6

Asymmetric Information

To know the vintage and quality of a wine one need not drink the whole cask.
—A phrase attributed to Oscar Wilde (1854–1900)

This chapter is divided into three sections. The first discusses the concept of asymmetric information, which is relevant in many fields besides economics; it analyses the causes that give rise to the two different situations of adverse selection and moral hazard and discusses possible solutions for these market failures. The second describes the advantages in terms of higher sales and price to be gained from the three sources of reputation—namely, individual, collective, and institutional. Finally, the main differences between the Old World and the New World are discussed.

6.1 Information Asymmetry: Problems and Possible Solutions

"Asymmetry" of information is when traders do not all have the same (complete) information in a transaction and can give rise to two different situations: adverse selection and moral hazard. Adverse selection is when one of the two parties, the "principal," cannot know of one or more exogenous characteristics of the "agent," the object of the transaction or the situations in which they may find themselves. It is important to underline that these characteristics preexist the decision to carry out the transaction and, therefore, are called exogenous. In contrast, moral hazard occurs after the decision to carry out the transaction when the delegating party cannot see the actions performed by the agent or the characteristics of a good they have supplied. In this case the actions and characteristics are subsequent to the decision to carry out the transaction.

The literature on information asymmetry has received great impetus from the pioneering work of Akerlof (1970) on adverse selection. In this article the author presented a theoretical model applied to the used car market in which the owner-seller knows exactly the characteristics and the degree of wear of the vehicle being sold while the buyer has trouble in establishing the actual quality of the vehicle because of their limited knowledge of mechanics or in detecting defects that cannot be easily seen. Assuming that the price quotes on the market refer to cars with average characteristics and qualities in terms of mileage and damage suffered, it follows that only owners with cars of equal or below average quality will gain by proceeding with the sale. The market responds to a decrease in the average quality of the cars with a parallel decrease in the average price offered, leading to a further lowering of quality down to only lemons. Theoretically, this downward spiral can continue until the complete disappearance of the market.

A situation of this kind is inefficient from a Pareto point of view since the will of the two parties, the principal and the agent, to conclude a mutually beneficial transaction is hampered by asymmetric information. In line with these intuitions, Shapiro (1983) showed that in the presence of a consumer's incomplete information, companies produce goods and services of lower quality because of the incentive to make short-term gains. All of this, of course, can continue until customers understand the real quality of the product that will then hamper purchases and in this way distort the market.

In the wine sector, information asymmetries are very strong.[1] Wine is, in fact, a classic example of an "experience good" (Cardebat, 2017, p. 32; Thornton, 2013, p. 38).[2] With the exception of repeat purchases or those that take place after tastings, bottles are generally bought sealed and when the wine has not yet been tasted. The principal discovers the quality only after purchase at the time of consumption. As the quality and the characteristics of the product are preexisting, this is a typical adverse selection situation. Moral hazard, instead, does not exist since, once the transaction has been completed, the producer can no longer influence in any way the quality of the drink because it has already been produced and bottled. Adverse selection in the wine sector does not lead to the disappearance of the market as a whole (people will not stop drinking wine because of uncertainty about the quality of the product on the shelf), but it can reduce the buyer's willingness to pay. It may also weaken the correlation between actual quality and the price paid to the detriment of those who find themselves in a negative spiral and to the advantage of others who may invest in effective advertising campaigns and marketing.

There are four possible solutions to the problem of adverse selection, two of which are private and two, public. Their purpose is to signal quality to consumers, thereby reducing the information asymmetry (Cardebat, 2017, pp. 32–35). Private solutions emerge spontaneously on the initiative of companies operating in the wine sector and consist in building a solid reputation for individual companies (corporate reputation) or business consortia (collective reputation). Public solutions are provided by national or supranational public authorities and take the form of wine classification systems (leading to "institutional" reputation) and quality control. In the next section the three forms of reputation will be discussed (table 6.1) while the role of controls will be briefly mentioned in the context of collective reputation.

Table 6.1
Individual, collective, and "institutional" reputation.

Individual reputation	Refers to a single company and is built up by the firm by investing in quality, advertising campaigns, etc.
Collective reputation	Refers to a group of companies that have joined together in a consortium, creating a collective brand (appellation—e.g., Chianti Classico, Barolo, etc.), and that are committed to following strict rules on standards and production procedures of the product specifications.
"Institutional" reputation	Refers to the classification of wine established by public authorities (VdT, IGT, DOC, and DOCG in Italy). The state sends a signal to the consumer ordering the wines according to their quality and production standards.

Notes: VdT = Vino da Tavola (table wine); IGT = Indicazione Geografica Tipica (wine typical of a region); DOC = Denominazione di Origine Controllata (Controlled Designation of Origin); and DOCG= Denominazione di Origine Controllata e Garantita (Controlled and Guaranteed Designation of Origin).

6.2 Reputation

Reputation is the expectation about the quality of an asset or the abilities or behavior of one or more agents (Bar-Isaac and Tadelis, 2008)[3] and depends on the quality and behavior observed in the past.[4] Quality and reputation are two concepts that are connected but that do not necessarily coincide because reputation obviously depends on quality but is also influenced by other factors such as advertising campaigns, word of mouth,[5] and so on. It follows that reputation can be better or worse than the actual quality.

In the economic field, the presence of information asymmetries makes reputation a valuable tool to increase sales both in value and in volume. Building a reputation requires significant short-term investments to obtain long-term returns (Wilson, 1985). Not only do certain costs in the short term correspond to uncertain and delayed benefits over time, but reputation can suddenly be damaged by intentional actions or accidental events that risk undermining a multiyear commitment (Fombrun and Shanley, 1990). However, an increase in sales and/or the price premium resulting from reputation can compensate for the efforts made by the company (Barney, 1991).

