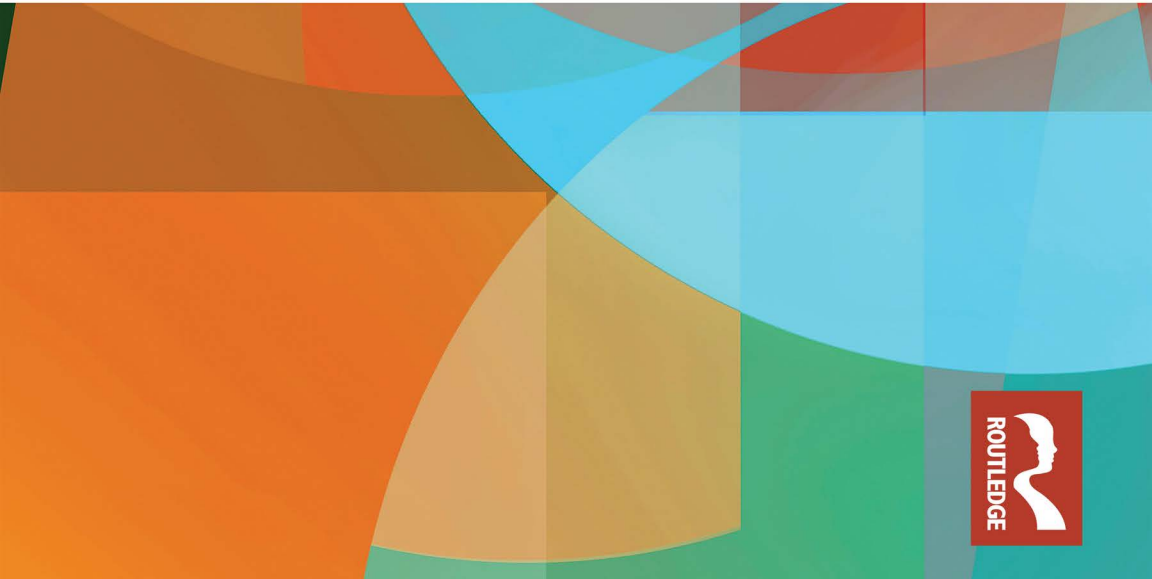
Routledge International Studies in Business History

LEADING THE ECONOMIC RISORGIMENTO

LOMBARDY IN THE 19TH CENTURY

Edited by

Silvia A. Conca Messina



Leading the Economic Risorgimento

Lombardy, with about ten million inhabitants, is today the most populated and prosperous region of Italy, and Milan is a renowned capital of art, fashion, and design. During the 19th century until WWI, the region gradually became the leader in Italy's economic development and distinguished itself in the European economic landscape for its long-standing industrial strength and diversified economy, which included one of Europe's most productive agricultural systems. It was the economic locomotive of contemporary Italy, contributing to the economic Risorgimento that complemented the country's political resurgence.

This book gathers the contributions of some major experts on the subject, providing an in-depth analysis of Lombardy's pattern of development, consisting of an exceptionally symbiotic and balanced interplay of sectors (agriculture, industry, trade, and banking) in a gradual yet steady growth process, also supported by progress in the education system. During the century, there was a shift away from an economy based on agriculture and commerce to a progressively more industrial economy and this process accelerated from the 1880s. The secret of this dynamic balance was Lombardy's active relationship with the rest of Europe and with the international markets.

Aimed at scholars, researchers, and students in the fields of early modern and modern history, economic and social history, the book provides a clear explanation of Lombardy's economic development during the long 19th century.

Silvia A. Conca Messina is Assistant Professor of Economic History in the Department of Historical Studies at the University of Milan, Italy.

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Leading the Economic Risorgimento

Lombardy in the 19th Century

Edited by Silvia A. Conca Messina

Routledge
Taylor & Francis Group
NEW YORK AND LONDON

First published 2022
by Routledge
605 Third Avenue, New York, NY 10158

and by Routledge
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

Library of Congress Cataloging-in-Publication Data
Names: Conca Messina, Silvia A., 1966– editor.
Title: Leading the economic Risorgimento : Lombardy in the 19th century / edited by Silvia A. Conca Messina.
Description: New York, NY : Routledge, 2022. | Series: Routledge international studies in business history | Includes bibliographical references and index.
Identifiers: LCCN 2021010128 (print) | LCCN 2021010129 (ebook) | ISBN 9780815370765 (hbk) | ISBN 9781032064727 (pbk) | ISBN 9781351058711 (ebk)
Subjects: LCSH: Economic development—Italy—Lombardy—History—19th century. | Italy—Economic conditions—19th century. | Italy—Economic policy—19th century.
Classification: LCC HC307.L8 L43 2022 (print) | LCC HC307.L8 (ebook) | DDC 330.945/2083—dc23
LC record available at https://lccn.loc.gov/2021010128
LC ebook record available at https://lccn.loc.gov/2021010129

ISBN: 978-0-8153-7076-5 (hbk)
ISBN: 978-1-032-06472-7 (pbk)
ISBN: 978-1-351-05871-1 (ebk)

DOI: 10.4324/9781351058711

Typeset in Sabon
by Apex CoVantage, LLC

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Acknowledgements

The translation and publication of the book have been possible thanks to the funding provided by the Department of Historical Studies and the Transition Grant 2015–2017 – Horizon 2020 – Linea 1B. Progetto "Unimi per ERC Starting e Consolidator" led by the Editor at the University of Milan, together with the support from the Fondazione Cariplo and Regione Lombardia (Project 2016–0994 led by Silvia A. Conca Messina).

Sarah Jane Christopher translated and revised the contributions collected in the volume.

The book is dedicated to Filippo.

Part I

Features and Evolution of the Regional Economy

An Introduction

1 Lombardy's Development in the Long 19th Century

Silvia A. Conca Messina

Introduction

The population of Lombardy nowadays stands at ten million, accounting for 16.6% of Italy's total but occupying only 8% of the country's total surface area. Situated in the heart of northern Italy at the foot of the Alps and the centre of the flat Po Valley, the region enjoys a privileged position as the principal hub for transport routes connecting the Mediterranean with northern and central Europe. Lombardy has an area of 23,860 km^2 with almost equal areas of plain (around 47% of the region) and mountains (41%), while the remaining 12% is hilly. This is Italy's most prosperous region, and one of Europe's most important economic areas due to its industrial and financial strength and a diversified economy that includes some of the continent's most productive agricultural systems.

