Wine Production, Markets and Institutions in Italy Between Nineteenth and Early Twentieth Centuries: A Historical Survey

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Introduction

Italy is currently the world's largest producer of wine in terms of volume and, together with France and Spain—the two other main wine-producing countries—makes up about 80% of total EU production, which in turn amounts to 60% of the global offer. In the last fifteen years, the wine sector has gained increasing importance in the Italian agro-food industry and in international markets, testified by the fact that exports have more than doubled (Ismea 2017).[1] However, compared to the other two leading countries, there are important differences in terms of the composition and value of production and exports,

[1]For a broad economic analysis of the wine sector in Italy see Castriota (2015). For a long-term history—but in which Italy is only marginally considered—see Unwin (1991).

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which are the result of different historical evolutions in the wine industry. In particular, since the nineteenth century, a gap—which has still not fully closed—opened up between Italy and France in the international markets, in terms of quality and reputation. It should be pointed out that this disparity is the result of a different centuries-old tradition: since the early-modern age France has accumulated experience, developed commercial networks, created institutions and paid special attention to quality—while all these improvements have been lacking in the Italian peninsula (partly due to delayed national unification).

Continuing that tradition, in the nineteenth century France increased its production of fine-quality wines and released more highly priced products onto European and world markets, used a better production structure and a more effective commercial organization. It also benefited from supportive policies, local and government agencies, which were very attentive to market trends, and technical and scientific progress. Italy, on the other hand, suffered from long delays in various fields: production organization, marketing, quality management and regulation of the sector. The shift to quality production intensified in the nineteenth century, but this came to a halt at the outbreak of World War I, recovered at a very slow pace during the era of Fascism, accelerated after World War II and again, more decisively, in recent times. Even today, the development of Italian wines still has considerable room for improvement. Indeed, between 2006 and 2016, the average value was significantly lower than that of France, although the peninsula ranked first in the world in terms of production quantities. The 45 million hl of the latter amounted to a total value of 23 billion euros, while Italy produced an average of 47.6 million hl for a value of 10.5 billion euros. In 2014–2016, French production accounted for 35% of total world value, Italy 17%, the United States 10%, Spain 6%[2] (Ismea 2017; OIV 2017).

In 2016, despite Italy's attempts to close the quality gap, France was still leading the ranking in export value (28.5% of the global value, with

[2]On the differences between Italy and France, see Loubére (1978).

more than 8.2 billion euros corresponding to 14.1 million hectolitres), followed by Italy (19.5% of the world value, with 5.5 billion euros corresponding to 20.6 million hectolitres) and then by Spain, which is also the largest exporter in terms of quantity (but with 2.6 billion euros corresponding to about 23 million hectolitres). Exports account for 56.7% of Spanish production, 40% of Italian and only 31% of French production. The Iberian state continues to export a high percentage of bulk wine at low prices (55% in 2016) and charges lower average prices. Italy and France export mainly wines for direct consumption (74 and 85%, respectively), but in the French case these are fine wines like Champagne, Bordeaux and Burgundy, sold at very high prices (23% of exports in volume, 47% in value) (OIV 2017). In short, at present, the gap in reputation, quality, distinction between French and Italian wines—which was apparent in the nineteenth century—seems to have narrowed, but not closed.

This paper will focus on the century before the First World War, a period in which there were clear differences between the two countries, but at the same time, Italian initiatives were multiplying in order to closely follow the France model. In this first phase of "apprenticeship", the operators were strongly interested in understanding and imitating the key ingredients of transalpine commercial success, from qualitative improvement to sales organization. We will focus on the areas affected by the innovations, the creation of institutions for the promotion of the national industry, the trend of the markets which, at different times, sustained or slowed down the process. The intensification of the economic and cultural exchanges which characterize the century runs parallel to the spread of vine diseases (oidium, peronospora, phylloxera) which led to growing collaboration between viticulturists and scientists in chemistry and microbiology. Also for this reason, since the mid-nineteenth century, the new applications offered by science and technology took on particular importance; oenological science is born and institutions were founded to improve production processes and ageing. These opportunities for the renovation of the winemaking industry represent a keystone and appear to be well known by the

élites of the peninsula and by individual producers and companies. Nevertheless, establishing them as common practices would meet with considerable resistance.

The main incentive for the expansion of crops and the improvement of oenological practices probably originated from international demand (Marescalchi 1919, pp. 60 and ff.), which offered a double stimulus: on the one hand, it drove the expansion of vineyards and the increase in the production of blending wines, required, above all, by France and central Europe. On the other hand, it highlighted the dependency and the vulnerability of growth, given that the amount of wine sold to French producers as a raw material to be blended would drop when they, as expected, rebuilt their vineyards. Quantitative expansion, however, also drove the improvement of product quality to gain a commercial advantage in the face of fierce competition from other producers from both traditional and emerging countries. Compared to the overall volume of domestic production, the export share may appear to be quite limited, considering that from 1 to 2% in the period before 1878, it reached 10% in 1887, remained at around 6% between 1892 and 1903, and then decreased. However, exports represent, in the history of Italian oenological development, an element of great significance, both because they allow commercial networks to be expanded and experience to be accumulated, and because the peninsula exports a quantity of wine which is certainly not insignificant. Limited to 250–500 thousand hectolitres up to 1878, Italian exports grew to a level between one and 3.5 million hectolitres between 1879 and 1887, most of which was exported to France; then, as a result of the preferential customs treaty, between 1892 and 1903 Austria-Hungary became Italy's main foreign market, to which the peninsula exported on average two million hectolitres. Later, in the years before the First World War, the economic context was to be characterized by strong fluctuations in production and recurrent crises of overproduction, volatility and price depression, and recurring public initiatives to support the sector. However, as we will see, Italy would still be able to export over a million and a half hectolitres per year, mainly to Switzerland and the Americas (Argentina, Brazil, United States and Uruguay).

Before Unification: Projects, Initiatives and Innovations

During the nineteenth century, markets and the international wine trade are definitely expanding, led by demographic growth and migration, urbanization and the demand for workers in the industrial and tertiary sectors. New means of transport, becoming gradually faster and more efficient, allowed shipping to take place over longer distances; in the meantime, developments in agronomy, oenology and production methods create new processing techniques and more effective methods of preservation and ageing for wine producers.

The reference model for Italian wine producers was France, the country which dominated world production and the international market until the 1870s (when phylloxera appeared). France seemed to be able to seize the opportunities offered by the transformations which were underway: the country exported over 3 million hectolitres of wines in the 1860s, providing a considerable contribution to its trade balance and, in general, to the national economy. France inherited a centuries-old tradition of supporting the country's industries, and local governments, institutions and municipalities had been promoting winemaking lessons and teaching for a long time. Even the emperor, Napoleon III, was attentive to the development of the French wine industry, creating, in 1863, a commission chaired by the young—but already renowned—scientist Louis Pasteur, to study the diseases affecting vines, improve quality and encourage marketing.