In the last thirty years there has been a proliferation of literature on the causes and consequences of reputation. Among the theoretical articles that suggest a positive impact of firm reputation on selling price are Klein and Leffer (1981), Shapiro (1983), Rogerson (1983), Allen (1984), and Houser and Wooders (2006) while empirical studies focusing on e-commerce include Melnik and Alm (2002), Keser (2003), Resnick et al. (2006), and Cabral and Hortaçsu (2010). Businesses that enjoy a better reputation are able to achieve above average profits in the long run, as demonstrated by Roberts and Dowling (2002).[6]

In the wine sector, reputation plays a very important role in consumer choices, especially for high-end products (Heijbroek, 2003). As already mentioned in chapter 2, the positive relationship between the three forms of reputation and the price of bottles sold has been widely demonstrated using data for the French Bordeaux region (Combris, Lecocq, and Visser, 1997; Landon and Smith, 1997, 1998; Cardebat and Figuet, 2004; Ali and Nauges, 2007), Australia (Oczkowski, 1994, 2001, 2018), the United States (Costanigro, McCluskey, and Mittelhammer, 2007; Costanigro, McCluskey, and Goemans, 2010; San Martín, Brümmer, and Troncoso, 2008; Cross, Plantinga, and Stavins, 2011), the Italian region of Piedmont (Benfratello, Piacenza, and Sacchetto, 2009; Corsi and Strøm, 2013), Germany (Frick and Simmons, 2013), and four countries of the New World (Schamel, 2000).[7]

Given that reputation helps to increase both the volume of sales and the average price that a consumer is willing to pay, we now move on to an analysis of its determinants based on the studies of Castriota and Delmastro (2012, 2015) using Italian data. The two studies use ratings from wine guides that collect and publish information by assigning votes to companies or appellations. The function of wine guides is to reduce information asymmetries in a complex market where consumers have too much information and limited skills (Marks, 2015, p. 120) and can therefore be compared in all respects with that of rating agencies (Hay, 2010). Nowadays wine guides, journalists, gurus, and bloggers are able to influence market prices with their own assessments as demonstrated by Ali, Lecocq, and Visser (2008) in the study of the American critic Robert Parker and French en primeur wines.[8]

One may rightly ask whether the number of stars assigned by wine guides to companies and appellations is a distorted proxy of reputation. In principle, there is nothing to guarantee that the opinion of experts reflects that of consumers who are on average less experienced—not to mention the possible risk that judges are paid under the table to give flattering evaluations. However, as emphasized by Costanigro, McCluskey, and Goemans (2010),[9] a number of studies have found a positive correlation between expert ratings and the price of wine regardless of the country, guide, or expert. Since price is nothing but a consumer's willingness to pay, this proves the correspondence between the opinions of critics and buyers.

6.2.1 Individual Reputation

The wine sector is a perfect candidate for an analysis of the determinants of a company's reputation because many producers are moved by strong intrinsic motivations (Scott Morton and Podolny, 2002) to pursue qualitative excellence regardless of the possible return on investments.

This section refers to Castriota and Delmastro (2012), who used data from a sample of 581 companies located in northwest Italy (figure 6.1). All 581 wineries have won a national reputation (appearing in the *Espresso* guide), but only sixty-seven have achieved notoriety at an international level (present in Hugh Johnson's guide).

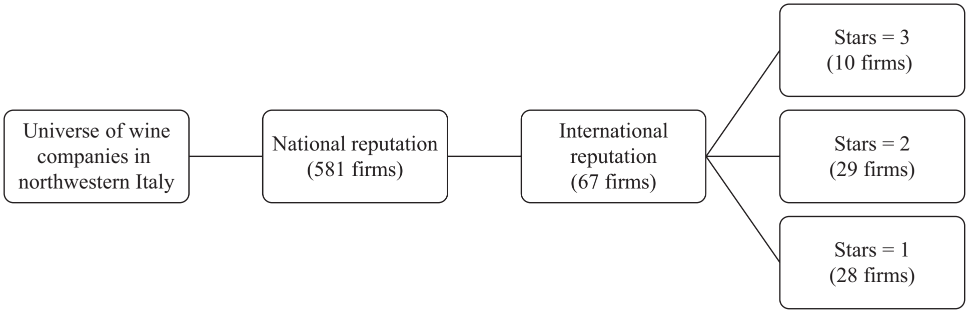

Figure 6.1
Structure of the sample of firms used in the study of firm reputation.
Source: This figure is from Castriota and Delmastro (2012), p. 59, figure 2.

International prestige is therefore a privilege reserved for few companies. Corporate reputation is built up chronologically from (1) no reputation, followed by (2) notoriety at a national level, and finally (3) at an international level.[10]

The theoretical literature[11] has identified a series of variables among the determinants of corporate reputation that can be largely attributed to the two pillars of the information economy: the innate or acquired characteristics of a company—such as ability and skills—and its actions—such as commitment, seriousness, and honesty. However, over the years, the literature has added other factors not related to these two macro-categories. For a review, see appendix 6.1.

The analysis carried out by Castriota and Delmastro (2012) shows that in general, determinants that influence national reputation will also influence international reputation. As reported in the theoretical literature, age plays a significant role; this determinant reflects the importance of the learning process both for the consumer and the entrepreneur. The involvement of the owner as a wine maker influences reputation positively through greater commitment and pursuit of excellence or through specific skills acquired over the decades. Company size is positively correlated with reputation since it ensures greater visibility and the adoption of large-scale technologies.[12] Company form does not seem to be relevant nor indeed does the recruitment of famous external wine makers or horizontal differentiation.[13] Finally, the collective reputation of the most prestigious appellations can positively influence the reputation of an individual company.

After having considered the similarities, let's now move on to the differences. The first concerns yields per hectare that have a negative effect on national reputation but zero effect on international reputation. This can be explained by the greater amount of knowledge and information a national observer can find compared to one in a distant country. Geographical proximity and contacts can also allow small niche businesses that pursue excellence but with very low yields to emerge and be known nationally. The second difference concerns the role of the institutional brand Controlled and Guaranteed Designation of Origin (DOCG) that is recognized by the state and appears to be relevant only at an international level whereas the prestige of the most important appellations matters most (collective reputation) at a national level. Here once again, less detailed knowledge about context and producers forces the international observer to rely more on the institutional signals provided by public authorities (recognition of DOCG). The appellation system and the classification system, therefore, can both be useful for building a reputation, even if they act through different channels: the first being national and the second, international.