The economic role of Lombardy was decisive in completing the political *Risorgimento* with an economic *Risorgimento*. Between 1800 and 1914, the period on which this book focuses, the region was one of those driving the Italian economy. Around the middle of the 19th century, it began the transition from an economy based on agriculture and commerce towards an economy increasingly based on industry; this process accelerated from the 1880s and was especially marked between 1896 and 1914. The region's population, which had been a little over 11% of the national total in 1800 (just over 2 million out of a total of 18 million) rose to over three million by 1860 and stood at around five million on the eve of WWI (13.5% of the total population of the Kingdom of Italy).

The principal driving force of Lombardy's economic development was its relations with northern Europe, consisting of an intense trade system even before Italian independence and national unification. Lombardy's agriculture was traditionally strongly market-oriented, and together with silk it gave a decisive contribution to regional growth. However, equally important was the variety of the region's economic activities and its manufacturing sector organised in specialised centres. These complemented each other's activities and generated an intense internal trade, facilitated by an articulated regional transport system on land and via its waterways.

DOI: 10.4324/9781351058711-2

During the first half of the 19th century, various industries forged ahead, then, especially after Unification, the factory system and modern industry became firmly established, also due to the construction of the railway network, the formation of a national market, and the expansion of the international markets. Towards the end of the century, the first power stations began to generate electricity, allowing Lombardy to overcome its energy problem, since the lack of coal had limited its industrial development. At the centre of the region's production system, which for decades had been based on the silk industry, the regional capital Milan also transformed its economic structure and developed its financial activities following Unification, becoming the country's economic capital. Over the century, this transformation was reflected in the changing composition of Milan's business community, including foreign businessmen and investments, and aristocrats engaged in business alongside religious and educational institutions.

The chapters of this book deal with the various aspects of the region's economic development and highlight Lombardy's contribution, which was decisive in many ways, to Italy's second economic renaissance. Following their participation in the political Risorgimento, Lombardy's businessmen overcame the silkworm disease known as *pébrine*, invested in new industries, expanded credit systems and improved the banks, and conquered the domestic market. At the same time, they linked the region's future more closely to that of the rest of Europe. The creation of a new economic, technical, and scientific culture accompanied the development of manufacturing and took place within the great transformation of Europe into a modern industrial society.

The acceleration of industrial development in Lombardy began in the 1880s, aided by the railway tunnels under the Alps and by the new sources of power, but these innovations took root on an economic structure deeply embedded in the traditional enterprise of the region's population, which was capable of making the best use of the local resources despite centuries of foreign domination by Spain, Austria, France, and again by Austria. Lombardy's companies became the leaders of the Italian engineering industry, launched the first stages of the chemical industry, conquered the national textiles market, transformed the iron and steel industry, and created a modern hydroelectricity sector. This important progress took place in very specific conditions of economic equilibrium: industry did not actually develop to the detriment of agriculture, which made progress of every kind, involving both the small hill farms and the great commercial farms on the irrigated plains of southern Lombardy. Tradition and innovation appeared to complement each other harmoniously. In social terms, however, the living conditions of the peasants probably worsened, forcing all members of the family to perform many different kinds of work, although this only partially alleviated their miserable living conditions.

Between the 18th Century and the Napoleonic Period

The transition from an agricultural to an industrial society began in Lombardy during the first half of the 19th century, a long-term development that began here before it affected other areas of Italy, due above all to the long-term capital accumulation in agriculture achieved with exports of primary goods to industrialising Europe.[1] Despite the delays that accumulated during more than three centuries of foreign domination, and other obstacles to progress, such as the lack of raw materials and coal and an underdeveloped banking system, the region actually had been developing some strengths since the early modern age.[2] The first of these was the region's diversified agriculture, with some modern characteristics, such as secure property rights, free agricultural workers, and the possibility for members of all social classes to become landowners. On the irrigated southern plains there were capitalistic farms managed by tenant-entrepreneurs who had been early adherents to advanced agricultural methods and continuous rotations. However, this agricultural land was not a gift of nature: the huge input of capital for the construction of canals, land reclamation and adaptation were achieved through centuries of diligent work. The farmlands of the plain were an "artificial heritage", the result of a process of "constructing agricultural land" that had achieved a remarkable level of excellence. As highlighted by Gianpiero Fumi in this book, this highly productive commercial agriculture mainly supplied wheat, rice, cheeses (*grana*, *stracchino*, *gorgonzola*). Further east, irrigation was less developed in the area between the rivers Adda and Mincio, although it would catch up by the end of the century. There was also less investment of capital and smaller farms and crops. Silkworm farming was important here, together with flax and hemp.[3]

Silkworm farming using mulberry leaves flourished mostly (but not exclusively) on the "dry" northern plain and hills of Lombardy, and it was closely linked to the reeling process of extracting raw silk thread from the cocoons. This business fed the silk export industry and employed the peasant workforce in just two months of the agricultural year after the cocoon harvest with which it was closely connected. The next stage, known as throwing, was already mechanised; the expansion of this sector was linked with the use of running water and became concentrated in centres of different sizes across all the foothills of the Alps. Both activities were the origins of a raw and thrown silk industry that would become increasingly important in the 19th century.[4]

During the second half of the 18th century the population grew relatively slowly, but increasing demand from the urban and foreign markets meant that farms and merchants had good opportunities to make money. For example, prices of the most important cereals rose in Milan by 50% in the three decades after 1756–65, and cocoons followed a similar trend. This led to a rapid intensification of silkworm farming and an increase in

production of around 40%.[5] The irrigated plain area increased its output primarily of cheese and rice. Agriculture expanded also because of the "enlightened" reforms implemented by Austria, further consolidating the aristocratic landowners and commercial middle class. These legal reforms abolished the remaining privileges of birth and class, favouring landholding by tenant-entrepreneurs, and fostering an attitude that encouraged commerce. Lastly, but not least in terms of importance, the new Austrian land register imposed land taxes based on income determined by the cadastral estimate, and this encouraged landowners to invest. Consequently, they ploughed up uncultivated land, reclaimed unused areas, and took advantage to buy lands that had been taken from the Church. As noted by Andrea Locatelli and Paolo Tedeschi, given that capital previously frozen in the purchase of public offices and public loans returned to its owners, some of this money was invested in agricultural improvements.[6]