Revolutionary movements, the wars of independence, economic and political fragmentation affected Italy's condition. The country completed its political unification in the years 1860–1870; however, it was still somewhat behind, as a whole, in terms of industrial development and commercial organization. Until 1860, Italy's wine imports exceeded its exports and its share of foreign trade was very small compared to domestic production: most of the national production was made up of common wines for local consumption or regional commercial networks. Improvements in the wine-growing quality remained very limited. Processing followed an empirical method, only aimed at

obtaining products suitable for domestic tastes. In general, winemaking was largely left to the farmers, thus leading to early harvests, a lack of selection of the grapes, inconsistency in the types of wine and small quantities for each type. As for trade, the Italian merchants did not want any delays in payments; the vines were often not ripe nor did they correspond to the samples, and they could not usually rely on proper advertising. Generally, in the 1860s, most of the wine was sold a few months after its production, without going through any ageing processes, in an attempt to gain the maximum profit as quickly as possible. The small amount which was exported was Sicilian Marsala, a southern blended wine. At the time of the foundation of the Kingdom of Italy, in 1861, only 255 thousand hectolitres were exported, which represented 1.3% of an estimated production of about 19 million and 200 thousand hectolitres (ISTAT 2011, Tables 13.14 and 16.9).

However, although the general situation was not so favourable, since the first few decades of the century, close contact and comparison with the French experience stimulated the most enterprising producers towards innovation, especially in the central-northern regions. Not unlike what was happening in the rest of Europe, this was part of a broader cultural process which attracted wide interest in agrarian improvements among the Italian élite. The wine sector was involved in this phenomenon, which had started in the previous century, when the Georgofili Academy was founded in Florence, in 1753, and the Agricultural Society was established in Turin (1785). At the end of the eighteenth century, these institutions promoted the first attempts to introduce more advanced methods in wine production and preservation.[3] In the nineteenth century, this interest became stronger and more extensive. The noble and bourgeois élite—who were more numerous—promoted science and knowledge about techniques and products, participated in conferences held by Italian scientists (which took place annually between 1839 and 1847, then resumed in 1861), discussed topics in the press, experimented with new vines and methods and founded companies, tried to open up new markets for selling

[3]See the chapter by Luciano Maffi in volume 1.

national products. The result of these activities was the growing awareness that the local varieties of good wines were not lacking, even before Unification: they were the result of vine selection, and investments in cellars, barrels, machinery for pressing and fermenting grapes, or clarifying the wine. An embryonic geography of the different Italian qualities of wines was already emerging and would influence subsequent developments (Kovatz 2013).

Although these were exceptional cases, some pioneering entrepreneurs promoted innovations and experiments aimed at producing a better quality wine. They also created special and characteristic wines, such as Marsala and Vermouth, which would enjoy wide and growing success on international markets. The Sicilian Marsala is the result of the initiatives of English merchants such as John Woodhouse (who invented the new wine in 1773) and Benjamin Ingham who, since 1812, had been renovating its production techniques and expanded its exports outside Europe. Beginning in 1832, Vincenzo Florio entered the field by establishing (jointly with Ingham) a new shipping company which also exported wine from the island (Iachiello 2003, p. 45). The production of Vermouth began in Turin in the eighteenth century, but owes its success to the brothers Cora, two Piedmontese entrepreneurs who started exporting it in 1838, and then saw the business grow considerably (Marescalchi 1919, pp. 53 and ff.). As in France, local wealthy owners of noble origin often introduced enotechnical innovations. Counts, barons, marquises and princes were pioneers who kept themselves up-to-date by reading copious specialist publications. These men developed relationships with French agronomists and farmers, from whom they imported vines and methods of production and ageing. The aim was to increase their agricultural income by improving the quality of local wines and making them comparable to those of Burgundy, Gironde and Champagne.

The promotion of companies, wine fairs and congresses, itinerant professorships, lectures and publications proliferated—above all, though not exclusively—in Piedmont, Lombardy, Veneto, Friuli and Tuscany.[4] Merchants and owners founded wine companies to promote the sale of

[4]See the chapters by Cafarelli and Mocarelli and Vaquero Piñero in volume 1.

luxury wines and to introduce the necessary production improvements, although they often found it difficult to succeed. The examples are plentiful. Between 1837 and 1838 some landowners and producers founded the "Tuscan enological company" and the "Enologica Lombarda company" operating in Milan for the improvement of the Kingdom's wines (Società Enologica 1839),[5] with the participation of the Sicilian baron Corvaja. The Baron was involved in the production of the classic Falerno wine on his farms in Naples, where he established the first wine-making company since 1833 (*Lettera agli Italiani del barone Giuseppe Corvaia* 1841). In just a few years, the Milanese winery became a model of wine refining and seemed to experience rapid development, attracting investments from Italian owners and capitalists (Ditta Enologica 1839). However, this attempt in Milan—as well as others in Piedmont, Tuscany, Venice, Padua and Genoa—ended after a few years, probably due to the very high costs of setting up the business compared to the time it took for the first profits to be seen (Cagnoli 1847). The "Milanese Depot" seems to have had more luck: opened in April 1844 in order to make Italian wines recognized by the upcoming congress of scientists in Milan, it represented an opportunity to encourage their sales and production in the various provinces of the Italian states and on the islands.[6] The Depot was under the control of a Central Commission in Milan, and relied on the collaboration of local delegates in various Italian states. In 1844 it had already received wines from different regions: Piedmont (Barolo), Valtellina (where the "Valtellina wine company"[7] was already active in promoting wines such as Sassella, Grumello, Inferno), Tuscany (Aleatico, Chianti, Vino Santo), Veronese (Costa-Calda by count Luigi Morando de Rizzoni, Valpolicella, Castagné), Gorizia (Campolonghese). In addition, there were Dalmatian wines

[5]The "società in accomandita per azioni *Barone Corvaja e Compagni*" with storage in Porta Nuova, was founded in Milan on 17 July 1838, see the deed by Antonio Franzini from Milan.

[6]The National Commission of Enology promoted the warehouse. The Commission participated in the fourth Scientists Congress in Lucca during the same year, see Commissione enologica italiana (1844, p. 139).

[7]See the chapter by C. Besana and A. M. Locatelli in volume 1.

(Prosecco, Trivian, Vigava, Caritule, Neviane and Moscato), wines from Sardinia (Amarone, Malvagia, Cannonau, Moscato, Remongiau, Vernaccia, Girod, Nascu and Del Tirso) and Sicily. Marsala was the only wine to represent Sicily, although many local varieties are renowned, such as white wines, including liqueur wines from Syracuse, Pantelleria and Lipari (Enologia 1844; Marescalchi 1919, p. 39). At the following meeting of scientists—held in Naples in 1845—several operators wanted to set up a similar deposit in Genoa, where the wines could easily arrive by sea, including those from Tuscany (Atti della settima adunanza 1846, pp. 510–511). Shortly afterwards, between 1847 and 1851, another wine company was set up in Verona, whose example would be followed by many others. In the case of Verona, once again, a nobleman, Baron Luigi Morando De Rizzoni, played a key role: he provided warehouses, systems and techniques (Mamiani Della Rovere 1844, pp. 184 and ff.; Atti della settima adunanza 1846, p. 510). Of course, most of the winemaking companies in this period would have a short life, perhaps partly due to the Risorgimento events and the concomitant arrival of oidium, a plant disease which hit Italy hard between 1848 and 1866. However, the geography of wines and their variety begin to illustrate the enormous potential of the peninsula.