6.2.2 Collective Reputation

The analysis of the determinants of collective reputation draws on Castriota and Delmastro (2015). As reported in the previous section, the presence of strong information asymmetries between producer and consumer, the nature of "experience goods," the dispersal of land ownership, and the need for combating fraud have all encouraged the creation of producer consortia and collective brands. When there is a very large number of products, consumers often buy goods of the more prestigious collective brands to save time (Andersson, 2002). Buyers must decide the type of information and the level of detail to collect (Costanigro, McCluskey, and Goemans, 2010), and so they generally start with geographic names (e.g., Italian or French wines are considered good), then move on to collective brands (e.g., Champagne and Barolo) and finally with the individual brands, with the best vintages generally reserved for just a few experts (Fleckinger, 2007). Last but perhaps not least is the role that some consumers attribute to regional traditions, for which they are willing to pay a price premium (Vogel, 1995; Grebitus, Lusk, and Nayga, 2013; Balogh et al., 2016).

A good collective reputation benefits sales volumes and prices, and this is particularly useful where companies are small (as in Italy) and it becomes impossible to build a reputation at an individual level (as, for example, happens in the New World). Indications of origin are so important that they were given protection by the World Trade Organization in the Marrakesh Agreement of 1994 (see box 6.1). This is the reason why economists started to study how collective reputation is formed and what factors contribute to it. Collective reputation is defined as the aggregation of the individual reputations of all the associated companies (Tirole, 1996; Landon and Smith, 1998) or its most famous members (Gergaud and Livat, 2004), In Tirole's model (1996) the new members of a group "inherit" the reputation of the older ones, thereby benefiting from it or paying the price for it, even long after the senior members have left. Collective reputation is thus history dependent and creates stereotypes. As for the determinants, many of the variables that influence a company's prestige do so in exactly the same way as for collective brands. See appendix 6.2 for a review of the theoretical determinants of collective reputation.

Box 6.1
Annex 1C: Trade-Related Aspects of Intellectual Property Rights, Marrakesh Agreement establishing the World Trade Organization, signed in Marrakesh, Morocco on 15 April 1994.

Section 3: Geographical Indications

Article 22

Protection of Geographical Indications

1. Geographical indications are, for the purposes of this Agreement, indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.
2. In respect of geographical indications, Members shall provide the legal means for interested parties to prevent:
   (a) the use of any means in the designation or presentation of a good that indicates or suggests that the good in question originates in a geographical area other than the true place of origin in a manner which misleads the public as to the geographical origin of the good;
   (b) any use which constitutes an act of unfair competition within the meaning of Article 10*bis* of the Paris Convention (1967).
3. A Member shall, *ex officio* if its legislation so permits or at the request of an interested party, refuse or invalidate the registration of a trademark which contains or consists of a geographical indication with respect to goods not originating in the territory indicated, if use of the indication in the trademark for such goods in that Member is of such a nature as to mislead the public as to the true place of origin.
4. The protection under paragraphs 1, 2 and 3 shall be applicable against a geographical indication which, although literally true as to the territory, region or locality in which the goods originate, falsely represents to the public that the goods originate in another territory.

Article 23

Additional Protection for Geographical Indications for Wines and Spirits

1. Each Member shall provide the legal means for interested parties to prevent use of a geographical indication identifying wines for wines not originating in the place indicated by the geographical indication in question or identifying spirits for spirits not originating in the place indicated by the geographical indication in question, even where the true origin of the goods is indicated or the geographical indication is used in translation or accompanied by expressions such as "kind," "type," "style," "imitation," or the like.
2. The registration of a trademark for wines which contains or consists of a geographical indication identifying wines or for spirits which contains or consists of a geographical indication identifying spirits shall be refused or invalidated, *ex officio* if a

(*continued*)

Box 6.1 (continued)

Member's legislation so permits or at the request of an interested party, with respect to such wines or spirits not having this origin.

3. In the case of homonymous geographical indications for wines, protection shall be accorded to each indication, subject to the provisions of paragraph 4 of Article 22. Each Member shall determine the practical conditions under which the homonymous indications in question will be differentiated from each other, taking into account the need to ensure equitable treatment of the producers concerned and that consumers are not misled.
4. In order to facilitate the protection of geographical indications for wines, negotiations shall be undertaken in the Council for TRIPS concerning the establishment of a multilateral system of notification and registration of geographical indications for wines eligible for protection in those Members participating in the system.

Source: WTO (1994).

The empirical analysis of Castriota and Delmastro (2015) begins with the static and then continues with the dynamic. As in the case of individual reputation, age has a positive and significant coefficient. Both compulsory and optional quality standards are strongly significant, showing that the sacrifices made by members are then repaid in the form of group reputation. The frequency of controls and the size of sanctions are important to ensure the rules are observed and to build the prestige of the appellation. In line with Fishman et al.'s (2008) intuitions, when the size of the group (the number of producers) increases, the reputation first grows as a result of greater visibility and then, having reached a peak, decreases because of the incentive for opportunistic behavior and difficulty in controlling members' work (see figure 6.2). Free entry of new members, therefore, is not optimal.

Without considering the minimum quality standards, the DOCG is associated with a strongly and significantly better reputation. The inclusion of new regressors progressively weakens the explicative power of the DOCG variable, which is no longer significant. This means two things. First, once all the regressors are included, collective reputation does not depend on mere formal recognition but on real intrinsic qualities. Second, the wine classification system is still important as it is correlated with the reputation of collective brands, quality standards, and controls and can act as an (imperfect) substitute for information that is more detailed but difficult to collect.