Varied and differentiated manufacturing activities were carried out in specialised districts. As was the case all over Europe, these were mostly located in areas where agriculture was poor so that manufacturing supplemented the agricultural work carried out in the summer. Population density was generally high in the foothills of the Alps and on the northern plain. Raw materials and the running water used to provide power allowed the processing of semi-finished products and consumer goods. These, together with food products, were produced for the region's urban centres and the international markets. There was already a dense system of complementary trading activities in Lombardy's economic area.[7] As already mentioned, silk throwing was carried out in places where water could provide energy, while weaving became concentrated in the cities of Como and Milan. The Olona Valley district was known for centuries for its cotton and linen processing, while other areas concentrated on manufacturing paper and leather. At Como and Lecco, local iron ore deposits enabled the production of semi-finished goods and a wide range of products (nails, wire, spades, etc.). Further east, in the provinces of Bergamo and Brescia, small iron deposits provided the raw material for the manufacture of firearms and bladed weapons, while paper mills and woollen mills developed in other locations.[8] What is striking when observing the remarkable spread of industrial districts in northern Italy, as underlined by Alain Dewerpe, is the strong persistence of centuries-old traditions dating back to the early modern period or even further back.[9]

During the 20-year Napoleonic period (1796–1815) there were no important changes in the industrial structure of the region. This was not always a positive time for Lombardy because the economic policy of the new rulers attempted in every way to avoid problems for French industries, which it favoured whenever possible. Nevertheless, the cotton manufacturers gained in strength, and the silk industry demonstrated remarkable resilience by circumventing the restrictions to find alternative

outlets to the French market. The existence of a larger domestic market under French rule favoured engineering and the iron and steel industry in the districts of Lecco, Bergamo, and Brescia. This was mainly driven by the military requirements of the state. Agriculture was stimulated by the need to feed the troops and their animals, the textile industries by the army's need for woollen cloth (Bergamo), linen and cotton (Olona Valley), while the iron and steel industry and engineering were driven by the need for arms and munitions (mainly from Val Trompia) or other metal goods (Val Sabbia). The limits of Lombardy's industrial system became evident because it was unable to produce great quantities of standardised industrial goods. However, this meant – at least to some extent – the introduction of new methods to improve steel quality and new forms of organisation, given the need to process enormous quantities of raw materials to meet the needs of the French administration. Overall, integration between Lombardy's different areas and manufacturing activities was strengthened.[10]

During the Napoleonic period, specialised agricultural production was revitalised by the region's inclusion in the French Empire, which provided an outlet for the products of the irrigated farmlands. In a period of rising food prices, farmers further increased their output and exports of their commercial products expanded: rice, wheat, cheeses, and butter. This positive trend contributed to the successful sales of expropriated Church lands, causing an important change in the distribution of landed estates and their commercial exploitation. Around 400 million *lire* of the time were used to purchase this "national property" put on sale, mostly rural buildings and agricultural estates that had belonged to religious bodies. Although the production systems and tragic living conditions of the peasants did not change, the property itself underwent important developments. Since prices were good, the aristocracy bought up the best lands on the southern plain area, and many members of the middle classes also purchased land, in far greater numbers than the aristocracy. The new owners were definitely more innovative than their ecclesiastical predecessors and more attentive to market trends, although it must be noted that Lombardy's aristocracy always demonstrated a definite interest in business, technology, and innovation and acted with the same entrepreneurial spirit as did the middle-class landowners. Irrigated agriculture became the established system on the southern plain, whereas the "dry" areas of the northern plain and hills took advantage of the "silk opportunity" which would mark the Austrian Restoration period.[11]

The Austrian Restoration (1815–59)

When Austrian rule over Lombardy was restored, the region now included the provinces of Bergamo, Brescia, Crema, and Sondrio in its territory and so its population stood at just over two million. This would

rise to around three million by 1860, on an area that had almost trebled in size since the reign of Maria Theresa.[12] Lombardy and the Veneto now belonged to the same Kingdom, but their economies would long remain largely unintegrated. The Austrian approach to economic policy was based on mercantilism and protectionism, aiming to expand industry within its dominions and favouring the specialised and complementary production of the Empire's different provinces. The region never actually entered a wider imperial economic circuit, and many goods were often obtained illicitly. The domestic consumer market remained limited, and the economy was once again subordinated to the political, fiscal, and customs policies of its rulers. Lombardy accounted for 7–8% of the Empire's population (2,843,000 out of 37 million in 1857) and was one of the wealthiest and most profitable areas under Austrian control. It was not only the Empire's most densely populated region with the largest number of businessmen but also the area that paid the most customs duties. Lombardy actually paid a much greater amount of tax than the Austrian government spent on the region; between 1831 and 1856, just over a third of the revenue collected from Lombardy's taxpayers was spent on the region, while the rest remained in Vienna.[13]

In this context, writes Bruno Caizzi, there were fewer possibilities to follow the example of those nations now busily laying the foundations of their enormous industrial development. The Austrian authorities never lost sight of their political control over the country, and throughout the entire Restoration period they prevented the establishment of a commercial bank for Lombardy, because the existence of independent financial institutions would have constituted potential threat to their control.[14] However, at least before 1848, the Austrian rulers did actually introduce several measures that favoured some of the region's industries, starting with cotton, which enjoyed a certain level of protection. Up until 1848, the land tax was not a heavy burden on property incomes. Furthermore, as explained by Luca Mocarelli, during the decades before the mid-1840s, the road system was further improved in connection with significant development of Lombardy's economy, so that by 1850 the region had over 21,000 km of roads.[15] However, in the last period of Austrian rule following the 1848 risings, there was a notable slowing in the construction of railways, which were the principal driving force of industrial progress, of transport, and banking. While the countries of western and northern Europe witnessed a railway boom, which then drove connected industries, Lombardy had just a few fragmentary lines, and Milan was connected by rail to Venice only just before the War of Independence (1859). Alongside their special interest in improving the road system, the Austrian authorities also attempted to encourage public education, introduced advanced commercial legislation, and improved the mortgage system. This was a very widespread means of obtaining finance also because land ownership represented extremely solid guarantees due to rising land prices driven by the silk industry.[16]

