3

The Italian Wine Industry

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3.1 Introduction

Wine production is deeply rooted in the Italian tradition, since viticulture was practiced even before Roman times, and thereafter almost everywhere in the country. Nowadays, Italy is among the main world wine producers, and the Italian wine industry leads the national agribusiness; indeed, although the wine industry is third in the ranking of turnover in the agro-food sector, wine is the true food icon of Made in Italy and the largest contributor to Italian agro-food exports. In particular, viticulture is an important part of Italian agriculture. Vineyards for wine production covered 622,000 ha in 2016, that is, about 5% of the total utilized agricultural area (UAA), but viticulture accounted for 10.2% of the value of agricultural production. With an

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estimated 50.9 million hl in 2016 (Anderson et al. 2017), Italy was the first producer in the world in quantitative terms (about 19% of the world production), although France (which alternates with Italy in the first ranking) outperforms Italy in value terms (Anderson et al. 2017). The Italian wine industry, because of its size and historical evolution, comprises a large number of operators; most of them are professional producers linked to distribution channels, but many only produce for self-consumption or as a hobby. According to the last Agricultural Census, there were 369,000 farms growing wine grapes, but considering only the professional operators, grape production is carried out in about 197,000 farms. Wine-making is carried out in about 55,000 grape-processing plants and bottling in about 8000 plants. These technical production units are linked in various models of production organization, and the Italian wine industry is organized into both integrated and de-integrated supply chains, the latter formed by operators specialized in one or two phases of the wine supply chain.

To describe this complex production system, the chapter is organized as follows. Section 3.2 presents the main features of grape production in Italy. Section 3.3 analyzes the organization of wine production, identifies the technical units involved and their different forms of integration in the supply chains, and discusses the supply concentration and the different typical marketing models of firms. Section 3.4 shows where Italian wine is delivered. Section 3.5 analyzes the relationships and the flows along the chain, presenting the contracts and the main aspects of the sector governance. Finally, Sect. 3.6 contains some final comments on the structure of the Italian wine industry.

3.2 Structural Features of the Wine-Growing Sector

3.2.1 Relevance and Distribution of Viticulture and Farm Size

After a long evolution over 70 years, characterized by a reduction of the total area under vine, the disappearance of mixed cropping in favor of specialized vineyards, and a dramatic reduction in the number of grape-growing farms (Corsi et al. 2018), viticulture is still widespread throughout Italy, although with specific territorial differences. Disregarding farms growing table grapes, in 2010 there were still 369,000 farms growing wine grapes, accounting for 23% of the total number of farms (ISTAT) and covering 626,000 ha (4.8% of total UAA) (Table 3.1). More recent data gathered by a survey carried out

Table 3.1 Number of farms producing wine grapes and vine-bearing area

	Number of farms[a]			Area (hectares)		
Territory	Vineyards for PDO wines	Vineyards for other wines	Total	Vineyards for PDO wines	Vineyards for other wines	Total
Italy	127,970	292,382	388,881	320,859	304,841	625,700
North-West	20,704	19,425	35,174	61,331	10,075	71,406
North-East	46,189	50,286	83,393	116,250	52,099	168,349
Center	17,400	59,850	71,993	65,923	39,553	105,476
South	32,116	113,966	139,346	54,983	102,952	157,935
Islands	8561	48,855	58,975	22,372	100,161	122,534

Source: ISTAT, Agricultural Census (2010)

[a]In the Agricultural Census, the reported number of farms refers to farms where there are predominantly or exclusively vineyards of the mentioned kind. Consequently the overall number of farms is not the sum of partial values. In addition, the overall number of farms also includes farms where there are predominantly or exclusively table grape vineyards and vine nurseries

in 2013 by ISTAT further reduce the number of farms with wine vineyards to just under 310,500 units, while the overall vineyard area estimated for 2017 rises to around 652,000 hectares (ISMEA 2018). These figures consider all farms growing table grapes, including hobby farmers and production for self-consumption.

Notwithstanding the wide diffusion of viticulture, geographical differences are important, both in quantitative and qualitative terms. Consideration of the large-scale territorial division among North-East (NE), North-West (NW), Center, South, and Islands (NUTS1 level in the EU classification) (Fig. 3.1) shows that a large proportion of wine-growing farms are located in the South (36%), while NE (21%) and NW (9%) are less important, and the Center and Islands have 19% and 15%, respectively. However, in terms of vine-bearing area, the share of the South is much smaller (25%), and the share of NE (27%) and of the Islands (20%) is much larger. The differences are more striking in terms of quality, since the South only accounts for 19% of farms producing only Protected Designation of Origin (PDO) wines, while the NE has the largest share of such farms (41%) (Mazzarino and Corsi 2015). Although the issue of "true quality" is much debated, some areas enjoy particular prestige; this is the case of Tuscany, Piedmont, and Veneto for red wines, and Trentino-Alto Adige, Veneto, and Friuli for white ones. Nevertheless, the wines really appreciated by national and international critics come nowadays from vineyards in every part of Italy.

Fig. 3.1 Geographical divisions and main wine-producing Regions

Wine-growing farms in Italy are predominantly small businesses, mostly family-operated. The average size of vineyards is 1.7 ha, and two thirds of wine farms have less than 1 ha of wine grape area, and in the Center and in the South, this share is even larger. Only 7% have over 5 ha of vineyard and 2.6% over 10 ha. The shares of large vineyards are larger in NW, NE, and Islands, where about 10% of wine farms have more than 5 ha of vineyard. The deep historical roots of wine-growing in Italy, along with the general predominance of small and very small farms, are at the origin of this structure. However, while small farms are predominant in number, in terms of area, medium and large farms obviously dominate. Therefore, while only 5% of wine farms are over 5 ha, they account for 54% of wine grape area, with higher shares in NE (60%) and Center (63%). Farms larger than 10 ha of vineyard account for 35% of wine grape area, with a particularly high share in the Center (49.3%). Considering that 35% of the total area under vine represents more than 200,000 hectares, Italian viticulture includes a share of relatively large farms whose overall area is larger than the total area under vine in the USA or in Australia, to cite only the biggest competitors in the New

World. Nevertheless, 12% of wine grape area in Italy consists of farms with less than 1 ha of vineyard, and this share is larger in the South (18%) and in the Center (15%).

3.2.2 Technical Aspects and Land Tenure

On the technical side, an important characteristic of Italian viticulture is the large number of varieties that are grown. According to the national register of vine varieties (MIPAAF 2018), more than 500 wine varieties are grown; most of them are strictly native varieties, not the "international" ones. Though many of them cover small surfaces, even the most widespread variety (Sangiovese) covers a limited share of the total wine grape area (11.4%); all other varieties are below 6% of total area, and the first ten varieties only cover 46% of total wine area[1] (Mazzarino and Corsi 2015). The largest part of vineyards (except for table grapes) are rain-fed, but 21% of the total vine-bearing area is irrigated (Agricultural Census 2010), mostly in the South. Wine-growing is mostly concentrated in the hills (58%), especially in the NW (Piedmont) and the Center (Tuscany), where grape-growing areas are almost totally in the hills. Important parts of the vine area are located on the plains of Emilia-Romagna, Veneto, and the South. Altimetry creates technical differences, since mechanization, especially for harvesting, is difficult on the hills, while it is easier in the plains. This partly explains the differences in the orientation of farms, with the large-scale low-cost wines predominantly produced in the plains, while farms on the hills aim at low-yield, higher-quality grapes, compensating with higher prices for the lower yields and the higher costs. Also the grape-growing agronomic techniques may differ substantially throughout the peninsula because of the different climate conditions, creating diverse landscapes.

