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Is a typical c.a.p. for typical products possible? An economic analysis of the new market policy for the wine sector

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**Is a typical c.a.p. for typical products possible?
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ABSTRACT

In this paper we tried to find out what implications could have the prospected integration of quality wines (VQPRD wines) and table wines in the new Common Market Organization (CMO).

Some producer countries observed that the VQPRD cannot be considered responsible for past market crisis, and that it is not justifiable to impose on them production constraints. Furthermore, someone raised the doubt if quality can suffer of quantitative constraints, like quotas, in the new CMO for VQPRD.

We tried to contribute to the debate by building a model of the wine market. We analyzed first the mechanism of integration of two fundamental areas in this market: the quality wine market and the table wine market (see Figure).

According to the market share and price margin of quality wine with respect to table wine, we recognized three fundamental cases: the French case, the Italian case and the German case.

1. Introduction

Common Agricultural Policies for highly differentiated typical products like wine have been very difficult to implement and to test for their results against their objectives.

The actual reform process has led scholars and professionals to wonder if new instruments, like applying market interventions to quality wines, decoupling income support and imposing production quotas, can be effective in the achievement of objectives, like income support to rural people, preserving typical productions from less favored regions, offering high quality products and variety of supply to consumers.

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In this short note we tried to evaluate economic consequences of the new market organization starting from one of the emerging issues of the debate: the generalization of the market intervention to table wine and quality wine.

First of all we describe some essential features of the European market, assuming as fundamental criteria of classification the quality wine (vqprd) versus the "table wine". We observe at least three national cases, according to the different market structures.

Second, we build an economic model of this market, analyzing the asymmetric integration that emerges between table wine and vqprd wine. This asymmetry, due to the EU norms and rules of intervention, was relevant in the last decades, due to the significant financial intervention of the UE in this market.

Third, we discuss possible consequences of the CMO reform, in particular on the welfare effects, welfare transfer from one market to the other, expected financial burden to EU, etc.

2. The European wine market structure

The European wine market can be described as a highly differentiated market, where we can distinguish a large number of market areas, according to the most important marketing variables. Market integration is variable, very high for some markets, very low for others. Sparkling wines like champagne or spumante for example, are very imperfect substitutes for table wines used for daily consume, but low price vqprd are quite good substitutes for the latter, specially for expert consumers. However, rules and norms to the access to main product standards and marks, like vqprd, represent a structural limit to arbitrage and then to market integration.

| Market of origin | Market of destination | Terms of integration |
|-------------------------|-----------------------|---|
| <i>in the short run</i> | | |
| Quality wine (vqprd) | Table wine | free, not costly |
| Table wine | Quality wine (vqprd) | impossible or very limited with high cost |
| <i>in the long run</i> | | |
| Table wine | Quality wine (vqprd) | limited, costly |
| Quality wine (vqprd) | Table wine | free, not costly |

Fig.1: Terms of integration in the wine markets, by direction of product flows and by time horizon scenario

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In order to analyze some welfare and equilibrium implications of the European policy, we will adopt a very strong simplification, distinguishing only two market areas: the table wine market and the vqprd market (See Fig. 1).

According to the present European policies, vqprd are clearly differentiated from the other wines. Today CMO applies most of the market interventions, compulsory measures and prohibitions to table wines. On the contrary, most of quality rules and controls, including rules on per hectare productivity and productivity of grapes in wine, are reserved to vqprd wines.

The formal access and exit from the two markets, or the access and abnegation to the product's legal definition, are regulated in different ways, including national legislation about vqprd marks. To give a look to these rules is important to see how European wine producers have had access to the European support.

To enter into the vqprd market it is necessary to have a vqprd mark recognized by the national authority for the territory where the vineyard is located. The wine production needs also the mark of origin that is conferred to the production of the year if it complies to the qualitative norms. The mark of origin is used by the firm sometimes together with the firm mark. On the contrary to exit is much simpler, in fact it is possible to "erase" the vqprd mark for one annual marketing campaign, or even to exit from the vqprd consortium, with no implications for future new rides in the vqprd market, at least from the legal point of view, even if not from the "marketing management" point of view. A vqprd can be defined always a table wine, because the rules to become a table wine are usually a subset of those to become a vqprd wine.