The aristocracy maintained a pre-eminent social and economic position in agriculture, which was Lombardy's principal economic sector. They probably possessed around 30–40% of the farmlands on the plains and hills.[17] In their great landed estates on the lowlands, as mentioned, farm management was most definitely capitalistic; the aristocracy based its wealth on modern forms of ownership and production and had an individualistic mercantile and "bourgeois" mind-set. Together with some of the middle class, the aristocracy constituted a moneyed elite who invested in agricultural improvements, in the silk trade, and in every other activity connected with the primary sector. Unlike their Austrian counterparts, the region's aristocracy were increasingly less a part of the state and more socially mixed with the great landowning bourgeoisie and the commercial and industrial middle class, with whom they shared the same progressive outlook and strong interest in innovation.[18]

Agriculture underpinned the wealth of the region.[19] The southern irrigated plain between the Ticino and Adda was the most advanced area. The commercial farms already mentioned were run by tenant-entrepreneurs who signed contracts for 9–13 years; they invested a great deal of money and paid their workers a wage. In the provinces of Milan, Pavia, and Lodi, crop rotation systems, fodder crops, cattle farming, milk, butter and cheese production were made possible by an advanced irrigation system, long-standing experience, and extremely advanced cultivation methods. The "high-farming" system of the southern plain expanded a great deal during the Restoration, increasing its production and exports. The variety of goods produced allowed it to respond to market fluctuations, such as falling cereal prices between 1818 and 1825. In this kind of situation, it was possible to increase the output of cheese and dairy products, and then to increase the production of cereals again whenever rising prices made it profitable.

The second important production system involved the dry plain and hills. Although soils did not allow high cereal yields, in the two decades before 1848, the peasants were able to achieve much higher production levels than before. However, the central element in this growth was the unprecedented expansion of silkworm farming. Landowners took advantage of high population density to impose a contract known as *fitto misto a grano* (rent mixed with wheat), which led peasant families into constant debt, allowing the landowner to take possession of all the silk cocoons they produced. At first glance it may appear surprising, but it was actually in these very areas of relatively arid land with impoverished peasants that Lombardy's agriculture achieved its highest levels of profitability.[20] There was such a "silkworm mania" (*bacomania*) that croplands were cleared to make way for mulberry trees, silkworm farms, and reeling. Every available area of land was used and the landscape of Lombardy in the 1840s was marked by at least 17 millions of mulberry trees.[21]

Lombardy was the leading supplier of silk to the rest of Europe. The growth of the international demand for raw and thrown silk and their

rising prices provided an extraordinary opportunity for all the region's social classes engaged in silk production and trade, from mulberry plantations and cocoon farming to reeling, throwing, and the sale of semi-finished products on the European markets. Cocoon production in Lombardy stood at 8–9 million kg in 1815 but had risen to almost 23 million by 1847; in the 1850s, the output of a "reasonably good year" was estimated at between 20 and 25 million kg, worth around 80 million *lire*; this was more than double the output of Piedmont. The number of reeling stoves trebled between 1811 and 1835 and increased again during the next two decades with the expansion of steam reeling factories. Lombardy's 3,000 reeling plants were scattered across the region, at times still on the same landed estates, but there were now also some highly advanced production structures for both reeling and throwing, which set the region among the most technically advanced areas.[22]

In short, silk was the *staple product* of the Italian economy in the 19th century, an essential strategic sector that stimulated the emergence of financial brokers, made entrepreneurs willing to take risks, fostered entrepreneurial attitudes, and provided work outside agriculture: a series of "external economies for further industrial development".[23] Silk also generated remarkable profits after Unification, to the extent that silk exports alone continued to account for around a third of all exports from the Kingdom of Italy. Operating in a specialised agricultural region engaged in a gradual process of integration with the other European markets, Lombardy's businessmen intensified their financial relations, circuits, and commercial habits, which were essential elements for economic growth. The studies of Stefano Angeli, Stefano Levati, and Roberto Tolaini on the banking and silk merchants and on the business class have shown that the interpretation of Greenfield, whose negative evaluation of Lombardy's business class described its members as traditionalists adverse to risk-taking, does not actually correspond to historical reality.[24]

The highly profitable silk industry and manufacturing density of the foothills was one side of the coin, and the extremely poor peasant class was the other. Rural families managed to survive by supplementing their agricultural income. Temporary emigration to find work elsewhere was one strategy, and many also performed other activities alongside their agricultural work: cottage industries, carpentry, and silk reeling or throwing. Even skilled craftsmen were usually craftsmen and farmers at the same time: blacksmiths, tailors, and woodworkers. A family of worker-peasants in which every member (men, women, girls, and boys) was used to the division of labour between different types of work and to performing many kinds of work is one long-term aspect of 19th-century Lombardy. The availability of a cheap workforce also able to work in reeling and spinning factories was further increased by changes in agricultural contracts, which impoverished peasant families and drove them to seek other sources of supplementary income. The women and children

went to work in the silk throwing and cotton factories, and masters found a workforce that was both flexible and plentiful, given the high population density of the foothills. The industrialisation of the Lombardy hills and northern plain took place without driving the workforce off the land. This aspect was well understood by economist Arrigo Serpieri, who wrote that "industrial work complemented agricultural work".[25] Conversely, in the inland regions of southern Italy, where extensive cereal farming and vineyards required 3–4 months of work per year, peasants were not involved in specialised manufacturing activities aimed at foreign markets to the extent that mention has been made of "enormous peasant unemployment" in the *Mezzogiorno*.[26]

In this way, in northern Italy and particularly in Lombardy, the development of peasant family organisation and strategies bred an industrious attitude aimed at exploiting every economic opportunity. At first, the performance of many different kinds of work was necessary for survival, but it then became a "cultural" habit that is still evident today in the Lombardy provinces. Some assert that the model of the worker-peasant family performing many different kinds of work persisted over time and may have been decisive in the formation of a mind-set favouring independent work and a widespread culture of small business, whose results would arrive over time.[27] As will be seen, the distinctive features that persist over time in these areas have always included small- and medium-sized businesses, also in the development of the large- and medium-sized companies.