Almost all (99%) of wine grape farms are family businesses. Few farms are owned by companies (0.6%), even fewer by cooperatives. In terms of area, the share of family farms is lower but still over 91%, as compared to 6.1% for stock companies. Again, the Center is somewhat different, and the shares are 77.1% and 18.7%, respectively.

[1] The most important varieties (over 10,000 ha) are Sangiovese, Trebbiano, Montepulciano, Merlot, Catarratto Bianco, Barbera, Glera, Moscato Bianco, Pinot Grigio, Calabrese (Nero d'Avola), different types of Lambrusco, Cabernet Sauvignon, Chardonnay, Primitivo, and Negro Amaro.

3.2.3 Farmers Classification

The population of grape-growing farms is very heterogeneous in terms of the economic nature of their activity and downward integration. According to AGEA[2] 2012 data, only 197,000 (slightly more than half of the total) engage in a professional business, cropping 550,000 ha (almost 90% of total area under vine). Therefore, the Italian grape-growing sector comprises a large fringe of farms (about 170,000) carrying out viticulture for hobby purposes or self-consumption on small plots or with abandoned vineyards.

It is possible to identify three categories among the professional farmers growing grapes, according to the destination of their production: farmers equipped with wine-making facilities (27%), farmers selling grapes in the intermediate market (31%), and farmers belonging to cooperatives (42%). These categories are important for the analysis of the flows in the chain (Sect. 3.5.1).

3.3 Structural Features of the Wine-Making Sector

3.3.1 Supply Size and Composition

Wine production in volume is variable from year to year due to the climatic conditions that obviously affect vineyard yields. According to ISTAT, it amounts to between 40 and 45 million hectoliters (Table 3.2).

A typical characteristic of the Italian wine supply is the number and importance of wines with recognized geographical origins. Such wines are produced under the EU rules on Protected Geographical Indication (PGI) and PDO. In particular, within the European category of PDO wines, in Italy there are different appellation levels, characterized by increasing and more stringent requirements.[3] The Italian appellation system, modeled on the French one,

[2] These figures concerning the professional grape growers come from the AGEA database. AGEA is the Italian agency in charge of the payments of CAP subsidies. According to Reg. 1308/2013, all professional wine grape farmers and all wine-makers have to submit each year a compulsory statement on the quantity of grapes or wines that they produce.

[3] According to Reg. (CE) 1308/2013 and Reg. (CE) 607/2009, EU wines can be marketed as:

- Varietal wines and generic wines, produced with no special restriction on where vineyards, wine-making, and bottling plants are located (in Italy the maximum yield is 50 t/ha). The name of the wine grape variety may be mentioned if at least 85% of the product has been made from that variety.

Table 3.2 Italian wine production by type (hl, %)

	2010	2011	2012	2013	2014	2015	2016
Generic wines	14,996,551	11,978,563	9,692,983	11,917,442	9,916,247	14,257,985	16,761,884
PGI wines	13,953,194	13,592,224	12,546,429	15,787,053	13,451,854	15,423,067	15,345,459
PDO wines	15,743,432	15,060,866	16,025,898	17,339,626	16,373,330	18,954,431	19,508,118
Overall	**44,693,177**	**40,631,653**	**38,265,310**	**45,044,121**	**39,741,431**	**48,638,483**	**51,615,461**
Generic wines	33.6	29.5	25.3	26.5	25.0	29.3	32.5
PGI wines	31.2	33.5	32.8	35.0	33.8	31.7	29.7
PDO wines	35.2	37.1	41.9	38.5	41.2	39.0	37.8
Overall	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: ISTAT, available at www.agri.istat.it started in 1963, but the number of appellations has rapidly and steadily increased since the 1990s. In 2016, the vine area for PGI wines was 149,009 ha, and the corresponding figure for PDO wines was 359,962 ha. Together, PGI and PDO represented 79% of the total vine-bearing area (ISMEA, RETEVINO 2018).

Considering wine production in terms of quality, in the period 2012–2016, Italian wine production in volume (Table 3.2) was almost evenly divided among generic wines (27–28%), PGI wines (32–33%), and PDO wines (39–40%). In terms of value, the shares were obviously different and were estimated (for 2016) at 24%, 18%, and 58%, respectively (QUALIVITA 2018).[4] Wine production is differentiated by type across areas: PDO wines predominate in NW, NE, and Center, NE dominates the production of GI wines, and South has the large majority of generic wines. Production of varietal wines is modest, about half a million hl.

Because of changing consumption patterns and the growing production of sparkling wines (based on white varieties), since the 2011 harvest, white wines have dominated the overall Italian production, accounting in the 2014–2016 period for about 53–54% (ISTAT 2017) depending on the year. In fact, a distribution of this type is more typical of the northern regions, while in the South, Tuscany and Piedmont red wines (including rosé wines) predominate over white ones.

- Wines with a recognized geographical origin, according to the categories Protected Geographical Indication (PGI) and Protected Designation of Origin (PDO). A geographical indication and a designation of origin are names of a region, a specific place, or, in exceptional and duly justifiable cases, a country, used to describe a wine whose quality depends (strictly in PDO case) on the delimited area corresponding to the name, where grapes are cropped and processed according to a recognized set of rules (product specification). In PDO wine production, only varieties belonging to *Vitis vinifera* are admitted, and all grapes must be cropped in the delimited area; in PGI production, also crosses between *Vitis vinifera* and other species of the genus *Vitis* are admitted, and at least 85% of grapes must be cropped in the delimited area.

In Italy PGI wines are presented as IGTs, because “Indicazione Geografica Tipica” is the officially recognized traditional term corresponding to the EU category PGI, and PDO wines are presented as DOC and DOCG wines, because Denominazione di Origine Controllata (Controlled Designation of Origin) and Denominazione d’Origine Controllata e Garantita (Controlled and Guaranteed Designation of Origin) are the officially recognized traditional terms corresponding to the EU category PDO (L. 238/2016). Wines belonging to the DOC and DOCG categories are assumed to be of higher value than IGT wines. Those DOC wines which have achieved particular appreciation by the market can be designated, on the producers’ request, as DOCG; in this case producers are obliged to comply with much more stringent production rules concerning not only the grape varieties and the maximum yields in vineyards and wine-making but also the grape selection and the aging. DOC and DOCG wines undergo strict chemical and organoleptic tests at the end of aging and (only for DOCG wines) before bottling; the bottling area can be inside or outside the origin area (depending on the production specification—“Disciplinare di produzione” in Italian).

[4] Estimates on bulk wine at the winery level.

3.3.2 Wine Production Organization

A structural analysis of the wine-making sector must take into account that wine-making is a phase of the wine production chain with several sub-phases, frequently performed by different companies. Given the data availability, the following structural analysis of the Italian wine-making sector considers (i) the technical units[5] operating in the two main sub-phases of wine-making, that is, grape processing (crushing) and bottling and (ii) how such technical units are vertically linked and how they are linked upwards with the grape production phase according to different supply chain models characterized by specific integration patterns.