In the table wine market things are simpler for the entry, but much more complicate for moving to the higher quality market area. If the product complies with the fundamental quality norms, like alcoholic degrees and vines varieties used in the wine production, it can be marketed as "table wine". To exit the table wine market in order to entry the vqprd market means to face the ordinary steps described for the vqprd market. In the short term, or during a marketing campaign, this is impossible. In longer periods it is easy, if the vineyard is included in a vqprd area of production. If not, the producer should obtain, together with others, the institution of a new mark of origin.

3. Recent trends and national structure of the wine market.

In the management of the CMO for wine things are complicated much by the long term market trends of the two products and by structural differences between the producer countries. In fact, the two market areas we have just defined are characterized by strongly divergent trends in recent years, and their weight is very heterogeneous in the European producer countries (table 1, graph 1).

Tab. 1 Structural indexes from the European Wine Market.

| Total | average 84-86 | average 87-89 | average 90-92 | average 93-94 | 1995 | Vari- ability index | linear regression of annual trend | R square statistic of trend |
|---------------------------|------------------|------------------|------------------|------------------|-------|---------------------------|--|-----------------------------------|
| Table Wine | | | | | | | | |
| Production | 132715 | 125389 | 105025 | 104348 | 84735 | 17% | -11700 | 95% |
| Consume | 95978 | 89195 | 77911 | 75475 | 77227 | 11% | -5122 | 81% |
| Self-sufficiency share | 130 | 133 | 137 | 134 | 98 | 13% | | |
| VQPRD Wines | | | | | | | | |
| Production | 44301 | 52633 | 55557 | 56803 | 55820 | 10% | 2721 | 71% |
| Consume | 34502 | 43459 | 47095 | 50419 | 48433 | 14% | 3482 | 77% |
| Self-sufficiency share | 133 | 125 | 122 | 109 | 108 | 9% | | |

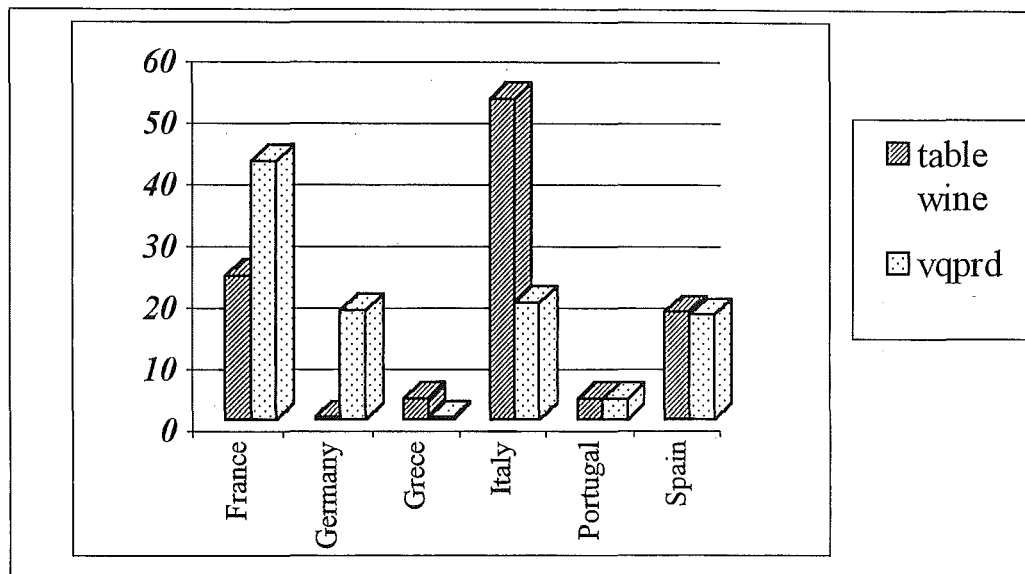
Sources: Our elaborations from INEA, 1996 and Eurostat. (1995 first estimations)

Table wine production is declining rapidly, the annual trend can be estimated -11,700 thousands of hectoliters. The same is happening to consume, but decline has been slower since 84-86, roughly - 5,000 thousands of hectoliters. This tendency has led also to the reduction of the market surplus, and reduced the urgency of the European policy reform (table 1, graph 1). The self sufficiency rate is declining, from the high level of the middle 80', and is now roughly 100.