The dynamic analysis confirms the persistence hypothesized in Tirole's theoretical model (1996). There is, however, a certain variability in time shown by the fact that on average, 21 percent of the appellations increase or decrease the number of stars received over a period of five years, a percentage that rises considerably when time is extended to thirty years. It is interesting to observe how greater persistence is found

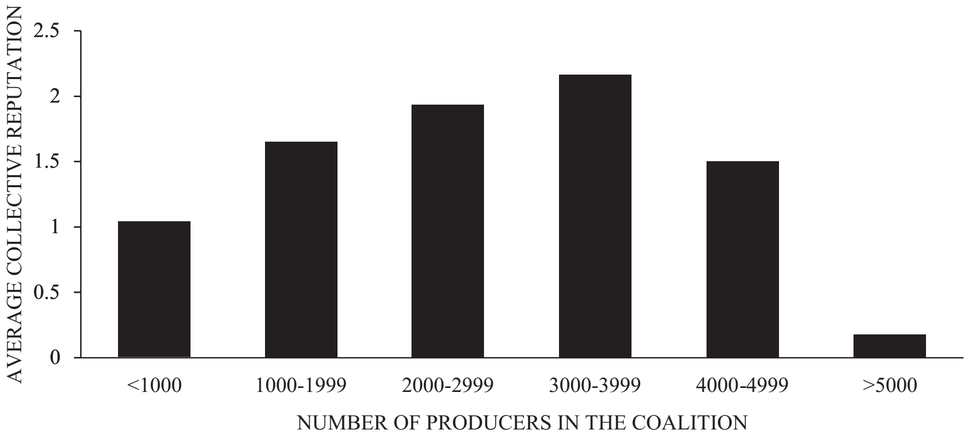

Figure 6.2
Average collective reputation by number of producers.
Note: Collective reputation is measured with the number of stars assigned by the Hugh Johnson's wine guide.
Source: Corresponds to figure 1 in Castriota and Delmastro (2015).

at the minimum reputation level. Therefore, there is a sort of "bad reputation trap" from which, once in, it is difficult but not impossible to get out of. For this reason, it is important for a consortium to fix high minimum quality standards when it is first established to avoid actions that could seriously damage the brand over the years.

To summarize, building a collective brand needs time, high-quality standards that are both compulsory and optional, strict compliance with the rules obtained with frequent checks and high penalties, a number of members that is neither too small nor too large, and finally, if possible, a favorable socioeconomic context. In light of these considerations it is not surprising therefore that, of the 1,424 subappellations existing in Italy in 2008, none had four stars and only six had 3.5 stars. While individual reputation is difficult to build, collective reputation is even more so because it is based on the autonomous choices of numerous operators who aim for the maximization of their individual well-being and certainly not of the collective well-being. The creation of prestigious collective brands over the centuries as a private response to market failures has, therefore, something miraculous about it, and they must be protected in an intelligent and careful way.

The main risks in recent times have been as follows.

1. *An excessive number of appellations (Colman, 2008, pp. 60–62)*: As shown by Delmond and McCluskey (2018), as the number of geographic indications present in the agricultural markets expands, the returns to each region's collective reputation increase to a peak and then start decreasing. All over the world the number of appellations continues to increase rapidly, confusing consumers and thus becoming ineffective. The number of subappellations rose from 686 in 1978

to 1,424 in 2008. Many subappellations (about 16 percent in 2008), however, are not even produced while many others are so small as to be unknown to almost all consumers. A possible solution is rationalization, leading to a reduction in the number of those subappellations that do not reach a certain level of prestige or a certain number of producers.

2. *An excessive number of members in the groups*: Some appellations have such a large number of producers as to make it difficult, if not impossible, to focus on quality (Colman, 2008, p. 64). Therefore, a limit should be imposed on the entry of new members when an optimal number has been reached.
3. *Overlapping names*: In time some very similar appellations have been created by name, type of wine, and production areas, such as Chianti/Chianti Classico (both DOCG) and Prosecco/Prosecco di Conegliano and Valdobbiadene (the first being Controlled Designation of Origin [DOC] and the second, DOCG) for historical reasons. Chianti is produced throughout nearly all of northern Tuscany and has many producers and average quality standards while Chianti Classico is an older appellation and has more limited borders (six municipalities between Siena and Florence), fewer producers, and much more stringent quality standards. The problem is that only a small minority of experts knows these differences and recognizes the quality of the Chianti Classico. The overwhelming majority of people do not know that they are two almost identical but actually very different wines, to the detriment of Gallo Nero producers,[14] who have difficulty in transmitting an image of excellence in the middle of this sea of wine where nobody fully understands provenance and quality. A very similar situation applies to Prosecco, a wine that was only produced in the areas around Conegliano and Valdobbiadene until 2009. In that year the designation DOC Prosecco was extended to eastern Veneto and Friuli-Venezia Giulia. Two DOCGs, Conegliano Valdobbiadene-Prosecco and Colli Asolani-Prosecco, were created to compensate the old producers for their loss of exclusivity. Once again, the existence of almost the same—but actually different—appellations is known only to a few enthusiasts, with the risk that the average price will decrease due to the sudden excess supply and a progressive and permanent damage to reputation if the new producers (followers) should try to draw a short-term advantage from the cumulative investments of historic companies (leaders).

6.2.3 Institutional Reputation

The third form of reputation originates from recognition by national or supranational authorities. The classification system of wines was started in France in 1855 by order of Napoleon III, who wanted the vineyards of the Bordeaux region to be classified in order of quality for the *Exposition Universelle de Paris*. In the same year the recognition of the cru classé was attributed to sixty wines (from the *Premiers Crus* to the *Cinquièmes Crus*).

The need to create a classification system of wines that clearly and simply identified the best products became even more pressing in the first two decades of the twentieth century when buyers were confused by frauds, phylloxera, and Algerian wine that was passed off as French. In 1935 the French government created the *Appellation d'Origine Contrôllée* (Controlled Designation of Origin, or AOC), and it established the *Institut National des Appellations d'Origine* (National Institute of Origin and Quality, or INAO) with the task of regulating the AOC. The system of appellations adopted the rules established by Baron Pierre Le Roy for the production of his wines. The Baron had, in fact, marked the boundaries within which his wines could be produced and controlled the permitted vines, the rules on pruning and vinification, and minimum alcohol content.

In Italy the need to regulate the production of wines, especially quality wines, dates back to the post–World War I period. In 1921, the Honorable Arturo Marescalchi, founder of the current Assoenologi (Association of Oenologists), presented the first proposal in parliament for the production of "typical wines" that was approved by royal decree in 1924 and converted into law in 1926. It was subsequently amended and modified in 1930 and 1937 but never came into force because no implementing decree was passed. A long period of silence followed, and Europe took up the initiative. France, which was highly influential in the Common Organization of Agricultural Markets, gradually molded the wine sector more and more in its image and likeness in time.