3.3.2.1 Grape-Processing Technical Units

According to the most recent data made available by AGEA and referred to 2012, crushing is carried out in about 55,000 plants. Processing capacity differs greatly, however, and the largest share of production is concentrated in relatively few plants. About 80% of these plants are estimated to produce less than 500 hl per year, overall representing less than 1% of Italian wine production. On the other hand, about 200 plants, with a processing capacity of over 50,000 hl per year, represent about 60% of Italian wine production.

The grape-processing technical units can be classified into three categories: individual farmers making wine on their farms by processing self-produced grapes; cooperatives, which process mainly grapes delivered by members; and private industrial wineries, which process purchased grapes. Sometimes the borders between categories are not clear-cut, since some wine farmers also buy grapes from other farmers to make their wine and some wineries have their own vineyards. In 2012 individual farmers numbered 52,985 (97%), cooperatives 441, and industrial wine-makers 1414. In terms of the share of wine produced, the cooperatives were the most important and produced 49.6% of the total; industrial wine-makers produced 22.9% and farmers 27.5% (Table 3.3).

Each category comprises technical units that can be very different in terms of size and production orientation. Cooperatives include those with a few dozen members, as well as the main Italian wine firms. Individual farmers range from small producers to large prestigious firms. Also for the industrial

[5] The term "technical unit" denotes a single production plant. Several technical units engaged in grape processing may be under the control of the same company.

Table 3.3 Total wine production by type of producer (2012)

	Volume (hl)			%		
	Farmers	Wineries	Cooperatives	Farmers	Wineries	Cooperatives
Italy	12,364,272	10,315,146	22,298,290	27.5	22.9	49.6
North-West	1,674,055	1,250,168	1,270,420	39.9	29.8	30.3
North-East	5,125,387	3,670,548	10,340,461	26.8	19.2	54.0
Center	2,608,629	764,391	1,133,890	57.9	17.0	25.2
South	2,186,493	4,141,579	5,558,374	18.4	34.8	46.8
Islands	769,630	488,460	3,995,145	14.7	9.3	76.1

Source: Based on AGEA data, 2014

wineries, size may differ greatly. However, on average, the largest production capacity by plant is among cooperatives, with an average size of over 50,000 hectoliters, as compared to 7295 for industrial wine-makers and only 233 hectoliters for on-farm producers. The plants with the highest average size are located in the NE (1675 hectoliters) and in the Islands (1456), whereas the lower average sizes are found in the NW (404 hl) and in the Center (430).

The weights of the categories differ among the different kinds (generic, PGI, PDO) of wine (Table 3.3).[6] According to the AGEA data, cooperatives constitute the most important group for all kinds of wine but particularly in the sector of PGI wines, where their share is about 58%. However, industrial wine-makers are also strong in the sector of generic wine, with a share of 38%, against the 45% of the cooperatives. Individual producers are stronger in the sector of GI wines and, above all, for PDO wines, reaching 38% of the total.

The weights of the three categories also differ according to the area and the type of wine. For *generic wines* (Table 3.4), cooperatives are of overwhelming importance in the Islands. There, especially in Sicily, viticulture was traditionally characterized by high yields, high alcohol degree, and low-quality grapes. Hence, wine was mainly exported to be used to raise the alcohol degree of other wines or was used for distillation funded by the EU. Although the average quality of wines in these regions has recently greatly improved, cooperatives, which mainly collected those low-quality grapes, are still dominant. Along with cooperatives, in the rest of Southern Italy, industrial wineries cover the same segment. This outcome is probably also due to the lack of a high-quality wine-making tradition and, hence, on the technical side, to the difficulty for individual farmers to deal with flaws in the grapes and, on the commercial

[6] The data presented here are based on AGEA data, which differ, in absolute terms, from the ISTAT data (see Table 3.2) because the production volumes declared to AGEA every year may, for some types of wine and for limited quantities, refer to the previous harvest. Nevertheless, we used them because they are the only data available to estimate the grape flows to the various wine-making operators.

Table 3.4 Shares of total wine production by type of wine, producer, and area (2012)

	Farmers	Wineries	Cooperatives	Total
		Generic		
Italy	17.2	38.0	44.9	100.0
North-West	43.1	38.3	18.6	100.0
North-East	13.2	37.2	49.7	100.0
Center	43.3	43.5	13.2	100.0
South	16.4	45.0	38.6	100.0
Islands	8.3	9.9	81.9	100.0
		PGI		
Italy	29.0	13.2	57.8	100.0
North-West	34.1	19.7	46.2	100.0
North-East	31.3	10.8	57.9	100.0
Center	59.4	11.1	29.6	100.0
South	22.8	22.9	54.3	100.0
Islands	12.3	9.3	78.4	100.0
		PDO		
Italy	37.6	14.5	48.0	100.0
North-West	40.2	29.7	30.1	100.0
North-East	33.3	12.9	53.9	100.0
Center	63.9	7.5	28.6	100.0
South	21.0	8.8	70.2	100.0
Islands	31.0	8.3	60.7	100.0

Source: Based on AGEA data, 2014

side, to adopt appropriate marketing strategies. By contrast, cooperatives are also dominant in the NE for generic wines, but for quite different reasons. Cooperatives there are strong, market-oriented organizations and include the biggest firms in the sector. They have been successful in concentrating the supply and in creating the most popular brands of value wines distributed through large-scale retail.

In the NE, cooperatives are even more dominant for *PGI wines*, but farmers also have more weight (Table 3.4). Using the PGI label more widely has been a recent trend for many producers as a means to improve the quality and reputation of their wines. The possibility to use the PGI label has been much exploited by both farmers and cooperatives also in the South and, to a lesser extent, in the Center.

The share produced by individual farmers is much greater for *PDO wines* than for the other wines, in particular in the NW (especially Piedmont) and in the Center (especially Tuscany) where they account for 40.2% and 63.9%, respectively, of the total of PDO wines. In this segment, the industrial wineries lose weight, since cooperatives maintain their share. This is the result of a self-selection process. Those wine-growers with better-quality grapes and higher wine-making skills choose to make wine on the farm. This is possible due to the strong diversification of varieties and the access to several marketing channels. In particular, due to the long consumption tradition, consumers prefer local wines, which makes finding local outlets easier. On the other hand, small size makes it more difficult to exploit foreign markets, as well as large-scale retail.

3.3.2.2 Bottling Technical Units

Bottling is the production phase with the lowest availability of specific information. Nonetheless, bottling technical units are fewer than the number of grape growers and wine-making technical units. A relatively recent study (Malorgio et al. 2011b) estimated that about 8000 bottlers operate in Italy. Also the bottling technical units are very different in size, and the largest amount of wine (about 80%) is bottled by a very small share of bottlers (about 6%) with a relatively high processing capacity (more than 10,000 hl/year) (Table 3.5).