On the other side, VQPRD wines show a brilliant growth in the last decade, with an annual growth rate of the total production of roughly 2,700 thousands of hectoliters, and a consume growth of roughly 3.500 thousands of hectoliters. Due to the faster growth of consume with respect to production, self sufficiency rate is declining also in this area. This has reduced the market crisis, not unknown to vqprd producers, and improved producers' economic results.

The market equilibrium appears to be more volatile in the table wine market, even if it is difficult to compare two markets with so different trends. In fact, the level of production is more variable in the table wine market than in the other. On the contrary consume has a higher variability index in the vqprd market, but it is justified by the strong growth of the last decade.

The national market structures are extremely heterogeneous, but limiting our consideration to the market share of vqprd wines and table wines, we can distinguish clearly at least two typologies. The first is represented by France and Germany, where vqprd occupy the larger share of the market, or even the totality of it, as in Germany. The second is that of Mediterranean country, where table wine represents the dominant share of the market. Among these Spain represents a particular case, because in this country at half the production can be marketed with a vqprd trade mark.



Graph 1: The European wine production

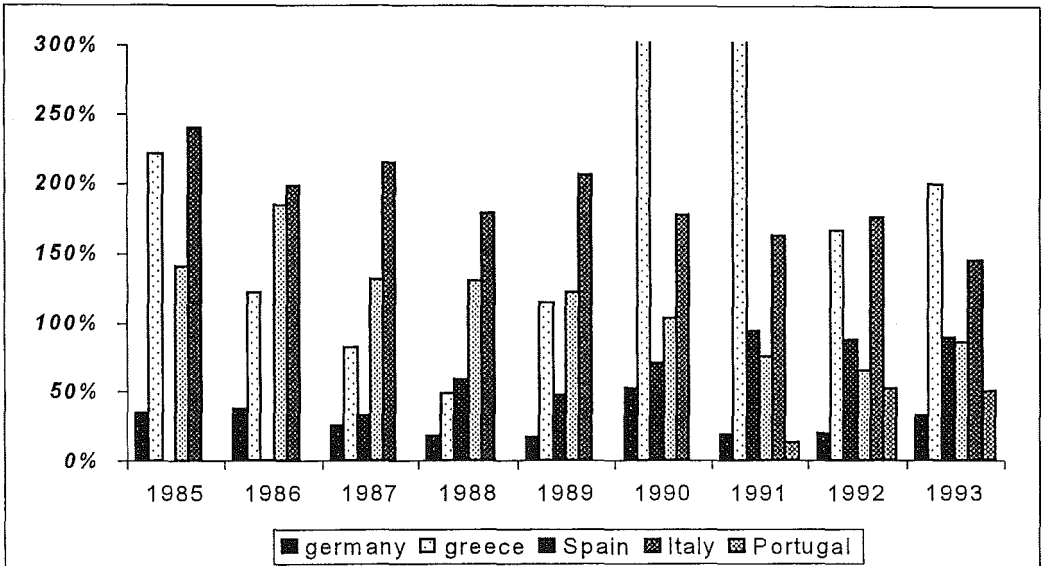
There is a last aspect we consider relevant in order to build a representative economic model of the market with respect to our objective. It is the wine production that has gained the potential access to the vqprd market compared to the wine production that uses this right actually.

It is well known that in all European countries vqprd marks are associated with a production area, or vineyards, and in these areas the wine can be marketed by using or not the mark, according to the farmer's preferences or his economic choices.

According to this peculiarity, we can distinguish a potential vqprd supply and a real one. We said above that the actual supply can vary even between one market campaign and the following one.

In Europe it seems possible to classify three groups, that we will name according to the most representative country in the group.