"Wines with Designation of Origin" (modeled on the French Appellation d'Origine) were discussed for the first time at the 1957 Treaty of Rome conference, thereby laying the foundations for a common classification system of products that took shape in a 1962 Community Law. Italy quickly adopted this approach with the DPR 930/63 to be followed with the recognition of the first DOC for Vernaccia di San Gimignano in 1966 while the approval of the first three DOCG—Barolo, Brunello di Montalcino, and Vino Nobile di Montepulciano—dates back to 1980. All the countries in the European Community, including those who joined later (e.g., Spain and Portugal) or even more recently (e.g., Eastern Europe), have created similar classification systems following the 1935 French system (Meloni and Swinnen, 2013). The classification system that was in force before the Council Regulation (EC) No. 479/2008 reform is shown in table 6.2 and has been modified into the four slightly different categories: Denominazione di Origine Protetta (Protected Designation of Origin, or DOP), Indicazione Geografica Protetta (Indication of Geographic Protection, or IGP), varietal wine, and generic wine, which member states can waiver.

The hierarchical structure of wines was intended to resemble a pyramid (see figure 6.3) and has been adopted in all EU countries, though with different names (see table 6.2). A few prestigious products sit at the top and are made to very strict standards. As we move down toward the base of the pyramid, the quantities of products gradually increase, but they have a poorer (or zero) reputation as a result of far less

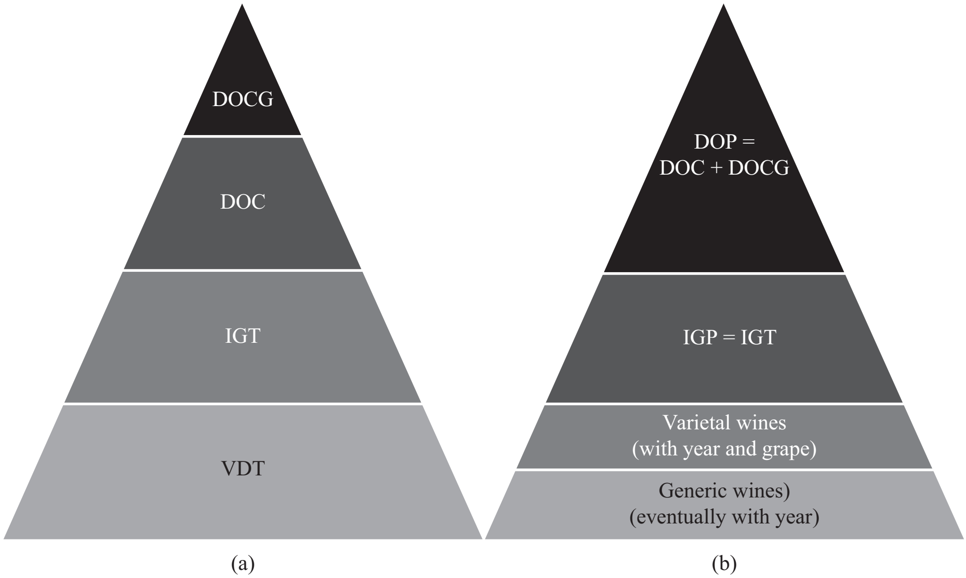

Figure 6.3
The pyramid of institutional reputation in the old (a) and new (b) wine classification systems.

stringent rules. Up until 2008, Italian law provided for four levels in order of increasing quality (see figure 6.3[a]):

- Table wines: can be produced in any region, with any vine and any vintage. The geographic area, the vines used, and the vintage cannot be shown on the label. Quality standards are aimed at ensuring the mere wholesomeness of the drink.
- IGT: the grapes must come from at least 85 percent of land that falls within delineated boundaries of the production area, but it generally covers quite a large surface (sometimes whole regions like the Tuscan and Sicilian IGTs). Minimum quality standards exist but are very bland (e.g., very high yields per hectare).
- DOC: the grapes must come entirely from land that falls within delineated boundaries of the production area and are generally quite circumscribed, and the minimum quality standards are quite strict. Analyses are performed by the competent authorities during production.
- DOCG: the grapes must come entirely from land that falls within delineated boundaries of the production area which is very restricted, and the minimum quality standards are even more stringent. By law the DOCG can only be assigned to wines that have had DOC recognition for at least five years and have reached a high level of prestige. Analyses are performed by the competent authorities both during production and bottling.

Table 6.2
Old wine classification systems in Europe in descending order of quality.

France	Italy	Spain	Portugal	Germany	Austria
AOC: Appelation d'Origine Contrôlée	DOCG: Denominazione di Origine Controllata e Garantita	Denominacìón de Origen Calificada	DOC: Denominacao de Origem Controlada	Qualitätwein mit Praedikat or Kabinett	Qualitätwein mit Praedikat or Kabinett
VDQS: Vins Delimité de Qualité Superieure	DOC: Denominazione di Origine Controllata	Denominacìón de Origen	IPR: Indicacao de Proveniencia Regulamentada	Qualitätwein Bestimmter Anbaugebiete	Qualitätwein
Vin de Pays	IGT: Indicazione Geografica Tipica	DenominacìónEspecifica	Vinho regional	Landwein	Landwein
Vins de Table	VdT: Vino da Tavola	Vino de la Tierra	Vinho de mesa	Deutscher Tafelwein	Tafelwein
Vin de consummation courante		Vino de mesa		EWG	

In Castriota and Delmastro's (2012, 2015) studies the authors show how—despite the controversy that in Italy often accompanies the system of appellations which are considered inefficient—the international reputation of Italian wineries and appellations appears to be significantly influenced and correlated with the production of DOCG wines. Notwithstanding the numerous imperfections, the system of appellations has been tested and the econometric results demonstrate how it brings indisputable benefits to consumers and companies, especially for new and/or small companies and/or those that specialize in the medium- and high-quality segments of the market. In recent times, however, the national system of classification of wines has, in some cases quite rightly, been criticized because of the sudden increase in the number of appellations, the increase in their share of the total national production and the imperfect correlation between type of designation (table wines, IGT, DOC, DOCG) and the actual quality of products. Therefore, a reform has been called for, but national authorities have taken no action so far.