About 20% of the bottling technical units belong to pure (plain) bottlers bottling only wine produced by others. They deliver about one third of the Italian bottled production to the market. The other bottling technical units operate directly in wine-making plants. The majority of them (about 60%) belong to on-farm wine-makers and the rest to both cooperatives and industrial wine-makers. Despite the relatively high number of on-farm bottling technical units, most on-farm wine-makers are not equipped with their own bottling line; by contrast, most industrial and cooperative wine-makers are equipped with bottling lines. The absence of bottling lines linked with wine-making facilities has three causes. First, many wine producers (farms, industrial wine-makers, or small cooperatives) have neither the sufficient size nor the skills to market bottled wine on their own and therefore sell all their production in bulk to other businesses. Second, several grape-processing technical units may belong to the same firm, which concentrates bottling in a single station. Third, some small wine producers outsource bottling. Indeed,

Table 3.5 Bottling unit distribution by capacity

	Shares on	
Bottling capacity (hl/year)	Units	Bottled volume
< 1000	76	7
1000–5000	15	9
5000–10,000	3	5
> 10,000	6	79

Source: Malorgio et al. (2011b)

many large bottling plants operate as co-packers, and some firms equipped with truck-mounted bottling lines supply the service to small wine producers.

3.3.2.3 Grape Procurement and Supply Chains

The foregoing discussion evidences that the Italian wine industry is based on a complex network characterized by a radical concentration of flows. The grapes originate in a huge number of farms but are crushed by a much smaller number of wine-making technical units, and bottled wine is delivered to the market by a small number of bottling wineries or pure bottlers.

Indeed, it is possible to identify different, though interrelated, supply chains. These are two integrated chains, the Agricultural chain and the Cooperative chain, and two de-integrated chains, the Industrial chain and the pure Bottler chain.

The Agricultural chain and the Cooperative chain can be considered as integrated supply chains because they are headed by bottling firms that deliver to the market wine mostly deriving from self-produced grapes. Firms in these chains can be simple, their technical structure consisting in a wine-making and bottling plant, supplied by one or more vineyards in the immediate surroundings, directly owned (the case of the Agricultural chain); or they can be run by cooperative members (the case of the Cooperative chain). However, firms in this chain can assume a complex network nature. For instance, one or more bottling stations may be supplied by several grape-processing plants belonging to the same firm and by grapes produced by farms directly owned (case of Agricultural chain); or the bottling stations may be functionally linked to wine-making plants via specific agreements among formally independent cooperatives (the case of the Cooperative chain).

The Industrial chain and the Bottlers chain can be considered as de-integrated supply chains because they are headed by firms delivering to the market wine mostly derived from purchased grapes and/or wine. These firms typically have a network of suppliers, in some cases located in the surroundings of the bottling station or, as in the case of larger actors in these chains, spread throughout Italy and in some cases even located abroad. These networks of suppliers can be more or less stable, depending on the nature of the relation between suppliers and supplied (contracts or market; see Sect. 3.5.2).

These four supply chains are anyway interrelated, because exchanges of products may take place among firms belonging to different supply chains. In some cases, grapes or wine produced by firms belonging to Agricultural or

Cooperative chains that exceed their needs are delivered to de-integrated supply chains. In other cases, to enlarge their supply, firms belonging to the Agricultural chain purchase grapes or wine from agents operating mainly in the de-integrated supply chains. All these supply chains are important, in volume and value. Different types of suppliers therefore characterize the Italian wine industry. According to reliable evaluations (Malorgio et al. 2011a), the shares in volume of the four supply chains can be estimated as Agricultural chain, 20%; Cooperative chain, 17%; Industrial chain, 30%; and Bottler chain, 33%. The shares in value are probably different. In particular, the share of the agricultural chain is higher because its share of the more expensive PDO wines in the total supply is larger, and this supply chain includes the producers of the most prestigious Italian wines.

3.3.3 Supply Concentration and Top Players

Even considering that several technical units, also bottling plants, can belong to a single company, wine supply in Italy remains quite fragmented, and the degree of concentration of the industry is modest.

Mediobanca (2018) surveys the 155 main firms (those with a turnover of more than 25 million euros). In 2016, their total turnover was 7.2 billion euros, compared to an estimated Italian total of 13.9 (a share of 51.8%). The four-firm concentration rate is only 13.6%, and the first ten companies only account for 24% of the total turnover.

Two cooperatives (Cantine Riunite and Caviro) are the largest companies, and another two (Cavit and Mezzacorona) are among the first ten companies: cooperatives, though less in number, are absolutely significant in the overall picture of Italian wine-making, both as to volume of wine and turnover (Table 3.6). But also the other supply chains are represented among the top wine firms. In fact, some big companies lead bottler supply chains (e.g. Enoitalia and Italian Wine Brands) and other industrial supply chains (e.g. Mondodelvino Group and Botter). Other companies represent cases of agricultural supply chains, though among these large companies, a minor share of grape and wine is usually outsourced[7] (e.g. Compagnia de' Frescobaldi and Masi Agricola).

All the largest companies have their headquarters in the North (Veneto, Emilia-Romagna, Piedmont, and Trentino) or in Tuscany but with plants or

[7] Usually grape or bulk wine destined to low price labels.

Table 3.6 Top 30 wine companies in Italy

Name	Headquarter (region)	Turnover (€ millions) 2016	2015	2014	2013	Export share 2016 (%)	Governance	Av. Price €/bott
Cantine Riunite & CIV	Emilia-Romagna	565	547	536	534	66.5	Cooperative	na
Caviro	Emilia-Romagna	304	300	314	321	30.5	Cooperative	0.89
Palazzo Antinori	Toscana	220	202	180	172	64	Family control	7.71
Casa Vinicola Zonin	Veneto	193	183	160	154	86	Family control	3.8
Cavit Cantina Viticoltori	Trentino	178	167	158	153	81	Cooperative	2.38
Fratelli Martini Secondo Luigi	Piemonte	171	162	160	157	90	Family control	2.27
Gruppo Campari (wine dept)	*Lombardia*	*169*	*171*	*209*	*228*	*na*	*Family control*	*3.14*
Casa Vinicola Botter Carlo & C	Veneto	165	154	136	136	97	Family control	2.14
Mezzacorona	Trentino	163	175	171	163	59	Cooperative	3.57
Santa Margherita Gruppo	Veneto	157	118	110	102	69	Family control	6.19
Enoitalia	Veneto	148	135	128	128	74	Family control	1.52
IWB-Italian Wine Brands	Lombardia	146	145	101	101	72	Mixed[a]	3.22
Cantina Sociale Coop. Di Soave	Veneto	117	106	102	103	38	Cooperative	3.03
Gruppo Cevico	Emilia-Romagna	111	113	107	117	28	Cooperative	1.59
Schenk Italia	Alto Adige	106	104	82	80	73	Foreign control	na
Collis Veneto Wine Group	Veneto	106	104	75	78	30	Cooperative	6.3
Compagnia de' Frescobaldi	Toscana	101	95	86	84	62	Family control	8.89
Mondodelvino Group	Emilia-Romagna	101	91	73	66	84	Mixed	1.81
La Marca Vini e Spumanti	Veneto	101	76	60	54	79	Cooperative	2.82

(*continued*)

Table 3.6 (continued)