This involvement in many different kinds of work may explain why, until the 1870s, cotton weaving (and of other fibres) continued to rely on home weavers using handlooms, although mechanised spinning had existed since the 1820s, and relatively up-to-date machinery had been available since at least the 1840s. The cotton masters followed an independent course from the Milanese private bankers who invested in the silk trade. They mechanised some production stages connected with spinning, continued using home-weavers, and conquered the domestic market for low-quality yarns and the coarser types of cloth, gradually improving the quality and the variety of the fabrics they offered. The factory system was introduced, starting with the Olona Valley district, and this innovative (but small) industrial system flourished to the extent that there were around 150,000 spindles in 1859. The region was still predominantly agricultural, but the silk and cotton mills made it possible to accumulate extremely large fortunes, as demonstrated by the notarial deeds of the time.[28] However, silk and cotton were not the only kinds of manufacturing which introduced innovations, mechanised production, and improved their products during the Restoration period. Modern linen mills were established at Villa d'Almè, Melegnano, and Milan, with factories financed by syndicates of businessmen from Milan or the Olona Valley. It is no coincidence that the owner of the first cotton

company, Andrea Ponti, was the founder of the *Linificio e canapificio nazionale* (Nation Linen and Hemp Mill, 1873), which would become one of Europe's leading manufacturers of linen and hemp. In contrast, although the woollen industry was still quite important in the provinces of Bergamo and Como during the Napoleonic period, it then fell into decline during the following decades and remained relatively limited.

Metallurgy had been one of the keystones of traditional industry in Lombardy, but the shortage of fuel and the lack of mineral deposits impeded expansion. This explains why many small businesses in the various provinces decided to use scrap metal, even imported from other regions. The districts of Lecco, Bergamo, and Brescia could call on a plentiful and cheap workforce, and this enabled the establishment of specialised poles. For instance, Valtrompia produced firearms and Valsabbia agricultural implements, while the Lecco area manufactured nails, chains, springs, and tools of various kinds. However, the offer of Lombardy's metallurgy sector did not succeed in entirely meeting the demand for steel and finer types of iron and had to confront overpowering competition from Austrian producers in Styria and Carinthia. Here again, as in other sectors, the 1840s were a period of change, driven by rising demand and the initiatives of businessmen like Giorgio Enrico Falck, Giovanni Andrea Gregorini Jr, and Giuseppe Badoni. As emphasised by Valerio Varini and Sergio Onger in this book, these industrialists established their activities in industrial districts that drew on a heritage of skills handed down by successive generations, where work was highly intensive, and fixed capital expenditure was limited. These were the characteristics underlying their resilience until the Liberal period, when they established great modern companies. At the same time, the demand from thousands of silk factories and cotton mills for certain machinery drove development of the first mechanised mills; here again, as in other sectors, foreign businessmen provided a decisively important input. Factories were built in Milan, including Elvetica, and the first core structure of Breda was established by Frenchman Joseph Bouffier with capital provided by aristocrats and silk traders like German-born Enrico Mylius. Other foreign entrepreneurs promoted factories manufacturing materials used to construct railways, steam boilers, presses, and materials for gas lighting. In the provinces of Como, Bergamo, and Brescia, traditional workshops coexisted alongside the first modern factories.[29] Lastly, especially in the two decades immediately prior to Unification, big companies were established in various other sectors, manufacturing goods like paper, pottery, and buttons. Traditional manufacturing prospered at the same time and would then develop during the Liberal period into important firms producing chemicals, spirits and liquor, carriages and musical instruments, alongside printers and publishing companies, including Ricordi, which was then Europe's leading music publisher.[30]

Overall, the slow process had begun that would gradually take Lombardy out of its traditional economy based on agriculture and commerce, as was still the case on the eve of Unification. This would be achieved via the expansion of the silk and cotton industries and the establishment of the first factories engaged in engineering and other sectors. A growing number of entrepreneurs were involved in both old and new manufacturing sectors, changing the composition of the Milanese business community, and the social structure of the region's districts reflected these changes. They brought a widespread entrepreneurial outlook that certainly existed in other regions of Italy, but probably not to the same extent and with the same level of articulation, or so deeply rooted in local culture.

In the Kingdom of Italy (1859–96)

In June 1859, after 324 years under foreign rule, Milan once again became mistress of her own destiny. Lombardy's elites, who consisted of the landowning nobility and the commercial and manufacturing classes, played an active part in the struggle for independence from Austrian rule and were among both the moderate liberals and the democratic-republicans. Both groups wanted independence, but those who most represented the ideals of Lombardy's Risorgimento aspired to a federal state or, at least, to a great degree of autonomy. Even the Austrian authorities had allowed the direct election of mayors, and the aristocracy and commercial classes had led the local administrations. However, the new order introduced by the Piedmontese was centralistic, and Lombardy's citizens were disconcerted, feeling that they were inadequately represented in the civilian and military administrations or central political bodies of the new Kingdom.[31]

The commercial and manufacturing classes expressed a fervour to come together in associations that had begun in the previous decades and led to economic initiatives in which Milan's entire business community had participated, including the aristocracy. These included, for example, the local savings bank (*Cassa di Risparmio delle Provincie Lombarde*, Cariplo), the Lombard Agrarian Association of Corte Palasio, the project to establish a bank of discount, the silk bank (*Cassa interinale per il commercio serico*), participation in the construction of the Milan–Venice rail link, and other initiatives of various kinds.[32] Throughout the century, Lombardy's ruling classes mobilised energy and financial resources to create enterprises and institutions that were fundamental in forming the training and technical–scientific skills required for the region to spearhead Italy's material progress. Particularly important among these institutions were the *Società d'incoraggiamento d'arti e mestieri*, the Chamber of Commerce, and the Lombardy Agrarian Society, together with other training initiatives. The foundation of Milan's *Politecnico* in 1863 was decisive, since it trained the engineers and entrepreneurs (including Cesare Saldini, Ettore Paladini, Giovan Battista Pirelli, Bartolomeo Cabella, and Angelo

Salmoiraghi), who would enable the region to advance rapidly in engineering, optics, electricity, and the other industries that flourished after the 1870s, as emphasised by Giorgio Bigatti.[33] These and other initiatives also involved the most important members of the aristocracy, who joined the great bankers, merchants, and industrialists to form a kind of "party" that united the region's ruling classes. As mentioned already, the aristocracy were extremely attentive to innovations, to the prudent management of their landed estates, and to market trends, which explains the communication between two social classes that have traditionally been represented as opposing each other. In actual fact, the commercial, banking, and industrial classes and aristocracy communicated with each other and belonged to the same social circles. Most important of all, they shared an entrepreneurial outlook interested in profit, and they were extremely interested by new technology and practical skills (in agriculture as in industry).[34]