In the "German case", we are near to losing the table wine market. Almost all the wine is produced in vqprd areas and sold with the vqprd mark. In the "French case", up to one half of the vineyard are vqprd vineyard, and almost all of the wine that can enter the market is actually marketed with the vqprd mark, with a substantial price premium. In the "Italian case", much similar to that of Spain and Portugal, only a part of the wine that can be sold with the vqprd mark is actually marketed as «DOC» wine (the most popular vqprd Italian mark) (Perretti, 1992), and the price premium is limited in many cases to what is necessary to cover the higher costs of production.



Graph 2: FEOGA expenses /vineyard area (National shares)

Among the larger producer countries in particular France and Italy, a substantial «horizontal» wine trade can be observed, because of different specialization. Because of this trade flows, the European market can be considered strongly integrated, in particular with regard to the diffusion of the effects of European market intervention. Obviously, the international market integration is asymmetric as that we described above.

EU intervention in the last decade has been strongly differentiated between market areas and producer countries. A comparison of the fundamental data of the vineyard area and the FEOGA expenses at national level can evidence this observation (graph 2). In recent years Italy received almost two times the average FEOGA financial intervention per ha compared to France, whereas Spain, the third large wine producer in Europe, is located in the middle.

If we compare FEOGA intervention to the table wine national share this scenario is not confirmed. In this case support is roughly the same in all countries.

Given the speed of structural evolution of the wine markets in Europe in the last ten years, it is very difficult to isolate the indirect effects of EU interventions, in terms of prices and producers income.

It should be stressed that in order to measure the total income effects not only competitive price effects should be considered, but also the monopoly power effects guaranteed to vqprd productions. These effects are objectively concentrated in France, in few regions of Italy and in Germany.

Of course it is difficult to say how much of this monopolistic power depends on EU interventions or regulations, and how much on national private and public entrepreneurs ability in the wine sector.

4. The wine market: a model of asymmetric integration.

In order to describe the impact of European policy we built a model of the wine market, distinguishing two areas or segments, in it: the vqprd market and the table wine market. We considered two markets, integrated through the market mechanism we described above (fig 1, fig 2).

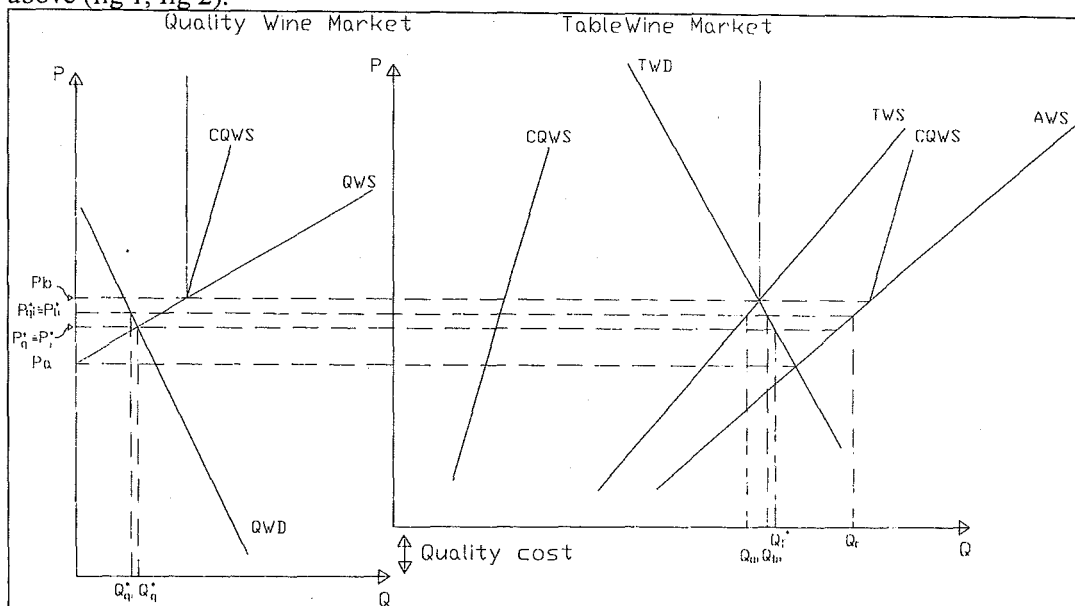


fig 2: The wine market integration in the "Italian case"