Name	Headquarter (region)	Turnover (€ millions) 2016	2015	2014	2013	Export share 2016 (%)	Governance	Av. Price €/bott
Lunelli	Trentino	96	84	na	na	26.5	Family control	na
Ruffino	Toscana	93	94	81	75	93	Foreign control	3.97
Villa Sandi	Veneto	88	73	na	na	45	Family control	na
Vivo Cantine	Veneto	81	65	na	na	47	Cooperative	na
Cantina di La Vis e Valle di Cembra	Trentino	76	83	na	na	74	Cooperative	na
Contri Spumanti	Veneto	76	79	82	92	39	Mixed	na
Mionetto	Veneto	72	65	na	na	57	Foreign control	na
VS Vinicola Serena	Veneto	68	56	na	na	na	Family control	na
Gruppo Banfi	Toscana	67	70	63	66	57	Foreign control	4.69
Vignaioli Veneto Friulani	Veneto	67	na	na	na	na	Cooperative	na
Quargentan	Veneto	66	68	na	na	na	Family control	na
Masi Agricola	Veneto	64	61	60	65	88	Family control[a]	5.2

Sources: Mediobanca (2016, 2017, 2018) for turnover and governance; average prices are our evaluations

[a]Listed

suppliers in many Italian regions, forming complex supply networks. In particular, firms belonging to the integrated chains directly control a very large area under vine. By way of example, Caviro controls 33,000 ha, Cantine Riunite & CIV 6200 ha, Antinori 3000 ha, Zonin 2000 ha, and Frescobaldi 1350 ha.

Despite the sector's low degree of concentration, the size of the top producers is not small. Indeed, the turnovers of the two major producers (Cantine Riunite & CIV and Caviro) are 565 million and 304 million euros respectively, both comparable to, for example, the biggest Australian and Chilean companies. The weak share of the top producers is rather due to the very large value of Italian wine turnover but also to the absence of truly big non-cooperative firms. Indeed, the big cooperatives are the result of a process of aggregation of medium/small firms; but similar processes have not occurred among family companies. In the recent history of the Italian wine sector, there have been no cases of medium/large firms in financial crisis or gone bankrupt that other firms could easily acquire. The existing large non-cooperative firms have grown only by internal growth without the big jumps that, in the new producing countries, have characterized the evolution of some wine companies (Green et al. 2006; Mariani and Pomarici 2011). As a result, there are no true sector leaders, even if the cooperatives are the most important players.

The analysis of the top 30 players reveals two other characteristics of the Italian wine sector. Wine is the main or the only business of the leading firms (in one case only, that of Campari, wine production is a division of larger group producing beverages and spirits). Foreign capital is rare, since only 4 top companies in the first 30 (and not in the top positions) are owned by foreign capital and only few cases among smaller firms are known[8]; on the other hand, also Italian investments abroad are scarce.

The turnover trends observed since 2011 for larger companies (i.e. those with turnovers above 50 million euros) show that a process of polarization is ongoing within the supply chain (Pomarici 2017). The relative weight of the larger companies is increasing, probably because of economies of scale, which are especially possible for big companies in the *commercial premium* segment. Smaller companies instead exploit niche marketing strategies and special skills, addressing the *super-premium* segment and the local distribution channels. By contrast, medium-sized companies, in the class between 50 and 100 million turnover, show a reduction in their turnover share. This is probably due to their size itself, which prevents either reaching satisfactory economies of scale for intermediate quality segments or achieving a competitive advantage for the top quality segments.

3.3.4 Marketing Strategies

The marketing strategies of individual firms are obviously very different, and it is not easy to give a general assessment. In very general terms, firm brands are not of primary importance for consumers, who are instead more attracted by the appellations and by the region of origin in purchasing (Fait 2010; Corduas et al. 2013).

[8] The latest case (2016) is the transfer of the prestigious Biondi Santi winery in Montalcino to the EPI Group (Champagne Piper-Heidsieck).

First, as regards the domestic market, a reason for the limited importance of brands is drinking habits, which are traditionally strongly linked to local wines. Second, with such a large number of producers, it is difficult for consumers to select the information and to check the reputation of the individual producers, and appellations are, albeit imperfect, quality signals (Cacchiarelli et al. 2014). Third, on the producers' side, most firms lack the financial strength and the skills to promote and advertise their products individually, and also among larger firms, the appropriateness of branding activities typical of fast-moving consumer goods is questioned.

In fact, the marketing activities for premium wines are mostly of the push type, with a deep personal involvement of entrepreneurs and oenologists, and addressed to intermediaries, retailers, media, HORECA actors, and selected influential consumers. They also try to benefit from the collective reputation of the appellation and, possibly, from marketing campaigns funded by local public bodies or organizations. On the basic wine side, instead, promotion relies mostly on price promotion and on favorable positions on the shelves.

There are exceptions, however. One is in the segment of very high-quality wines (super-premium, icon), where the winery brand is obviously a strong asset and a marketing tool. Nevertheless, even the most famous producers are usually linked to particular areas and to individual appellations, so that the brand is used in association with the PDO. Very few exceptions are the Super Tuscans and some other similar wines, originally created outside DOC/G regulations, and now still in many cases PGI wines and for which only the brand is a quality signal for consumers.

On the opposite side of the quality scale, brands (but not private labels, unlike in other countries) are used and advertised for generic wines, since this is the only differentiation signal that consumers can receive. For instance, among value wines, mainly sold in supermarkets, Tavernello is the leading brand (Giacomini 2010). It was launched by Caviro, the second cooperative firm by size in Italy, 30 years ago, as the first wine in cartons in Italy.

The marketing style in exports is substantially similar, and firm efforts, depending on their financial resources, are mostly addressed to enlarging and enhancing their relationships with distributors, retailers, media, and HORECA actors, and to influencing consumers, privileging actions below the line (public relations, etc.) instead of above it (advertising). Since 2010 the export promotion of Italian wine firms has been supported by substantial resources provided by the EU Common Agricultural Policy.

In regard to larger firms, the market segments in which they operate and the strategies adopted are quite diversified. In general, cooperatives operate in segments of low- and medium-quality wines, mostly oriented to the mass market, with smaller margins due to the prevailing large-scale retail outlet and to a lower orientation to foreign markets (Mediobanca 2016, 2017, 2018). In terms of types of wine, in 2017 "great wines" (with prices over 25 euros per bottle) were 2.9% of wine labels for cooperatives, compared to 8.2% for private companies. The shares for DOCG and DOC wines were 12.8% and 38.9% for cooperatives and 11.4% and 32.8% for private companies. The shares of PGI were similar (36.6% and 35.8% for cooperatives and private companies, respectively), but the latter had a greater number of generic wines (11.8% vs. 8.8%).

In short, while cooperatives are more concentrated on the medium segment (with the remarkable exceptions of Caviro for basic wines and Collis for super-premium wines), private companies are more dedicated to either the top segment or the lowest one. The comparison of average prices indicates that private companies belonging to the Agricultural supply chain fetch higher prices (especially in the cases of Antinori, Frescobaldi, and Santa Margherita), since they are primarily oriented to super-premium wines, while firms belonging to the other supply chains focus on the basic/premium market.

Analysis of the top players also illustrates the different performances of the Italian companies in terms of exports. Of the first 30 firms, 12 obtain more than 70% of their turnover from foreign markets (up to 97% for Botter and 93% for Ruffino), 7 between 50% and 70%, and the rest below 50% (with a minimum of 26.5% for Lunelli), with no pattern in this respect between cooperatives and private companies.