The unease of the Milanese business community over the hastiness with which the new Kingdom constructed a centralistic state was probably increased by the particular economic conditions of the time. Some reasons for the climate of pessimism were actually shared with the rest of the Italian Peninsula. In the first decade of the new Kingdom, Italy was lagging seriously behind the strong economic growth of central and western Europe. Railway construction was the most important force driving progress in industry, transport, and banking in the period 1850–70, but Italy's railways expanded very slowly. Italy's Unification was followed by general public disappointment, because comparison with the most advanced European countries showed that Italy's social and economic conditions placed it outside the mainstream of development. Per capita income was around half that of Great Britain, and two-thirds that of France; life expectancy was 30 years, four out of five Italians were illiterate, income disparity was very pronounced and consumption very limited. In the first 35 years of the Kingdom until 1896, the divide between Italian productivity and income and the most advanced areas of western Europe actually widened instead of narrowing. Of course, this was precisely when the nation was being constructed, the domestic market unified, and the new institutions established; substantial investments were required for the construction of railways and other infrastructures, for monetary and fiscal unification, the standardisation of weights and measures, for new civil and commercial legislation, and for the expansion of literacy, all of which would take decades to complete.[35]

Nonetheless, as is known, there was not *one* but *several* "Italian economies". Lombardy actually differed sharply from the other regions, especially from those of the *Mezzogiorno*.[36] Estimates regarding the first years of the new Kingdom are very uncertain, but there was a very pronounced north–south divide in terms of social conditions that was decisive for development: integration of the markets, foreign relations, communications, levels of human capital, availability and distribution

of capital, law and order, welfare and social security institutions. Above all, Lombardy had a more articulated society with a greater degree of social mobility, and wealth was probably more evenly distributed among the social classes, despite the poverty of the peasants. In the 1850s, in a region with a population of 2,800,000, there were 350,000 landowners, according to Stefano Jacini, but even the majority of farmers who were not actually landowners were sharing production. There was also a "huge number of wealthy traders and industrialists".[37] The region's *Cassa di risparmio* expanded its range of operations, abandoning its role as a bank exclusively concerned with land and increased its assets from 94 million to 207 million *lire* during the first decade after Unification.[38] In 1880 its assets exceeded 300 million, but what is important here is that the money deposited by Lombardy's citizens in the savings banks, excluding the banks of issue, postal savings banks, and cooperative society banks, accounted for 42% of the national total in 1877 and 38% in 1881 (376 million out of 979 million).[39] In 1885, while it was home to 12–13% of the Italian population, Lombardy's bank deposits still contained a third of all the money in these banks, without counting other institutions (the *Monti di pietà*, rural banks, *opere pie*), which were deeply rooted in the regional fabric.

The *opere pie* were a pillar of the Italian welfare system, providing welfare worth 50–60 million *lire* a year to those in need during the 1870s and 83 million in 1900.[40] In Lombardy, they mostly provided hospital care and education. The total wealth of all the Kingdom's *opere pie* amounted to 1.19 billion *lire*, of which 275 million *lire* in Lombardy alone (particularly in the provinces of Milan, Como, and Brescia), a region that paid over a third of the taxes of Italy's *opere pie*.[41] The system of social insurance for the working population was based on mutual aid societies, which were mostly in the north of Italy, and once again Lombardy was the region with the largest amount of capital collected. In northern and central Italy, members were provided with about five days of sick pay each, but just one or two days in Sicily and the Naples area.[42]

With regard to education, while 78% of Italy's population was illiterate in 1861, the level was just 58% in Lombardy and similar in Liguria and Piedmont. These conditions improved a great deal across the Peninsula,[43] but progress was slow. There was also a persistently sharp disparity between urban centres. In 1871, the provinces of Milan and Turin had illiteracy levels of 39%, Rome 60%, Florence 65%, Naples 69%, and Palermo 73%. Progress was more rapid in northern Italy. By 1871, illiteracy for the population aged from 10 to 20 had fallen to 31% in Lombardy and 28% in Piedmont but stood at 79–81% in the Abruzzi, Molise, and Puglia, 73% in Campania, and 80% in Sicily.[44] Concerning the higher levels of education in the 1870s, Lombardy's high school education was unremarkable, but the numbers of young people enrolled in its technical schools made it the national leader in this area.[45] It is no

coincidence that Milan was the Italian city with the largest number of publications dealing with business (like *Il Sole*), industry, and agriculture (around 40 in 1880), together with humour, illustrated news, and fashion (another 36).[46]

The official data in the *Annuario statistico italiano* regarding civil, commercial, and penal justice show a sharp divergence between Lombardy and southern Italy. In 1888, civil litigation involved just 17 inhabitants per 1,000 in Lombardy, compared with a national average of 66 (43 in Piedmont, 69 in Campania, Molise, and Basilicata, and well over 100 in the other regions of the *Mezzogiorno*).[47] Three killings were reported in Lombardy per 100,000 inhabitants, compared with the national average of 13, and peaks of 26–27 in Calabria and Sicily and 24 in Campania, Molise, Basilicata, and Rome. Crime rates involving offences against persons and property were also much lower in Lombardy than in the *Mezzogiorno*.[48] In the south, moreover, criminal organisations like the *mafia* and *camorra* drained resources and impeded the establishment of relations based on mutual trust and cooperation between institutions, citizens, and business.[49]

Together with its social structure, widespread savings and substantial amounts of capital derived from agriculture and commerce, and a level of cultural and socio-institutional development that differed from that of the southern regions, Lombardy was also favoured by other more strictly economic factors. These included its road system, despite the delay in railway construction, the region's tradition of entrepreneurship, and its long-established manufacturing districts. Considering the textile industry, which in 1861 probably constituted over 30% of Italy's total industrial output, Lombardy had three-fifths of Italy's mechanised linen and hemp spindles, almost a third of its mechanised cotton spindles, and two-thirds of all its workers involved in silk throwing and the connected energy sources. Some historians have seen a less evident divide regarding agriculture, but here it is sufficient to consider that output per hectare in Lombardy was estimated to be worth 238 *lire*, compared with a national average of 104,68 in the Papal State, and 81 in the Kingdom of the Two Sicilies. These data have been judged as debatable, but the general disparity in profitability was also confirmed by the government's standardisation commission (*commissione governativa perequatrice*) of 1861, which ascertained the land income for taxation. With a taxable agricultural area of 1,680,900 hectares, Lombardy paid a total of 19.4 million *lire*, or 11.58 *lire* per hectare, compared with the 6.12 *lire* paid in Parma and Piacenza, less than 4 *lire* in Piedmont and Liguria, and far less in the rest of the country.[50]