In the figure 2 a wine market model is drawn. It describes the market equilibrium of the "Italian case" defined above. On the right side we have the table wine market, on the left the quality wine market. The Quality Wine Demand (QWD), and the Table Wine Demand (TWD), are represented as linear functions. It should be remembered that in order to simplify the model we consider the two demand functions as independent, while in reality some substitutability has been observed [3,4]. The aggregate wine supply (AWS), represents the aggregate production of wine in the system, that could be the European or a national one.

The supply that could have access to the vqprd mark is represented by the CQWS (Constrained quality wine supply). We named it "constrained" because it depends not only on market choices, but also on the national legislation on vqprd registered marks. The Table wine supply (TWS) is the horizontal difference between AWS and CQWS.

On the left side of the figure 2 we drafted the quality wine market model. It is shifted downwards with respect to the table wine market model to represent the vertical cost of transformation of the table wine into quality wine. Of course it is a strong simplification to represent the cost of quality as a constant mark up on the table wine supply, but in our

opinion the qualitative results that we will obtain below are not dependent on this simplification.

In the quality wine market the supply function QWS (quality wine supply) is obtained as a surplus function like that of a trade model, starting at p_a , a price that corresponds to the equilibrium price in the table wine market plus the quality cost margin. This could be the supply function in the quality wine market in a situation of free access or, in this particular case, if all producers could use a *vgprd* mark.

In order to obtain the actual *vgprd* wine supply, taking the constrained wine supply into account, we added a function in the quality wine market. Starting from the QWS at the price level p_b , the equilibrium price in the table wine market, we drafted a parallel to the CQWS. The actual quality wine supply represented by two segments, one on QWS from p_a to p_b , the second on CQWS above p_b . In fact, below this level of p_b , the legal constraint is not binding. Given the table wine demand in the table wine market, producers will prefer to offer less quality wine than that they could sell legally. From p_a to p_b , the market works not like an ordinary market with free trade between two market areas. Above this level we have the legal constraint to transform table wine into quality wine, and the supply function in the quality wine market becomes CQWS, much more rigid than that below p_b .

Here we have the representation of the asymmetric integration we described above. According to the level of market price in the two areas, that depend on both supplies and demands, we can observe different equilibrium and market policy effects.

In the case described in figure 1, we hypothesized an equilibrium price of p_q (or p_t in the table wine market) that lies below p_b and above p_a . The consequence is that not all the quality wine *vgprd* that could be produced is actually produced, the quantity of quality wine at the equilibrium level is Qq^* , the table wine sold is Qt^* , and the *vgprd* legislation is not binding. As we said above, this model of market equilibrium could represent the "Italian case".

If we apply a minimum price policy to this market, so as to obtain the price $p_{qi}^* = p_{ti}^*$ in the model, the effect is to reduce the quality wine demanded to Q_{qi}^* , the table wine to Q_{ti}^* , and to generate a surplus that measured in the table wine market is equal to the quantity $Q_{ai} - Q_{bi}$.

In the welfare analysis of the market equilibrium, we can conclude that in this case we have a perfect transfer of the market policy, independently from the market in which we apply the policy directly. This means that quality wine producers will benefit from market interventions in the table wine market. The choice to intervene in both or just one market can be made considering direct costs, bureaucratic costs, easiness of controls, etc. Second, if we apply a minimum price policy to the table wine market it is very probable that we will reduce the quality wine demanded and sold in the quality wine market. If we refer these considerations to the Italian experience of the last years, we could draw the conclusion that the EU market policy has contributed to reduce the access of Italian wines to the *vgprd* market..