A special mention should be made of the production of sparkling wines, which has rapidly increased in recent years, up to 610–630 million bottles in 2015[9] (Osservatorio Economico Vini 2016; available at www.ovse.org). The sector is highly diversified in production methods (second fermentation in tanks, i.e. Charmat, 95–96% of the total, and second fermentation in bottles, i.e. Champenoise, for the rest), firm size, appellations (generic, PGI, PDO), taste (sweet, brut, dry, extra dry), and longer or shorter aging. Whatever the segment, big wineries cover the largest part of the production (almost 60%), since the sparkling wine technology is not easily affordable for small farms. The differences in production methods translate into quite different production costs and, in some cases, are conditioned by the level of designation (Zanfi 2009, 2011). Accordingly, sparkling wine can range from the value segment to the super-premium segment, depending on the production method, the aging, and, obviously, the brand. The most important

[9] In 2016 the value of the Italian sparkling wines destined for export was 1.2 billion (ISMEA 2018).

production areas are located in the NW and the NE, and are represented by Piedmont for Asti Spumante DOCG (70 million bottles in 2015), by Lombardy for Franciacorta DOCG (top-class region for traditional method, 30 million), by Veneto and Friuli for Prosecco DOC and Valdobbiadene Prosecco Superiore DOCG (470 million), and by Trentino-Alto Adige for Trento DOC (8 million). The production of sparkling wines is expanding out of the traditional areas under several appellations, with an overall share that in 2017 was around 22% of the total.[10]

3.4 The Distribution

In quantitative terms, ISMEA (2015) estimates that of the total available wine (domestic production—95%—plus imports), 45% goes to domestic consumption, 46% to exports, and the rest to distillation and industrial use (Fig. 3.2). Domestic consumption consists in 35% of bulk wine, most of which is sold directly by producers (this part also includes a very small share of self-consumed wine) and in a smaller amount sold on-trade.[11] Wine in bottles or packaged in other containers is estimated at 65% of domestic consumption, of which the largest part (61%) is off-trade.

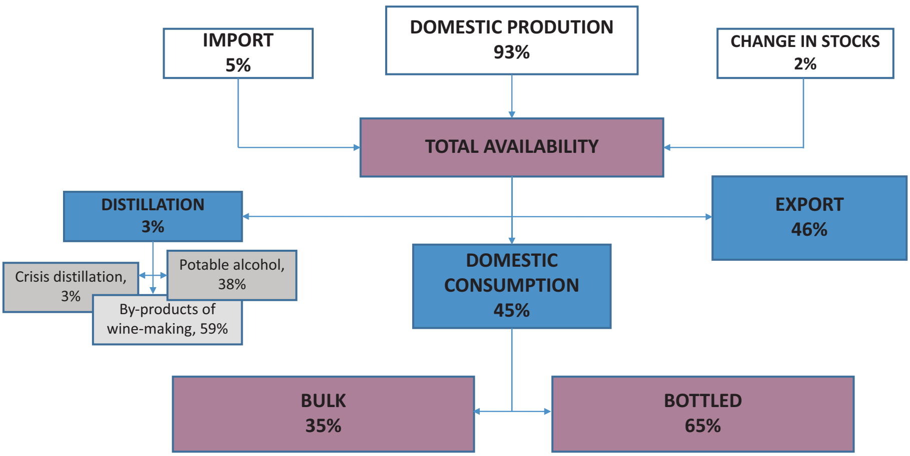

Fig. 3.2 Wine consuption flows. (Source: ISMEA, Scheda di settore 2015)

[10] Unpublished information from UIV Wine Market Observatory.

[11] The term “on-trade” means sold for consumption in hotels, pubs, restaurants, and cafes, whereas “off-trade” means sold in supermarkets, stores, food retailers, corner shops, and so on.

Obviously, in the bottled off-trade channel, large-scale distribution prevails, compared to other channels like traditional food stores, wine shops, and direct sales. Nevertheless, no further reliable data on the commercial channels covered by all domestic consumption until the final consumer are easily accessible because they are available only for specific wine categories (PDO, PGI, generic wines). As regards bulk wine, the share of direct sales to final consumers is not small, especially in the case of individual farmers and cooperatives and for some regions because it is still customary for urban consumers to buy wine directly[12] and to bottle it by themselves.

More detailed data on the distribution channels are provided by the abovementioned Mediobanca surveys (2018), which report the shares of the sales channels used by the top companies, in total and by company category of price segment (Table 3.7).

Among the 155 largest firms, considering their overall supply, the largest share of domestic sales is directed to large-scale retail (38%); and it is bigger for cooperatives (46%) than for private companies (34%). Direct sales (13%) have a relatively lesser importance. The share of HORECA is much smaller for cooperatives (8%) than for companies (22%), since cooperatives prefer to provision other channels such as large-scale retail and wholesalers, probably because of the higher volumes involved. The wholesale channel remains an important channel for all firms, because it is a way to reach consumption areas far from those of production. In short, the main difference between the big firms and the farmers is that the farmers sell more through direct sale and local supermarkets or wine shops, and less on-trade, especially through large-scale retail.

Table 3.7 Percentage of Italian domestic supply by distribution channels (2017, 155 top wine companies)

	Supply of the top Italian wine companies					
	All wines			Great wines		
Distribution channels for domestic supply	All firms	Private	Coop	All firms	Private	Coop
Direct sale	12.6	14.4	10.6	18.8	23.6	12.1
Large-scale retail	38.2	33.9	45.5	3.3	3.4	2.1
HORECA	16.5	21.7	8.2	37	37.1	38
Wine shops and wine bars	8.1	10	4.5	23.6	26.3	16.7
Wholesalers and intermediaries	16.8	14.6	20.5	8	3.7	17.2
Other channels	7.8	5.4	10.7	9.3	5.9	13.9

Source: Mediobanca (2018)

[12] It is also customary for farms and cooperatives to deliver bulk wine to consumers' homes.

The destination of the great wines (those with a price of more than 25 euros) of the largest firms is rather different and suggests the different orientation of distribution channels in terms of type of wine. HORECA and small shops (wine shops and wine bars) have the largest share (respectively, 37% and 24%) of consumption of great wines, followed by direct sales (19%), while large-scale retail has a very low weight (3%). The main difference between cooperatives and companies is that the latter use more direct sales and small shops and rely less on trade.

Distribution outlets are reached in Italy in almost the same way by all firms. Firms are connected with small outlets like wine shops, restaurants, bars, and wholesalers through a network of sales representatives, which can be larger or smaller according to the firm's size. The purchase platforms of large-scale retailers or restaurant chains are reached via specialized intermediaries. Distributors (i.e. operators that have the monopoly within an area of the sales of the products of a winery and that promote its brand) have a quite limited role in Italy, especially in the case of great wines.

The exported wine is shipped mainly in bottles; indeed, bottled still and sparkling wines account for 75% of total exports in volume.

Most wine firms reach the foreign markets through local importers abroad, possibly supported, in the case of smaller firms, by specialized intermediaries (Mediobanca 2018). Larger companies may have various importers in the same country, one to reach large retailers and others to reach wine shops and restaurants. The 155 larger companies too mostly export through foreign importers (75% of their exports), less through their own networks (10%), though cooperatives have a larger weight in the latter (14%). Indeed, only few firms, private or cooperative, have established controlled distribution companies in some importing markets. Among the great wines, the share of importers is slightly larger (78%), especially for private companies (88%).

