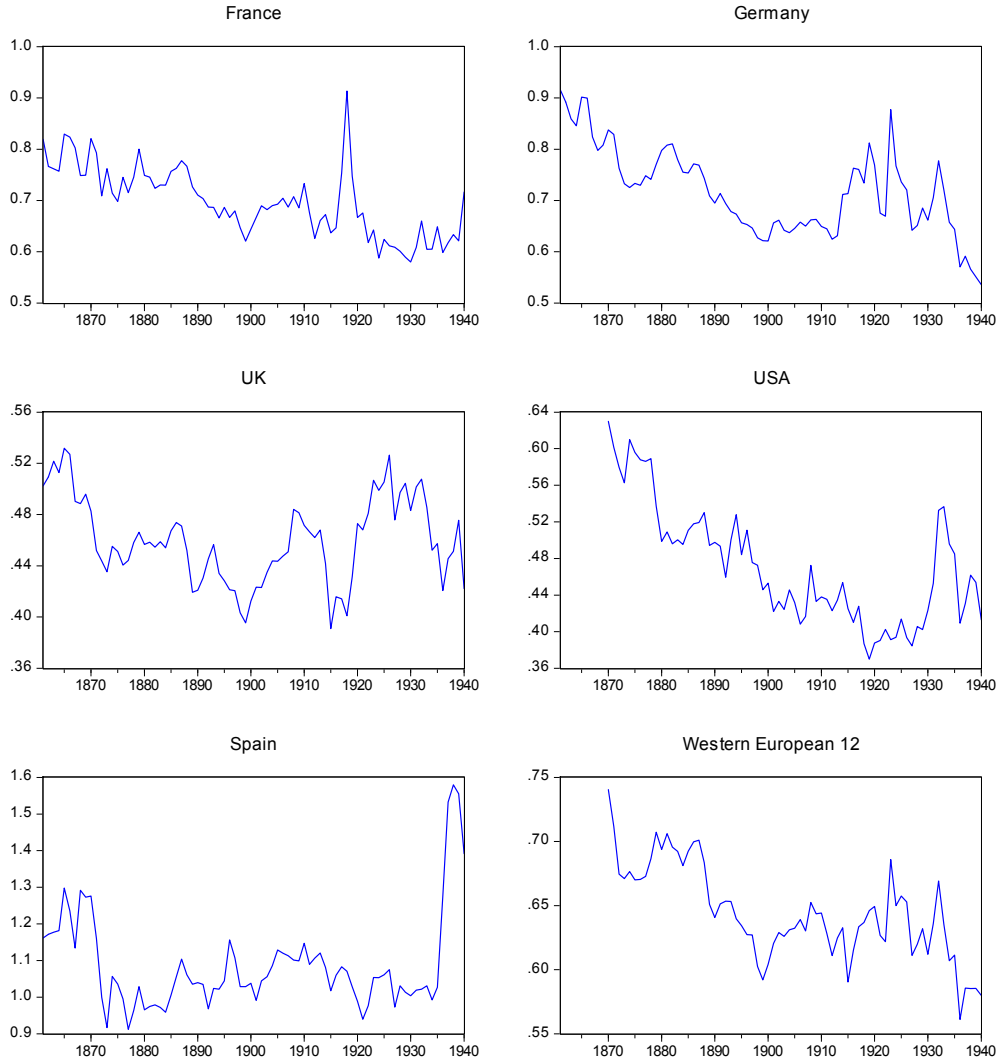
**Italian GDP per capita, 1861-1940.**



Source: Banca d'Italia database.

**Figure 11**

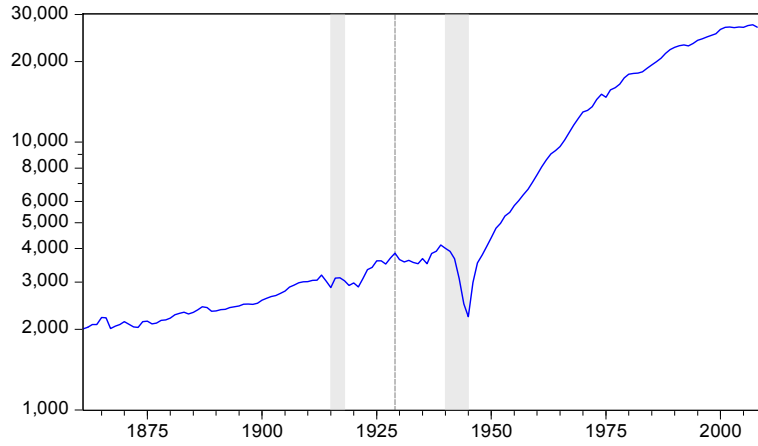
**Italian per capita GDP relative to those of other countries, 1861-1940**



Source: Banca d'Italia database, Maddison (2010).

**Figure 12**

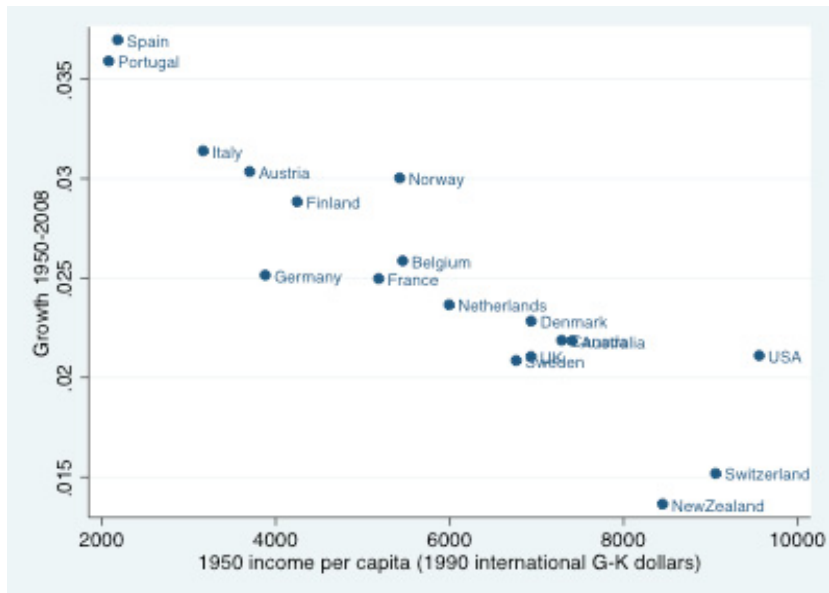
**Italian GDP per capita, 1861-2008 (2009 euros)**



Source: Banca d'Italia database.

**Figure 13**

**Initial income and subsequent growth, 1950-2008**



Source: Banca d'Italia database, Maddison (2010).

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