Further initiatives were emerging at this time, such as projects to develop exports, particularly to the Americas. Sometimes these were due to individual ventures, such as that of the Tuscan Marquis Mazzarosa, who began sending his wines to New York in 1831. In other cases, groups of entrepreneurs took the initiative, such as the members of the "Enological Society of Naples", who in 1833 started to ship wines from Naples, Sicily and Calabria to Latin America. The previous year, another company shipped a certain quantity of wine from the same regions to Rio de Janeiro. In 1836, several American ports received shipments of Piedmontese wines (Serristori 1834; Mamiani Della Rovere 1844, pp. 184 and ff.). Nevertheless, exporting overseas was still difficult, either because the networks and the commercial organizations were not yet consolidated, or due to the high costs of transport together with the uncertainties surrounding the methods of wine preservation suitable for long journeys.

A second stimulus to innovation came, in the middle of the century, after a series of diseases carried by fungi and insects required the

community to find technical-scientific solutions to deal with the infections. Oidium, observed for the first time in England in 1845 and which spread to France in 1848, reached the peninsula in 1851, causing significant production difficulties in different areas between the middle of the century and 1866 (particularly in Valtellina, Bologna, Catanzaro) (Pedrocco 1994, pp. 317 and ff.). However, thanks to the use of sulphuration, oidium was contained relatively quickly, though it remained endemic. Even French production, which plunged from 54 million hectolitres in 1847 to 11 million in 1854, recovered fairly quickly, returning to the level it had reached in 1858 (Meloni and Swinnen 2014, p. 9, n. 11.). A close collaboration between producers in the wine industry and scientists of chemistry and microbiology began throughout Europe to address these attacks,[8] and became consolidated in the following decades, especially after the arrival of peronospora and then of phylloxera. The former, reported for the first time in France in 1878, rapidly spread to Italy, Spain and throughout the Mediterranean basin, but the winemakers were able to fight it with a mixture of copper sulphate and lime; phylloxera, on the other hand, struck in a more serious, persistent and extended way, so much so as to be considered a true turning point in the history of European viticulture. In Italy the disease spread more slowly and the most serious effects occurred later here than elsewhere. As we will see, this delay had specific causes and unexpected effects, as it would give a strong boost to exports and therefore to the expansion of the Italian vineyard and wine industry, which further mobilized to supply the French market which was in difficulty.

The First 20 Years After Unification: A Slow Transformation

During the first twenty years of the Kingdom's life, unification brought limited innovations in the wine sector and its structure substantially remained largely unchanged: localized production and consumption,

[8]See the chapter by Cafarelli in volume 1.

heterogeneous cultivation, ageing practices, unexploited quality and limited exports. The growers, who actually managed production, lacked the necessary knowledge to carry out the delicate operations of wine-making with expertise, nor did they have the premises, the cellars and the essential tools to develop a potentially high-quality raw material. The peninsula offered a wide variety of wines, although it lacked the necessary institutional support structures for research, infrastructural networks and the ability to promote Italian products abroad. Italy could not compete with a country, like France, which had been exporting its wines for centuries and had the benefit of institutional structures, information channels and incomparable experience. Governments were engaged in the construction of the internal market and infrastructure networks, but there was no organic action plan in place capable of accelerating the development of the sector.

Changes began to come about, albeit slowly, with the founding of institutions which supported the sector. In 1863, the government established a commission to study the conditions of viticulture and oenology and to promote growth of the industry, but was only in 1872 that the provincial ampelographic commissions and a central ampelographic committee began their activities, selecting the most suitable vines for the different regions. The local agencies, whose history is interesting in terms of the mentality and techniques of those who managed them, did not seem to achieve significant tangible results. Even the foundation of the oenological schools,—starting from that in Conegliano in 1877 and then in Avellino in 1880 and in Alba in 1881—despite their importance, were probably not supported by sufficient financial commitment to guarantee their full development.

As we said above, Italy offered a unique variety of wines, able to compete with France in terms of production potential and assortment. In 1872 the *Moniteur vinicole* of Paris mentioned for the first time, the "entry on the scene of Italian wines, which arrive in notable quantities on the Parisian market" and which could compete with French wines in the near future (Corbino 1931, p. 151). Imports tended to decline in the 1870s, due to the increase in cheaper domestic supplies and the first improvements introduced into the wine industry. By contrast, exports begin to rise, but only towards the end of the decade, mainly due to the

damage caused by phylloxera in France, where one million hectolitres were exported in 1879, and more than 1.8 million the following year (Corbino 1931, p. 150). Although five-sixths reached the French market, there was also demand for Italian wines in England, Switzerland, Germany and South America, while exports to the Austro-Hungarian Empire, which had gained a certain importance, was decreasing at the end of the 1870s. Italy's export market share in Europe thus significantly improved: in volume it reached 17% in 1879–1880, but the value accounted for 9.3% (Corbino 1931, p. 151).

In the 1870s, average annual production was around 27 million hl (Corbino 1931, p. 72; Chart 1 in Appendix), with some increase from the southern provinces. The strengths and weaknesses of the domestic production can be better analysed in direct comparison with other European experiences, such as at industrial exhibitions. The Milan exhibition in 1881 and that of Bordeaux in the following year show that the Italian wine industry could boast of only partial excellence, concentrated mainly in Piedmont and Tuscany. In these areas, the cultivation methods and the choice of the vines, the grape harvesting methods and the winemaking techniques seemed to have improved: the winemakers made use of fermentation with open pots, improved presses, used good pumps for decanting, performed sulphurations and looked after the casks which were to contain the wine (Sempé 1882, pp. 75, 78). But, in general, both in the north and in the south and on islands, the Italian wine industry displayed only a weak ability to create wines that could satisfy the requirements of quality, consistency and reputation demanded by international markets (Cerletti 1883; Sempé 1882, pp. 75 and ff.). Italy also lacked large trading companies which could promote the sale of Italian wines abroad. The observers of the time reported various cases of relocation, in particular of transferring the vineyards from the plains to the high plains and hilly areas, a phenomenon which also affected the valleys of the Alps and the Apennines (Corbino 1931, p. 72). In the South, vine cultivation expanded and intensified, while in the centre-north mixed use and non-specialized cultivation was still dominant.

Together with Marsala and Vermouth, Chianti was one of the first Italian products to be promoted as quality wine. The "legend" of

Chianti was created by Baron Bettino Ricasoli, Prime Minister of the Kingdom in 1861–1862 after Cavour and then in 1866–1867. Ricasoli studied French winegrowing—both the vines and the methods of production—asked scientists for help in trying to correct the flaws and especially the acidity of his Brolio red wines. He compared and studied the wines entered into competitions and presented at industrial exhibitions, concentrating his production on three specific vines. Eventually, in 1872, he selected a successful composition and produced Chianti from Brolio. Ricasoli's practices were copied in Tuscany by—among others—Vittorio degli Albizi and the Marquis of the Antinori, and they also spread to Umbria, where most notably the Roman prince Ugo Boncompagni Ludovisi became well known for his substantial investments and his exports to America, Africa and Asia.[9]

Following the French example, Ricasoli also devoted a great deal of attention to the commercialization of the product. Chianti was bottled in a characteristic flask and sold to restaurants, hotels and thermal baths. Ricasoli also stipulated agreements with shipping companies such as Florio to export wine to world markets (England, India, Egypt, North America). Other Tuscan producers opened shops and sales outlets in the main Italian cities to increase their sales. Ricasoli's innovation was not the result of chance but of a multi-year commitment. It showed Italian producers how important it was to study and understand the chemistry of wine, constantly introduce new developments in the vineyard and in the cellar, but also the need to handle and perfect marketing, if they wanted to be known for and sell the best quality wines, especially in the most advanced foreign markets.