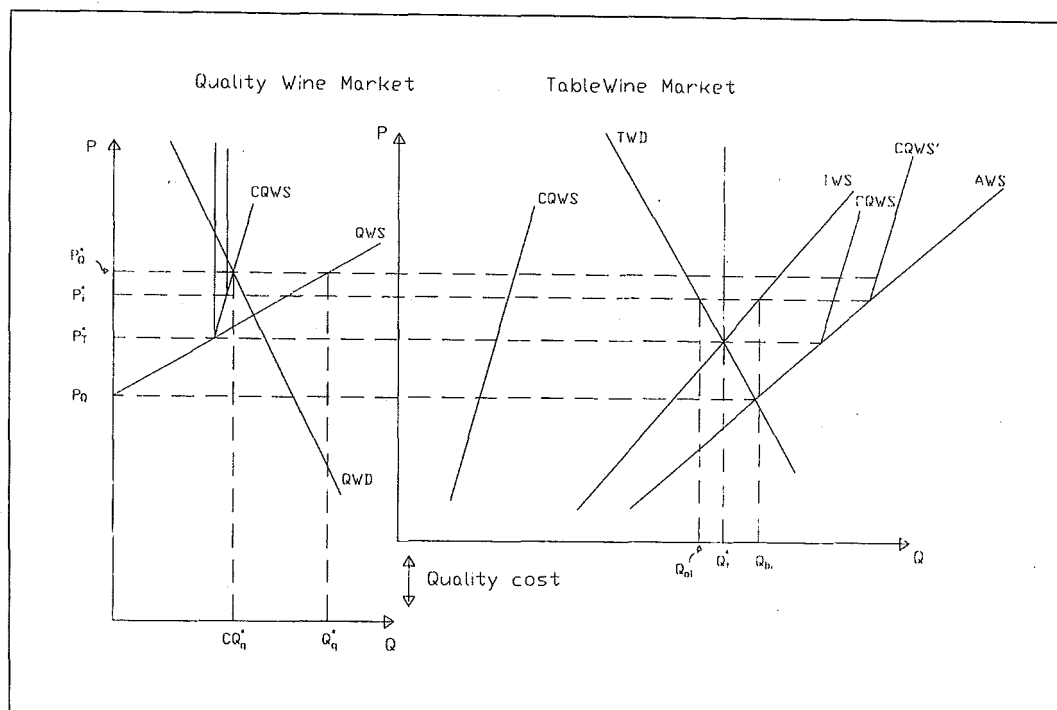


fig. 3: Market integration in the "French case".

The second case, the "French case" identified above, can be described by the same market model, with the fundamental difference that the equilibrium price in the quality wine market lies above the price level of p_0 (figure 3). In this case the legal constraint on vqprd wine supply becomes binding, and the equilibrium price p_q^* is that of the QWD-CQWS functions.

The imperfect integration of the two markets generates a larger gap than that justified by the quality cost between quality wine price and table wine price. In fact in the table wine market producers have no interest in reducing the table wine production below Q_i^* , because they cannot take more wine than CQ_q^* to the quality wine market. The consequence is that the equilibrium price for table wine is p_i^* .

The result is that the two markets are isolated, at least till the moment in which the quality wine price falls below the level of p_0 . If we analyze the effect of a market intervention in this case we can conclude easily that everything is different from the "Italian case".

First of all we can conclude that in this case we do not have an automatic transfer of market policy. A market intervention in the table wine market, such as raising the price to the level of p_i^* will not show effects in the quality wine market, because table wine producers continue to be limited in the possibility to access to the quality wine market, and on the other side quality wine producers continue to gain more from the monopolistic power to use the vqprd mark, than they could obtain from moving into the table wine

market, even with the minimum price p_i^* . Therefore the market policy effects remain in the market area where the policy is applied, most likely the table wine area.

Second, if we apply a minimum price policy to the table wine market, we will produce no effect on quantity of vqprd wine produced and sold.

We will consider now the “German case”. In Germany almost all the wine is sold as vqprd Wine [3]. When CQWS moves closer to AWS, due to the recognition of new vqprd marks or to the enlargement of the area of production of the old one’s, the equilibrium price in the quality wine market goes down, getting closer to the equilibrium price of the table wine market. In this case the nature of effects on market equilibrium is similar to those of the “French case”, but they are expected to be of smaller extent, in particular the gap between vqprd prices and table wine prices. In fact the monopolistic price margin of quality wine is larger than the constrained quality wine supply CQWS is smaller.