The existence of enormous differences between the north and the south naturally had effects on the economy's ability to respond to the challenge of modernisation. Nonetheless, the solidity of the region's social and institutional structure was severely tested by the serious crisis in the

first years of Unification, by which it was particularly affected for specific reasons. First, its detachment from Austria and the failed annexation of the Veneto, which eventually took place in 1866, deprived Lombardy of markets it had previously supplied with a substantial amount of goods (such as cotton cloth); this limited the advantages that its geographical position potentially conferred. Second, the sudden introduction of free trade and lower customs duties favoured English goods, especially in the *Mezzogiorno*, so that expansion of the domestic market did not actually give any immediate benefits to Lombardy's enterprises. Third, but even more importantly, the silkworm disease *pébrine* (or "pepper disease") reduced cocoon harvests by as much as 50%, and this crisis lasted until 1869–70. Fourth, silk weaving also plunged into a severe crisis when fabrics produced in Lyon found their way onto the Italian market. Fifth, the cotton industry came to a standstill that closed many factories in Lombardy's cotton districts up until 1866 due to the *cotton famine* caused by the Civil War in the USA. Another factor was the enormous growth of the public debt, which drove up interest rates on government bonds (as much as 7–8% a year) and loans to the municipalities, so that less capital was invested in agriculture and industry. Later on, the sale of nationalised Church property also subtracted capital from investment in productive activities. The only sector that seemed to enjoy an advantage during this period seemed to be the dairy industry, which saw its prices booming (also due to the introduction of the "forced circulation" of the currency, which then drove the demand for Italian products abroad in addition to fostering the process of monetary unification).[51] In general, however, Lombardy withstood the difficulties of the period rather better than other Italian regions, and the capital available remained in any case substantial, judging by the abundant savings deposited in the region's *Cassa di risparmio*. After 1866, the completion of the first backbone of the railway network, the conquest of the Veneto, the end of the cotton famine, and victory over the silkworm disease heralded a period of regained confidence. In the space of a few years, Milan became the Peninsula's biggest railway hub, with constantly growing volumes of passengers and goods.[52]

The victory over *pébrine* merits a particular mention, because the silk industry was connected with every aspect of the economy even during the Liberal period. Its importance can be gauged by considering that between 1868 and 1902 Italy's share of the world silk trade was between 40% and 50% of its total value; between 1863 and 1910, silk products accounted on average for over 30% of the value of all Italian exports. Lombardy had between 53% and 59% of all the country's steam reeling plants and almost 79% of its throwing mills. Already in the early 1870s, almost all exported silk was thrown, and the relative weaving industry was concentrated in Milan and Como, which meant that Lombardy received and processed most of the Kingdom's raw silk. Milan led the silk industry,

and the city was home to the largest companies, which had numerous technologically advanced factories producing thrown and twisted silks across the entire region.[53]

The silkworm disease was a threat to the survival of Italy's and Lombardy's main source of wealth. Many silkworm farmers in the other European countries abandoned the business. In France, for example, many mulberry plantations were converted into vineyards, and silk production was permanently halved. Despite its favourable climatic conditions, Spain reduced its production of raw silk by 70% over a period of 30 years. On the other hand, the importance of silk in Lombardy's regional economy was so pronounced that all social groups involved mobilised their efforts for several years. The aim was to replace infected native silkworm eggs with new breeds from the Ottoman Empire, China, and Japan. Then, around 1870, with the spread of centres specialised in cellular egg production, the disease was overcome. This was a source of pride for Lombardy's entrepreneurs, who had in the meantime embarked on a radical structural overhaul by investing in updated machinery and introducing a series of innovations that consolidated the region's world leadership in the organisation of production and in product quality.[54]

In the early 1870s, the Franco-Prussian War led to a period of growth and rapid price rises, creating an effervescent climate for business and investments in shares. Large industrial concerns operating in other regions of Italy moved their head offices to Milan, where there was a real boom with joint-stock companies established in different sectors, but with the financial input mainly provided by the local economy, as writes Stefania Licini: food, silk scraps, cotton, wool, linen, chemicals, pottery, iron, and banking.[55] Although initiatives born out of pure speculation also existed, the ensuing crisis of 1873 was much less of a disaster in Milan than it was in other Italian cities, whether in banking or industry.

Starting in the mid-1870s, Lombardy saw a decade of relative progress in agriculture, although the peasants remained extremely poor. The use of chemical fertilisers was minimal, a rice crisis struck at the start of the 1880s, and there were technical deficiencies in cheese manufacturing, especially concerning the production of *grana*, despite a substantial increase in the numbers of dairy cattle. However, industrial progress was more significant. Lombardy's silk manufacturers, as already mentioned, increased their level of mechanisation and now had factories that were active all year round. The Italian cotton industry increased its consumption of raw cotton by 7.8% a year between 1881 and 1887, accelerating above all the transformation of the spinning sector and benefitting from the 1878 tariff. Use of mechanical looms increased, although the real acceleration would take place only in the new century.[56] During these years, the cost of raw materials and fuel (raw cotton, coal) had not yet dropped to the levels of the following years, and there was no transmission of electricity. The industry that made the greatest progress was

engineering, with the establishment of firms like Franco Tosi and Breda. The sector was not yet sufficiently consolidated, but new factories developed alongside the old plants to produce materials for the railways (the railway system grew from 4,000 to 12,000 km in 20 years), steam boilers, and a substantial number of factories specialising in machinery and equipment for the textile industries.