In general, beginning in the 1870s, it was now clear to industry specialists—as well as to economists and publicists—that Italians needed to focus on well-selected quality wines and have them accepted by international markets in order to compete with other producers. French wines dominated the market, but Italian wines also had to face competition from Spain, Germany and Austria-Hungary, which had developed a remarkable wine industry over a short period of time. Adapting

[9]See the chapter by Mocarelli and Vaquero Piñero in volume 1.

to international markets required a modification of the product, first of all in taste, which had to be adapted to the market in question and had to abide by the rules of that country governing imports. Furthermore, Italian exporters learned to comply with chemical composition and hygiene requirements, the rules on tares and packaging, the demand for greater transparency on alcohol content and the type of wine which had to be indicated on the label.

The Boom in Production Capacity: Phylloxera and the Role of French Demand

Until the second half of the 1870s, France held the record for world production (with a 43–45% share) and exports, which in 1875 accounted for almost 50% of the market. Between 1871 and 1875, it exported more than 3 million hectolitres per year, mostly quality wines (but there was no lack of common table wines) which on average accounted for almost 7% of production. The radical change in the sector's trade relations was caused by the spread of phylloxera. The epidemic forced the world's main winemaking power, especially in the 1880s, to start importing substantial amounts, mainly from Italy and Spain. The combined effect of the French collapse and the growth of Italian viticulture meant that Italy's production almost caught up with that of France, in terms of volume, in the last two decades of the century.[10]

Phylloxera first appeared in 1863 in the Gard, in France, but its effects were felt dramatically in the 1870s, when it spread to the area of Montpellier and the Aude (1876–1878), then to the Midi, where it affected about 367 thousand hectares. Some areas were particularly badly damaged: in Aquitaine 30 thousand hectares of vineyards disappeared and in the Charente another 80 thousand. In 1880 the disease reached Burgundy until, in 1890, all of France's viticulture appears to have been affected by the scourge (Pedrocco 1994, pp. 323 and ff.).

[10]See Chart 3 in the Appendix.

In the 1870s and 1880s, the country's production collapsed and fell to just over a third of the previous averages: according to some estimates it dropped from its peak of 84 million hl in 1875 to 30 million in the period 1886–1890, with a contraction of the total cultivated area going from 3.2 million hectares in 1880 to 1.8 million in 1890 (MAIC 1892, p. 1; Marescalchi 1919, p. 16).

Over time, the most effective remedy proved to be the grafting of local vines onto American plant roots. In 1873, the viticulturists of Montpellier imported the first American plants which proved resistant to attack from the insect. But this solution was expensive, brought about controversy and only became operational in 1887, when the government granted tax relief to operators who bore the cost of replanting (Pedrocco 1994, p. 324). Unsustainable expenses for the small producers and the general price depression associated with the agrarian crisis proved to be a real test for the agrarian companies. The Italian Ministry of Agriculture, Industry and Commerce estimated that, in 1891 alone, the costs incurred for the introduction of American vines resistant to the disease reached one and a half billion lire (MAIC 1892, p. 1).

The consequences for international trade were far-reaching. Within a decade, France went from being a major exporter of high quality and table wines to a major importer of table and blending wines. French imports rose from 1.2 million hectolitres in 1875–1879 to 10.6 million in 1886–1890, most of which came from Italy and Spain. In the second half of the 1880s, France absorbed about four-fifths of the exports of these two Mediterranean countries (Pinilla and Serrano 2008). Italy's exports, in turn, increased from 240 thousand hectolitres in 1870 to 3 million 603 thousand hectolitres in 1887, which in that year represented more than 10% of its production (over 34 million hectolitres) (ISTAT 2011, Tables 13.14 and 16.9). In 1887, the value of wine exports (113 million lire) would be second only to silk exports (255 million) and higher than the other two most important goods of the agricultural sector, olive oil (80 million) and citrus fruits (41 million).[11]

[11]See the Table *Valore delle esportazioni del vino e di altri prodotti dell'industria agraria italiana nel quinquennio 1886–1890*, in MAIC (1892, pp. LXIV–LXV).

However, it should be noted that French supremacy in the international markets was not affected by Italy, since in the period of greatest growth, from 1879 to 1889, its exports accounted for between 11.5 and 25.1% of the total. In value, they ranged from between 3.4 and 7.6% up to 1878; from between 6.3 and 18% (with a peak in 1887) for the following period which went up to 1889.[12]

Under pressure from growing French demand, cultivation of vines was intensified in Puglia and in Sicily, where vines quickly replaced arable land. In Sicily, vineyard "fever" increased the area of vine cultivation from 120 to 130 thousand hectares in the 1850s, to 200 thousand at the beginning of the 1870s, reaching over 300 thousand hectares in the 1880s. Between 1871 and 1886, the island produced on average over 8 million hectolitres of wine a year, and managed to stay in first place among the Italian regions at least until 1897, despite the arrival, even in Italy, of phylloxera and the consequent contraction of production and export volumes[13]. In the five years 1870–1874 and between 1879 and 1883, Sicilian production increased by about 80% (Cerletti 1887, p. 217). In turn, Puglia, which after unification had extended its vineyards (initially located around Bari and Barletta) to meet the demand of the domestic market and in particular of Naples—expanded its specialized vineyards and made the French market almost the sole recipient of its blending wine.[14]

This favourable period for the Italian peninsula came to a halt in 1887, after the introduction of international trade tariffs which gave rise to a trade war with France. In reality, the problem of getting the large Italian production to market was due to the fact that the significant expansion of viticulture did not go hand in hand with the development of the oenological industry and its commercial outlets. In the peninsula, from 1874 to 1883, the area devoted to vineyards rose from just less

[12]See the Table (with no name) on percentages of exports from France, Spain and Italy during the years 1871–1891 in MAIC (1892, p. XXII).

[13]See the two Tables on Production and Regional Exportation (volume) between 1893 and 1897 in Cantamessa (1899, pp. 382, 384).

[14]See the chapter by Ritrovato in this volume.

than 2 million to 3.1 million hectares and production rose from 27.5 to 36.8 million hectolitres (Corbino 1933, p. 101). After 1883, the area covered by vineyards continued to expand, while the previously cultivated land increased its production volumes even further. Therefore, as soon as the French market consolidated the recovery of its vineyards (thanks to the solution of grafting onto the American roots) and, moreover, once it began exploiting its large vine plantations in Algeria, the "announced" crisis took shape.