3.5 Relationships Along the Chain

3.5.1 The Flows Along the Production Chain

The Italian wine production chain is based on different supply chains differently integrated. The flows of grapes originate from a very large number of farms, but an increasingly smaller number of operators control the flows of wine in the subsequent phases of the chain.

The available data enable detailed analysis of the flow in the first step of the wine production chain, from grapes to bulk wine, showing how grapes

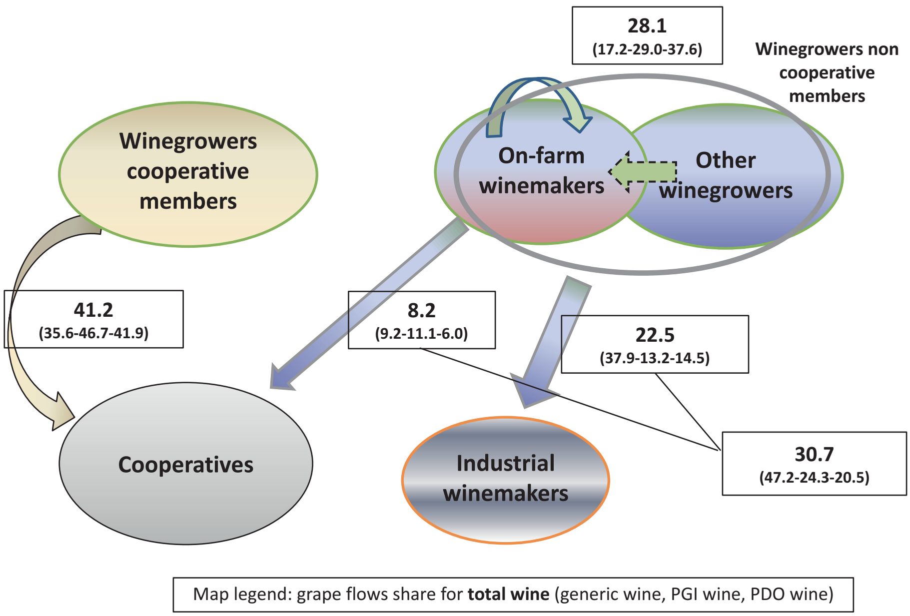

Fig. 3.3 Estimable grape flows among operators for total wine, generic wine, GI wine, PDO wine. (Map legend: Grape flows share for **total wine** (generic wine, PGI wine, PDO wine))

produced by the three types of professional farmers already identified (Sect. 3.2.3) move to the three types of wine-makers (Fig. 3.3). Farmers who are cooperative members and farmers who make their own wine do not sell grapes on the market for a price. The grapes passing through a sale are those purchased by cooperatives from nonmembers and by industrial wineries. They can be estimated at about 8% and 22.5% of the total volume of grapes[13] (Mazzarino and Corsi 2015). According to the latest available data, referring to the 2012 harvest, the provision of grapes to cooperatives by their members accounted for 41% of the total production, and the share of on-farm winemakers was 28%. Hence, the share of grapes passing through a formal market is about a third of the total output (31% in 2012). The formal market therefore strongly concentrates the flow, because about 60,000 farmers deliver their grapes to only 1400 industrial crushing plants. This adds to the concentration operated by the cooperatives, as 441 cooperative plants process the grapes produced by 83,000 cooperative members.

[13] This estimate does not consider the flows of grapes produced by other farmers to farmers making wine; moreover, grapes possibly sold to cooperatives and industrial wineries by farmers making wine, when exceeding their processing capacity, are aggregated to the grapes sold by "other farmers".

The flows are different for the different categories of wine. For the grapes destined for generic wine, the part provided by cooperative members is 36%, the part processed on the farm is 17%, that purchased by cooperatives is 9%, and that purchased by industrial wineries is 38%, so that the share of the formal market (47%) is relatively high. The corresponding share for PGI grapes is only 24% (11% purchased by cooperatives, 13% by industrial wineries), while the share processed by cooperatives from their members is 47%, and the amount self-provided by farmers is 29%. Finally, for PDO wines, the share of the formal market is about 20% (6% purchased by cooperatives, 14.5% by industrial wineries), while 38% is used for on-farm wine-making, and 42% is provided to the cooperatives by their members.

The analysis of flows in the second step of the wine production chain, from bulk to bottled wine, cannot be supported by detailed data, but it can nevertheless be based on a reliable evaluation (Malorgio et al. 2011b). This second step involves about 70% of the wine produced, as about 30% is marketed in bulk for domestic consumption or export.

In analyzing this second step, it is convenient first to consider that the wine produced on-farm and by cooperatives is only partially bottled by the same operators. The shares of their own wine directly bottled by farmers and cooperatives are about 45% and 20%, respectively. Therefore, on-farm wine-makers and cooperatives, net of internal exchanges, deliver to the intermediate wine market over 50% of the wine volume. Indeed, on-farm wine-makers typically either bottle their entire wine production or sell it totally in bulk. On the contrary, most cooperatives are equipped with a bottling line, but they typically bottle only a share of their wine and supply bottlers in Italy or abroad, especially in the last period of development of an international bulk market (Mariani et al. 2012).

The industrial wineries buy on the intermediate market and bottle bulk wine for about 30% in addition to the wine that they produce directly. Of course, pure bottlers buy the totality of the wine that they bottle on this market. Also this intermediate market strongly concentrates the flows, as the wine produced by about 45,000 wine-making technical units is delivered to fewer than 3000 bottling stations.

Summing up, the structure of Italian wine industry, as based on both integrated and de-integrated supply chains, includes two intermediate markets, grapes and wine. Although smaller in volume than 30/40 years ago, these markets are still important in quantitative and functional terms and are structurally necessary for the functioning of the de-integrated supply chains but also give flexibility to the functioning of the integrated supply chains.

3.5.2 Intermediate Markets and Contracts

In the past, there existed big local markets where intermediaries and wine-makers traded a very large proportion of grapes. These markets are now reduced in size because they handle only one third of the grapes, given that most of the grapes are processed either by the farmers themselves or by their cooperatives. Moreover, when wineries produce higher-quality wines, they tend to have stable purchase relationships with wine-growers—so as to ensure a supply of good-quality grapes—on the basis of formal or informal contracts.

Price setting differs according to the different flows. Of particular importance is the mechanism used by cooperatives. Since the Italian law imposes strong constraints on the destination of profits of cooperatives, in practice profits are distributed to members as higher prices for the grapes that they deliver. Members (who generally are bound to provide their total production to their cooperative) therefore receive a first price as an advance. When the cooperative accounts are closed, profits are distributed as an additional price (balance). Hence, the real price that cooperative members receive depends on the overall wine market and on the cooperative's efficiency rather than on the market for grapes. Similarly, for wine-growers that are also on-farm wine-makers, the real price that they receive for their grapes depends on the overall wine market and on the wine-making efficiency rather than on the market for grapes. Of course, for on-farm wine-makers, also the quality of the grapes (and, hence, their skills in growing the grapes) matters. The same applies to the cooperative members, since cooperatives usually pay their members according to the quality of their grapes. In the long term, cooperatives and on-farm wine-makers have acted as powerful indirect regulators of the market of grapes, over which wholesalers and industrial wine-makers traditionally exercised market power. Partly, growers provide grapes to industrial wineries under contract, so that prices are set in advance. This also concerns some on-farm wineries, which increase their wine production by buying other grapes, and it mainly happens when they aim at quality wines. When costs are the main concern, wineries buy on the spot, have no long-term relationship with the sellers, and choose mainly according to the price. The prices on these markets are not easy to detect but mainly depend on the supply of grapes and/or on the existing wine stocks of previous harvests. However, the market for grapes based on spot prices is a minor market, because it concerns a minor part of the processed grapes. However, the share of the spot market is larger for the grapes for generic wines or for some large-volume PDO/PGI wines.