Instead, the European Community has taken up the initiative once again and issued Council Regulation (EC) No. 479/2008 that doubles the number of acronyms. In fact, companies can freely decide whether to use the old acronyms DOC and DOCG or the acronym DOP (which incorporates both) and the old IGT or IGP. Table wine is now simply called wine and can optionally report the year of harvest[15] and, for varietal wines, also the name of the vine[16] on the label (see figure 6.3b), which was previously prohibited for this category of wine and was allowed only for better quality wines. Recognition of Geographical Indications (IGT and IGP) and of the Appellation-Designations of Origin (DOC, DOCG, and DOP) are no longer given by national but rather by European authorities while the minimum time necessary to progress from DOC to DOCG has been extended to ten years.

There are at least three problems with this current classification system.

1. *Two parallel systems*. In spite of the provisions of the Community Regulation, member states can continue to use their traditional terms (IGT, DOC, and DOCG in Italy). The first problem consists, therefore, in the potential confusion resulting from two parallel quality reporting systems and in the flattening of the pyramidal structure that incorporates DOC and DOCG within the DOP. A buyer faced with a DOCG wine—whose vineyard now has decided to put the DOP mark on the label—could mistakenly think that it is a DOC (only the last letter in the initials is different from DOC) or, believing it is something completely different, not understand whether the acronym "DOP" is better or worse than the other two. Likewise, a varietal wine, which can carry the vintage and vine on the label (e.g., Chardonnay 2014), can be mistaken for a higher quality wine (e.g., DOC Alto Adige Chardonnay 2014), whereas this could not happen before the EU reform of 2008 as the generic wines were classified as table wine and therefore could not state the vine and vintage. Besides being potentially misleading, the new pyramid

structure is also unbalanced in favor of quality wines (see figure 6.3[b]). The top, where "DOP" absorbs both DOC and DOCG, has become larger and dilutes two qualitatively differentiated levels into a single brand. If a part of the base, the varietal wines, was wrongly associated with IGP, then the base of the pyramid would be limited to only generic wines, with an intermediate level given by varietal and IGP wines and a higher level given by DOC and DOCG together. Thus, we risk improving the image of a part of the less prized wines (generic and varietal wines) and decreasing the reputation of those at the highest level (DOCG), with a net flattening of the signals transmitted to consumers. Instead of going toward a more refined naming system, following the model of some historical French appellations that identify hierarchically and qualitatively categories of land, Europe is moving in the opposite direction to a less selective system, leaving more and more room for marketing investments of large international groups and less and less to collective and institutional reputation (Castriota and Delmastro, 2009).

2. The appellation mechanism is now managed by the European Commission after being checked for conformity by national authorities and on the proposals of producer associations. This bureaucratic and cumbersome mechanism is likely to slow down the procedure of assigning new appellations, giving the final word to supranational institutions that do not know the real situation either of the areas or of the sector. Before handing over to European Community bodies, however, there has been a real "gold rush" to get higher level appellations from the EU Ministry of Agriculture and Forestry because it would have become more complicated later.
3. For the pyramid modeling system to be effective, the most prestigious awards have to be granted to a small part of the production. If, by definition, the share of quality wines (DOC) was 0 percent in 1963 (the year the DOCs were created), then it had risen to 41.5 percent in 2019 (DOC and DOCG).[17] Similar paths have been observed in other EU countries. If this trend were to continue, most wine would be classified as quality (*todos caballeros*, "everyone's a winner") in a few years, and this recognition would become useless. A possible solution, though probably impractical from a political point of view, could be to grant the more prestigious recognition to a fixed share of national products (e.g., DOCG to 5 percent or 10 percent of the wine) after which one or more appellations would have to be relegated to the lower level (e.g., to DOC), similar to soccer (football) championships where every year the worst teams of a tournament are downgraded and replaced by the best teams of the lower category. This solution would involve the problem of who should decide in an objective manner and without conflicts of interest which appellations should be downgraded, but it is also true that some DOCGs are much less prestigious than some DOCs and have been recognized in a far from meritocratic way.[18]

In general, both before and after the reform of the Council Regulation (EC) No. 479/2008, the qualitatively superior categories have always had more stringent production rules. This generally leads to an increase in quality and reputation, but it also imposes constraints that limit producers' ability to adapt to technological innovations and consumers' changing tastes (Shepherd, 2006). For this reason, some wine makers, especially when they reach a high individual reputation, decide to produce a significant share of wine that is bottled as IGT or VdT. They are free to move and experiment in a way that the rigid disciplinary rules of appellations/designations of origin do not allow.

6.3 Differences Between the Old and New World

Reputation is a very important variable for producers in all countries, but there are fundamental differences in the importance of the three forms between the Old and the New World. As mentioned above, the sector in Europe and especially in Italy is composed of small companies, and this has made it difficult for most companies to build a solid reputation on an individual basis and has encouraged the creation of collective brands and a hierarchical classification system. In contrast, the New World focuses on the recognizability of company brands.

In recent times, however, even non-European countries are becoming aware of the need to protect producers of especially prestigious areas that have been able to build a collective reputation in time.[19] For example, the American Viticultural Areas (AVAs) have been established in the United States and are halfway between the IGT and generic local wines. The AVAs, in fact, simply represent a geographic boundary within which wine can be produced,[20] but unlike the European appellations, they do not impose any minimum quality standards. The vines, the agronomic and wine-making techniques, or the minimum quality standards to reduce information asymmetries between producer and consumer are not specified. Only the distinctive characteristics of the area (soil, climate, etc.) compared with the surrounding areas are described.[21] The sole requirement is that at least 85 percent of grapes should be produced within the AVA. It is, therefore, a matter of collective reputation, even if the very fact of producing wine within an AVA is a recognition, which, in theory, can confer institutional reputation to some extent. However, this aspect has not yet been studied in the literature. Currently there are 242 AVAs,[22] with some applications awaiting approval. Other New World countries have also set up geographical indications to protect their most famous areas (table 6.3). The *Indicación Geográfica* (geographical indications, or IG) and the *Denominación de Origen Controlada* (Denomination of Origin, or DOC) have been established in Argentina and Uruguay; the *Denominación de Origen* (Denomination of Origin, or DO) has been established in Chile; the geographical indications, in Australia; and the Wines of Origin (WO), in South Africa.

Table 6.3
Appellations in the Old and New World, 2013.