With the customs war which started in 1887, import duties for wines from Italy rose from 5 to 50%. Beginning in 1892, customs tariffs on Spanish imports increased, reaching 40%. Further tightening of tariffs in 1899 was clearly aimed at definitively excluding both Italy and Spain from the French market. Meanwhile, the French winegrowers began to recover reaching about 65 million hectolitres of production in 1900; moreover, imports from Algeria increased (2.8 million hl produced in 1892), after substantial capital investments by French companies.[15]

In the meantime, phylloxera also reached the rest of Europe and caused serious difficulties for production. In Italy, the disease lasted a long time, until the middle of the twentieth century. However, before providing some figures on the sequence of the regional wine crises which ensued, it should be noted that, as a whole, Italian viticulture was able to limit the damage and dilute it over time. Indeed, the diseases helped to mitigate the recurrent crises of overproduction, as we will see. The delayed propagation of phylloxera was due to various reasons. First of all, four-fifths of Italian vineyards used mixed cultivation (with tall vines, in well-spaced rows separated by areas where herbaceous plants grew) and this probably limited the damage, or at least slowed down its emergence. Indeed, the regions with specialized vineyards suffered more damage (Sicily, Apulia, Sardinia, Calabria, some areas of Piedmont), than those with mixed cultivation (MAIC 1914,

[15]In the 1930s, Algeria would come to produce 22 million hectolitres of wine and in 1950 it dominated world exports with a percentage of 50%, until when, with its independence in 1962 and the creation of the European common market, its production collapsed. For more information on Algeria, see Meloni and Swinnen (2014).

p. VII, n. 1). Moreover, the orography, the peninsula's remarkable variety of soil and climate, probably slowed down contagion, allowing Italy, as a whole, to put up a certain resistance to its effects, thus protecting it from real generalized disaster (Marescalchi 1919, pp. 15–16). Human intervention also contributed to containing the disease. It was possible to limit or at least delay its spread, by destroying the infected vines using various methods, such as in Broglio, Pitigliano, Perugia, Imola, Viterbo, where phylloxera was contained or overcome, or in the district of Milazzo, where it was possible to delay the spread of the disease and protect the vines for 12 years (Cantamessa 1899, pp. 136 and ff.). Overall, the main safety valve of Italian viticulture was its variety. Phylloxera usually advances rapidly and destroys crops in warm climates, in dry lands and in low and intensive vine systems; by contrast, it spreads slowly in northern climates, in cool lands and in mixed use cultivation areas, allowing defences to be prepared and for overall wine production to be maintained and increased at national level (Marescalchi 1919, p. 16).

However, at the regional level, losses were huge. First appearing in 1879 in three municipalities in Lombardy, phylloxera advanced to affect, in 1897, 350 thousand hectares and 672 municipalities. The losses amounted to one billion lire, a value higher than the value of the country's total annual wine production, which in 1898 was estimated to be around 823 million lire.[16] In 1914, the total area affected reached 600 thousand hectares, while the reconstituted area is estimated to be about 200 thousand hectares. Sicily was first affected in 1880; in 1898 four-fifths of all phylloxeral infections were concentrated in the region, including 82 municipalities in the province of Messina, 53 in Catania, 45 in Palermo, 32 in Syracuse, 26 in Girgenti, 24 in Caltanissetta and 13 Trapani. To continue producing Marsala, the Sicilians were forced to import Greek wines (from 104 to 205 thousand hectolitres per year between 1885 and 1896) (Marescalchi 1919, p. 59). The rebuilding of the vineyards began to pay off only in the 1920s. At the end of

[16]On December 31, 1898, the affected Municipalities had already risen to 814, see the *Elenco dei Comuni fillosserati o sospetti di infezione* compiled by the Ministry of Agriculture, published in Appendix B, in Cantamessa 1899, pp. 532–542. See also the table with estimates of production and wine value in the years 1879–1898, ivi, pp. 135 and ff., p. 381. See also Zaninelli (1977).

the nineteenth century, the provinces of Sassari in Sardinia, Como and Bergamo in Lombardy, Novara and Alessandria in Piedmont were also particularly affected (Cantamessa 1899, pp. 135–136). In Puglia, where phylloxera made its appearance in 1899, the crisis was very long-lasting: in 1932, the 319 thousand hectares of vine area which had existed more than 30 years earlier was reduced to 191 thousand hectares.[17] Even Tuscany was not spared and, as elsewhere, the replanting of vineyards using American roots proceeded slowly.

While the devastation caused by phylloxeric continued in some places, other areas, such as Campania, actually increased production. Contemporary observers and historical data attest to resilience and, indeed, a growth in production in the last few years of the century, which increased even further in the fifteen years preceding the war, raising—as we shall see—strong concern about overproduction which significantly depressed prices. Indeed, while the average production in the 1880s was 31.27 million hectolitres, in the following decade—despite the emergence of the diseases—it reached 31.95 million (despite a decrease from 1894 to 1897), and then grew substantially to an average production of 46 million hl between 1901 and 1914 (ISTAT 2011, Ch. 13, Table 13.14, p. 639). While the statistics of the time should be considered with caution, the general trends are clear, as are the foreseeable consequences: lower prices due to the excess of supply compared to the demand, the search for new outlets abroad, a strong incentive to improve production and preservation techniques.

The Search for New Markets and the Support of Institutions

In seeking new markets to replace the French market, Italian production found its main outlet, between 1892 and 1904, in Central and Eastern Europe. Indeed, the spread of phylloxera in its territories persuaded the Austro-Hungarian Empire to stipulate a trade agreement with the

[17]See the Chapter by Ritrovato, note 8, in this volume.

Italian government, which led to a rise in exports. Within a short time, the peninsula was exporting over one million hectolitres to the empire (and this allowed Puglia to recover, before the arrival of phylloxera). In addition, there was a certain growth in shipments to Switzerland (from 165 thousand hectolitres in 1887 to 553 thousand in 1892) and to the Americas, to a large extent driven by the demand from emigrants. In particular, exports to Argentina followed an upward trend (rising from 62 thousand to 216 thousand hectolitres), as did those to Brazil and the United States (despite competition from California) (Einaudi 1894).[18] Overall, in the 12 years between 1892 and 1903, Italy exported about 6% of its production: over 2 million hectolitres a year with an average annual production of over 34 million hectolitres (ISTAT 2011, Ch. 16, Table 16.10, p. 740, and Ch. 13, Table 13.14, p. 639).

The export of wines, despite constituting a relatively limited share compared to the overall production of the country, was however significant and should not be underestimated. Above all, exports provided an incentive to establish Italian products in foreign markets and drove improvements in the wine industry. During these years, a growing awareness emerged about the need for more dynamic institutional intervention in the field of vocational education, in commercial organization and in public policies supporting the sector. Indeed, the lack of associative, educational and experimental structures was probably the country's main historical weakness, especially in comparison with France. The intensification of international competition highlighted the need to progress in the fields of training and experimentation with innovations. Many agencies, schools and agrarian committees were active, as were some associations including the "Subalpine oenophile association of Turin", the "Italian oenophile association of Rome" and the "General society of Italian winegrowers of Rome", which were particularly active and influential in the vicissitudes of viticulture and oenology during the decade 1886–1895 (Mondini 1916, pp. 8–10).[19]

[18]For more information on Italian agrarian exports, see Federico (1992).

[19]In 1897, the society merged with the Italian farmers' society.

Some of the most significant contributions in this area include the school in Conegliano in Veneto and those in Catania and Alba, set up in the 1880s, and followed by several others. Sometimes, these initiatives were given a warm reception in the local areas, as in the cases of Conegliano and Alba, which become points of reference for wine producers; elsewhere, however, the impact was more limited, also due to the limited availability of suitable resources and venues. Nevertheless, meetings, conferences and experiments were held, prompted by the arrival of peronospora or for the purposes of sharing the most functional practices in viticulture and oenology, such as filtration, distillation and anti-parasitic treatments (MAIC 1897, pp. 171–173; 1914, pp. 61–62). All aspects of production, technology and marketing were addressed: the growing use of American vines, the introduction of new agricultural and oenological machinery, the improvement of winery practices (thanks to the advice of teachers and school pupils) and the creation of commercial networks (MAIC 1897, pp. 164, 167).