In some cases, collective agreements are signed between the associations of the wine-growers and those of the industrial wine-makers, setting prices and other conditions. This concerns some wines where almost the totality of grapes is processed by industrial wineries, typically in Piedmont and Sicily. In Piedmont the most important agreement concerns the Moscato grapes for Asti and Moscato d'Asti DOCG wines, but others deal with Brachetto grapes for Brachetto d'Acqui and Piemonte Brachetto wines, Cortese grapes for Gavi wines, and Chardonnay and Pinot noir grapes for Alta Langa sparkling wines. In Sicily, they concern the grapes for Marsala and Pantelleria DOC wines. For example, the agreement for Moscato sets the grape price yearly, within the limits of established yields (possibly lower than those that are allowed by the PDO regulation). Some small price increase is possible for particularly good-quality grapes. The payments are usually in two installments, of which the first at the end of the year, for 50–75% of the total amount. In Sicily, the agreements on grapes for Marsala and Pantelleria DOC wines set the minimum price for the "basis" grape (20° Babo). To this, further payments, directly agreed upon by the seller and the buyer, can be added in the case of higher sugar content or good conditions of the grapes; these payments may substantially increase the minimum price (CIA 2012).

The intermediate wine market is of some significance. In this market some important geographical delimitations may exist because, for most PDO wines, the area where bottling is possible corresponds to the grape-growing area. Such limits do not exist for PGI and generic wines. Also in the intermediate wine market, exchanges are regulated by contracts or spot transactions. The prices of wines destined to be sold as PDO or PGI are mainly influenced by local factors, while the prices of generic wines are increasingly influenced by international markets, as Italian large bottlers are now also procuring wine abroad.

3.5.3 Interbranch Organization and Sector Governance

The Italian wine industry lacks a unitary governance because the actors are represented by many organizations. Farmers are represented by three general farmers' unions, and cooperatives are represented by two main unions plus some minor ones. Moreover, two wine producer organizations (Unione Italiana Vini and Federvini) are also active; many farmers or cooperative members of these bodies are also members of their general association. As a matter of fact, this fragmentation often hampers the development of efficient and shared policies for the sector.

Also other bodies have a role in the governance of the Italian wine industry. Among them, the association of oenologists (Assoenologi), the association for wine tourism, the association of wine cities, and, in particular, the interbranch organizations constituted among producers of one or more PDO/PGI wines (Consorzi di Tutela) according to the EU and national regulations[14] to pursue the interests of their members—in particular to promote their wines, to improve knowledge about production techniques and market conditions, to regulate the supply, and to prevent the unlawful use of the name of the wine. In Italy about 110 Consorzi di Tutela are active and are recognized by the Ministry of Agricultural, Food and Forestry Policies; these bodies at the regional level negotiate local wine policies, while their national association (Federdoc) takes part in the negotiations concerning the national wine policy.

Research and technical innovation are carried out mainly by research centers of the network of the Ministry of Agricultural, Food and Forestry Policies (Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria—CREA) and by several university departments, which also train the oenologists.

3.6 Conclusions

The overall picture that can be drawn is a multifaceted one. However, some main structural elements emerge.

A first aspect is the diversity of the operators included in the structure of the Italian wine sector (Sardone 2014). This applies to grape-growing as well as to wine-making and distribution.

The wine-growing sector extends throughout Italy but with specific territorial differences. Its core lies in Veneto, Tuscany, and Piedmont for quality wines and Emilia-Romagna, Veneto, and Apulia for mass consumption wines, even if also other regions produce wine grapes. It is mainly composed of small family farms, growing a large number of varieties and with a large number of PDO and GI wines.

The wine-making sector, too, comprises a variety of operators with different specializations and different relations for grape procurement, defining two integrated supply chains (Agricultural and Cooperative) and two de-integrated ones (Industrial and Bottler), each of which is highly diversified. In the overall system, cooperatives are the most important players, both as leading firms and

[14] EU: Reg. 1308/2013, art. 157, 158, 167; Italy: L. 238/2016, art. 41.

as widespread organizations of wine-growers. Historically, the fragmentation and the small size of wine-growers rendered them subject to the market power of wholesalers and industrial wine-makers. Cooperatives, supported by a legislation favoring them and by farmers' unions, have been the reaction to that situation, with greater or lesser success depending on many factors, particularly social capital and human capital. Differences in social capital and historical heritage are at the origin of the differences within the cooperative sector, of which the stronger and more market-oriented part is located in the North. Some are leading firms and have succeeded in adding value to the mass production of their members.

Private companies are also among the leading firms, but within this group, firms belong to different supply chains, and their strategies are rather diverse, both as to the orientation to the internal or the export market, and to the market segment and to the production organization.

In this regard, on-farm wine-makers are part of the trend changing the relationships within the industry, that is, the trend toward quality. This has been a consistent trend of the Italian wine industry in recent decades, as shown by the constant increase in the number and share of PDO and PGI wines and, more significantly, by the success in keeping up with the competition of the new producing countries on the export market and in increasing the average export price (Corsi et al. 2004, 2018). On-farm wine-makers have been deeply involved in this trend, and their share of PDO wine production is particularly large. Given the average small farm size, they have had a strong incentive to upgrade the quality and to try to gain larger margins by exploiting the consumption trends to decreasing consumption but to higher-quality wines.

For the largest part of the sector, the differentiation strategies are mainly based on appellations rather than on brands. Brands are important marketing tools in three segments: (i) the value wine segment, mainly occupied by big cooperatives; (ii) the sparkling wine segment, dominated by private companies; and (iii) the quantitatively small but economically important segment of some icon and super-premium wines. Appellations are an important marketing tools especially for the growing sector of on-farm wine-makers striving to enhance the quality of their wines but not big enough to afford marketing strategies of their own. However, they are also largely used by big firms and big cooperatives, and even producers of super-premium and icon wines are generally complying with appellation regulations, since their wines are linked to a particular *terroir*.

The present situation, although so varied, is nevertheless consistently the result of a long process toward vertical integration; and therefore the role of intermediate markets and intermediaries has decreased relatively to the past, though it remains important in some areas. Wineries have a strong incentive to have their own vineyards, since if the majority of the grapes that they use come from their own vineyards, they are classified as agricultural firms, and the fiscal regime in that case is much more favorable. On the other side, farmers have a strong interest in adding value to their products either by controlling the processing directly or through their cooperatives. Within this trend, an obvious selection process is ongoing, since technical and marketing skills are required for the single wine-makers and managing skills are required for the cooperatives. The final outcome is unclear, but it is doubtful that a single organization model will prevail. It seems much more likely that a variety of solutions will survive by exploiting specific assets and skills.

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