Country	IG	IGP	DOP
Old World			
Italy	–	129	476
France	–	75	376
Spain	–	44	97
Portugal	–	10	46
Germany	–	26	13
New World			
USA	227	–	–
South Africa	153	–	–
Australia	78	–	–
Chile	61	–	–
Argentina	n.a.	–	–
China	n.a.	–	–
New Zealand	n.a.	–	–
Russian Federation	n.a.	–	–

Source: Data for all countries excepting the United States were downloaded from the European Commission's website on September 18, 2013. Data for the United States were sourced from the Government Printing Office, accessed on November 21, 2014.

Appendix 6.1: Theoretical Determinants of Firm Reputation

A first group of variables includes the characteristics of the entrepreneur and his company. The age of a company should have a positive effect on reputation (Thornton, 2013, p. 177) as the entrepreneur and the wine maker learn from experience (learning by doing) while consumers learn about the company in time through repeated purchases. Intrinsic motivation is very important for the quality of wine produced and consequently for the reputation of the company. It is influenced in part by the work of the wine maker that is done personally by the owner. Indeed, the family business structure can influence the quality of products since an external manager may be driven by objectives that differ from those of the owner and aim at short-term profitability (Cadbury, 2000). In any case, after having spent their whole life in the family business, an internal manager may have accumulated specific knowledge of the company that is invaluable (Donnelley, 1964). However, family disagreements can lead to serious management problems in a company with an internal manager (Christiansen, 1953; Levinson, 1971; Barnes and Hershon, 1976; Lansberg, 1983), and even more importantly, the selection of managers will be made from a small group of individuals and not based on meritocratic criteria (Burkart, Panunzi, and Shleifer, 2003; Pérez-González, 2006).[23]

Company size, measured by the number of bottles produced, can generate positive effects because a greater number of regular customers, combined with the phenomenon of word of mouth, makes large companies disproportionately[24] more visible in the eyes of the market (Rob and Fishman, 2005). Further, greater resources mean new technologies can be adopted and massive advertising and promotional campaigns made. Belonging to an industrial group can also bring advantages in terms of visibility while the cooperative form, as illustrated in the chapters 2 and 4, may be associated with a poorer quality and reputation because the incentive to opportunistic behavior can increase if there is a very large number of members (Winfree and McCluskey, 2005; Fleckinger, 2007; McQuade, Salant, and Winfree, 2008; Fishman et al., 2008).

The maximum yields per hectare are fixed for superior wines (IGT, DOC, and DOCG) but not for VdTs. Therefore, for this last type of wine, the wine grower is absolutely free to choose. The decision to join a consortium to produce quality wines is also free. As for the grapes purchased externally, quality is generally associated with control of the entire production chain. Ultimately, every manufacturer is faced with a trade-off between quantity and quality and must decide how much to sacrifice of the first for the second or vice versa.

Other potentially relevant variables include horizontal/vertical differentiation and the stretching of reputation. The production of many types of wine can help to satisfy the tastes of a diversified clientele with reputation being transferred from products of a higher level to those of a lower level (Wernerfelt, 1988). Hiring famous oenologists[25] as external consultants can help to increase the reputation of a business both directly by providing useful knowledge to improve the quality of products and indirectly by "transferring" part of the oenologist's reputation to the business they are working for (Kreps, 1990; Bar-Isaac and Tadelis, 2008, section 6).

Given the uncertainty surrounding the purchase of wine, businesses and public authorities have established collective brands (appellations) and classification systems (in Italy: VdT, IGT, DOC, and DOCG) to reduce information asymmetries between firms and consumers. In line with Tirole's (1996) model, in which individual and collective reputation influence each other, the production of wines belonging to prestigious consortia can help to increase the reputation of a company; conversely, Winfree and McCluskey (2005) showed that when a collective brand is shared but there is no traceability, companies have an incentive to choose a suboptimal quality level for the group, which makes the adoption of minimum quality standards desirable (see also Winfree, McIntosh, and Nadreau, 2018; Delmond, McCluskey, and Winfree, 2018).

Although closely linked, the two concepts of collective and institutional reputation must be kept distinct. Each collective brand (e.g., Toscana, Torgiano, or Greco di Tufo) is, in fact, associated with a level of quality recognized by the state (in the three cases mentioned: IGT, DOC, and DOCG, respectively). DOCG is, all things being equal, more prestigious than DOC. Within the same segment, however, there are groups of companies that have managed, in time, to create more famous appellations for a number of reasons (climate, soil, native vines, minimum quality standards, virtuous behavior of members, etc.) and others that have failed in their intention. Therefore, DOCs may include a lot of collective reputations that differ greatly from each other (some with zero and others with three stars) or even DOCs with a better reputation than some DOCG.

Appendix 6.2: Theoretical Determinants of Collective Reputation

From a theoretical point of view, the determinants of the reputation of groups of companies can be summarized in four categories: (1) the general characteristics of the group, (2) quality standards and horizontal differentiation, (3) the control system, and (4) the geographic context.

A collective brand can be recognized by its status, as DOC or DOCG in Italy. DOCG has higher quality standards, and therefore a higher quality can be expected. Apart from this, the very fact of having obtained recognition from public authorities could positively influence the reputation of the group. The age of companies is an important variable since consumers and producers learn from experience accumulated over time. The size of the group can also play a crucial role because larger groups have more resources to allocate to advertising campaigns and have a larger customer base, which, combined with the phenomenon of word of mouth, makes them more visible in the eyes of the market (Rob and Fishman, 2005).

On the other hand, when groups get too big, the incentives for opportunistic behavior grow and social norms become ineffective (Kandori, 1992; Saak, 2012). Moreover, as in cooperatives, every company pursues the maximization of individual profit in the absence of centralized planning. The sum of these behaviors leads to excess production (Albæk and Schultz, 1998) with potential damage to the reputation of the whole group. Fishman et al. (2008) reconciled these two opposing views with a theoretical model in which members have both an incentive to invest in the reputation of a group and behave in an opportunistic way. When the group is small, the incentive for virtuous behavior prevails while the opposite happens when the group becomes excessively big. In this case the cost of investment, which falls entirely on the single enterprise, has a minimal impact on overall prestige and generates an expected return that must be shared with all the other partners.[26]

The minimum quality standards (Winfree and McCluskey, 2005) are the rules and requirements set by the group or by authorities to ensure a minimum quality level to protect the consumer and to promote the formation of prestigious brands. Many businesses and professions are subject to the issuing of authorizations or licenses precisely for this reason, though the system is often accused of actually wanting to regulate the market and especially to prevent the entry of competitors and to artificially keep prices high. However, establishing very strict rules is completely pointless if they are not observed.