In the years around the turn of the century, experimental cellars were founded in Barletta (1886), Riposto and Noto (1889), Velletri (1892), Milazzo (1903), and Arezzo (1908). To support the fight against phylloxera, the government set up numerous vine nurseries, which provided the operators with the most suitable American vines for restoring damaged crops. In addition, public institutions tried to promote the wine trade abroad with the creation of "enotechnical stations" (in Lucerne, Munich, Zurich, Berlin, Paris, Brussels, Vienna, Budapest, Trieste, Rijeka, New York, Buenos Aires, S. Paolo do Brasil), where Italian wine depots operated under state control. The Italian government also launched competitions for the production of certain types of table wines; it also offered its patronage to congresses and wine exhibitions, and financed missions abroad whose aim it was to study the markets.

The concrete effects of these measures are difficult to evaluate. It seems that the schools provided excellent training for dozens of enotechnologists each year, but that the social and economic environment was not yet suitable for their skills to be put to use. The country suffered from a lack of widespread and freely available vocational education, which could contribute to improving the general quality of wine

production. For a long time, quality suffered every year as millions of hectolitres of wine went bad or its quality was severely damaged due to ignorance and technical negligence (Marescalchi 1919). Ultimately, it seems that Italy created useful and necessary institutions, but that the effects remained rather limited (Mondini 1916, pp. 8–10). Further efforts in this direction came in the first decade of the twentieth century, when the closure of the Austro-Hungarian market was combined with the increase in production and the price crisis.

The restoration of vineyards in Hungary and overcoming phylloxera determined the end of the trade agreement with the empire, and therefore of the clause which favoured Italy, maintained by Austria-Hungary from 1892 to 1904. A difficult period began for Italian exports, with a partial recovery only starting in 1907: over the next eight years, Italy sold about 1.5 million hectolitres per year to foreign countries (ISTAT 2011, Ch. 16, Table 16.10, pp. 740–741). In addition to customs duties, several other factors contributed to the contraction of commercial opportunities for wines from the peninsula. These include: the special schemes which favoured other countries (for example Algerian wines were exempt from customs duties in France); the rules which limited the importation of certain types of wine and which were applied inconsistently; the competitive advantage of Spanish and French products in important consumer markets such as Switzerland, Germany, the United States, Argentina and Great Britain; the preference for Portuguese wines in the United Kingdom and Brazil; the low potential of wine consumption in countries which favoured other beverages, such as Germany, Great Britain, Russia, the United States; the emergence of new competitors in the world wine market (Germany, Austria-Hungary, California) (MAIC 1914, p. 43).

Traders in the peninsula tried to address these challenges by exporting bottled wines, in particular, liqueur wines such as Marsala and Vermouth, which along with Chianti and Spumante, were products which had gained a certain reputation in the national wines sold abroad. In addition to penetrating the United States market, these wines were also able to conquer much of the Argentine market, previously dominated by the French with their Bordeaux (MAIC 1892, p. 2). Export prices, however, which remained high between 1879 and 1888,

remained relatively stable, then underwent considerable fluctuations, remaining at a lower than average level, and experienced stronger fluctuations in the period 1905–1912, when the two main markets, France and Austria-Hungary no longer existed (MAIC 1914, pp. 61–62).

In summary, the Italian producers, having overcome an initial phase of confusion caused by the loss of the French market, tried to tackle the situation by launching new export flows or intensifying old ones, to countries which imported wine for immediate consumption and not to manipulate their wine, as France did. Unfortunately, these efforts were hampered by the fact that progress in the Italian wine industry did not go hand in hand with the development of viticulture. In general, the winemaking methods were always deficient, even though the number of national producers who introduced some improvements into the preparation of table wines was increasing and outnumbered those who had reached a high degree of perfection in the preparation of fine wines. These advances contributed to reducing the causes of suffering caused by overproduction and low prices, as many producers were now able to release a considerable amount of wine onto the market, which had previously been done just after the harvest.

The Framework at the Beginning of the Century: Potential and Problems

The events in the Italian viticulture industry in the first 15 years of the twentieth century appear to be rather complex. Considering its importance in the national economy, the Italian state intervened with greater incisiveness, trying above all to combat phylloxera, which at that time in Puglia, threatened to spread rapidly. A series of laws established "defence consortia", which regulated the export of vines from the islands, granted tax concessions, authorized a series of subsidies for loans taken out for planting American vines (Corbino 1938, p. 88). It is difficult to evaluate the weight of these interventions, but the spread of the disease certainly subsided, although it was not completely eradicated. Indeed, in the years preceding the Great War, Italy held the world record in production volume. In the five-year period 1909–1913,

it was able to supply, on average, 46 million hectolitres per year. In the same period, France produced an average of 44.4 million hl a year and Spain 11.7 million.[20]

The production of wine, favoured by exceptional agricultural events, became so abundant as to determine an overproduction which brought down prices to such an extent—especially after 1907—that the producers could not sell their products even at ridiculously low prices. The crisis became so worrying that it threatened the economy of entire regions, especially in the south and on the islands. The government intervened with a series of measures which lasted throughout the first decade of the century and can be summarized as follows: reduction of railway tariffs; allocation of substantial sums for the purchase and distribution of wine vessels and for the installation of shared cellars; laws to combat fraud; tax exemption for the production of alcohol derived from wine and marc (which actually increases its production); a reward of 2 liras for every hectolitre of wine exported; subsidies for municipalities and associations to encourage the building of structures suitable for the preservation of wines. Other measures aimed to support the export of fine wines (Corbino 1938, pp. 88–91).

Starting in 1907, it becomes clear that the problem of the Italian wine industry was that of overproduction. With overabundant harvests, like those of 1907–1909, putting barrels—the main product—on the wine markets became difficult, since consumption had reached levels that were already very high and difficult to increase even further; on the other hand, using the product as distillation material could not exceed certain limits. Although there were some wines of "excellence" in the country, the majority of production was still made up of wines for immediate consumption, which did not remain in the producers' wineries beyond the first year. They were sold and drank just after production, before the summer heat arrived, or at most before the next harvest. The point is that full industrialization of the sector had not yet been achieved and production appears to be fragmented into thousands of small production units which do not have the means or the skills to introduce technical

[20]For these and further data see MAIC (1914, pp. 24–27). As we have seen above, 46 million hl is the average production for 1901–1914 according to the data provided by ISTAT (2011, Ch. 13, Table 13.14, p. 639).

improvements. As a result, very often the buildings and facilities available for wine production were equipped to quickly process grapes and wine, but in most cases they seemed unable to provide prolonged storage and to age the product (Mondini 1916, p. 56). There were also too many different wines, and the variety did not only depend on the wine cellar, but may also be different from barrel to barrel, and from man to man, depending on who supervised the winemaking.