5. Market intervention and welfare implication.

In the past years, wine market interventions have been concentrated on the table wine market. Those intervention have contributed to the adjustment of the table wine market, but also, through market-integration, to the quality wine market equilibrium.

The transfer of the policy effects has been variable, according to the market structure and the asymmetric integration we have described.

In what we have defined as “Italian case”, where a partial use of vqprd marks is made by producers and no monopolistic margin for quality wines exists, welfare effects are the best that could be obtained. In fact the transfer of market interventions, through the competitive mechanism can be considered perfect, even if the direct intervention is concentrated on table wine.

In fact an increase in the table wine price generated for example by a compulsory distillation, is transferred to the quality wine market by the arbitrage mechanism. Quality wine consume and table wine consume are lower than that of the competitive equilibrium, unitary prices are higher for both producers, policy costs depend on demand and supply elasticity.

In this case, interventions in the table wine side of the market can be justified by financial reasons, due to the fact that the table wine price is lower than that of the quality wine. The negative aspect of this policy is that it reduces the absolute production and consume of quality wine.

In what we called the “French case”, a market intervention cannot spread its effect from the table wine market to the quality wine market. In fact equilibrium in the quality wine side is influenced by the constraint on vqprd wine supply, and this isolates the two markets at least to the point where market intervention generates price effects larger than the monopolistic price spread due to the vqprd marks.

This does not mean that the quality wine market doesn’t enjoy effects from the public intervention for table wine. In fact it seems reasonable that the larger the price spread between quality and table wine, the higher would be the pressure from table wine producers to have access to the quality wine market.

The same considerations hold for the case of a “German type” market, with a large part of production concentrated in the quality wine market. The difference is that the price spread due to vqprd marks is smaller, in relative terms, than that of the “French case”.

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All these considerations are referred to the case of market interventions like minimum price, guaranteed through interventions like subsidies to storage, compulsory or voluntary distillations.

The use of a quota system requires some particular observations. In fact with a quota system price effects could be transferred in the same way we have just discussed, but the intervention costs, in terms of limited income support or obstacles to production adjustments, would be limited to the market where the quota system applies.

Furthermore, applying only to the table wine market a system of quota, implies some political dilemmas. First of all, it should be considered that the national authorities which apply the quota system are the same that can accept or refuse the recognition of new vqprd marks. The same vqprd marks that can permit the producers to escape the quota system.

Second, it could appear not acceptable to apply two quantity constraints to the same group of producers, the table wine producers. The first that derives from the vqprd marks legislation, that protects a monopolistic privilege, the second to limit the quantity supply in a market integrated to that of vqprd wines, and then to generate some positive effects to the market results of vqprd producers.

On the other side, applying a quota system to vqprd wines, could generate unacceptable increases of prices for quality wine consumers, and increase the market concentration in the quality wine market.

6. Conclusions

A few conclusions can be drawn from the analysis just presented about the European Wine market. In the last years quality wines and table wines experienced very different market trends. Market structures are heterogeneous at national level. We have countries where almost all wines are sold with the vqprd mark (Germany), and others specialized in table wine production (Italy).

The present European Legislation on vqprd marks, and the common market organization for wine, generate an asymmetric integration between the two market areas. The asymmetric market integration facilitates an asymmetric EU expense transfer to producers.

EU market intervention and vqprd mark policy were complementary in the past, operating in the two market areas, generating in some cases a considerable market power and monopolistic profits, like in France, while in other countries, like Italy, quality wine producers and table wine producers appear to have both benefited from the EU intervention.

The new CMO could generate heterogeneous effects in different countries, like the past CMO. It appears particularly difficult to apply a quota system to the wine market in both the hypothesis under discussion, one to apply quota to table wine only, the other to extend to quality wines a system of supply control. Quota appear difficult to apply due to many reasons, first of all for the quantitative constraints that already exist in the wine market.

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