We come, thus, to the third group of variables in which the traceability of a producer makes a system of frequent checks and fines sufficiently burdensome to discourage possible opportunistic behavior (Allingham and Sandmo, 1972).[27] However, it must not become oppressive; otherwise it generates distrust and resentment, thus undermining intrinsic motivation and the commitment of the subject being checked (Frey, 1993; Bénabou and Tirole, 2003). In wine making, controls can take place either in the vineyard (e.g., vineyard surface area, number and type of variety, company documents, etc.) or in the winery (e.g., state appellations with the relative approval by the certifying body, cellar handling, chemical analysis on wine samples, etc.).

Finally, the geographic context plays a fundamental role in the development of the economy and the creation of prestigious collective brands through public policies, the construction of infrastructures, the crime rate, and so forth (for an example, see Abrams and Lewis, 1995). This aspect is particularly important in Italy in light of the huge differences between the north and south in the indicators of economic and social progress. Mentality, which influences the preparation for the setting up and for the management of a company, as well as compliance with rules is the result of thousands of years of history and varies enormously from one region to another. The literature on the role of social capital in economic development began with Banfield (1958) and continued with Putnam (1993) and Guiso, Sapienza, and Zingales (2004) (for further information, see appendix 6.3). In all these studies the geographic area of reference is Italy, which is particularly suitable for the purpose for the reason given above. Finally, some climatic and soil characteristics in agriculture (the so-called primitives) influence production both quantitatively and qualitatively (Cross et al., 2013).

Appendix 6.3: Social Capital

Although the literature on wine economics has not yet explored its role and benefits, social capital constitutes a fundamental variable for the creation of a prestigious appellation or a solid production cooperative. A brief review of the main contributions of scholars in the various disciplines is therefore appropriate.

In *The Moral Basis of a Backward Society*, Banfield (1958) first argued that the underdevelopment of a country (in his study it was a small community in southern Italy) may, in part, be due to a lack of trust that individuals have toward people outside their family nucleus. This theory, which was very innovative at the time, did not fit well into the models of economic development proposed by researchers of that period, and therefore it was not given the attention it deserved. The only exception was Arrow (1972), who wrote: "It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence. See Banfield's remarkable study of a small community in southern Italy." But over the last decades Banfield's ideas have been picked up again and investigated in greater depth.

The term "social capital" was coined by sociologists who referred to the advantages and disadvantages of belonging to a certain community (Bordieu, 1985). Coleman (1990) defined social capital as a resource for individuals that result from social relations. The source of this capital lies in the people to whom a person relates. Sociologists identify two reasons why individuals should want to make their resources available for other people without getting anything in return. The first is mentality: people pay their debts, comply with the law (e.g., obey traffic rules), and perform acts of charity because they feel a moral duty to behave correctly and civilly. The second can be traced back to less noble, instrumental reasons: the costs of transactions can be reduced by saving on legal and insurance costs if they are made with people who they trust. In this case people do not behave correctly for ethical reasons but rather because a good reputation can produce economic returns. For this reason, Coleman (1990) defined social capital as the extension of horizontal relationships among members of a community, and its role is to increase society's resources and allocate them more efficiently.

In recent years, however, the concept of social capital has been taken up and adapted by political science scholars such as Putnam (1993) and Fukuyama (1995). In their studies social capital becomes the property of extended communities, even nations, rather than small groups. Putnam (1993) defined social capital as a characteristic of social life (habits, norms, trust) that allows individuals to act together more effectively to achieve common goals. The difference between the sociologists' and political scientists' notions of social capital is in the size of the group of reference: sociologists focus on small groups while scholars of political sciences are interested in larger groups. For this reason, they adopt the average turnout at the polls or participation in volunteer associations as indexes to measure social capital. Guiso, Sapienza, and Zingales (2004) adopted the definition of social capital formulated by scholars of political science and examined the relationship that these social indicators have with one of the elements that affect economic growth: namely, financial development. In fact, social capital increases the level of trust of individuals who complete a transaction. In communities where social capital is high, people have a greater degree of trust for two reasons. The first is that people believe more readily in the promises of others, and this is a result of a moral attitude formed by education and experience. The second is that the social system guarantees a more effective punishment for those who do not fulfill their obligations. Given that financial contracts require a high level of trust, social capital should have considerable effects on the development of financial markets.

Generally, there are substantial differences in social capital between one country and another but only moderate differences from one region to another in the same state. An important exception among industrialized countries is Italy. Despite the fact that unification was completed about a century and a half ago and that the same administrative, judiciary, legal, and tax systems apply throughout the country, there are huge differences between the social capital of the northern and southern regions. Guiso, Sapienza, and Zingales (2004) measured the social capital of Italian provinces with two indicators: electoral participation and the average number of blood donations per inhabitant. Once these types of variables were obtained, the authors studied the effect of social capital on the allocation of a household portfolio, the use of checks, the possibility of obtaining finance, and the use of informal loans (by subjects other than financial intermediaries—mainly family or friends). The analysis of the data showed that in areas with high social capital, households keep a larger part of their resources in the form of shares rather than money, make a greater use of checks, and access finance more easily when they request it. Further, the importance of social capital is greater in the regions where the judicial system is less efficient and people are less educated as they have to rely on trust because of their limited understanding of bargaining mechanisms. These conclusions can easily be extended to most of the emerging and developing countries that have similar characteristics. It is important to note that the level of social capital depends on both the area in which people live and the area in which people were born.

This theory, however, deserves to be developed with further studies of both a theoretical and empirical nature as many illustrious economists like Solow (1995) have shown a certain skepticism about the link that exists, from a conceptual point of view, between social capital and economic development. Putnam (1993) also acknowledged that the mechanisms through which social capital contribute to economic development need to be studied in more depth.

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