However, the overall picture of the wine sector shows some progress in winemaking. In several regions, manufacturers introduced machines which replaced the work of men and built structures which were more suitable for the preservation of the product, while the production of medium-quality wines began to move beyond the regional limits and established itself throughout the national market. In addition, the areas of specialized cultivation increased, large companies emerged and the production of quality wines grew. In the first fifteen years of the twentieth century, in the new industrialized Italy, progress in winemaking and marketing procedures was reported in various parts of the peninsula. Supply was already extremely varied at that time. Tuscany had Chianti as its flagship product. It was by then already well-established and counterfeit versions appeared both in Italy and abroad. But the region also had a considerable variety of good-quality red and white wines. Piedmont had been excelling for decades with a variety of well-known products, including "selected red wines" like Barbera or "superiore" such as Barolo, sparkling white wines (Moscato di Canelli, Moscato sparkling wine, Asti sparkling wine) and Vermouth, which enjoyed great international success. The region by then had real wine industries, with large specialized companies such as Gancia (with a production facility in Canelli), F. Cinzano and C. (production facility in S. Vittoria d'Alba), the Cora brothers (factory in Costigliola d'Asti) which had a large international sales organization (Marescalchi 1919, pp. 30 and ff.; Marescalchi 1924, pp. 46–58).[21]

In the peninsula, regional concentration was very strong, given that almost two-thirds of production came from six regions, which together produced over 30 million hectolitres: Piedmont (6.1), Emilia (5.4),

[21]See also the Gancia and Cinzano winery production facilities in Cantamessa (1899).

Puglia (5.2), Campania (4.7), Sicily (4.6), and Tuscany (4.1). In the local area, in the years 1909–1913, primacy belonged to the province of Alessandria, with an average of 4 million 302 thousand hectolitres, followed by Lecce (2 million 543 thousand), Bari (1 million 856 thousand), Catania (1 million 700 thousand). Reggio Emilia, Florence, Avellino and Naples produced over one million hectolitres. The strong red wines of the south and islands and those with the lowest alcohol content from Emilia and Mantovano were used to create, through careful blending, the most widely consumed wine. In Piedmont, Tuscany, Oltrepò Pavese and the Veronese area, wine was produced in flasks or bottles for the most demanding customers.

In the period from 1904 to 1910, Italian wine production concentrated on red wines with relatively high alcohol content. The so-called "special" wines (i.e. vin santo, marsala, vermouth, sparkling wines) accounted for only 2% of total production. The rest consisted of 73.2% of red wines and 24.8% of whites; 63.7% of the wines were above 10 degrees and on average the whites contained less alcohol than others (Cova 1988, pp. 319–337; MAIC 1914, pp. 29 and ff.). Four-fifths came from vineyards located in mixed use areas, only 20% came from specialized cultivation areas (Cova 1988; Valenti 1911, p. 73). An important new development in this period was the emergence of Emilia as a major regional producer. Until 1899, the region produced relatively little, from one to two and a half million hectolitres of wine, but this increased to 5.4 million hectolitres during the years 1909–1913.[22] Production was well organized especially in the provinces of Reggio Emilia, Modena and Ravenna. In the first two areas, when widely consumed red wines were most popular, customers were increasingly attracted to a special type of bottled wine, Lambrusco, destined to become a "sparkling red wine and popular in Italy". Popular at first only in Emilia and Romagna, demand increasingly spread to Lombardy. Lambrusco was also meet increasingly in demand in the Americas, mainly due to demand from emigrants (MAIC 1914).

In the centre-south, while the oenological industry in Marche, Abruzzi and Molise continued to lag behind (despite some limited progress) (Marescalchi 1919, pp. 30 and ff,), Campania gained significant

[22]See the table on *Produzione del vino delle diverse provincie del Regno* in MAIC (1914, p. 25).

winemaking prominence. Despite deficiencies at the production and commercial level, Campania's production exploited the phylloxera crisis in Puglia, taking its place and satisfying demand from the northern regions which were becoming industrialized such as Lombardy, Piedmont and Tuscany. Furthermore, Lombardy, Liguria and Veneto did not produce enough wine to satisfy demand in the industrial centres and they obtained basic wines for blending from the south.

Oenological improvement was strongly driven by the need to compete in international markets, where quality, compliance with certain standards and product reputation were of decisive importance. The potential of Italian viticulture was poorly valued abroad and exports did not increase significantly. However, in the five years preceding the war, Italy exports totalled more than a million and a half hectolitres of wine on average, mainly to Switzerland, France and the Americas (Argentina, Brazil, United States, Uruguay). Three-fifths of the value were made up of wine in barrels, but shipments of wines such as vermouth increased (33 thousand hl in barrels and 12.3 million bottles in 1912–1913), while shipments of marsala remained stable (Corbino 1938, pp. 195–196). As with other sectors in the food industry, Italian migrants, especially in the Americas, created "a new consumer home market" which attracted a lot of interest (Cerletti 1876, p. 262). Observers increasingly emphasized that winning over foreign customers "can come from *advertising*", especially for fine and quality wines. It is easy to see how a hotelier or a private customer, in making the decision to purchase a wine, "there is also the illusion of the name and trust in the person who offers it" (Plotti 1896, p. 95).[23] But it was necessary to create "uniform, constant, recognisable types", to focus on the reputation of the brand. Suggestions for increasing competitiveness and sales abroad were plentiful in the press of the time and guides for shopkeepers were also printed.[24] A manual for merchants in the late nineteenth century noted that Italian trade "needs more and more to establish its name abroad, because (and it is vain to deny it), it did not have one a decade ago".

[23]See Vaquero Piñeiro (2016).

[24]See for example: Trentin (1895), Plotti (1896), and Ottavi and Marescalchi (1897).

And he adds: "This name and this credit can only be created by keeping to fixed conditions, from which the serious trader cannot deviate, whatever his line of business. The quality of the goods, sufficient quantity to meet future demand, consistent quality, moderation and firmness in prices are the cornerstones for making progress in oenology. The exporter's flag should read 'exactness and probity', not pure and momentary speculation" (Plotti 1896, pp. 19–20).

In international markets, the share of fine and special wines and wines to accompany fine dining appeared to be evolving. In 1902, Arnaldo Strucchi pointed out a clear tendency, i.e. a reduction in the percentage of ordinary blended and simple table wines, in favour of higher quality wines.[25] For example, in exports to Switzerland, which increased with the opening of the Gotthard railway in 1883, one of the first Italian wines to prevail was red wine. Red wine, produced in Sicily and Puglia, represented almost two-thirds of Italian exports, and at least half of it was consumed just as it was. Then, however, within a decade, its share decreased to only two-fifths of exports and it was used only for blends. Although Italian wine did not have a similar reputation to that of French (or German) wine, with the exception of Chianti, the consumption of white wines from Piedmont and Puglia was spreading in Switzerland, as it had been completely modified, prepared in order to make its colour pleasing to the eye and adapted to the taste of consumers.

This process of qualitative change in the sector, however, was interrupted with the outbreak of the First World War and was certainly not helped by the fascist economic policies centred on support for cereal farming, the Great Depression and the Second World War.[26] Italy had to wait until the second half of the twentieth century, and in particular until the most recent decades, to witness a new, much deeper renewal of wine, heavily influenced by European Community policies and norms.[27]

[25]Quoted in Cova (1988, p. 323, n. 10).