One of the strongest impulses came from the city of Milan, which was becoming Italy's greatest market.[57] It had no large factories, because these were located in places with flowing water where the workforce was cheap to employ, but it was where the major companies had their head offices, even firms from outside the region itself. Milan had become Europe's leading centre for the silk trade and received raw silk from the other regions of Italy and abroad. By 1880, a substantial share of Italian foreign trade passed through Milan, while the municipality modernised its infrastructures and expanded the city's tram system and various types of railway.[58] Lombardy's chief city was home to thousands of workshops and firms of various sizes, especially in the sectors that required a skilled and specialised workforce: furniture, velvets, ribbons, carriages, and special fabrics. Elisabetta Merlo has highlighted the importance of the activities connected to fashion, with thousands of workshops and small firms producing textiles, shoes, trimmings, and buttons, together with the role of the department store established by the Bocconi brothers and the 1868 law giving the right to mark products.[59] The most important events in the development of the culture industry during the 19th century were the expansion of the publishing industry, especially of sheet music, and Milan's role (and that of *La Scala*) as the principal international centre for the production and diffusion of opera.[60] Furthermore, some large companies established new industries in this period, such as Vogel (chemical fertilisers), Pirelli (undersea cables, rubber etc., a joint-stock company from 1883), and Edison (electricity, 1884). However, it must be noted that the principal sources of the region's wealth in the 1880s were still agriculture and the silk industry.[61]

From the 1880s, the abolition of the "forced circulation" of the currency encouraged the influx of foreign capital and brought down the interest and discount rates. Banking was in rapid expansion, to judge from the data available on the millions of *lire* deposited, in particular in the *Cassa di risparmio delle province lombarde*. The banking system was characterised by savings banks (*casse di risparmio*), *banche popolari*, and small banks evenly spread out across the entire region, closely involved in the economic activities of the territory and able to accurately evaluate their variegated clientele of farmers, craftsmen, and business owners. In fact, from the first decades of the Liberal state, an articulated network of local banks had developed, and this enabled the region's different activities to acquire experience and skills that were fundamentally important for managing financial support to businesses. This development was

closely correlated with the long cycle of accumulation and the habit of saving that was a characteristic of the region. Before Unification, mainly because of the obstacles posed by the Austrian authorities, much of the region's finance passed through the *Cassa di risparmio* and private bankers (or else via mortgage loans), but from the 1860s, as explained by Pietro Cafaro and Giandomenico Piluso, a regional "system" began to form that consisted of different banks connected to each other and offering different levels of service to the regional economy. In general, these banks were not engaged in speculative operations but systematically gathered in savings. Then, in the final quarter of the 19th century, different local deposit banks were consolidated as cooperative societies or joint-stock ventures that were firmly embedded in the territory.[62] According to Giovanni Gregorini, this was certainly aided by the development of Catholic movement for social welfare, which was particularly active in tackling the contradictions of industrialisation. This meant involvement not just in welfare services but also in the cooperative banking movement, as in the case of the rural banks (*casse rurali*), which are now cooperative banks (*banche di credito cooperativo*), together with technical and professional training, and cooperatives involved in production and consumption.[63]

The persistence of the crisis regarding agricultural prices, pressure from industrialists, and the extension of protectionism in the other European countries led to a more "industrial" orientation of Italian economic policy, with the adoption in July 1887 of extremely severe import duties. The main beneficiaries of this were the cereal producers, together with the textile industry and iron and steel manufacturers, whereas the benefits for engineering were so small as to be almost non-existent. The period between 1887 and 1896 has been defined as "the darkest years" of the Italian economy.[64] Lombardy's variegated economic structure, with its many agricultural and manufacturing activities and production sectors, allowed it to withstand market fluctuations more easily, but development slowed. The trade war with France (influenced by political conflicts due to the renewal of the Triple Alliance against France) substantially reduced Italy's market outlets, and all European countries raised their import duties, and the prices of agricultural products continued falling as they had already done for several years. This affected the prices of wheat, rice, maize, silk, and even cheeses. The agrarian crisis was a turning point, because the worsening conditions of Lombardy's peasants drove many of them to emigrate *en masse* overseas. However, the crisis did not affect everyone in the same way, and there were some exceptions, like the southern plain area around Cremona. This area was in the process of moving towards capitalistic agriculture, with widespread land reclamation, commercial management by tenant farmers, fodder crops, and milk and dairy production. Lombardy's agriculture also reacted by introducing chemical fertilisers, improving the quality of its dairy products, and developing its network of irrigation canals. In 1892 came the inauguration of the

Villoresi canal, which provided irrigation water to 45,000 hectares of new agricultural land.

The collapse of the Italian banking system in the 1890s had much smaller repercussions in Lombardy, thanks to its peculiar banking structure, as described earlier. Moreover, the major textile firms had solid assets and were extremely prudent in their investment decisions. The silk industry was also affected by the fall in prices but attempted to halt the decline by making greater investments in weaving and was helped by the 1887 tariff. Cotton continued to advance because of private consumption; it was helped by the import tariff, but benefitted most of all from the fall in the prices of coal and raw cotton.[65] In the decade before the boom of the *belle époque*, even the linen and hemp industries made progress, albeit in a limited way.

Overall, despite serious difficulties, Lombardy was able to continue on its path towards industrialisation at the same time as its superiority over the other regions of Italy became increasingly marked. This is also demonstrated by the available data on industrial energy (led by the cotton industry), which increased even before the first hydroelectric power stations were built. In Lombardy, the use of steam engines grew rapidly and the region actually possessed half of the national total. The various industrial sectors became increasingly concentrated and further removed from agriculture, although, as explained earlier, there was never a complete or definitive detachment from agriculture in Lombardy.[66]

Dynamism in the *Belle Époque*

The years between 1896 and 1913 were a period of great expansion for the Italian economy, although the acceleration of industrialisation would only be truly completed at the end of WWI. This economic development did not involve the *Mezzogiorno* to the same extent, despite the progress it made during this period, and the economic polarisation of the northern and southern areas of the Italian Peninsula was actually accentuated. The reasons for this can be summarised in the dynamic advantages of agglomeration, meaning that there were greater returns from investments in areas that were already more industrialised.[67] In any case, considered as a whole, Italy managed to link itself to the expansion cycle of the international economy and enter into the small group of industrial nations. By the end of the 1890s, Italy's per capita GDP had fallen to 38% that of Great Britain, but by 1913 it had risen to almost 54%. Between 1897 and 1913, Italy's total and per capita GDP increased by an average of 2.4% and 1.6% per year, respectively, while industrial production grew at an average rate of 3.8% per year and agriculture by 1.7%. Between 1901 and 1911, worker productivity increased by 2.5% a year in industry and 2.2% in the service sector. Modern industry was mainly concentrated