[26]Even the process of approval of the first law to protect typical Italian wines, almost completed in 1923, stopped before the political upheavals of the time, see the Introduction in Marescalchi (1924).

[27]See the chapter by Stranieri and Tedeschi in this volume.

Appendix: Wine Production and Exports—Italy, France, Spain (1860–2016)

See Charts 1, 2, 3, 4, 5, 6, and 7.

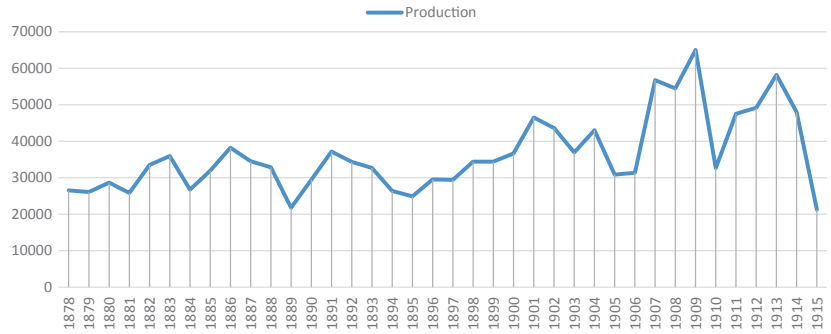

Chart 1 Volume of wine production (thousand of hl). Italy (1878–1915) (*Source* Own elaboration based on data from ISTAT [2011, Table 13.14])

Chart 2 Volume of wine exports (thousand of hl). Italy (1878–1915) (*Source* Own elaboration based on data from ISTAT [2011, Table 16.9])

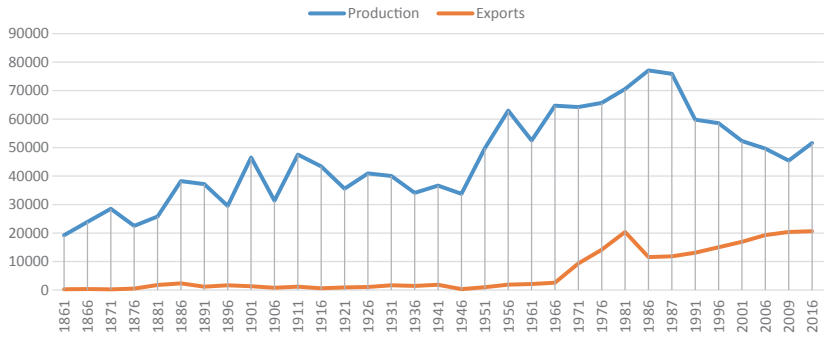

Chart 3 Volume of wine production and exports (thousand of hl). Italy (1861–2016) (*Source* Own elaboration based on data from ISTAT [2011, Tables 13.14 and 16.9]; Data Istat 2016)

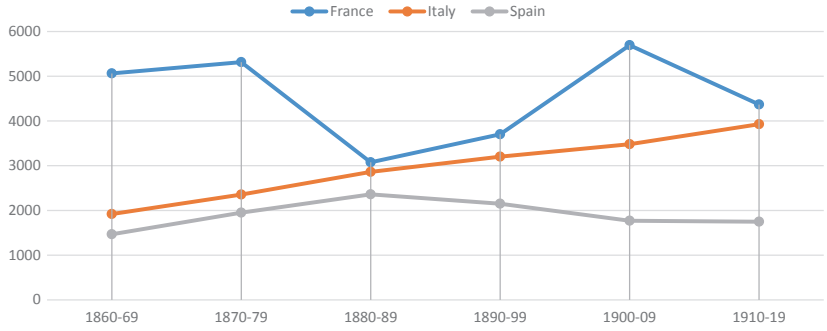

Chart 4 Volume of wine production (ML). Italy, France, Spain (1860–1919) (*Source* Own elaboration based on data from Anderson et al. [2017, Table 132])

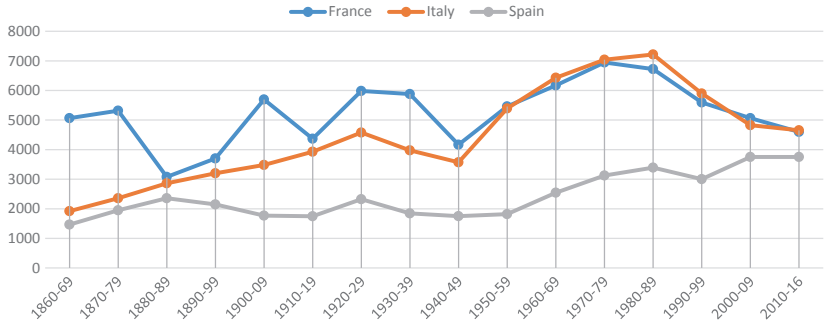

Chart 5 Volume of wine production (ML). Italy, France, Spain (1860–2016) (*Source* Own elaboration based on data from Anderson et al. [2017, Table 132])

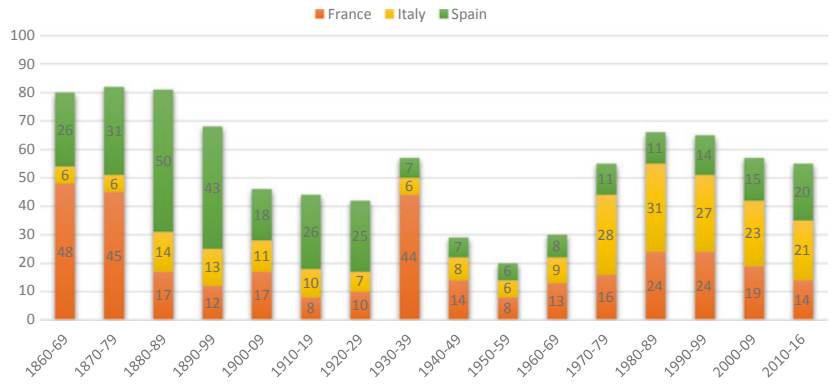

Chart 6 Share of world wine exports volume (%). France, Italy, Spain (1860–2016) (*Source* Own elaboration based on data from Anderson et al. [2017, Table 169])

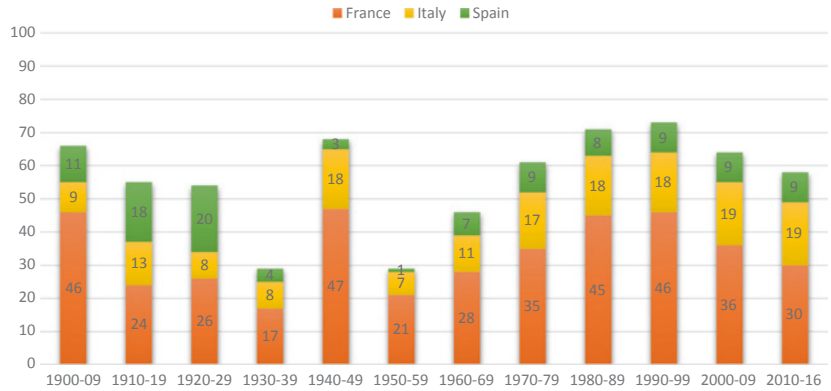

Chart 7 Share of world wine exports value (%). France, Italy, Spain (1900–2016) (*Source* Own elaboration based on data from Anderson et al. [2017, Table 179])

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